

# SERVICE MANUAL

## 4-CHANNEL RECEIVER **SANSUI QRX-5001**



**Sansui**

SANSUI ELECTRIC CO., LTD.

This service manual is designed for service engineers to repair, adjust, maintain and order the replacement parts of the QRX-5001 correctly. When ordering the parts, use the stock number and parts name specifically referring to the Parts Locations & Parts Lists. For general usage and maintenance of the unit, please refer to the Operating Instructions attached with the unit.

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# 1. SPECIFICATIONS

## AUDIO SECTION

CONTINUOUS RMS POWER OUTPUT	17W per channel × 4 (four channels driven)
LOAD IMPEDANCE	8Ω
POWER BAND	30 to 20,000Hz
TOTAL HARMONIC DISTORTION	less than 0.5% (from AUX)
Music power(IHF)	160W (4Ω 1,000Hz) 100W (8Ω 1,000Hz)
Continuous rms power output	23×4W (8Ω 1,000Hz) 22×2W (two channels driven, 8Ω 1,000Hz)
INTERMODULATION DISTORTION (at rated power output 70Hz:7,000Hz=4:1 SMPTE method)	less than 0.5% (from AUX)
FREQUENCY RESPONSE (at 1 Watt output)	30 to 30,000Hz ±1.5dB
EQUALIZATION	(RIAA curve) 30 to 15,000Hz ±1dB
DAMPING FACTOR	10 (8Ω)
INPUT SENSITIVITY AND IMPEDANCE (1,000Hz, for rated output)	
2-CHANNEL PHONO	2.5mV 50KΩ (max. input capability; more than 120mV at 0.5% distortion)
4-CH./2-CH. AUX	100mV 50KΩ
4-CH./2-CH. TAPE	
PLAY Pin Jacks	100mV 50KΩ
REC/PLAY DIN Socket	100mV 50KΩ
RECORDING OUTPUT	
4-CH./2-CH. TAPE	
REC Pin Jacks	100mV
REC/PLAY DIN Socket	30mV
CHANNEL SEPARATION (at 1,000Hz)	
2-CH. PHONO	better than 45dB
4-CH./2-CH. AUX	better than 45dB
HUM AND NOISE (IHF)	
2-CH. PHONO	better than 60dB
4-CH./2-CH. AUX	better than 70dB
SWITCHES AND CONTROLS	
BASS	+10dB, -10dB, at 50Hz
TREBLE	+10dB, -10dB, at 10,000Hz
LOUDNESS	+8dB at 50Hz +3dB at 10,000Hz
QS SYNTHESIZER/DECODER	QS regular matrix system with QS Vario-Matrix circuit
CD-4 DEMODULATOR	
Input Sensitivity	2.5mV (1 to 10mV adjustable)
Input Impedance	50KΩ
Separation (standard test signal at 1,000Hz)	
Left to Right	40dB
Front to Back	25dB
Frequency Response (standard test signal at REC output)	30 to 15,000Hz (main-channel)

## TUNER SECTION

<FM>	
TUNING RANGE	88 to 108MHz
SENSITIVITY (IHF)	2.5μV (max. input capability: more than 110dB)
TOTAL HARMONIC DISTORTION	
MONO	less than 0.4%
STEREO	less than 0.7%
SIGNAL TO NOISE RATIO (mono)	better than 65dB
SELECTIVITY	better than 60dB
CAPTURE RATIO (IHF)	less than 2.5dB
IMAGE REJECTION	better than 55dB
IF REJECTION	better than 60dB
SPURIOUS RESPONSE	better than 65dB
STEREO SEPARATION (at 1,000Hz)	better than 40dB
FREQUENCY RESPONSE	30 to 15,000Hz <sup>+0.5</sup> <sub>-3.0</sub> dB
FM DE-EMPHASIS	50μS, 75μS
ANTENNA INPUT IMPEDANCE	300Ω Balanced, 75Ω Unbalanced

## <AM>

TUNING RANGE	535 to 1,605KHz
SENSITIVITY (bar antenna)	53dB/m
SELECTIVITY	better than 30dB
IMAGE REJECTION	better than 80dB/m
IF REJECTION	better than 80dB/m

## GENERAL

### SEMICONDUCTORS

TRANSISTORS	90
Diodes	34
Zener Diodes	3
ICs	13
FETs	9
LED	1

### POWER REQUIREMENTS

Voltage	100, 117, 220, 240V 50/60Hz
Consumption	110W (rated), 300W (max.) 330VA

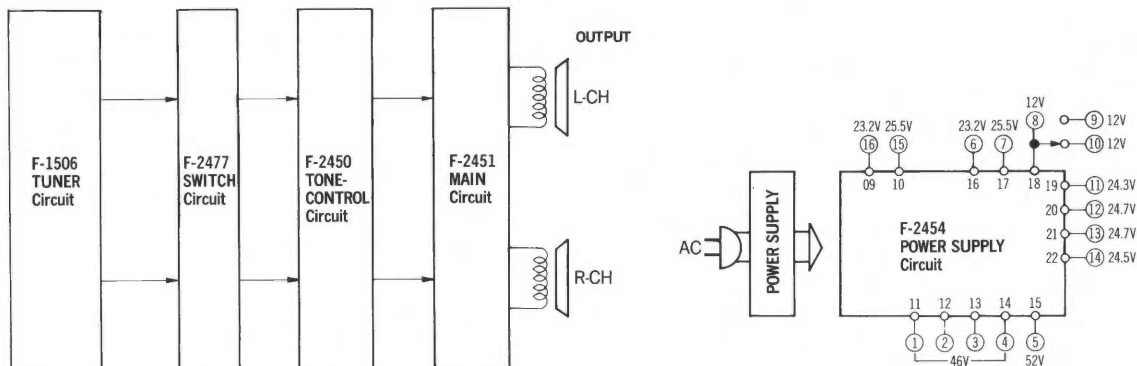
DIMENSIONS	480mm (18 <sup>15</sup> / <sub>16</sub> " W, 135mm (5 <sup>3</sup> / <sub>8</sub> " H, 327mm (12 <sup>7</sup> / <sub>8</sub> " D
------------	--

WEIGHT	13.8 Kg (30.4 lbs) net, 15.5 Kg (34.2 lbs) packed
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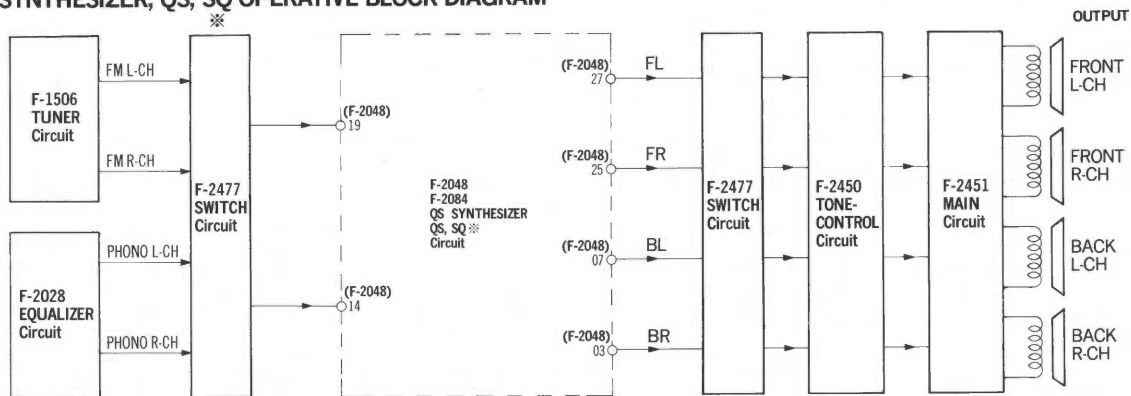
\* Design and specifications subject to change without notice for improvements.

## 2. BLOCK DIAGRAM

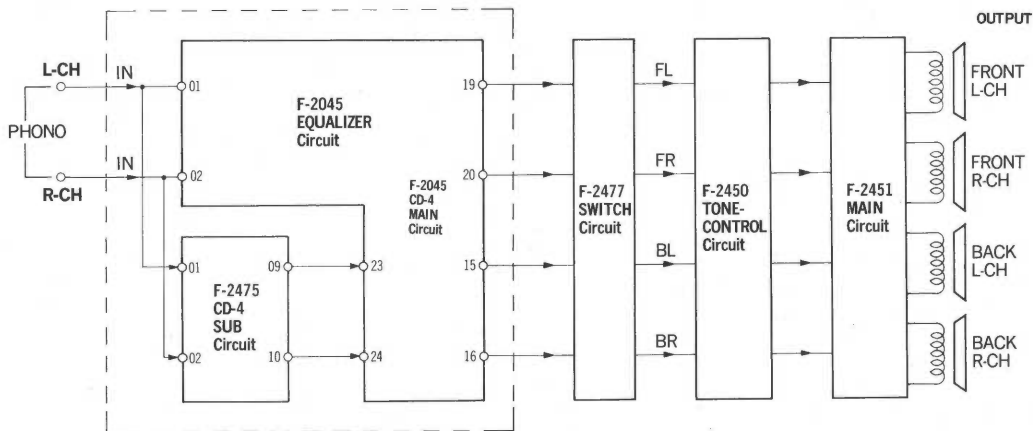
2-CH DIRECT OPERATIVE BLOCK DIAGRAM



QS SYNTHESIZER, QS, SQ OPERATIVE BLOCK DIAGRAM



CD-4/4-CH DIRECT OPERATIVE BLOCK DIAGRAM



DC BIAS CURRENT

25±1mA

CONTINUOUS POWER

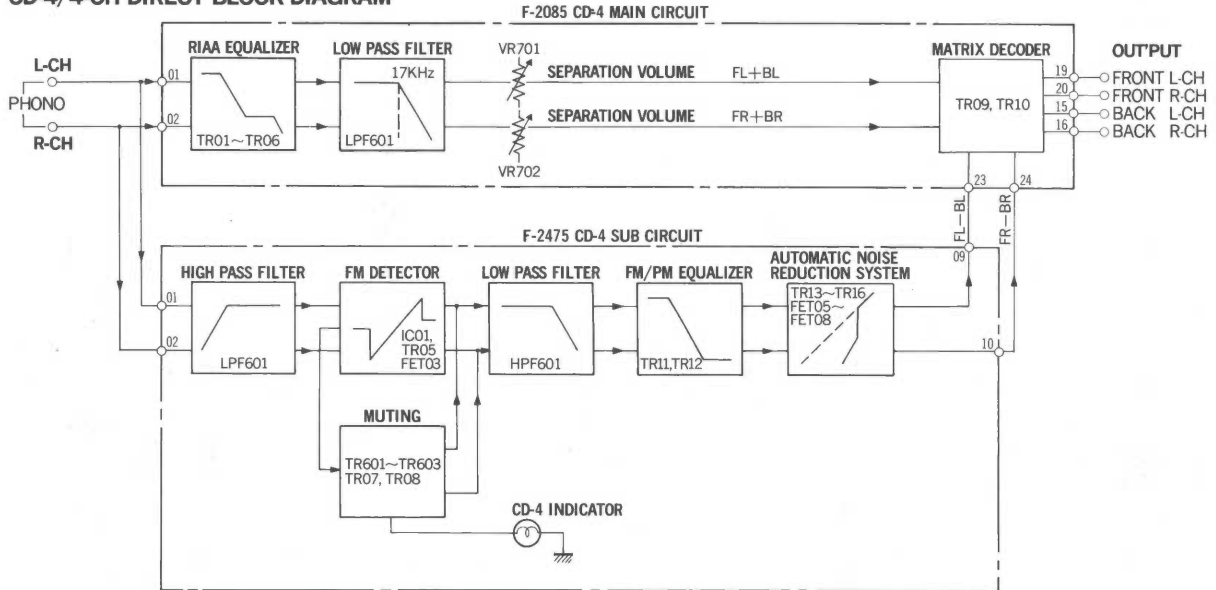
8Ω	17W×4	11.7V
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GAIN AND INPUT LEVEL

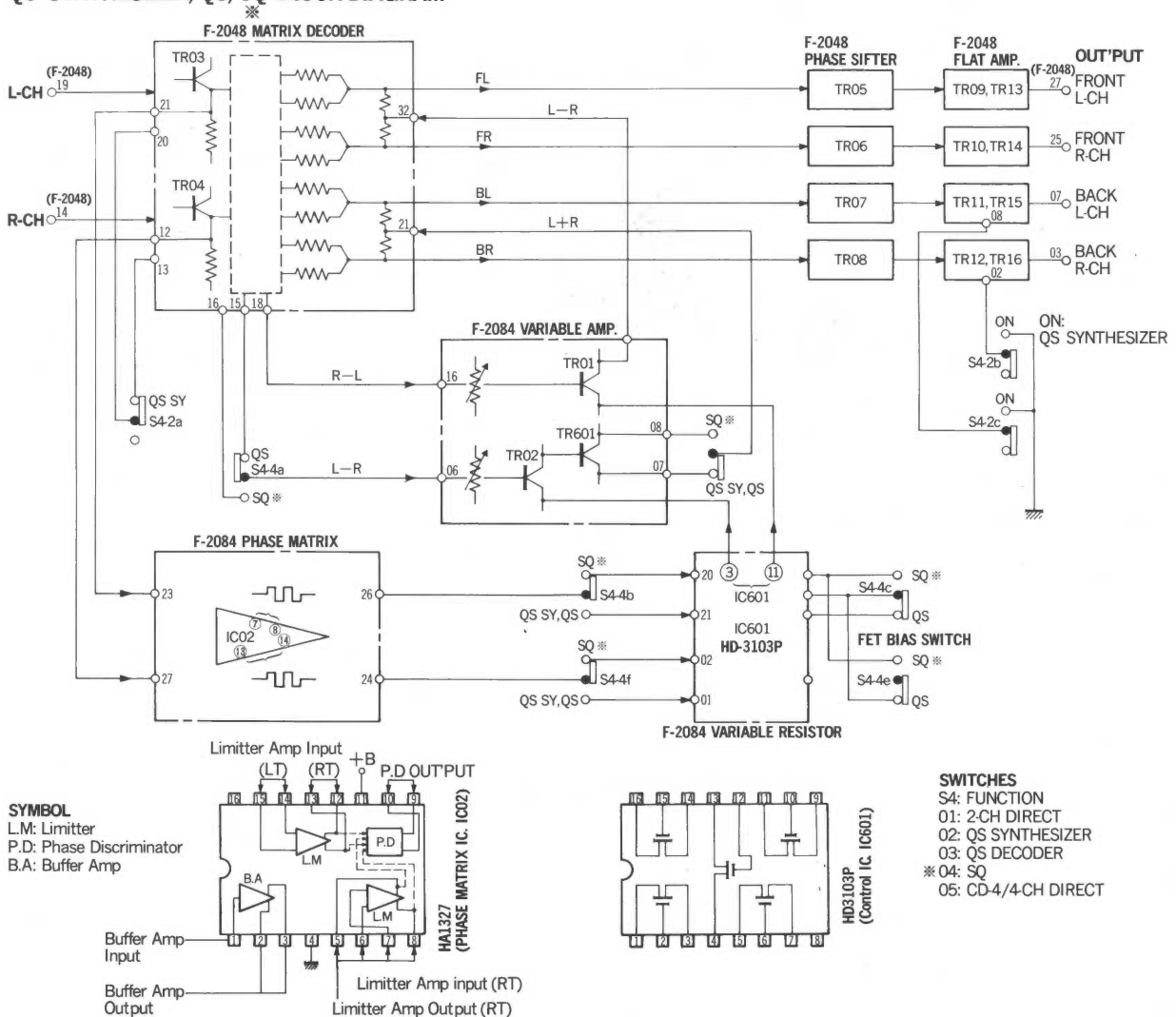
Input Terminal	Input level	Gain
PHONO	2.5mV	73.3dB
AUX	100mV	44.6dB

※ SQ is a trade mark of CBS, INC''

**CD-4/4-CH DIRECT BLOCK DIAGRAM**



**QS SYNTHESIZER, QS, SQ BLOCK DIAGRAM**



### 3. ALIGNMENTS AND ADJUSTMENTS

#### Abbreviation

**Equipment**

- AM FM Generator Oscilloscope ..... Genoscope
- AM Standard Signal Generator ..... AM SSG
- FM Standard Signal Generator ..... FM SSG
- FM Stereo Generator ..... Stereo SG
- Oscilloscope ..... Scope
- Audio Oscillator ..... Audio Osc.
- Distortion Meter ..... Dist. Meter

**Others**

- Clockwise ..... CW.
- Counterclockwise..... CCW.
- Antenna ..... ANT.
- Modulation..... MOD.

#### 3-1. Driver Circuit Board Adjustments

- Note:**
1. Master Volume.....Minimum
  2. Make the SP terminals free (no load)
  3. Confirm the AC power supply voltage
  4. Before adjustment, run the unit for more than 4 minutes, then check and readjust necessary.
  5. Room temperature should be 18~28° (65~83°F) for bias current adjustment.

※ Before adjustment of bias current, turn VR01 and VR02 fully cw (The bias current becomes minimum)

STEP	SUBJECT	EQUIPMENT	MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
1	Bias current Front L-CH	DC milliammeter	F-2454 F04 (Fig. 3-1)	F-2451 VR01 (Fig. 3-2)	25±1mA	◦Step down meter's range accordingly.
2	Bias current Front R-CH	Same as above	F-2454 F05 (Fig. 3-1)	F-2451 VR02 (Fig. 3-2)	25±1mA	
3	Bias current Back L-C	Same as above	F-2454 F06 (Fig. 3-1)	F-2451 VR01 (Fig. 3-2)	25±1mA	
4	Bias Current Back R-CH	Same as above	F-2454 F07 (Fig. 3-1)	F-2451 VR02 (Fig. 3-2)	25±1mA	

Fig. 3-1

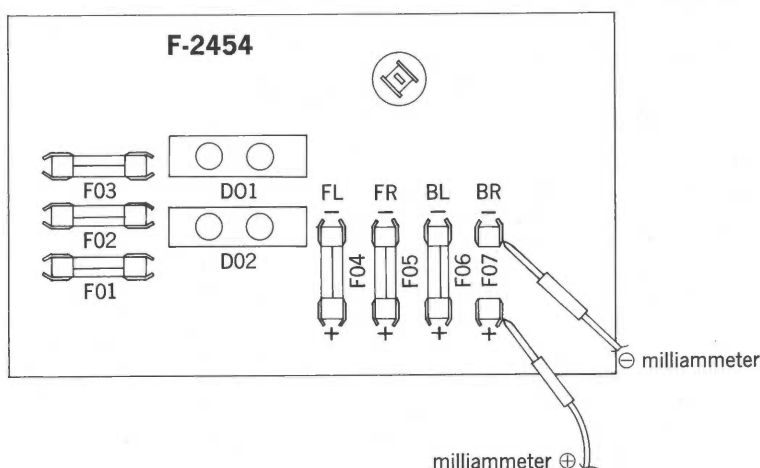
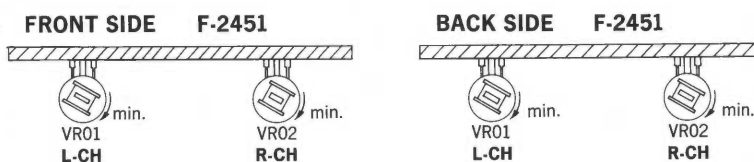


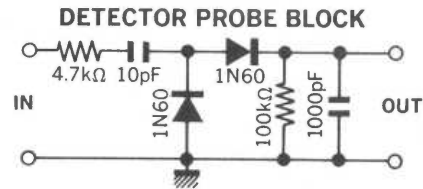
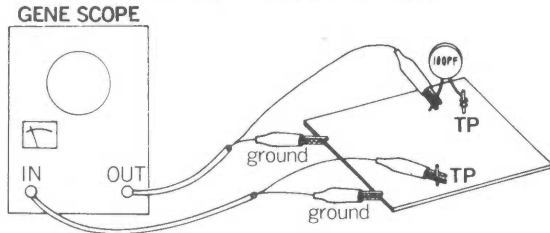
Fig. 3-2



### 3-2. FM IF Alignment (See Figs. 3-6, 3-7 on page 8)

- Note:** 1. Selector.....FM MONO  
 2. Output level of genescope ..... After attenuator  
 3. Sweepwidth.....1.5~2cm/150kHz  
 4. Frequency band .....9.5~11.5MHz

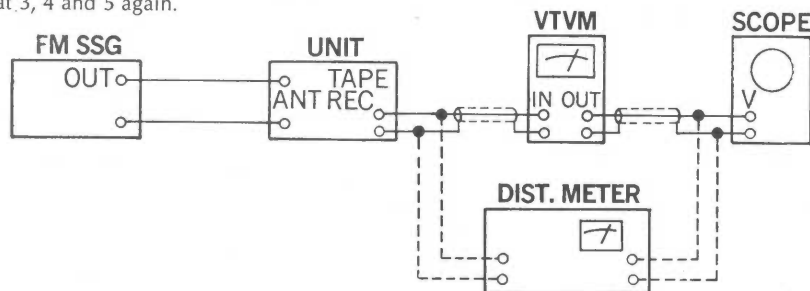
5. Connection .....Connect the output of genescope to TP. 1 through 100pF ceramic capacitor.



STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
		FROM	TO				
1	IF coil	Output 60dB Genescope	TP. 1 (Fig. 3-7)	TP. 2 (Fig. 3-7) Use Detector Probe	T01 (Fig. 3-7)	Max. IF waveform 1 as Fig. 3-6	◦Turn volume of VR02 CW. (Fig. 3-7)
2	Meter coil	Output 65dB Genescope	Same as above	TP. 4 (Fig. 3-7)	T04 (Fig. 3-7)	Max. IF waveform 2 as Fig. 3-6	
3	Discriminator coil	Same as above	Same as above	TP. 3 (Fig. 3-7)	T02 T03 (Fig. 3-7)	Max. linearity of S curve Set the center of S curve to of waveform 1 as Fig. 3-6	

### 3-3. FM Dial Calibration, Mono Distortion and RF Alignment (See Fig. 3-7 on page 8)

- Note:** 1. Selector.....FM MONO  
 2. Confirm start point of dial pointer before alignment.  
 3. In Step 3, 4 and 5, readjust items of steps 1, 2 if not correctly, repeat 3, 4 and 5 again.



STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
		FROM	TO				
1	90MHz Dial Calibration	90MHz ANT input 60dB 400Hz (100% MOD) FM SSG	ANT terminal 300Ω	REC OUT L or R-CH VTVM & Scope	L04 (Fig. 3-7)	Max. output	◦Set Dial on 90MHz 
2	106MHz Dial Calibration	106MHz ANT input 60dB 400Hz (100% MOD) FM SSG	Same as above	Same as above	Trimmer TC03 (Fig. 3-7)	Same as above	◦Set Dial on 106MHz 
3	Confirm 98MHz Dial Calibration	98MHz ANT input 60dB 1kHz (100% MOD) FM SSG	Same as above	Same as above		Confirm 98MHz Dial Calibration	◦If not, repeat from step 1, 2

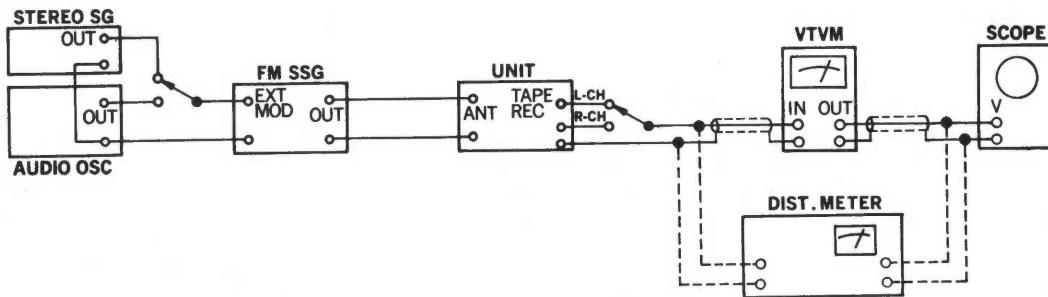
\*to page 7

\*from page 6

STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
		FROM	TO				
4	90MHz RF Adj.	90MHz ANT input 50dB 400Hz (100% MOD) FM SSG	Same as above	Same as above	L01, L02 (Fig. 3-7)	Max. output	◦Tune FM SSG (Max. indication of Signal Meter)
5	106MHz RF Adj.	108MHz ANT input 50dB 400Hz (100% MOD) FM SSG	Same as above	Same as above	Trimmer TC01, TC02 (Fig. 3-7)	Same as above	◦Tune FM SSG (Max. indication of Signal Meter)
6	Distortion	98MHz ANT input 60dB 400Hz (100% MOD) FM SSG	Same as above	REC OUT L or R-CH Dist. meter & Scope	T03 (Fig. 3-7)	Min. distortion	Same as above

### 3-4. MPX Alignment (See Fig. 3-7 on page 8)

Note: 1. Selector.....FM STEREO



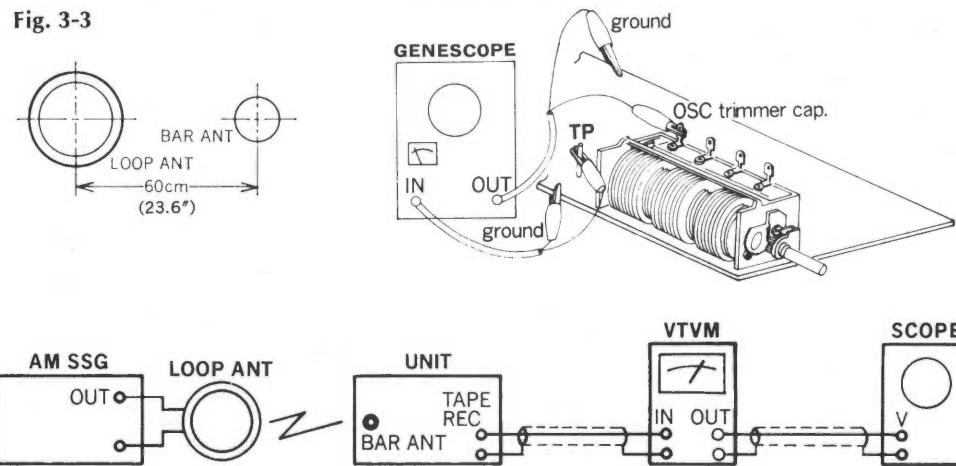
STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
		FROM	TO				
1	19kHz coil	98MHz ANT input 60dB FM SSG Pilot 19kHz (10% MOD) L-ch 1kHz (45% MOD) R-ch (0% MOD) Stereo SG	ANT terminal 300Ω	REC OUT L-CH VTVM & Scope	L07 (Fig. 3-7)	Max. output	◦Tune FM SSG (Max. indication of signal meter)
2	Separation	Same as above	Same as above	REC OUT R-CH VTVM & Scope	VR02 (Fig. 3-7)	Min. output	
3	Confirm Distortion	Same as above	Same as above	REC OUT L-C VTVM1 Scope & Dist Meter			◦If over than 0.8% slightly adjust L07 (Fig. 3-7)
4	Confirm Separation	98MHz ANT input 60dB FM SSG Pilot 19kHz (10% MOD) L-ch (0% MOD) R-ch 1kHz (45% MOD) Stereo SG	Same as above	REC OUT L-CH VTVM & Scope			◦If less than 32dB adjust VR02 (Fig. 3-7)

※ Indicator lighting level and muting level are not adjustable on QRX-5001. These levels are set up to the followings.  
 Indicator lighting level.....27dB  
 Muting level .....27dB



### 3-5. AM IF, Dial Calibration and RF Alignment (See Figs. 3-4, 3-5, 3-6, 3-7 on page 8)

- Note: 1. Selector.....AM  
 2. Confirm start point of dial pointer before alignment.  
 3. The loop antenna is required to obtain complete adjustment for AM RF circuit. In this case, as the electro-magnetic field is attenuated by the distance between the loop antenna and BAR ANT, increase more 26dB by attenuator of AM SSG than each ANT input level shown in the following steps. (See Fig. 3-3).



STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
		FROM	TO				
1	IF coil	Output 60dB Genescope	OSC trimmer cap. TC04 (Fig. 3-7)	TP. 5 (Fig. 3-7)	T07 (Fig. 3-7)	Max. IF waveform (Fig. 3-4)	◦Turn core CCW.
2	IF coil	Output 60dB Genescope	Same as above	Same as above	T05 (Fig. 3-7)	Max. IF waveform (Fig. 3-5)	
3	IF coil	Output 60dB Genescope	Same as above	Same as above	Same as above	Max. IF waveform (Fig. 3-6)	◦If not, readjust T07 & T05 slightly
4	535kHz Dial Calibration	535kHz ANT input 60dB 400Hz (30% MOD) AM SSG	ANT terminal	REC OUT L or R-CH VTVM & Scope	T06 (Fig. 3-7)	Max. output	◦If broadcasting station is near, it might be used
5	1400kHz Dial Calibration	1400kHz ANT input 60dB 400Hz (30% MOD) AM SSG	Same as above	Same as above	Trimmer TC04 (Fig. 3-7)	Same as above	Same as above
6	Confirm 1000kHz Dial Calibration	1000kHz ANT input 60dB 400Hz (30% MOD) AM SSG	Same as above	Same as above	Same as above	Confirm 1000kHz Dial Calibration	◦If not, repeat from Step 4, 5
7	600kHz RF Adj.	600kHz ANT input 50dB 400Hz (30% MOD) AM SSG	Same as above	Same as above	Bar ANT L701	Max. output	
8	1400kHz RF Adj.	1400kHz ANT input 50dB 400Hz (30% MOD) AM SSG	Same as above	Same as above	Trimmer TC05 (Fig. 3-7)	Same as above	
9	Confirm 100kHz RF Adj.	1000kHz ANT input 50dB 400Hz (30% MOD) AM SSG	Same as above	Same as above	Confirm 1000kHz RF Adj.		◦If not, repeat from step 7, 8

Fig. 3-4

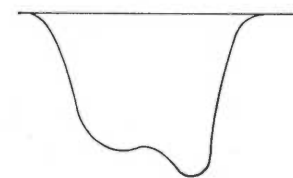


Fig. 3-5

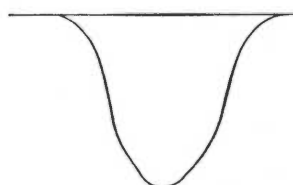


Fig. 3-6

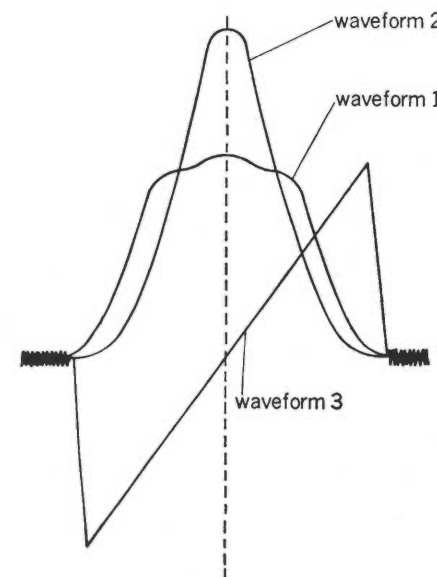
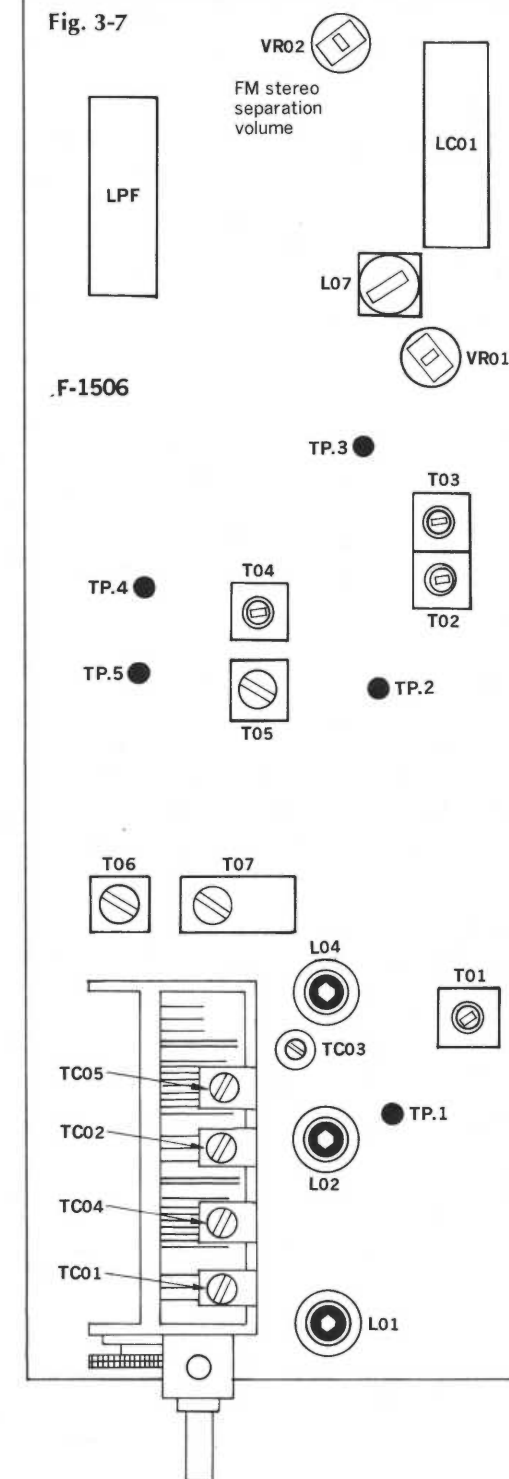


Fig. 3-7



## 4. TROUBLESHOOTING CHART

### Notices:

※When repairing the unit, refer to schematic diagram, block diagram, adjustment and Fig. 4-2, Fig. 4-3.

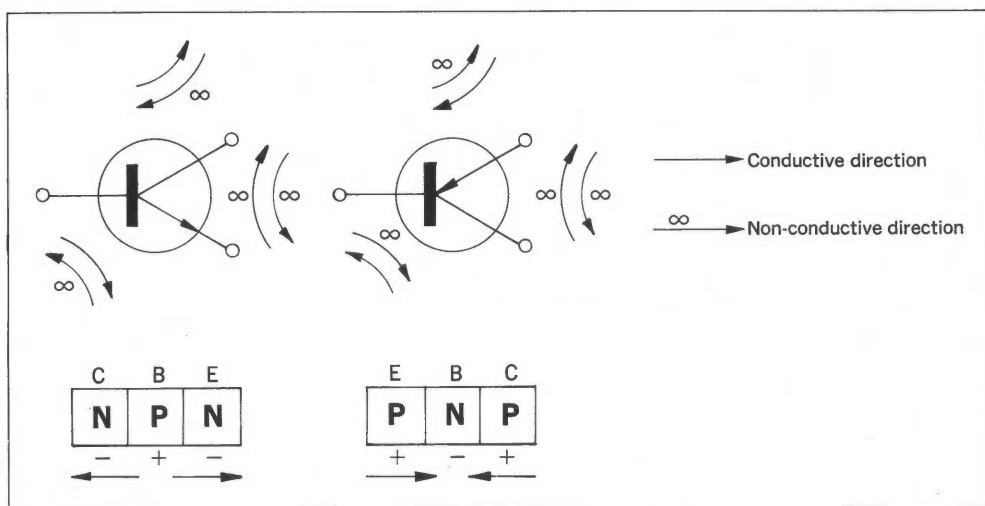
※Each voltage value shown in the schematic diagram is slightly different from an actual measured value. The each value was measured by V.T.V.M. at no input signal.

※In order to check the normal conductivity of transistor by volt-ohm meter (V.O.M.), please see to the

arrow direction showing current flows in Fig. 4-1.

1. Put lead + side of V.O.M. to emitter or collector and lead - side to base of N.P.N. transistor.
2. Put lead - side of V.O.M. to emitter or collector and lead + side to base of P.N.P. transistor.  
(Terminal -, (+) of V.O.M. is connected with +, (-) side of battery insid).

Fig. 4-1



### 4-1. Troubleshooting on Audio Section

Symptom	Check Point	Cause & What to Do
<b>1. Troubles on main circuit</b>		
1-1. Main circuit inoperative	1) Defective power supply circuit 2) Power transistor shorted (Quick acting fuse open)	1. Defective power supply circuit Board F-2454 2. Shorted speaker terminals by speaker wires 3. Over bias current due to improper adjustment of VR01 4. Driver transistor, TR03, TR05 or TR07 shorted 5. C705 or R25 shorted
1-2. Low sound level from speaker		6. Low input level (See Fig. 4-2) 7. Low AC power line voltage and mis-plug on voltage selector to line voltage 8. R15 shorted 9. Defective TR01, TR03
1-3. Distorted sound		10. Varistor diode, D01 shorted or opened 11. NF loop, C09 or R15 opened 12. Input capacitor, C01 shorted
1-4. Continuous self oscillation		13. NF capacitor C05, C13 opened

### 4-2. Troubleshooting on Tuner Section

Symptom	Check Point	Cause & What to Do
<b>1. FM and AM inoperative</b>		
1-1. +12V not supplied to terminal [19], [20], [21] on F-1506		1. Defective power supply section (F-2454)
1-2. +12V supplied to terminal [19], [20], [21] on F-1506		2. Defective LPF01 on F-1506 3. Defective TR09, TR10 on F-1506
<b>2. FM Section</b>		
2-1. FM inoperative only *Selector switch... FM MONO (MUTING OFF)		
1) Signal meter inoperative (No output signal at checkpoint TP02)		4. IF, RF out of adjustment on F-1506 5. Defective L01~L04 on F-1506 6. Defective T01 on F-1506 7. Defective FET01 on F-1506 8. Defective TR01~TR05 on F-1506 9. Defective CF01, CF02 on F-1506
2) Signal meter operative (No output signal at checkpoint TP03)		10. Defective IC01 on F-1506 11. Defective T01, T02 on F-1506 12. Defective D01, D02 on F-1506
2-2. Stereo indicator lamp not lighted *Selector switch... FM STEREO (MUTING ON)		
1) No channel separation on FM stereo broadcasting	1-1) MPX output signals including R and L not supplied to [11] and [12] of IC03 on F-1506	13. Defective IC03 on F-1506 14. L07 out of adjustment on F-1506 15. Defective L07 on F-1506 16. Defective LC01 on F-1506 17. Defective VR02 on F-1506
2) Channel separation operative on FM stereo broadcasting		18. Defective stereo indicator lamp, PL705 19. Defective TR12 on F-1506
2-3. Signal meter inoperative (FM broadcasting sound can be heard)		20. Defective TR06 on F-1506 21. Defective T04 on F-1506 22. Defective D03, D04 on F-1506 23. Defective signal meter
2-4. Muting circuit inoperative	1) FM Section becomes inoperative when the Muting is switched ON. (Selector switch to FM stereo)	24. Defective TR07, TR08 on F-1506 25. Defective Selector switch, S702 26. Poor sensitivity due to incorrect tracking IF adjustment

Symptom

Check Point

Cause & What to Do

### 3. AM Section

#### 3-1. AM inoperative

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>1) Signal meter operative<br/>(AM broadcasting sound can not be heard)</li> <li>2) Signal meter inoperative<br/>(AM broadcasting sound can not be heard)</li> </ul> | <ul style="list-style-type: none"> <li>27. Defective TR11 on 1506</li> <li>28. Defective TR09, TR10 on F-1506</li> <li>29. Defective LPF01 on F-1506</li> <li>30. Defective IC02 on F-1506</li> <li>31. Defective T05~T07 on F-1506</li> <li>32. Defective L05, L06 on F-1506</li> <li>33. Defective bar antenna, L701</li> <li>34. RF, IF out of adjustment on F-1506</li> </ul> |
|--|---|

Fig. 4-2 AUDIO SECTION BLOCK DIAGRAM

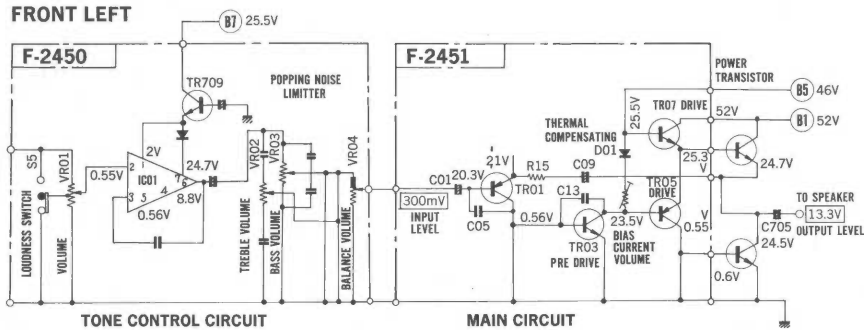
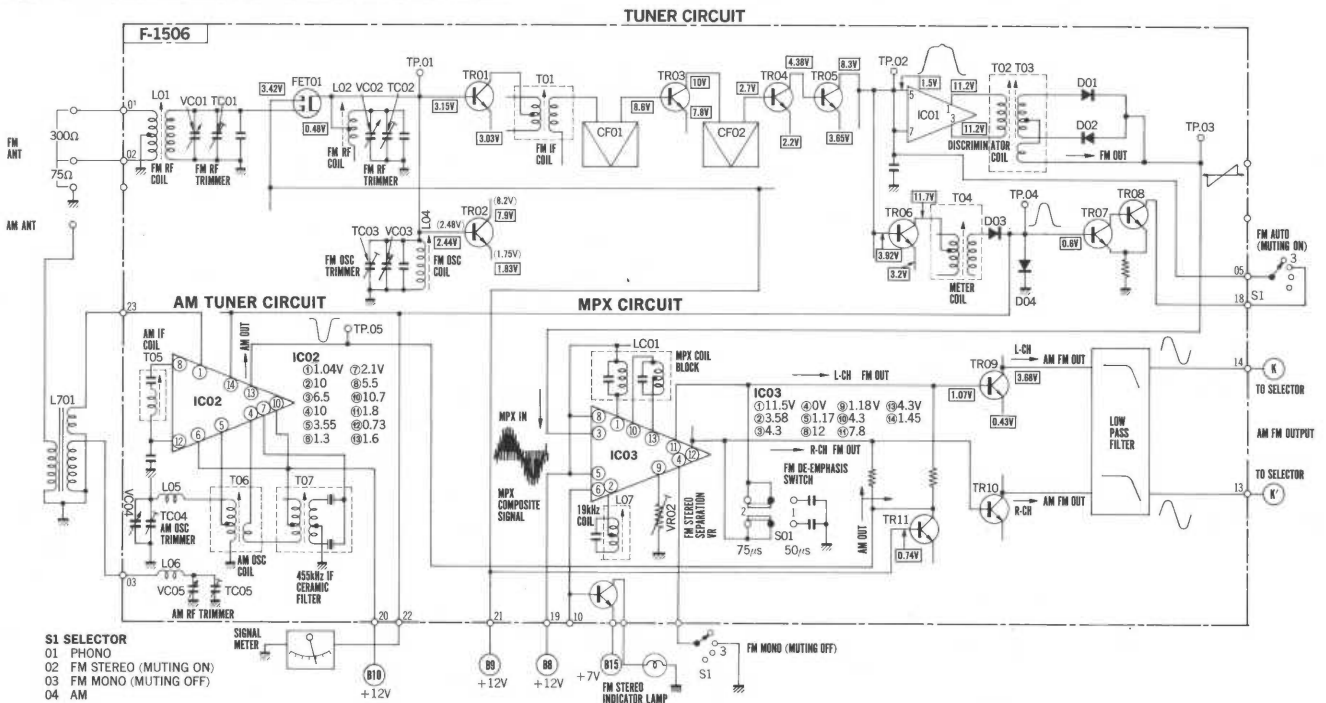


Fig. 4-3 TUNER SECTION BLOCK DIAGRAM



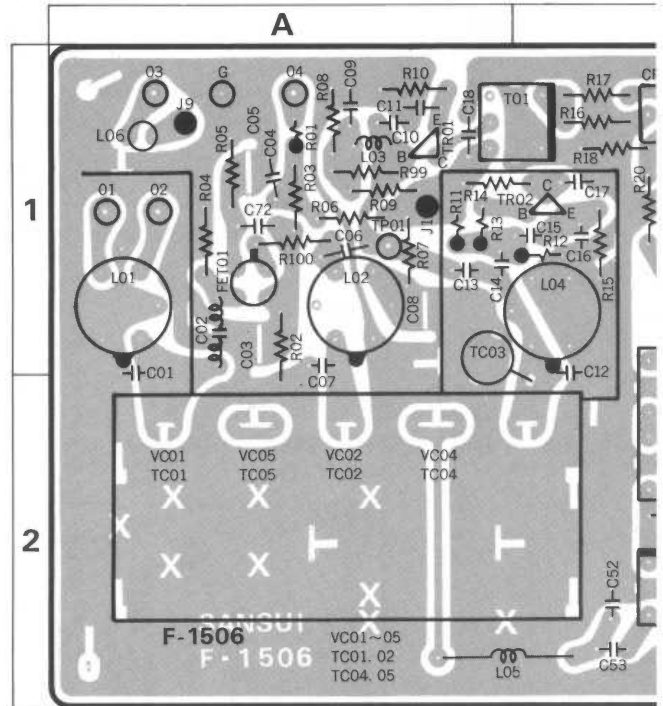
# 5. PARTS LOCATIONS AND PARTS LIST

## 5-1. F-1506 Tuner Circuit Board (Stock No. 7520830 Complete Circuit Board F-1506)

### Parts List

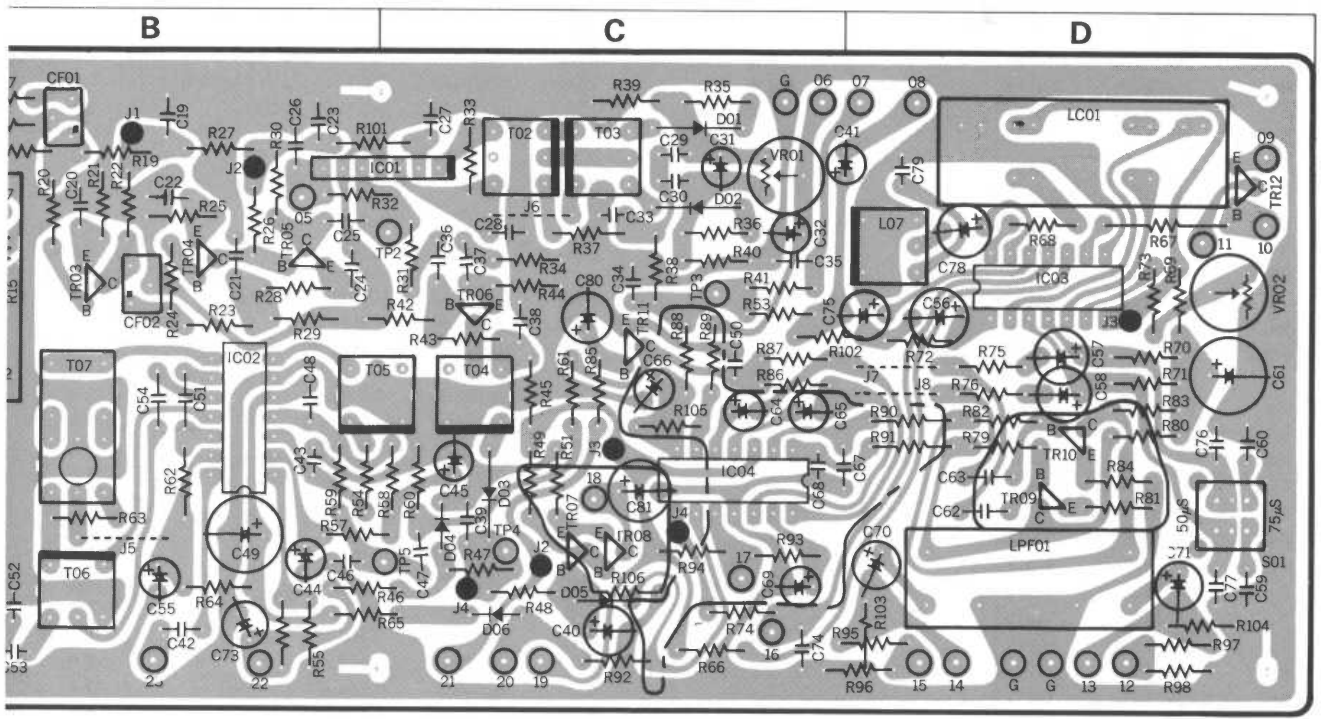
Parts No.	Stock No.	Description	Position
TR01	0305801	2SC1047B (G)	1 A
TR02	0305790, 1	2SC930 (C, D)	1 B
TR03	0306112, 3	2SC738 (C, D)	1 B
TR04	0306112, 3	2SC738 (C, D)	1 B
TR05	0306112, 3	2SC738 (C, D)	1 B
TR06	0306112, 3	2SC738 (C, D)	1 C
TR07	0305731, 2	2SC711 (E, F)	2 C
TR08	0305731, 2	2SC711 (E, F)	2 C
TR09	0306090, 1	2SC1312 (F, G)	2 D
TR10	0306090, 1	2SC1312 (F, G)	2 D
TR11	0305731, 2	2SC711 (E, F)	1 C
TR12	0300221 or 0300311	2SA562 (Y) or 2SA697 (O)	1 D
IC01	0360120	$\mu$ PC555H	1 B, C
IC02	0360150	HA1151	1, 2 B
IC03	0360080	HA1120	1 D
FET01	0370120, 1	3SK41 (L, K)	FET 1 A
D01	0311060	1N60P	1 C
D02	0311060	1N60P	1 C
D03	0311160	1S2473D	2 C
D04	0340090	DS430	2 C
T01	4235930	FM IF Coil	1 A, B
T02	4235750	FM Discriminator Coil	1 C
T03	4235760		1 C
T04	4235940		1, 2 C
T05	4230620	AM IF Coil	1, 2 B C
T06	4220550	AM OSC Coil	2 B
T07	0910270	Ceramic Filter	1, 2 B
L01	4200560	FM ANT Coil	1 A
L02	4210300	FM RF Coil	1 A
L03	4010120	Peaking Coil	1 A
L04	4220530	FM OSC Coil	1 A, B
L05	4290011	Peaking Coil	2 A, B
L06	4900100	Inductor Coil	1 A
L07	4240720	19kHz MPX Coil	1 D
LC01	4240710	MPX Coil Block	2 D
CF01	0910150	Ceramic Filter	1 B
CF02	0910150		1 B
LPF01	0910220		Low Pass Filter
VC	1220170	Variable Capacitor	1, 2 B
TC03	1230090	Trimmer Capacitor	1 A
VR02	1035070	1k $\Omega$ (B) FM STEREO Separation VR	1 D
C01	0669369	8.2pF	1 A
C02	0650112	1000pF	1 A
C03	0659015	2200pF	1 A
C04	0657223	22000pF	1 A
C05	0659015	2200pF	1 A
C06	0669002	3.9pF	1 A
	0669205	3.9pF	1 A
C07	0669370	10pF	1 A
C08	0659015	2200pF	1 A

### Conductor Side

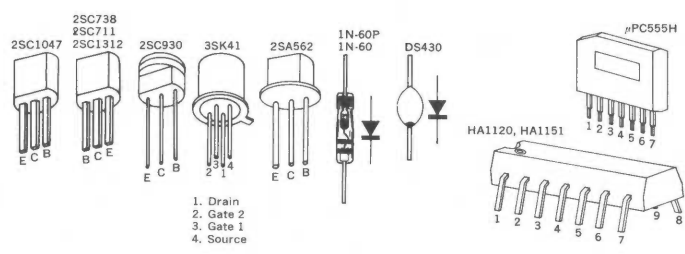


Parts No.	Stock No.	Description	Position
C09	0650102	1000pF	1 A
C10	0661220	22pF	1 A
	0669221	22pF	1 A
C11	0657223	22000pF	1 A
C12	0669370	10pF	1 A, B
C13	0669200	1pF	1 A
C14	0669395	10pF	1 A
C15	0669395	10pF	1 B
C16	0669370	10pF	1 B
C17	0657223	22000pF	1 B
C18	0657223	22000pF	1 A
C19	0657473	0.047 $\mu$ F	1 B
C20	0657223	22000pF	1 B
C21	0601227	0.022 $\mu$ F	1 B
C22-28	0657223	22000pF	1 B, 1 C
C29, 30	0660101	100pF	1 C
C31	0512100	10 $\mu$ F	16V E.C.
C33, 34	0660101	100pF	1 C
C36-39	0657223	22000pF	50V C.C.
C40	0515109	1 $\mu$ F	50V E.C.
C42	0657223	22000pF	50V C.C.
C43	0601106	0.001 $\mu$ F	50V M.C.
C44	0515109	1 $\mu$ F	50V E.C.
C45	0515100	10 $\mu$ F	50V E.C.
C46	0601337	0.033 $\mu$ F	2 B
C47	0601477	0.047 $\mu$ F	50V M.C.
C48	0601107	0.01 $\mu$ F	2 B
C49	0512101	100 $\mu$ F	16V E.C.
C50	0601476	0.0047 $\mu$ F	50V M.C.
C51	0657223	22000pF	50V C.C.

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



Parts No.	Stock No.	Description	Position
C52	0669400	15pF 50V C.C.	2 B
C53	0620361	360pF 50V P.C.	2 B
C54	0601107	0.01µF 50V M.C.	2 B
C55	0512100	10µF 16V E.C.	2 B
C56	0513479	4.7µF 25V E.C.	1 D
C57	0515109	1µF } 50V E.C.	1 D
C58	0515109	1µF }	1, 2 D
C59	0600826	0.0082µF } 50V M.C.	2 D
C60	0600826	0.0082µF }	2 D
C61	0512101	100µF 16V E.C.	1, 2 D
C62	0601108	0.1µF } 50V M.C.	2 D
C63	0601108	0.1µF }	2 D
C70	0519101	1µF } 50V E.C.	2 D
C71	0519101	1µF }	2 D
C72	0650102	1000pF 50V C.C.	1 A
C73	0510470	47µF 6.3V E.C.	2 B
C74	0519105	2.2µF 50V E.C.	2 C
C75	0513479	4.7µF 25V E.C.	1 D
C76	0600157	0.015µF } 50V M.C.	2 D
C77	0600157	0.015µF }	2 D
C78	0513479	4.7µF 25V E.C.	1 D
C79	0629001	6800pF 50V P.C.	1 D
C81	0510221	22µF 6.3V E.C.	2 C
R02	0113394	390kΩ } 1/4W S.R.	1 A
R03	0113103	10kΩ }	1 A
R04	0113104	100kΩ }	1 A
R05	{0113101, 0113151}	100Ω (3SK41 (L)) } 1/4W S.R.	1 A
R06	0113105	150Ω (3SK41 (K)) }	1 A
R07	0113105	1MΩ } 1/4W S.R.	1 A
R07	0113220	22Ω }	1 A



Parts No.	Stock No.	Description	Position
R08	0113562	5.6kΩ } 1/4W S.R.	1 A
R09	0113123	12kΩ }	1 A
R10	0113332	3.3kΩ }	1 A
R11	0116822	8.2kΩ }	1 A
R12	0116222	2.2kΩ } 1/4W C.R. (E.L.R.)	1 B
R13	0116220	22Ω }	1 A
R14	0113222	2.2kΩ }	1 A, B
R15	0113102	1kΩ } 1/4W S.R.	1 B
R16	0113471	470Ω }	1 B
R17	0113221	220Ω }	1 B
R18	0113392	3.9kΩ }	1 B
R19	0113152	1.5kΩ }	1 B
R20	0113101	100Ω }	1 B
R21	0113182	1.8kΩ }	1 B
R22	0113471	470Ω }	1 B
R23	0113681	680Ω }	1 B
R24	0113101	100Ω }	1 B
R25	0113271	270Ω }	1 B
R26	0113152	1.5kΩ }	1 B
R27	0113220	22Ω }	1 B

**F-1506 Parts List**

Parts No.	Stock No.	Description	Position
R28	0113271	270Ω	1 B
R29	0113391	390Ω	1 B
R30	0113681	680Ω	1 B
R31	0113332	3.3kΩ	1 C
R32	0113222	2.2kΩ	1 B, C
R33	0113682	6.8kΩ	1 C
R34	0113331	330Ω	1 C
R35	0113102	1kΩ	1 C
R36	0113102	1kΩ	1 C
R37	0113101	100Ω	1 C
R38	0113471	470Ω	1 C
R39	0113103	10kΩ	1 C
R40	0113103	10kΩ	1 C
R42	0113103	10kΩ	1 C
R43	0113183	18kΩ	1 C
R44	0113102	1kΩ	1 C
R45	0113821	820Ω	1, 2 C
R46	0113122	1.2kΩ	2 B, C
R47	0113682	6.8kΩ	2 C
R48	0113104	100kΩ	2 C
R49	0113104	100kΩ	2 C
R51	0113220	22Ω	2 C
R53	0113471	470Ω	1 C
R54	0113101	100Ω	2 B
R55	0113103	10kΩ	2 B
R56	0113152	1.5kΩ	2 B
R57	0113103	10kΩ	2 B, C
R58	0113103	10kΩ	2 C
R59	0113182	1.8kΩ	2 B
R60	0113473	47kΩ	2 C
R61	0113153	15kΩ	1, 2 C
R62	0113392	3.9kΩ	2 B
R63	0113224	220kΩ	2 B
R64	0113151	150Ω	2 B
R65	0113101	100Ω	2 B, C
R66	0113334	330kΩ	2 C
R67	0113562	5.6kΩ	1 D
R68	0113151	150Ω	1 D
R69	0113101	100Ω	1 D
R70	0113332	3.3kΩ	1 D
R71	0113332	3.3kΩ	2 D
R72	0113472	4.7kΩ	1 D
R73	0113151	150Ω	1 D
R74	0113104	100kΩ	2 C
R75	0113223	22kΩ	1 D
R76	0113223	22kΩ	2 D
R79	0113684	680kΩ	2 D
R80	0113332	3.3kΩ	2 D
R81	0113331	330Ω	2 D
R82	0113684	680kΩ	2 D
R83	0113332	3.3kΩ	2 D
R84	0113331	330Ω	2 D
R85	0113472	4.7kΩ	1, 2 C
R86	0113563	56kΩ	2 C
R87	0113563	56kΩ	1 C
R99	0113101	100Ω	1 A
R100	0113470	47Ω	1 A
R101	0113220	22Ω	1 B, C
R102	0113333	33kΩ	1 C, D
R103	0113332	3.3kΩ	2 D
R104	0113332	3.3kΩ	2 D
R106	0113123	120kΩ	2 C
R701	0113122	1.2kΩ	2 C
S01	1110270	DE-EMPHASIS Switch	2 D

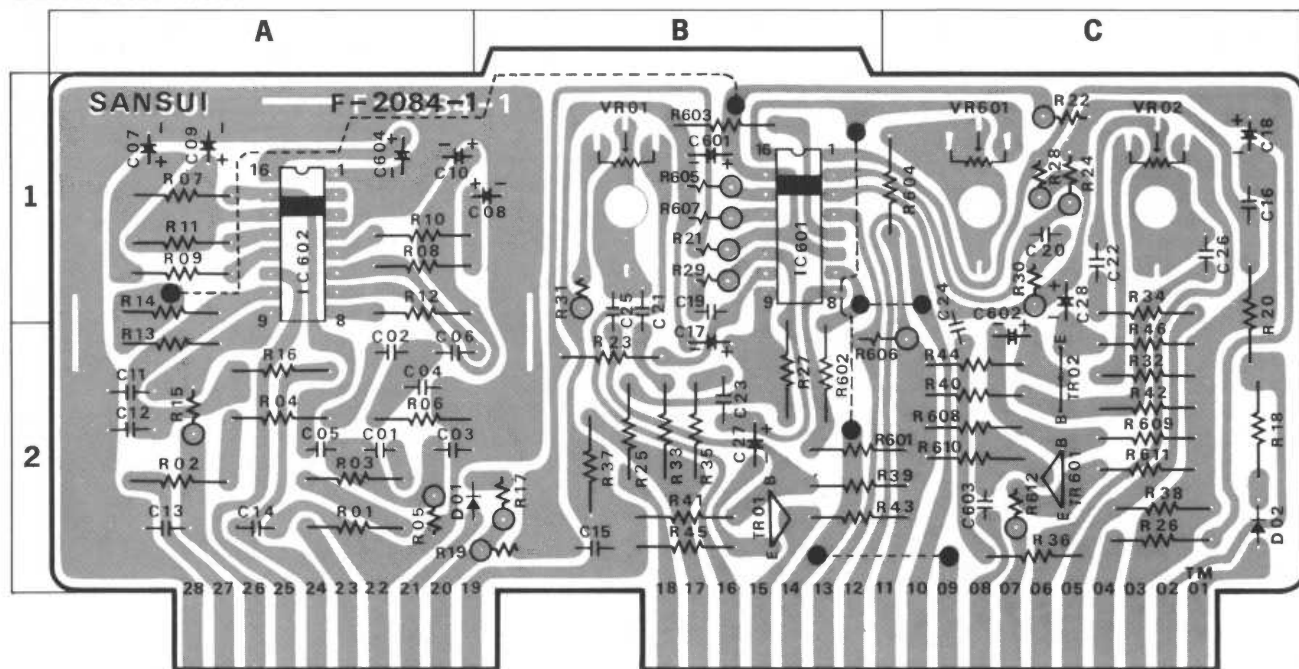
**5-2. F-2084-1 Vario-Matrix Circuit**

**Board** (Stock No. 7650240 Complete Circuit Board F-2084-1)

**Parts List**

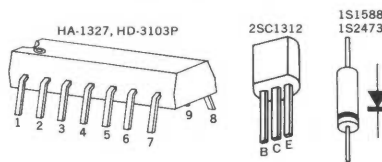
Parts No.	Stock No.	Description	Position
TR01	0306090, 1	2SC1312 (F, G)	2 B
TR02	0306090, 1	2SC1312 (F, G)	2 C
TR601	0306090, 1	2SC1312 (F, G)	2 C
IC601	0360100	HD-3103P	1 B
IC602	0360090, 1	HA1327	1 A
D01	0311180	1S1588	2 A, B
D02	0311160	1S2473D	2 C
VR01	1031140	100kΩ (B)	1 B
VR02	1031140	100kΩ (B)	1 C
VR601	1031100	10kΩ (B)	1 C
C01	0600106	0.001μF	2 A
C02	0600106	0.001μF	2 A
C03	0620471	470 pF	2 A
C04	0620681	680 pF	2 A
C05	0600106	0.001μF	2 A
C06	0600106	0.001μF	2 A
C07	0513479	4.7μF	1 A
C08	0513479	4.7μF	1 B
C09	0513479	4.7μF	1 A
C10	0513479	4.7μF	1 A, B
C11	0600687	0.068μF	2 A
C12	0600687	0.068μF	2 A
C13	0600567	0.056μF	2 A
C14	0600567	0.056μF	2 A
C15	0600187	0.018μF	2 B
C16	0600187	0.018μF	1 C
C17	0513100	10μF	2 B
C18	0513100	10μF	1 C
C19	0600226	0.0022μF	1 B
C20	0600226	0.0022μF	1 C
C21	0620681	680 pF	1, 2 B
C22	0620681	680 pF	1 C
C23	0600187	0.018μF	2 B
C24	0600187	0.018μF	1, 2 C
C25	0600477	0.047μF	1, 2 B
C26	0600227	0.022μF	1 C
C27	0515109	1μF	2 B
C28	0515109	1μF	1 C
C601	0515339	3.3μF	2 B
G602	0519102	3.3μF 50V E.C.(BRN)	2 C
C603	0600476	0.0047μF 50V M.C.	2 C
C604	0513330	33μF 25V E.C.	1 A
R01	0107152	1.5kΩ	2 A
R02	0107152	1.5kΩ	2 A
R03	0107562	5.6kΩ	2 A
R04	0107562	5.6kΩ	2 A
R05	0106473	47kΩ	2 A
R06	0107473	47kΩ	2 A
R07	0107274	270kΩ	1 A
R08	0107274	270kΩ	1 A
R09	0107124	120kΩ	1 A
R10	0107124	120kΩ	1 A
R11	0107394	390kΩ	1 A
R12	0107394	390kΩ	1 A
R13	0107124	120kΩ	2 A
R14	0107124	120kΩ	1 A

# Conductor Side



## Parts List

Parts No.	Stock No.	Description	Position
R15	0106563	56kΩ 1/4 W C.R.(E.L.R)	2A
R16	0107563	56kΩ 1/4 W C.R.	2A
R17	0106334	330kΩ 1/4 W C.R. (E.L.R)	2B
R18	0107824	820kΩ 1/4 W C.R.	2C
R19	0106394	390kΩ 1/4 W C.R. (E.L.R)	2A, B
R20	0107394	390kΩ 1/4 W C.R.	1, 2C
R21	0106684	680kΩ 1/4 W C.R. (E.L.R)	1B
R22	0106684	680kΩ 1/4 W C.R. (E.L.R)	1C
R23	0107105	1MΩ 1/4 W C.R.	2B
R24	0106105	1MΩ 1/4 W C.R. (E.L.R)	1C
R25	0107103	10kΩ 1/4 W C.R.	2B
R26	0107103	10kΩ 1/4 W C.R.	2C
R27	0107683	68kΩ 1/4 W C.R.	2B
R28	0106683	68kΩ 1/4 W C.R. (E.L.R)	1C
R29	0106104	100kΩ 1/4 W C.R.	1B
R30	0106104	100kΩ 1/4 W C.R.	1C
R31	0106473	47kΩ 1/4 W C.R. (E.L.R)	1B
R32	0107473	47kΩ 1/4 W C.R.	2C
R33	0107153	15kΩ 1/4 W C.R.	2B
R34	0107153	15kΩ 1/4 W C.R.	1C
R35	0107331	330Ω 1/4 W C.R.	2B
R36	0107331	330Ω 1/4 W C.R.	2C
R37	0107224	220kΩ 1/4 W C.R.	2B
R38	0107224	220kΩ 1/4 W C.R.	2C
R39	0107184	180kΩ 1/4 W C.R.	2B, C
R40	0107224	220kΩ 1/4 W C.R.	2C
R41	0107473	47kΩ 1/4 W C.R.	2B
R42	0107473	47kΩ 1/4 W C.R.	2C
R43	0107103	10kΩ 1/4 W C.R.	2B, C
R44	0107103	10kΩ 1/4 W C.R.	2C
R45	0107472	4.7kΩ 1/4 W C.R.	2B
R46	0107472	4.7kΩ 1/4 W C.R.	2C
R601	0107224	220kΩ 1/4 W C.R.	2B, C
R602	0107473	47kΩ 1/4 W C.R.	2B



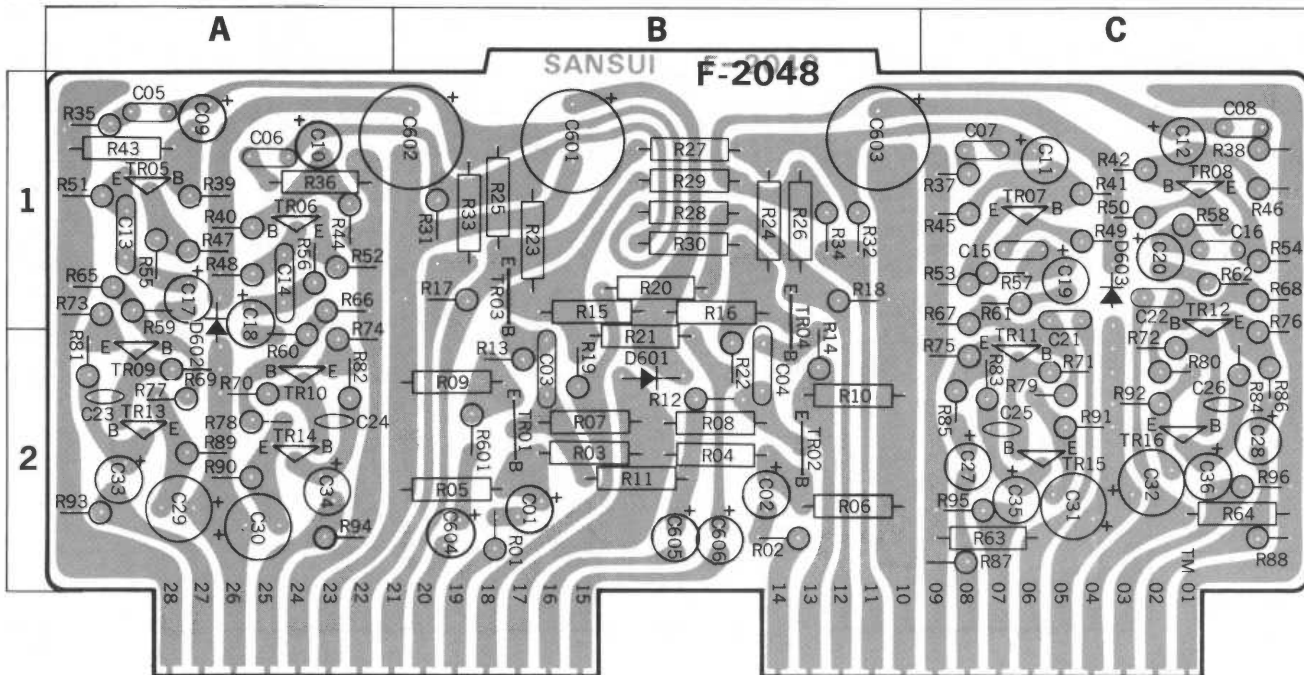
Parts No.	Stock No.	Description	Position
R603	0107103	10kΩ 1/4 W C.R.	1B
R604	0107102	1kΩ 1/4 W C.R.	1C
R605	0106103	10kΩ 1/4 W C.R.	1B
R606	0106332	3.3kΩ 1/4 W C.R. (E.L.R)	2B, C
R607	0106103	10kΩ 1/4 W C.R.	1B
R608	0107224	220kΩ 1/4 W C.R.	2C
R609	0107104	100kΩ 1/4 W C.R.	2C
R610	0107152	1.5kΩ 1/4 W C.R.	2C
R611	0107152	1.5kΩ 1/4 W C.R.	2C
R612	0106472	4.7kΩ 1/4 W C.R. (E.L.R)	2C

### Abbreviations

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

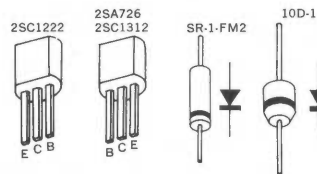
### 5-3. F-2048 Vario-Matrix Circuit Board (Stock No. 7650120 Complete Circuit Board F-2048)

#### Conductor Side



#### Parts List

Parts No.	Stock No.	Description	Position
TR01,02	0306011, 2	2SC1222 (E, F)	2 B
	or	or	
TR03,04	0306091, 2	2SC1312® (G, H)	1, 2 B
	or	or	
TR05	0300470	2SA726® (F)	1 A
	or	or	
TR06,07	0300410, 1	2SA726® (F, G)	1 A, 1 C
	or	or	
TR08	0306011, 2	2SC1222 (E, F)	1 C
	or	or	
TR09,10	0306091, 2	2SC1312® (G, H)	2 A
	or	or	
TR11,12	0306011, 2	2SC1222 (E, F)	2 C
	or	or	
TR13,14	0300470	2SA726® (F)	2 A
	or	or	
TR15,16	0300410, 1	2SA726® (F, G)	2 C
	or	or	
D601	0310870	SR-1-FM2	2 B
	or	or	
D602	0310340	10D-1	1, 2 A
	or	or	
D603	0300470	SR-1-FM2	1 C
	or	or	
	0300340	10D-1	
	or	or	



Parts No.	Stock No.	Description	Position
C01	0519102	3.3 $\mu$ F	50V E.C. 2 B
C02	0519102	3.3 $\mu$ F	
C03	0600107	0.01 $\mu$ F	2 B
C04	0600107	0.01 $\mu$ F	2 B
C05	0600157	0.015 $\mu$ F	50V M.C. 1 A
C06	0600157	0.015 $\mu$ F	
C07	0600107	0.01 $\mu$ F	1 C
C08	0600107	0.01 $\mu$ F	1 C
C09	0519105	2.2 $\mu$ F	50V E.C. 1 A
C10	0519105	2.2 $\mu$ F	
C11	0573108	0.1 $\mu$ F	25V T.C. 1 C
C12	0573108	0.1 $\mu$ F	
C13	0600607	0.06 $\mu$ F	1 A
C14	0600607	0.06 $\mu$ F	50V M.C. 1 A
C15	0600126	0.0012 $\mu$ F	
C16	0600686	0.0068 $\mu$ F	1 C
C17	0573228	0.22 $\mu$ F	25V T.C. 1, 2 A
C18	0573228	0.22 $\mu$ F	
C19	0573228	0.22 $\mu$ F	50V M.C. 1 C
C20	0573228	0.22 $\mu$ F	
C21	0600106	0.001 $\mu$ F	$\pm 5\%$ 50V M.C. 1 C
C22	0600156	0.0015 $\mu$ F	
C23	0660470	47 pF	50V C.C. 2 A
C24	0660470	47 pF	
C25	0660470	47 pF	50V C.C. 2 C
C26	0660470	47 pF	
C27	0513100	10 $\mu$ F	25V E.C. 2 C

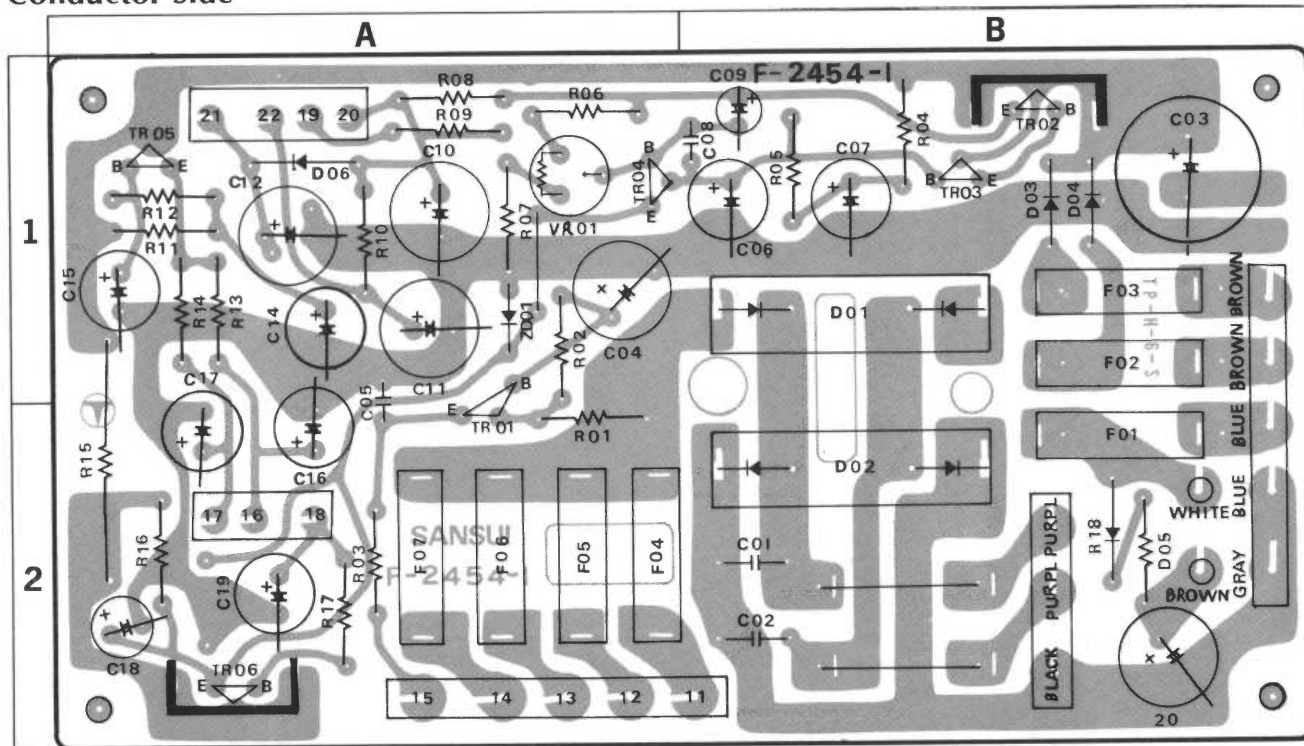


Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position
C28	0513100	10 $\mu$ F	25V E.C. 2C	R43	0107224	220k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W C.R.	1A
C29	0510101	100 $\mu$ F	2A	R44	0106104	100k $\Omega$	1A
C30	0510101	100 $\mu$ F	2A	R45	0106104	100k $\Omega$	1C
C31	0510101	100 $\mu$ F	6.3V E.C. 2C	R46	0106224	220k $\Omega$	1C
C32	0510101	100 $\mu$ F	2C	R47	0106682	6.8k $\Omega$	1A
C33	0573478	0.47 $\mu$ F	2A	R48	0106682	6.8k $\Omega$	1A
C34	0573478	0.47 $\mu$ F	25V T.C. 2A	R49	0106682	6.8k $\Omega$	1C
C35	0573478	0.47 $\mu$ F	2C	R50	0106682	6.8k $\Omega$	1C
C36	0573478	0.47 $\mu$ F	2C	R51	0106682	6.8k $\Omega$	1A
C37	0666151	150 pF	50V C.C.	R52	0106682	6.8k $\Omega$	1A
C38	0666151	150 pF		R53	0106682	6.8k $\Omega$ $\pm$ 5% $\frac{1}{4}$ W C.R.	1C
C39	0666151	150 pF		R54	0106682	6.8k $\Omega$ (E.L.R.)	1C
C40	0666151	150 pF		R55	0106223	22k $\Omega$	1A
C601	0513221	220 $\mu$ F	1 B	R56	0106223	22k $\Omega$	1A
C602	0513221	220 $\mu$ F	25V E.C. 1 A, B	R57	0106153	15k $\Omega$	1C
C603	0513221	220 $\mu$ F	1 B, C	R58	0106153	15k $\Omega$	1C
C604	0513100	10 $\mu$ F	2 B	R59	0106223	22k $\Omega$	1A
C605	0573108	0.1 $\mu$ F	25V T.C. 2 B	R60	0106223	22k $\Omega$	2A
C606	0573108	0.1 $\mu$ F	2 B	R61	0106223	22k $\Omega$	1C
R01	0106222	2.2k $\Omega$	$\pm$ 5% $\frac{1}{4}$ W C.R.	R62	0106223	22k $\Omega$	1C
R02	0106222	2.2k $\Omega$	(E.L.R.) 2 B	R63	0107104	100k $\Omega$	2C
R03	0107224	220k $\Omega$	2 B	R64	0107104	100k $\Omega$	2C
R04	0107224	220k $\Omega$	2 B	R65	0106154	150k $\Omega$	1A
R05	0107104	100k $\Omega$	2 B	R66	0106154	150k $\Omega$	1A
R06	0107104	100k $\Omega$	2 B	R67	0106154	150k $\Omega$	1,2 C
R07	0107222	2.2k $\Omega$	$\pm$ 5% $\frac{1}{4}$ W C.R.	R68	0106154	150k $\Omega$	1C
R08	0107222	2.2k $\Omega$	2 B	R69	0106124	120k $\Omega$	2A
R09	0107222	2.2k $\Omega$	2 B	R70	0106124	120k $\Omega$	2A
R10	0107222	2.2k $\Omega$	2 B	R71	0106124	120k $\Omega$	2C
R11	0107224	220k $\Omega$	2 B	R72	0106124	120k $\Omega$	2C
R12	0106224	220k $\Omega$	2 B	R73	0106392	3.9k $\Omega$	1A
R13	0106223	22k $\Omega$	$\pm$ 5% $\frac{1}{4}$ W C.R.	R74	0106392	3.9k $\Omega$	2A
R14	0106223	22k $\Omega$	(E.L.R.) 2 B	R75	0106392	3.9k $\Omega$	2C
R15	0107152	1.5k $\Omega$	$\pm$ 5% $\frac{1}{4}$ W C.R.	R76	0106392	3.9k $\Omega$	1,2 C
R16	0107152	1.5k $\Omega$	1 B	R77	0106824	820k $\Omega$	2A
R17	0106152	1.5k $\Omega$	1 B	R78	0106824	820k $\Omega$	2A
R18	0106152	1.5k $\Omega$	$\pm$ 5% $\frac{1}{4}$ W C.R.	R79	0106824	820k $\Omega$	2C
R19	0106224	220k $\Omega$	(E.L.R.) 2 B	R80	0106824	820k $\Omega$	$\pm$ 5% $\frac{1}{4}$ W C.R.
R20	0107224	220k $\Omega$	1 B	R81	0106123	12k $\Omega$	(E.L.R.) 2A
R21	0107224	220k $\Omega$	$\pm$ 5% $\frac{1}{4}$ W C.R.	R82	0106123	12k $\Omega$	2A
R22	0106224	220k $\Omega$	$\pm$ 5% $\frac{1}{4}$ W C.R.	R83	0106123	12k $\Omega$	2C
			(E.L.R.) 2 B	R84	0106123	12k $\Omega$	2C
R23	0107104	100k $\Omega$	1 B	R85	0106123	12k $\Omega$	2C
R24	0107104	100k $\Omega$	1 B	R86	0106123	12k $\Omega$	2C
R25	0107104	100k $\Omega$	1 B	R87	0106104	100k $\Omega$	2C
R26	0107104	100k $\Omega$	$\pm$ 5% $\frac{1}{4}$ W C.R.	R88	0106104	100k $\Omega$	2C
R27	0107104	100k $\Omega$	1 B	R89	0106122	1.2k $\Omega$	2A
R28	0107104	100k $\Omega$	1 B	R90	0106122	1.2k $\Omega$	2A
R29	0107104	100k $\Omega$	1 B	R91	0106122	1.2k $\Omega$	2C
R30	0107104	100k $\Omega$	1 B	R92	0106122	1.2k $\Omega$	2C
R31	0106563	56k $\Omega$	$\pm$ 5% $\frac{1}{4}$ W C.R.	R93	0106104	100k $\Omega$	2A
R32	0106563	56k $\Omega$	(E.L.R.) 1 B	R94	0106104	100k $\Omega$	2A
R33	0107563	56k $\Omega$	$\pm$ 5% $\frac{1}{4}$ W C.R.	R95	0106104	100k $\Omega$	2C
R34	0106563	56k $\Omega$	$\pm$ 5% $\frac{1}{4}$ W C.R.	R96	0106104	100k $\Omega$	2C
R35	0106563	56k $\Omega$	(E.L.R.) 1A				
R36	0107563	56k $\Omega$	$\pm$ 5% $\frac{1}{4}$ W C.R.				
R37	0106563	56k $\Omega$	1C				
R38	0106563	56k $\Omega$	1C				
R39	0106104	100k $\Omega$	$\pm$ 5% $\frac{1}{4}$ W C.R.				
R40	0106224	220k $\Omega$	(E.L.R.) 1A				
R41	0106224	220k $\Omega$	1C				
R42	0106104	100k $\Omega$	1C				

**Abbreviations**

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

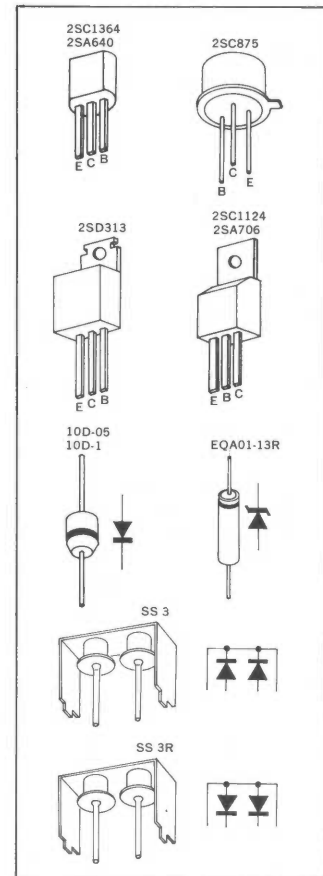
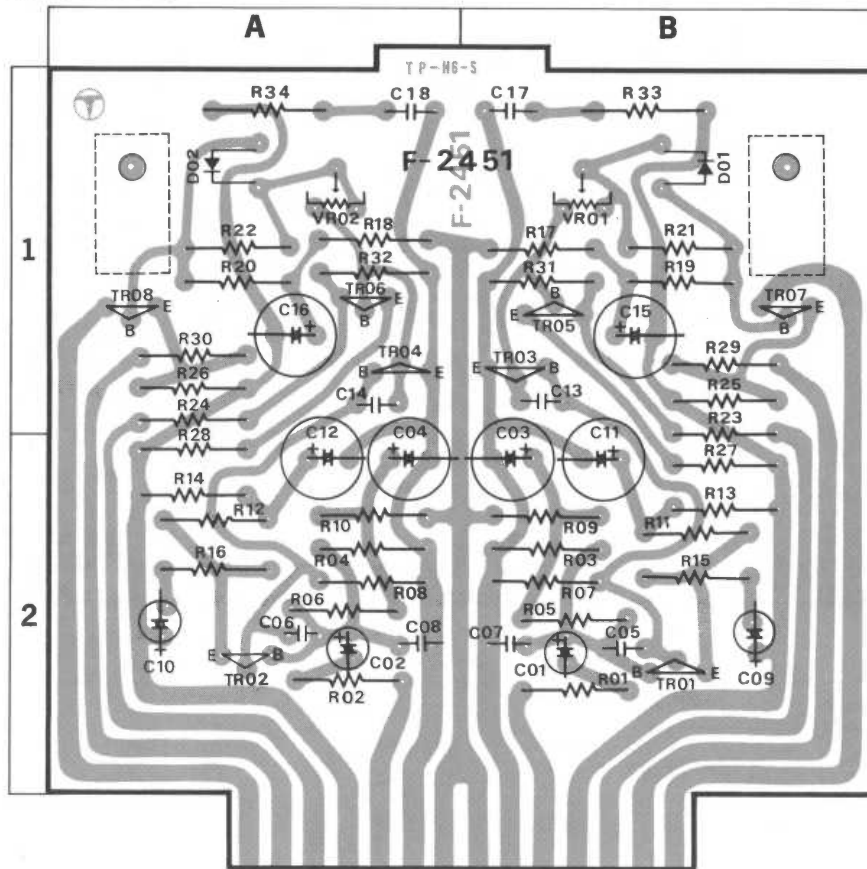
5-4. F-2454 Power Supply Circuit Board (Stock No. 7500990 Complete Circuit Board F-2454)  
Conductor Side



Parts List

Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position
TR01	0305980,1,2	2SC875 (D, E, F)	1, 2 A	C18	0512470	47 $\mu$ F } 16V E.C.	2 A
TR02	0308391,2,3	2SD313 (D, E, F)	1 B	C19	0512101	100 $\mu$ F } 16V E.C.	2 A
TR03	0306132-3	2SC1364 (7, 8)	1 B	C20	0511471	470 $\mu$ F 10V E.C.	2 B
TR04	0306132-3	2SC1364 (7, 8)	1 A	C21	0513471	470 $\mu$ F 25V E.C.	2 B
TR05	0305980,1,2	2SC875 (D, E, F)	1 A	R01	0102101	100 $\Omega$	2 A
TR06	0308391,2,3	2SD313 (D, E, F)	2 A	R02	0102103	10k $\Omega$	1 A
D01	0311290	SS-3	1 B	R03	0102330	33 $\Omega$	2 A
D02	0311300	SS-3R	2 B	R04	0102152	1.5k $\Omega$	1 B
D03	0310340	10D-1	1 B	R05	0102152	1.5k $\Omega$	1 B
D04	0310340	10D-1	1 B	R06	0102123	12k $\Omega$	1 A
D05	0310880	10D-05	2 B	R07	0102123	12k $\Omega$	1 A
ZD01	0315970	EQA01-13R	1 A	R08	0107100	10 $\Omega$	1 A
C01	0659011	10000pF } 500V C.C.	2 B	R09	0102479	4.7 $\Omega$	1 A
C02	0659011	10000pF } 50V E.C.	2 B	R10	0102270	27 $\Omega$	1 A
C03	0514102	1000 $\mu$ F 35V E.C.	1 B	R11	0102122	1.2k $\Omega$	1 A
C04	0519903	100 $\mu$ F 80V E.C.	1 A	R12	0102122	1.2k $\Omega$	1 A
C05	0657223	0.022 $\mu$ F } 1, 2 A	1, 2 A	R13	0102181	180 $\Omega$	1 A
C06	0515470	47 $\mu$ F } 50V E.C.	1 B	R15	0182221	220 $\Omega$ 2W Ce.R.	1, 2 A
C07	0515470	47 $\mu$ F } 50V E.C.	1 B	R16	0102272	2.7k $\Omega$ 1/4W C.R.	2 A
C08	0660101	100pF } 1 B	1 B	R17	0107100	10 $\Omega$ 1/4W C.R.	2 A
C09	0515100	10 $\mu$ F } 1 B	1 B	R18	0103479	4.7 $\Omega$ 1/2W C.R.	2 B
C10	0513221	220 $\mu$ F } 25V E.C.	1 A	VR01	1035100	33k $\Omega$ Semi-Variable Resistor	1 A
C11	0513221	220 $\mu$ F } 25V E.C.	1 A	F01	0430850	20mm 2A 250V } Power Fuse	2 B
C14	0515470	47 $\mu$ F } 50V E.C.	1 A	F02	0430850	20mm 2A 250V } Power Fuse	1 B
C15	0515470	47 $\mu$ F } 50V E.C.	1 A	F03	0430850	20mm 2A 250V } Power Fuse	1 B
C16	0515470	47 $\mu$ F } 50V E.C.	1, 2 A	F04-07	0433630	20mm 4A 250V Quik Acting Fuse	2 A
C17	0515470	47 $\mu$ F } 50V E.C.	1, 2 A				

## 5-5. F-2451 Main Circuit Board (Stock No. 7570980 Complete Circuit Board F-2451) Conductor Side



### Parts List

Parts No.	Stock No.	Description	Position
TR01, 02	0300651, 2	2SA640 (M, L)	2 B . 1 A
TR03, 04	0306132, 3	2SC1364 (7, 8)	1 B . 1 A
TR05, 06	0300381, 2	2SA706 (2, 3)	1 B . 1 A
TR07, 08	0305901, 2	2SC1124 (2, 3)	1 B . 1 A
} Transistor			
D01, 02	0340110	SV-03F Diode	1 B . 1 A
C01, 02	0519101	1 $\mu$ F } 50V E.C.	2 B . 2 A
C03, 04	0515470	47 $\mu$ F } 50V C.C.	1,2B.1,2A
C05, 06	0660470	47pF 50V C.C.	2 B . 2 A
C07, 08	0660470	47pF 50V C.C.	2 B . 2 A
C09, 10	0512100	10 $\mu$ F 16V E.C.	2 B . 2 A
C11, 12	0513101	100 $\mu$ F 25V E.C.	1,2B.1,2A
C13, 14	0660220	22pF 50V C.C.	1 B . 1 A
C15, 16	0519101	1 $\mu$ F 50V E.C.	1 B . 1 A
C17, 18	0600827	0.082 $\mu$ F 50V Mi.C.	1 B . 1 A
R01, 02	0102222	2.2k $\Omega$ } $\frac{1}{4}$ W C.R.	2 B . 2 A
R03, 04	0102274	270k $\Omega$ } $\frac{1}{4}$ W C.R.	2 B . 2 A
R05, 06	0102274	270k $\Omega$ } $\frac{1}{4}$ W C.R.	2 B . 2 A
R07, 08	0102222	2.2k $\Omega$ } $\frac{1}{4}$ W C.R.	2 B . 2 A
R09, 10	0102683	68k $\Omega$ } $\frac{1}{4}$ W C.R.	2 B . 2 A
R11, 12	0102151	150 $\Omega$ } $\frac{1}{4}$ W C.R.	2 B . 2 A
R13, 14	0102123	12k $\Omega$ } $\frac{1}{4}$ W C.R.	2 B . 2 A

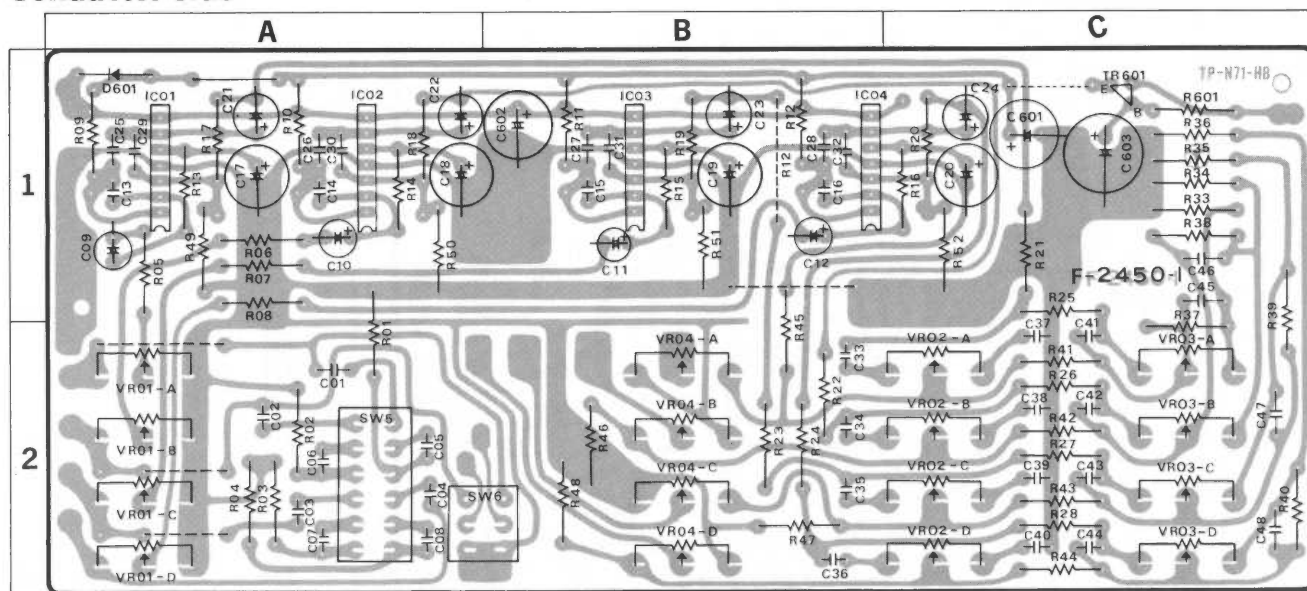
Parts No.	Stock No.	Description	Position
R15, 16	0102682	6.8k $\Omega$ } $\frac{1}{4}$ W C.R.	2 B . 2 A
R17, 18	0102102	1k $\Omega$ } $\frac{1}{4}$ W C.R.	1 B . 1 A
R19, 20	0102332	3.3k $\Omega$ } $\frac{1}{4}$ W C.R.	1 B . 1 A
R21, 22	0102561	560 $\Omega$ } $\frac{1}{4}$ W C.R.	1 B . 1 A
R23, 24	0102270	27 $\Omega$ } $\frac{1}{4}$ W C.R.	1, 2B. 1A
R25, 26	0102221	220 $\Omega$ } $\frac{1}{4}$ W C.R.	1 B . 1 A
R27, 28	0102479	4.7k $\Omega$ } $\frac{1}{4}$ W C.R.	2 B . 2 A
R29, 30	0102479	4.7 $\Omega$ } $\frac{1}{4}$ W C.R.	1 B . 1 A
R31, 32	0102221	220 $\Omega$ } $\frac{1}{4}$ W C.R.	1 B . 1 A
R33, 34	0171100	10 $\Omega$ 1 W M.R.	1 B . 1 A
VR01, 02	1035280	330 $\Omega$ Semi-Variable Resistor	1 B . 1 A

### Abbreviations

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

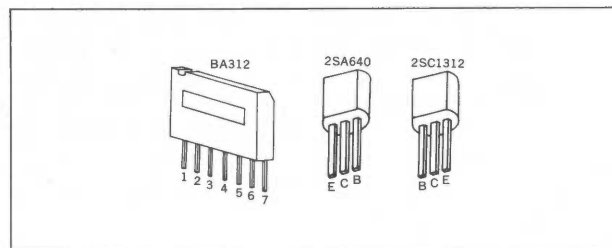
**5-6. F-2450 Tone Control Circuit Board** (Stock No. 7560980 Complete Circuit Board F-2450)

**Conductor Side**



**Parts List**

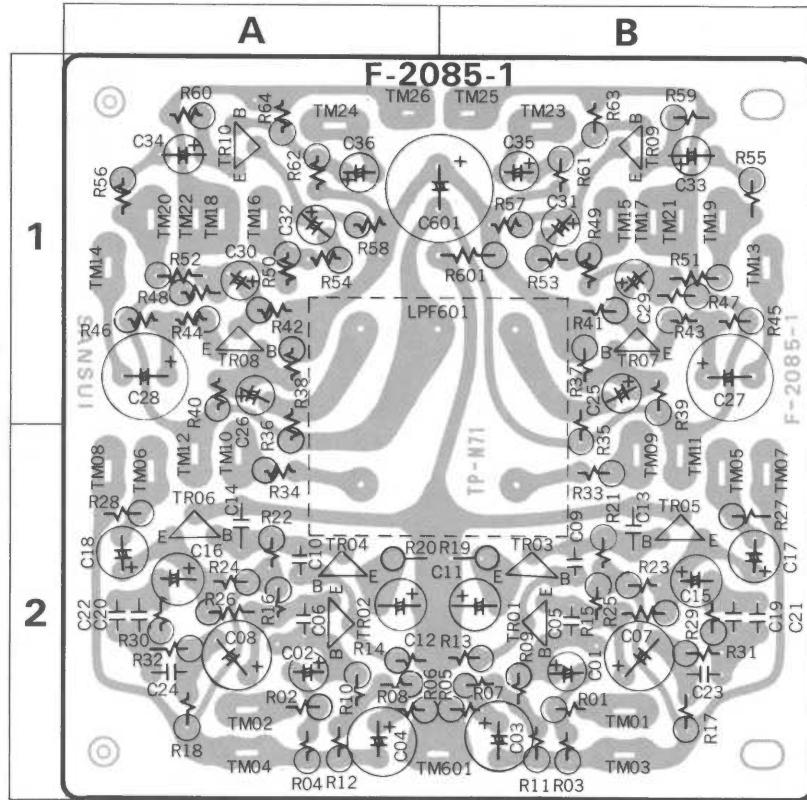
Parts No.	Stock No.	Description	Position
IC01-04	{ 0360190 0360200 }	BA-312 BA-312 (white) } IC	1A.1B
C01-04	0620181	180pF 50V P.C.	2A
C05-08	0600227	0.022μF 50V M.C.	2A
C09-12	0519101	1μF } 50V E.C.	1A.1B
C13-16	0660330	33pF }	1A.1B
C17-20	0510101	100μF 6.3V E.C.	1A.1B.1C
C21-24	0519001	10μF 25V E.C.	1A.1B.1C
C33-36	0600227	0.0012μF }	2B
C37-40	0600107	0.01μF } 50V M.C.	2C
C41-44	0600227	0.022μF }	2C
C45-48	0600158	0.15μF 50V M.C.	1C.2C
C601	0514101	100μF 35V E.C.	1C
R01-04	0107273	2.7kΩ } 1/4 W C.R.	1,2A. 2A
R05-08	0107222	2.2kΩ }	1A
R09-12	0107824	820kΩ }	1A.1B
R13-16	0107104	100kΩ }	1A.1B.1C
R17-20	0107273	27kΩ }	1A.1B.1C
R21-24	0107822	8.2kΩ }	1C.2B
R25-28	0107103	10kΩ }	1C.2C
R29-32	0107334	330kΩ }	
R33-36	0107272	2.7kΩ }	1C
R37-40	0107224	220kΩ }	2C.1C.1,2C
R41-44	0107103	10kΩ }	1C
R45-48	0107473	47kΩ }	1,2B. 2B
R49-52	0107821	820Ω }	
VR01 (a-d)	1060370, 1	250kΩ (B)	2A
VR02 (a-d)	1060390, 1	100kΩ (A)	2C
VR03 (a-d)	1060390, 1	100kΩ (A)	2C
VR04 (a-d)	1060380, 1	250kΩ (MN)	2B



**Abbreviations**

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

## 5-7. F-2085 Equalizr & CD-4 Main Circuit Board (Stock No. 7650210 Complete Circuit Board F-2085) Conductor Side



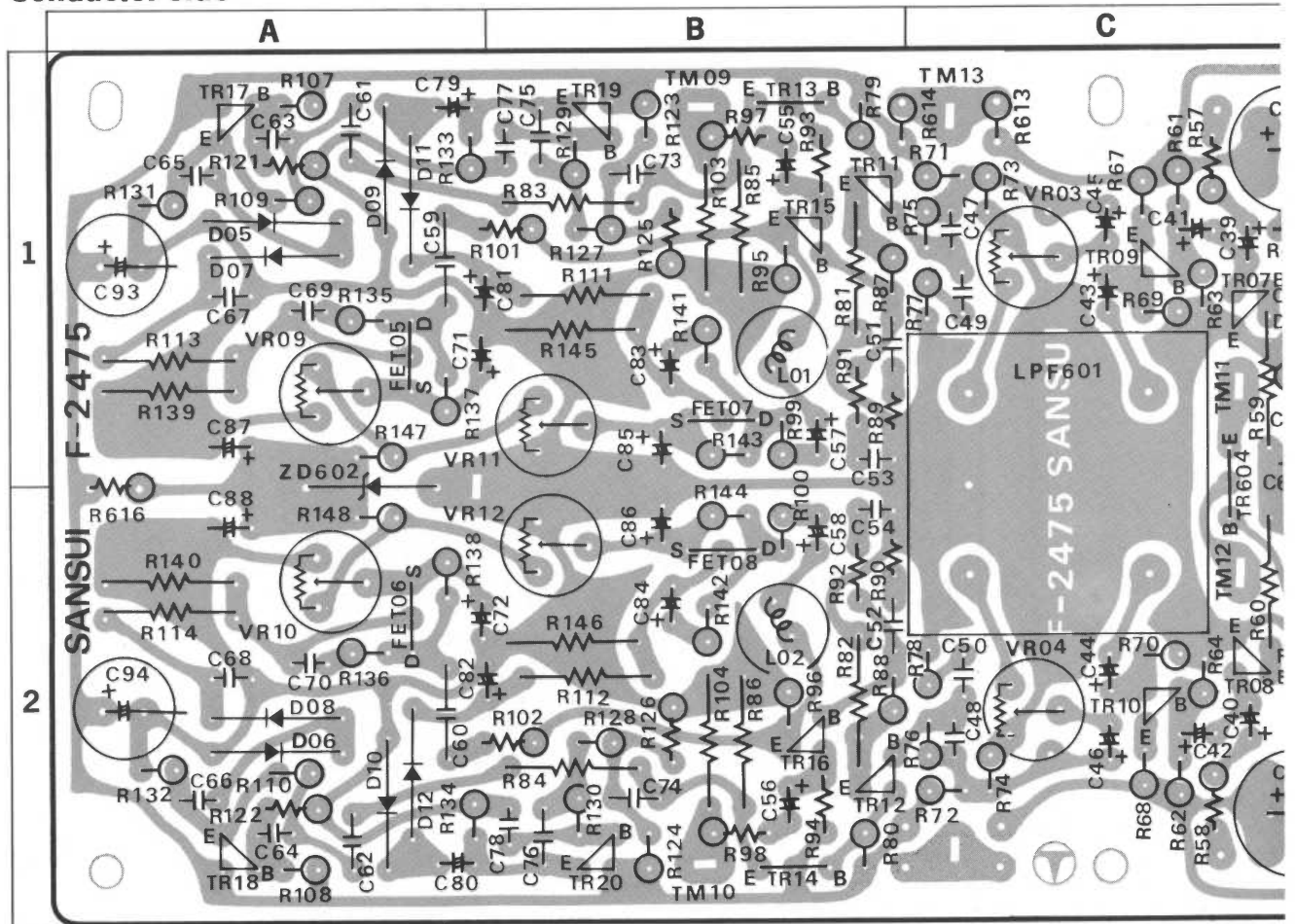
### Parts List

Parts No.	Stock No.	Description	Position
TR01,02	0306090, 1	2SC1312 (F, G)	} Transistor 2 B . 2 A 2 B . 2 A 2 B . 2 A 1 B . 1 A 1 B . 1 A
TR03,04	0300301,3,5	2SA640 (M, K, L)	
TR05,06	0306090, 1	2SC1312 (F, G)	
TR07,08	0306090, 1	2SC1312 (F, G)	
TR09,10	0306090, 1	2SC1312 (F, G)	
LPF601	0910230	VSL-200-3 Low Pass Filter	
C01,02	0573229	2.2 $\mu$ F 25V T.C.	2 B . 2 A
C03,04	0512330	33 $\mu$ F 16V E.C.	2 B . 2 A
C05,06	0660470	47 pF 50V C.C.	2 B . 2 A
C07,08	0510470	47 $\mu$ F 6.3V E.C.	2 B . 2 A
C09,10	0660220	22 pF 50V C.C.	2 B . 2 A
C11,12	0511330	33 $\mu$ F 10V E.C.	2 B . 2 A
C15,16	0513100	10 $\mu$ F 25V E.C.	2 B . 2 A
C17,18	0519102	3.3 $\mu$ F 50V E.C.	2 B . 2 A
C19,20	0600107	0.01 $\mu$ F	2 B . 2 A
C21,22	0601106	0.001 $\mu$ F 50V M.C.	2 B . 2 A
C23,24	0600336	0.0033 $\mu$ F	2 B . 2 A
C25,26	0515109	1 $\mu$ F 50V E.C.	1 B . 1 A
C27,28	0511101	100 $\mu$ F 10V E.C.	1 B . 1 A
C29,30	0519105	2.2 $\mu$ F	1 B . 1 A
C31,32	0519102	3.3 $\mu$ F 50V E.C.	1 B . 1 A
C33,34	0519102	3.3 $\mu$ F	1 B . 1 A
C35,36	0515109	1 $\mu$ F	1 B . 1 A
C601	0513101	100 $\mu$ F 25V E.C.	1 A , B
R01,02	0107332	3.3k $\Omega$	2 B . 2 A
R03,04	0107823	82k $\Omega$	2 B . 2 A
R05,06	0107184	180k $\Omega$	2 B . 2 A

Parts No.	Stock No.	Description	Position
R07,08	0107274	270k $\Omega$	2 B . 2 A
R09,10	0107473	47k $\Omega$	2 B . 2 A
R11,12	0107104	100k $\Omega$	2 B . 2 A
R13,14	0107273	27k $\Omega$	2 B . 2 A
R15,16	0107104	100k $\Omega$	2 B . 2 A
R17,18	0107681	680 $\Omega$	2 B . 2 A
R19,20	0107152	1.5k $\Omega$	} 1/4 W C.R. 2 B . 2 A
R21,22	0107683	68k $\Omega$	
R23,24	0107332	3.3k $\Omega$	2 B . 2 A
R25,26	0107824	820k $\Omega$	2 B . 2 A
R27,28	0107333	33k $\Omega$	2 B . 2 A
R29,30	0107474	470k $\Omega$	2 B . 2 A
R31,32	0107223	22k $\Omega$	2 B . 2 A
R33,34	0106472	4.7k $\Omega$	2 B . 2 A
R35,36	0106472	4.7k $\Omega$	1.2B, 1.2A
R37,38	0106184	180k $\Omega$	1 B . 1 A
R39,40	0106823	82k $\Omega$	1 B . 1 A
R41,42	0106822	8.2k $\Omega$	1 B . 1 A
R43,44	0106271	270 $\Omega$	1 B . 1 A
R45,46	0106472	4.7k $\Omega$	1 B . 1 A
R47,48	0106124	120k $\Omega$	1 B . 1 A
R49,50	0106123	12k $\Omega$	} 1/4 W C.R. (E.L.R.) 1 B . 1 A 1 B . 1 A 1 B . 1 A 1 B . 1 A 1 B . 1 A 1 B . 1 A 1 B . 1 A 1 B . 1 A 1 B
R51,52	0106103	10k $\Omega$	
R53,54	0106103	10k $\Omega$	
R55,56	0106103	10k $\Omega$	
R57,58	0106102	1k $\Omega$	
R59,60	0106102	1k $\Omega$	
R61,62	0106394	390k $\Omega$	
R63,64	0106274	270k $\Omega$	
R601	0106561	560 $\Omega$	

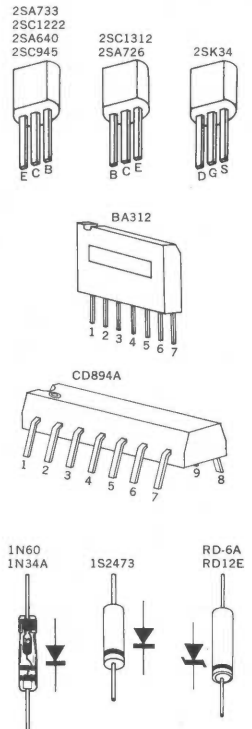
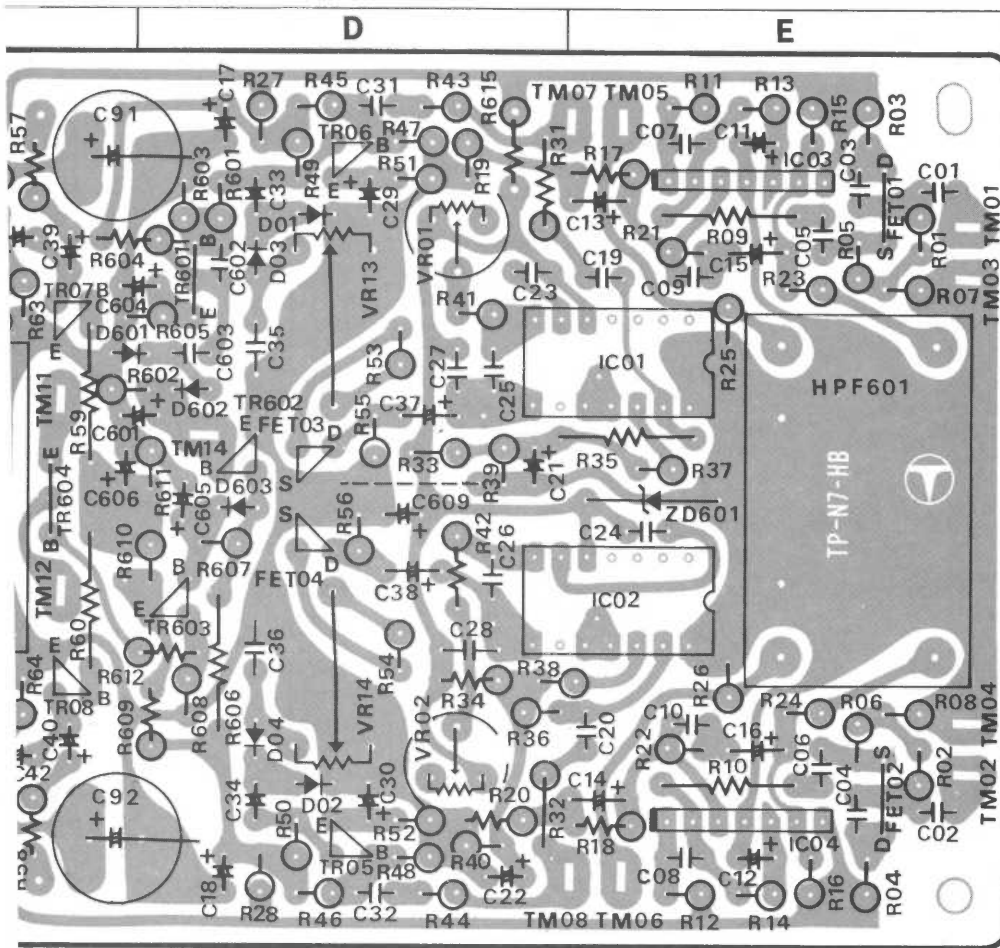
5-8. F-2475 CD-4 Sub-Channel Unit Circuit Board (Stock No. 7650370 Complete Circuit Board F-2475)

Conductor Side



Parts List

Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position	
TR05, 06	0305951, 2, 3	2SC945 (Q, P, K)	2D. 1D	FET05, 06	0370151	2SK34 (C)	1A. 2A	
TR07, 08	0305951, 2, 3	2SC945 (Q, P, K)	1D. 2C	FET07, 08	0370151	2SK34 (C)	1B. 2B	
TR09, 10	0300301, 3, 5	2SA640 (M, K, L)	1D. 2C	IC01, 02	0360110	CD894A	1DE. 2DE	
	or	or						IC
	0300410, 1	2SA726 (F, G)						
TR11, 12	0306090, 1	2SC1312R (F, G)	1B. 2B	D01, 02	0311160	IS2473D	1D. 2D	
	or	or		D03, 04	0311160	IS2473D	1D. 2D	
	0306011, 2	2SC1222 (E, F)		D05, 06	0310400	IN34A	1A. 2A	
TR13, 14	0306090, 1	2SC1312R (F, G)	1B. 2B	D07, 08	0310400	IN34A	1A. 2A	
	or	or		Diode	D09, 10	0310400	IN34A	1A. 2A
	0306011, 2	2SC1222 (E, F)			D11, 12	0310400	IN-34A	1A. 2A
TR15, 16	0306090, 1	2SC1312R (F, G)	1B. 2B	D601, 602	0310330	IN-60	1CD. 2D	
	or	or		D603	0310330	IN-60	2D	
	0306011, 2	2SC1222R (E, F)		ZD601	0316290	RD-12E (B)	1, 2 E	
TR17, 18	0305951, 2, 3	2SC945 (Q, P, K)	1A. 2A	ZD602	0315530	RD-6A (K)	1, 2 A	
TR19, 20	0305951, 2, 3	2SC945 (Q, P, K)	1B. 2B	VR01, 02	1035100	3.3kΩ (B)	1D. 2D	
TR601	0305951, 2, 3	2SC945 (Q, P, K)	1D	VR03, 04	1035110	4.7kΩ (B)	1C. 2C	
TR602	0305951, 2, 3	2SC945 (Q, P, K)	1D	VR09, 10	1035150	22kΩ (B)	1A. 2A	
TR603	0300510, 1	2SA733 (Q, P)	2D	VR11, 12	1035150	22kΩ (B)	1B. 2B	
TR604	0305951, 2, 3	2SC945 (Q, P, K)	1, 2C	VR13, 14	1035520, 1	100kΩ (B)	1D. 2B	
FET01, 02	0370150, 1	2SK34 (B, C)	1E. 2E	L01, 02	4900220	100mH	1D. 2D	
FET03, 04	0370150	2SK34 (B)	1D. 2D	HPF601	0910250	High Pass Filter	1, 2 E	
				LPF601	0910240	Low Pass Filter	1, 2 C	



Parts No.	Stock No.	Description	Position
C01, 02	0601106	0.001 $\mu$ F 50V M.C.	1 E . 2 E
C03, 04	0660220	22pF 50V C.C.	1 E . 2 E
C05, 06	0600226	0.0022 $\mu$ F 50V M.C.	1 E . 2 E
C07, 08	0660100	10pF } 50V C.C.	1 E . 2 E
C09, 10	0660151	150pF }	1 E . 2 E
C11, 12	0515339	3.3 $\mu$ F }	1 E . 2 E
C13, 14	0515109	1 $\mu$ F }	1 E . 2 E
C15, 16	0515109	1 $\mu$ F }	1 E . 2 E
C17, 18	0512330	33 $\mu$ F 16V E.C.	1 D . 2 D
C19, 20	0601276	0.0027 $\mu$ F 50V M.C.	1 E . 2 E
C21, 22	0515109	1 $\mu$ F 50V E.C.	1 D . 2 D
C23, 24	0600276	0.0027 $\mu$ F 50V M.C.	1 D . 2 E
C25, 26	0657102	0.001 $\mu$ F 50V C.C.	1 D . 2 D
C27, 28	0600276	0.0027 $\mu$ F 50V M.C.	1 D . 2 D
C29, 30	0511330	33 $\mu$ F 10V E.C.	1 D . 2 D
C31, 32	0620681	680pF 50V P.C.	1 D . 2 D
C33, 34	0515109	1 $\mu$ F 50V E.C.	1 D . 2 D
C35, 36	0601157	0.015 $\mu$ F 50V M.C.	1 D . 2 D
C37, 38	0512330	33 $\mu$ F 16V E.C.	1 D . 2 D
C39, 40	0519102	3.3 $\mu$ F 50V E.C.	1 C . 2 C
C41, 42	0519102	3.3 $\mu$ F 50V E.C.	1 C . 2 C
C43, 44	0513479	4.7 $\mu$ F 25V E.C.	1 C . 2 C
C45, 46	0515109	1 $\mu$ F 50V E.C.	1 C . 2 C

Parts No.	Stock No.	Description	Position
C47, 48	0620331	330pF 50V P.C.	1 C . 2 C
C49, 50	0600476	0.0047 $\mu$ F 50V M.C.	1 C . 2 C
C51, 52	0600477	0.047 $\mu$ F 50V M.C.	1 B . 2 B
C53, 54	0600276	0.0027 $\mu$ F 50V M.C.	1 B . 2 B
C55, 56	0515109	1 $\mu$ F 50V E.C.	1 B . 2 B
C57, 58	0573688	0.68 $\mu$ F 25V T.C.	1 B . 2 B
C59, 60	0600158	0.15 $\mu$ F 50V M.C.	1 A . 2 A
C61, 62	0600686	0.0068 $\mu$ F 50V M.C.	1 A . 2 A
C63, 64	0600686	0.0068 $\mu$ F 50V M.C.	1 A . 2 A
C65, 66	0600826	0.0082 $\mu$ F 50V M.C.	1 A . 2 A
C67, 68	0601227	0.022 $\mu$ F 50V M.C.	1 A . 2 A
C69, 70	0601476	0.0047 $\mu$ F 50V M.C.	1 A . 2 A
C71, 72	0512100	10 $\mu$ F 16V E.C.	1 AB . 2 A
C73, 74	0600127	0.012 $\mu$ F 50V M.C.	1 B . 2 B

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**Abbreviations**

- C.R.** : Carbon Resistor
- S.R.** : Solid Resistor
- Se.R.** : Cement Resistor
- M.R.** : Metallized Film 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
- T.C.** : Tantalum Capacitor

**F-2475 Parts List**

Parts No.	Stock No.	Description	Position
C75, 76	0600157	0.015 $\mu$ F 50V M.C.	1 B . 2 B
C77, 78	0600157	0.015 $\mu$ F 50V M.C.	1 B . 2 B
C79, 80	0573338	0.33 $\mu$ F 25V T.C.	1 A . 2 A
C81, 82	0573338	0.33 $\mu$ F 25V T.C.	1AB. 2AB
C83, 84	0573338	0.33 $\mu$ F 25V T.C.	1 B . 2 B
C85, 86	0511330	33 $\mu$ F 10V E.C.	1 B . 2 B
C87, 88	0510470	47 $\mu$ F 6.3V E.C.	1 A . 2 A
C89, 90			
C91, 92	0513221	220 $\mu$ F 25V E.C.	1CD. 2CD
C93, 94	0513101	100 $\mu$ F 25V E.C.	1 A . 2 A
C601	0573108	0.1 $\mu$ F 25V T.C.	1 C , D
C602	0660471	470pF 50V C.C.	1 D
C603	0600686	0.0068 $\mu$ F 50V M.C.	1 D
C604	0515109	1 $\mu$ F 50V E.C.	1 C , D
C605	0512330	33 $\mu$ F 16V E.C.	1, 2D
C606	0515109	1 $\mu$ F 50V	1 D
R01, 02	0106105	1M $\Omega$	1 E . 2 E
R03, 04	0106102	1k $\Omega$	1 E . 2 E
R05, 06	0106221	220 $\Omega$	1 E . 2 E
R07, 08	0106123	12k $\Omega$	1 E . 2 E
R09, 10	0107479	4.7 $\Omega$ $\frac{1}{4}$ W C.R.	1 E . 2 E
R11, 12	0106684	680k $\Omega$	1 E . 2 E
R13, 14	0106562	5.6k $\Omega$	1 E . 2 E
R15, 16	0106103	10k $\Omega$	1 E . 2 E
R17, 18	0106332	3.3k $\Omega$	1 E . 2 E
R19, 20	0106470	47 $\Omega$	1 D . 2D
R21, 22	0106223	22k $\Omega$	1 E . 2 E
R23, 24	0106332	3.3k $\Omega$	1 E . 2 E
R25, 26	0106562	5.6k $\Omega$	1 E . 2 E
R27, 28	0106152	1.5k $\Omega$	1 D . 2D
R31, 32	0106270	2.7k $\Omega$	1 D . 2D
R33, 34	0106103	10k $\Omega$	1 D . 2D
R35	0107472	4.7k $\Omega$ $\frac{1}{4}$ W C.R.	1 D , E
R36	0106472	4.7k $\Omega$	2D
R37, 38	0106472	4.7k $\Omega$ $\frac{1}{4}$ W C.R. (E.L.R)	1E. 2DE
R39, 40	0106103	10k $\Omega$	1 D . 2D
R41, 42	0106222	2.2k $\Omega$	1 D . 2D
R43, 44	0109152	1.5k $\Omega$	1 D . 2D
R45, 46	0106154	150k $\Omega$	1 D . 2D
R47, 48	0106274	270k $\Omega$ $\frac{1}{4}$ W C.R. (E.L.R)	1 D . 2D
R49, 50	0106102	1k $\Omega$	1 D . 2D
R51, 52	0106222	2.2k $\Omega$	1 D . 2D
R53, 54	0106683	68k $\Omega$	1 D . 2D
R67, 68	0106221	220 $\Omega$	1 C . 2C
R69, 70	0106472	4.7k $\Omega$	1 C . 2C
R71, 72	0106474	470k $\Omega$	1 C . 2C
R73, 74	0106473	47k $\Omega$ $\frac{1}{4}$ W C.R. (E.L.R)	1 C . 2C
R75, 76	0106333	33k $\Omega$	1 C . 2C
R77, 78	0106472	4.7k $\Omega$	1 C . 2C
R79, 80	0106273	2.7k $\Omega$	1 B . 2B
R81, 82	0107272	2.7k $\Omega$	1 B . 2B
R83, 84	0107479	4.7 $\Omega$ $\frac{1}{4}$ W C.R.	1 B . 2B
R85, 86	0107103	10k $\Omega$	1 B . 2B
R87, 88	0106473	47k $\Omega$	1 B . 2B
R89, 90	0106153	15k $\Omega$	1 B . 2B
R91, 92	0106223	22k $\Omega$ $\frac{1}{4}$ W C.R. (E.L.R)	1 B . 2B
R93, 94	0106103	10k $\Omega$	1 B . 2B
R95, 96	0106392	3.9k $\Omega$	1 B . 2B
R97, 98	0106223	22k $\Omega$ $\frac{1}{4}$ W C.R. (E.L.R)	1 B . 2B
R99, 100	0106821	820 $\Omega$	1 B . 2B
R101, 102	0106471	470 $\Omega$	1AB. 2AB
R103, 104	0107333	33k $\Omega$ $\frac{1}{4}$ W C.R.	1 B . 2B

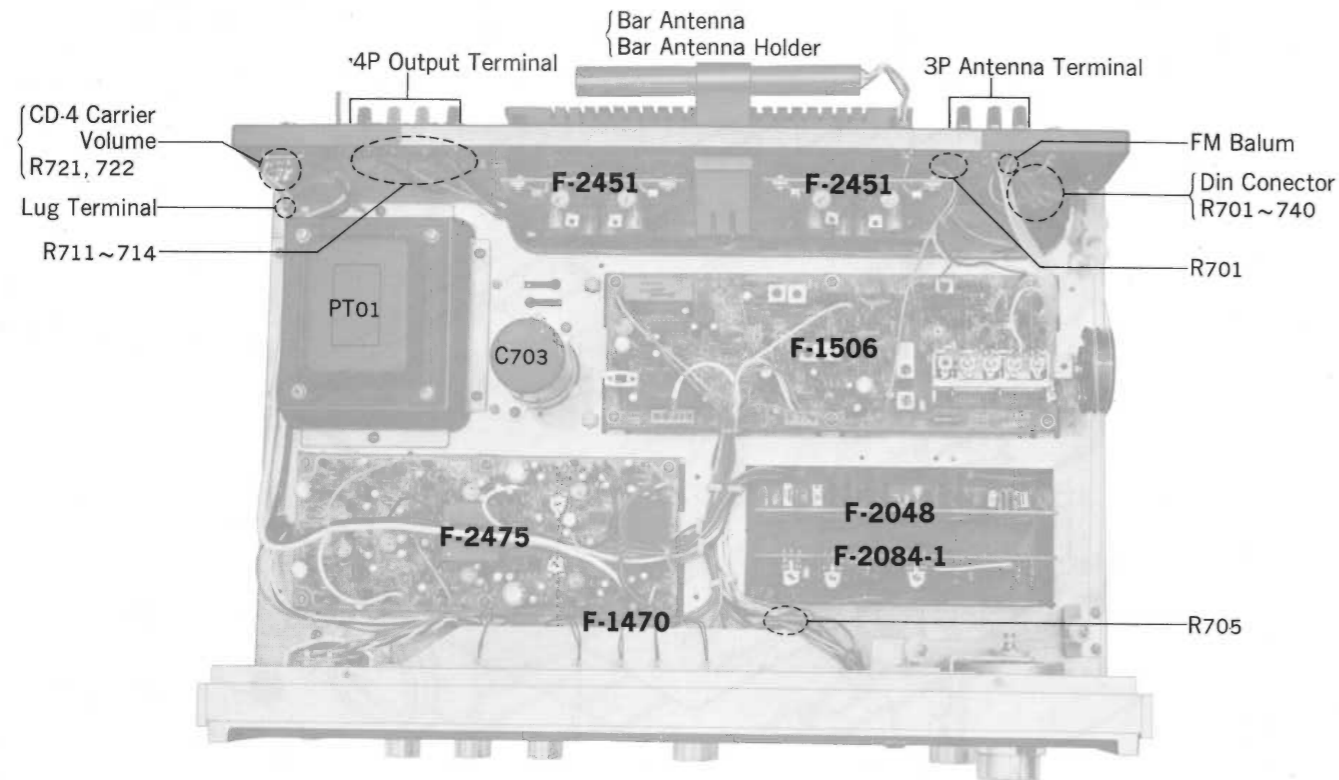
Parts No.	Stock No.	Description	Position
R107, 108	0106473	47k $\Omega$	1 A . 2 A
R109, 110	0106823	82k $\Omega$	1 A . 2 A
R111, 112	0107393	39k $\Omega$	1 B . 2 A
R113, 114	0107274	270k $\Omega$	1 A . 2 A
R121, 122	0106473	47k $\Omega$ $\frac{1}{4}$ W C.R. (E.L.R)	1 A . 2 A
R123, 124	0106473	47k $\Omega$	1 B . 2 B
R125, 126	0106473	47k $\Omega$	1 B . 2 B
R127, 128	0106103	10k $\Omega$	1 B . 2 B
R129, 130	0106103	10k $\Omega$	1 B . 2 B
R131, 132	0106682	6.8k $\Omega$	1 A . 2 A
R133, 134	0106682	6.8k $\Omega$	1 A . 2 A
R135, 136	0106104	100k $\Omega$	1 A . 2 A
R137, 138	0106823	82k $\Omega$	1 A . 2 A
R139, 140	0107274	270k $\Omega$ $\frac{1}{4}$ W C.R. (E.L.R)	1 A . 2 A
R141, 142	0106104	100k $\Omega$	1 B . 2 B
R143, 144	0106823	82k $\Omega$	1 B . 2 B
R145, 146	0107394	390k $\Omega$	1 B . 2 A
R147, 148	0106102	1k $\Omega$	1 A . 2 A
R601	0106272	2.7k $\Omega$	1 D
R602	0106472	4.7k $\Omega$	1 C , D
R603	0106103	10k $\Omega$	1 D
R604	0106471	470 $\Omega$	1 C , D
R605	0106272	2.7k $\Omega$	1 D
R606	0107562	5.6k $\Omega$ $\frac{1}{4}$ W C.R.	2D
R607	0106103	10k $\Omega$	2D
R608	0106102	1k $\Omega$	2D
R609	0109103	10k $\Omega$	2D
R610	0106392	3.9k $\Omega$ $\frac{1}{4}$ W C.R. (E.L.R)	2D
R611	0106821	820 $\Omega$	1 D
R612	0106102	1k $\Omega$	2 C , D
R613	0106390	39 $\Omega$	1 C
R614	0106820	82 $\Omega$	1 B , C
R615	0104331	330 $\Omega$ 1W C.R.	1 D
R616	0104681	680 $\Omega$ 1W C.R. (E.L.R)	1, 2 A

**Abbreviations**

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



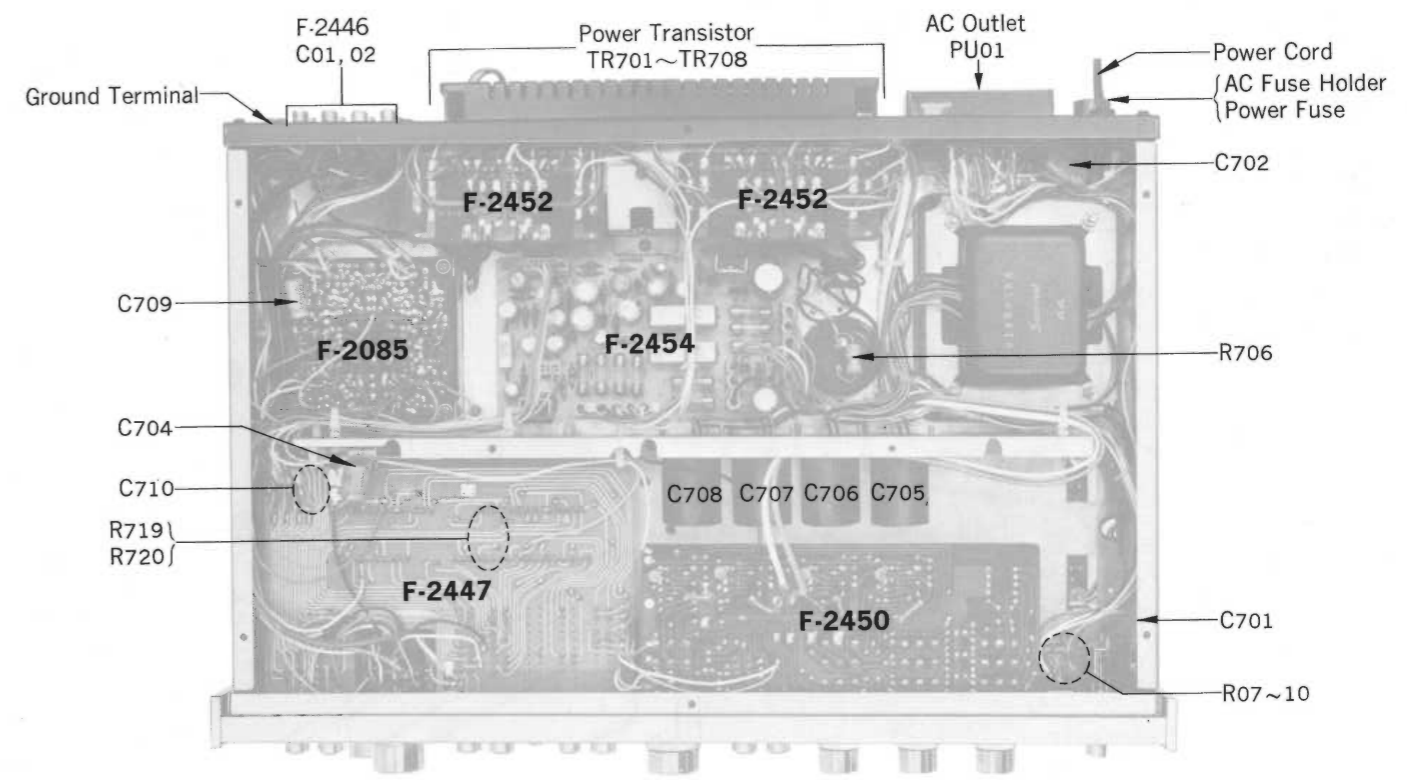
### 5-9. OTHER PARTS (Top Side)



#### Top Side Parts List

Parts No.	Stock No.	Description
	2480040	Din Connector
	4290021	FM Balum
	2210190	3P Antenna Terminal
T701	4200670	ARS-29B Bar Antenna
	5266441	Bar Antenna Holder
	2210200	4P Output Terminal
	2110011	ILI-lug Terminal
PT01	4002160	Power Transformer
VR703	1015120, 1	CD-4 CARRIER LEVEL Volume
	2420150	10P Multi Connector
	2420160	14P Multi Connector
	2420170	18P Multi Connector
C703	0559510	6800 $\mu$ F 63V E.C.
R701	0113122	1.2k $\Omega$ (Antenna Terminal) $\frac{1}{4}$ W S.R.
R701~R704	0107104	100k $\Omega$ (Cin Jack) $\frac{1}{4}$ W C.R.
R711~R714	0111681	680 $\Omega$ $\frac{1}{2}$ W S.R.
R721, R722	0107102	1k $\Omega$ $\frac{1}{4}$ W C.R.
R705	0103221	220 $\Omega$ $\frac{1}{2}$ W C.R.

### 5-10. OTHER PARTS (Bottom Side)

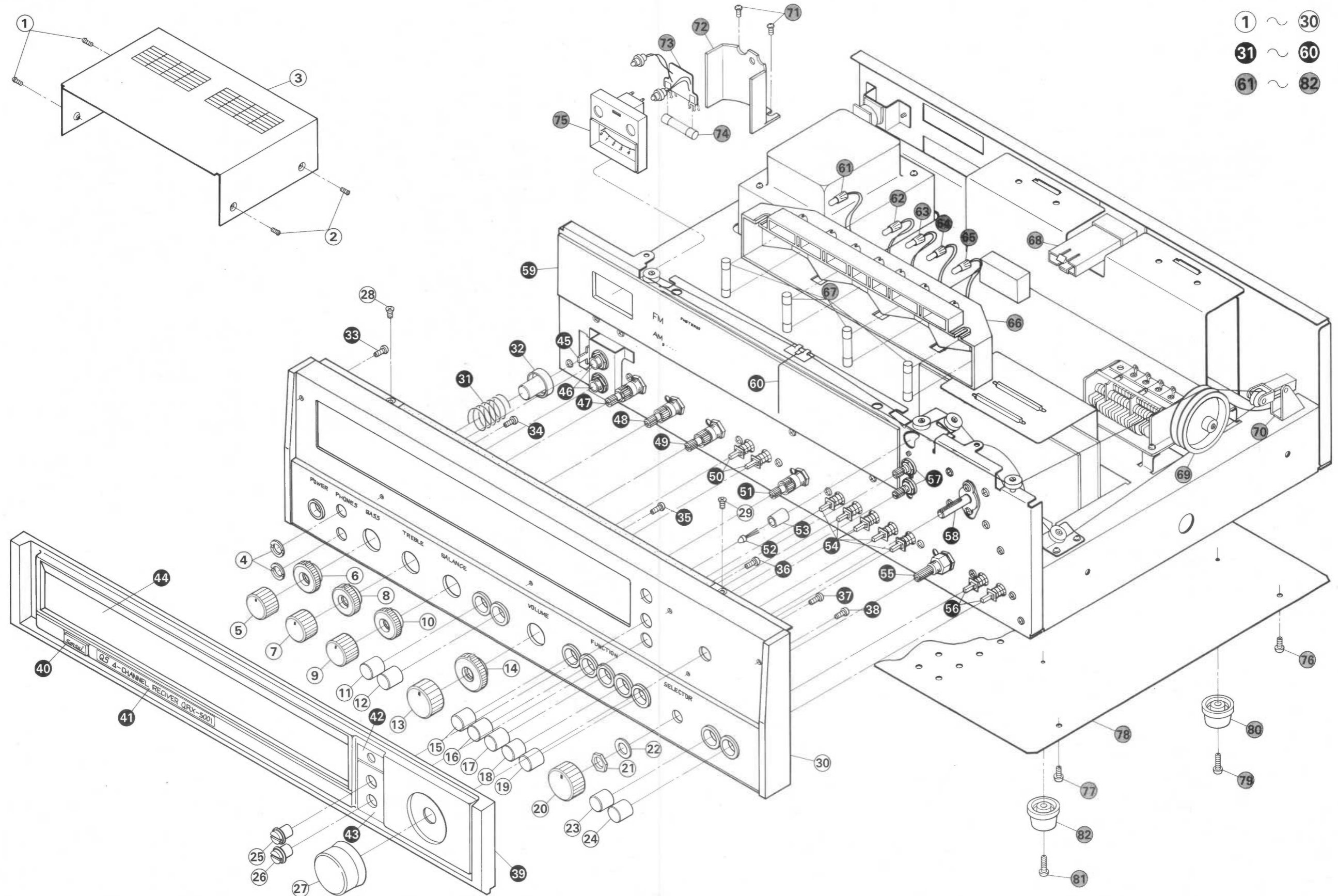


#### Bottom Side Parts List

Parts No.	Stock No.	Description
TR701~704	0306100, 1, 2	2SC1444 (R, O, Y) Power Transistor
	2230050	Ground Terminal
C071, 702	2450060	AC Outlet
PV01	2410090	Voltage Selector Plug
	2410080	Voltage Selector Socket
	5268600	Voltage Selector Cover
	3800020	Power Cord
	2300060	AC Fuse Holder
	0431270, 2	4A (100V~117V)
	or	
	0431240, 2	2A (220V~240V)
C701	0659801	0.01 $\mu$ F 1.4kV C.C.
C702	0659802	0.0047 $\mu$ F 1.4kV C.C.
C710	0501102	1000 $\mu$ F 10V E.C.
C705~708	0559102	2200 $\mu$ F 35V E.C.
C709	0504221	220 $\mu$ F 35V E.C.
C704	0503221	220 $\mu$ F 25V E.C.
R07~10	0171271	270 $\Omega$ 1W M.R.

Parts No.	Stock No.	Description
R719, 720	0107474	470kC $\frac{1}{4}$ W C.R.
R906	0105392	3.9k $\Omega$ 2W C.R.
	2592150	F-2446 14P Input Terminal
C01~02	0657473	0.047 $\mu$ 50V C.C.
	2592120	F-2452 Connector Board
C01~08	0657473	0.047 $\mu$ 50V C.C.
R01~08	0132478	0.47 $\Omega$ 2W Ce.R.

5-11. OTHER PARTS (Front Side)



- ① ~ ③①
- ③① ~ ⑥①
- ⑥① ~ ⑧②

## Front Side Parts List

Parts No.	Stock No.	Description
1	5101161	Binding Head Screw, 4×6
2	5101161	Binding Head Screw, 4×6
3	5006360	Bonnet
4	5176082	Jack Nut
5	5317760	W1-2 Type knob, BASS Volume
6	5317671	W0-1 Type knob, BASS Volume
7	5317760	W1-2 Type knob, TREBLE Volume
8	5317671	W0-1 Type knob, TREBLE Volume
9	5317760	W1-2 Type knob, BALANCE Volume
10	5317671	W0-1 Type knob, BALANCE Volume
11	5326490	Push Button, 2-CH DIRECT Switch
12	5326490	Push Button, LOUDNESS Switch
13	5317830	W1-3 Type knob, VOLUME (Front)
14	5317840	W0-2 Type knob, VOLUME (Back)
15	5326490	Push Button, 2-CH DIRECT Switch
16	5326490	Push Button, QS SYNTHESIZER Switch
17	5326490	Push Button, QS Switch
18	5326490	Push Button, SQ Switch
19	5326490	Push Button, CD-4 Switch
20	5317730	M-3 Type Knob, SELECTOR Switch
21	5110781	HEX. NUT 9φ
22	5120184	Plain Washer 9φ
23	5326490	Push Button, AUX Switch
24	5326490	Push Button, TAPE MONITOR Switch
25	5318030	CD-4 SEPARATION Knob (L-CH)
26	5318030	CD-4 SEPARATION Knob (R-CH)
27	5318070	T-10 Type Knob, TUNING
28	5102843	Flat Countersunk Head Screw, 3×6
29	5102843	Flat Countersunk Head Screw, 3×6
30	7007030	Front Panel Ass'y
	5396190	Knob Ring
	5186270	Ring, POWER Switch
31	6906031	Spring, POWER switch
32	7106083	Push Button, POWER switch
33	5101043	Binding Head Screw, 3×6
34	5101043	Binding Head Screw, 3×6
35	5101043	Binding Head Screw, 3×6
36	5101043	Binding Head Screw, 3×6
37	5101043	Binding Head Screw, 3×6
38	5101043	Binding Head Screw, 3×6
39	5309360	Panel Window Ass'y
40	5336500	Sansui Mark
41	5336510	Name Plate
42	5426361	Indicator Plate
43	5426370	CD-4 Separation plate
44	5047790	Smoked Glass
45	1130350	Push Switch, POWER
46	2430210	Head Phone Jack
47	1060390, 1	BASS Volume 100kΩA
48	1060390, 1	TREBLE Volume 100kΩA
49	1060380, 1	BALANCE Volume 250ΩMN
50	1131000	Push Switch, 2-CH DIRECT, LOUDNESS
51	1060370, 1	Master VOLUME 250kΩB
52	0319030	LED, CD-4 Indicator
53	5286160	Diode Holder
54	1130980	Push Switch, FUNCTION
55	1102590, 1	Rotary Switch, SELECTOR
56	1130990	Push Switch, AUX, TAPE MONITOR
57	1005180, 1	CD-4 SEPALATION Volume 50kΩ
58	7036410	Tuning Unit
59	5407780	Dial Grass
60	5416360	Dial Pointer

Parts No.	Stock No.	Description
61	0400420	Lead Type Lamp (7V 100mA), FM STEREO, Indicator
62	0400420	Lead Type Lamp (7V 100mA), QS SYNTHESIZER
63	0400420	Lead Type Lamp (7V 100mA), QS
64	0400420	Lead Type Lamp (7V 100mA), ※SQ
65	0400390	Lead Type Lamp (6V 30mA), CD-4
66	5066211	Illumination Box
67	0420040	Dial Scale Lamp (7V 320mA)
68	5268671	Bar Antenna Holder Case
69	6146651	D-44φ Pulley
70	7136050	Tension Unit
71	5109122	Binding Head Tapping Screw, 3×8
72	5269330	Meter Holder
73	7726060	Meter Lamp Unit
74	0420040	Meter Lamp (7V 320mA)
75	4300610, 1	Signal Meter
76	5109121	Binding Head Tapping Screw, 3×6
77	5109121	Binding Head Tapping Screw, 3×6
78	5058261	Bottom Plate
79	5103545	Pan Head Tapping Screw, 3×16
80	5516911	Foot
81	5103545	Pan Head Tapping Screw, 3×16
82	5516911	Foot

## 6. THREADING OF DIAL CORD

\* If a dial cord is cut off or slips, replace it by following procedures.

As QRX-5001 uses 0.6mm $\phi$  Cord, please replace it with the same type certainly.

\* The length of dial cord is approximately 170cm (66 inch).

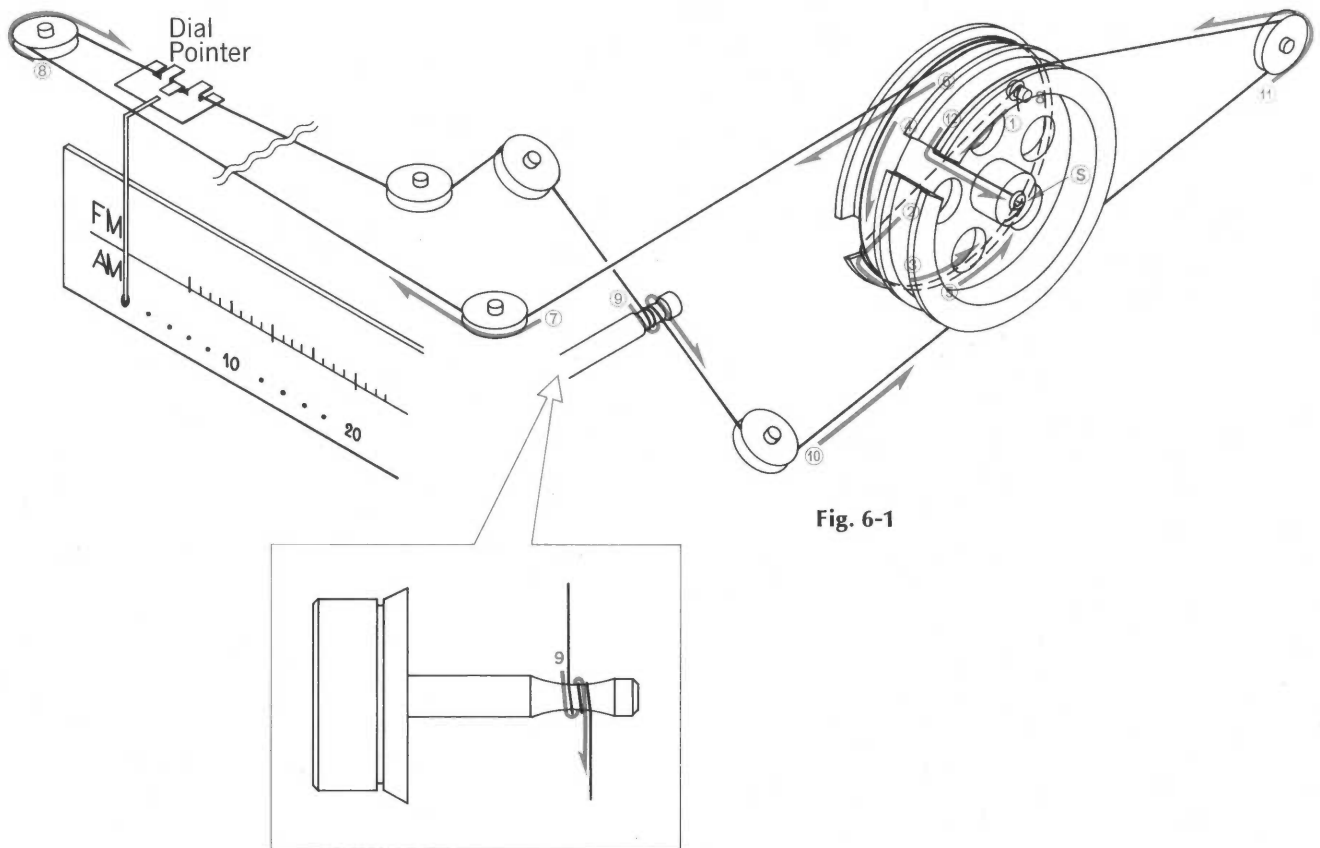


Fig. 6-1

### 1. Threading of Dial Cord.

Thread the dial cord in numerical order from ① to ⑫ as Fig. 6-1.

- 1) Close the variable capacitor completely (Max. capacitance).
- 2) Only when you replace variable capacitor with new one, turn up the screw ⑤ completely so that the screw 8 on dial pulley is positioned as shown in Fig. 6-1.
- 3) Tie the cord to screw 8 and thread it in the direction of arrow from ① to ⑥
- 4) Then, after winding the cord 3 turns around the tuning shaft counterclockwise, thread it from ⑦ to ⑫.
- 5) After ⑫, tie the cord to the screw ⑤ of the dial pulley.

\*To strengthen the dial cord's tension, hold the end of cord, then pull it toward the front panel.

Turn tuning shaft counterclockwise so that the cord's tension will be more obtained.

\*After procedure 5), lock the knot ⑤ of the cord and the screw 8 with paint.

### 2. Attachment of Dial Pointer

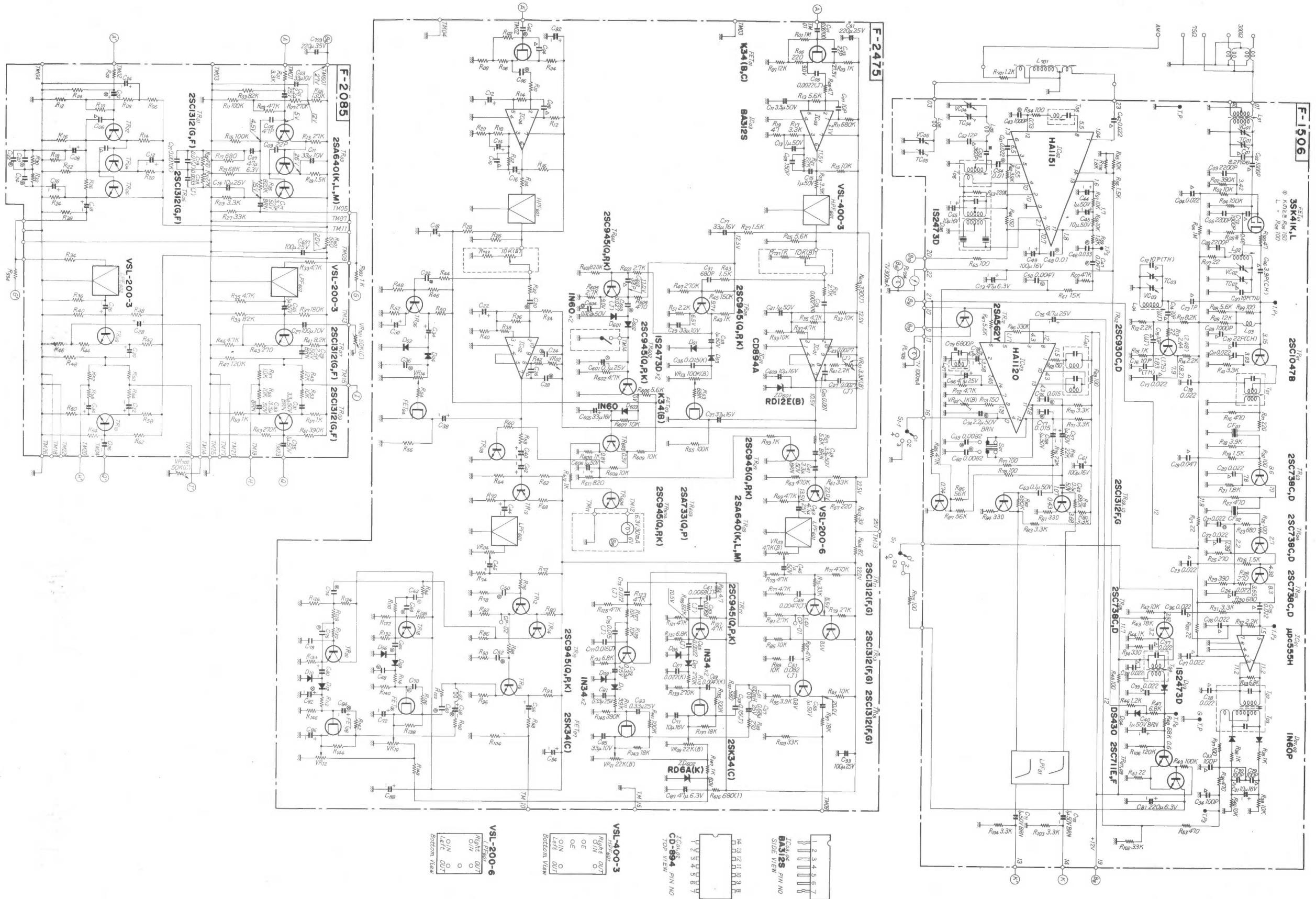
- 1) Close the variable capacitor completely.
- 2) Set the dial pointer to the position on dial scale as shown in Fig. 6-1.

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

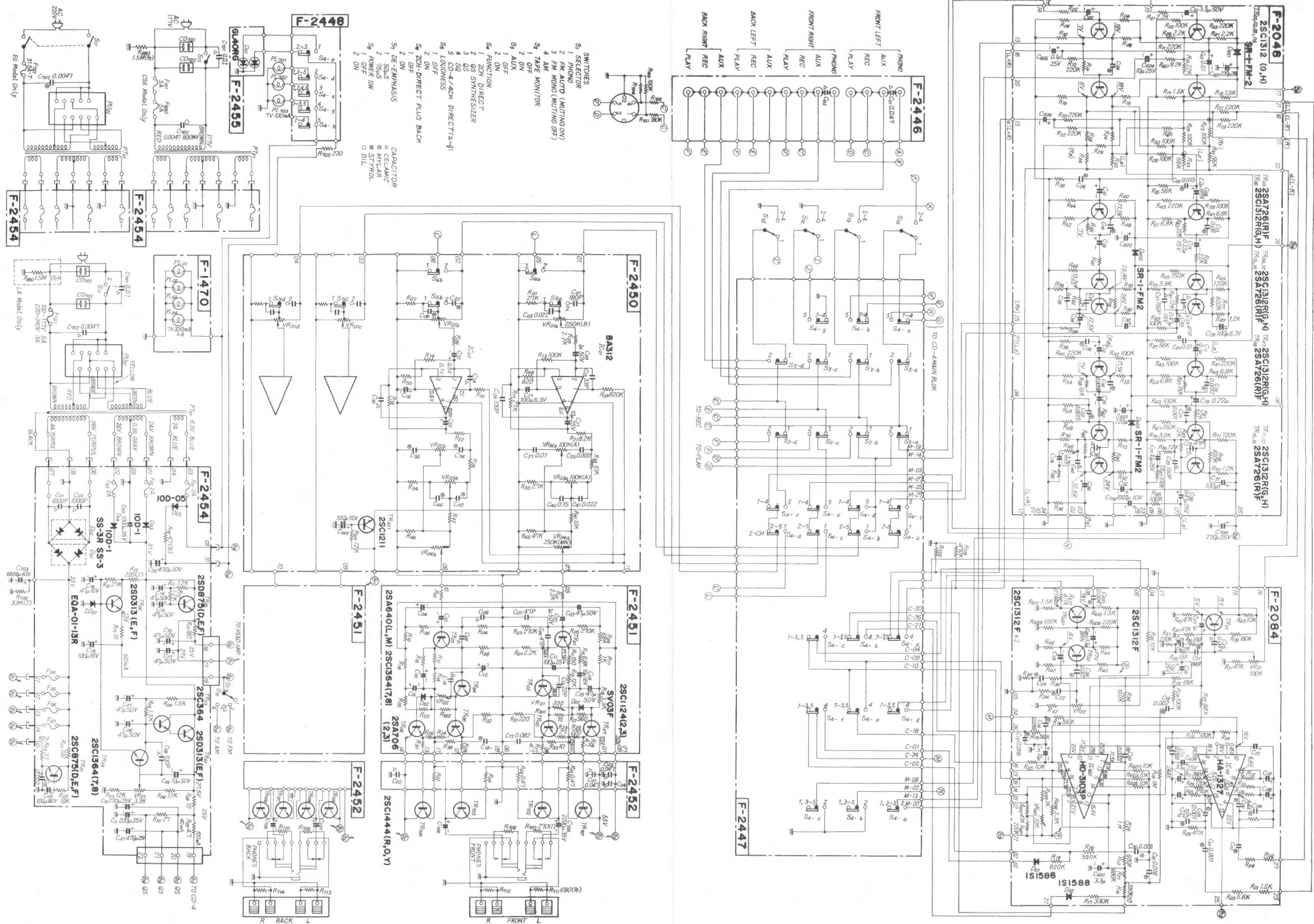
Stock No.	Description
6036050	Dial Cord (0.6mm $\phi$ )

# 7. SCHEMATIC DIAGRAM <No. 1>

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

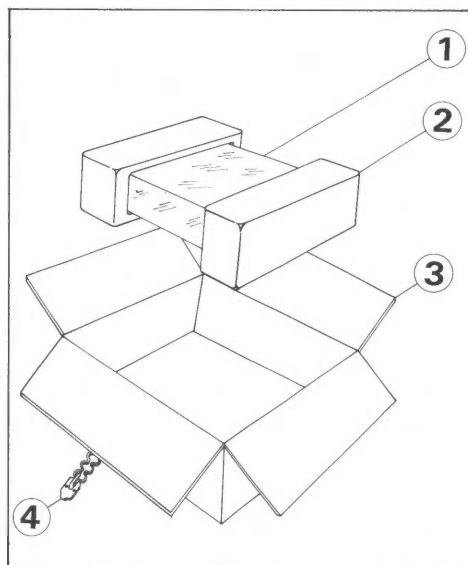


# SCHEMATIC DIAGRAM <No. 2>



## 8. PACKING LIST

Parts No.	Stock No.	Description
1	9116013	Vinyl Cover
2	9027840	Stylofoam Packing
3	9008191	Carton Case
4	5996080	Curl Stopper



## 9- ACCESSORY PARTS LIST

Stock No.	Description
3820091	FM Antenna
0433630	4A Quick Acting Fuse
9208440	Operating Instructions
9228440	Operating Instruction Sheet
9416010	CD-4 Adjustment Record

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The Sansui logo consists of the word "Sansui" in a stylized, italicized serif font, set against a solid black rectangular background.

SANSUI ELECTRIC CO., LTD.

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

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Printed in Japan (D4520M)