SERVICE MANUAL

AM/FM STEREO RECEIVER

SANSUI 441

Sansui

SANSUI ELECTRIC CO., LTD.

This service manual is designed for service engineers to repair, adjust, maintain and order the replacement parts of the 441 correctly. When ordering the parts, use the stock number and parts name specifically referring to the Parts Locations & Parts List.
For general usage and maintenance of the unit, please refer to the Operating Instructions attached with the unit.

TABLE OF CONTENTS

1. SPECIFICATIONS

AUDIO SECTION

CONTINUOUS RMS POWER OUTPUT
.....11 Watts per channel × 2 (both channels driven)
LOAD IMPEDANCE 8Ω
POWER BAND .....40 to 18,000Hz
TOTAL HARMONIC DISTORTION
.....less than 1.0% (from AUX)
Music power (IHF).....44W (4Ω 1,000Hz)
38W (8Ω 1,000Hz)
Continuous rms power output ..12+12W (8Ω 1,000Hz)
INTERMODULATION DISTORTION
(at rated power output, 70Hz : 7,000Hz = 4 : 1 SMPTE method)
OVERALL (from AUX) ....less than 0.8%
FREQUENCY RESPONSE (at 1 Watt power output)
OVERALL (from AUX) ....25 to 30,000Hz $^{+1.0}_{-3.0}$dB
EQUALIZATION (at TAPE REC output)
.....RIAA Curve (30 to 15,000Hz ±1.5dB)
DAMPING FACTOR 20 (8Ω)
CHANNEL SEPARATION (1,000Hz, at rated power output)
PHONO .....better than 45dB
AUX .....better than 45dB
HUM AND NOISE (IHF)
PHONO .....better than 70dB
AUX .....better than 80dB
INPUT SENSITIVITY AND IMPEDANCE
(1,000Hz, for rated power output)
PHONO 2.5mV 50kΩ
(Max. input capability: 90mV at 0.5% distortion)
AUX 150mV 50kΩ
TAPE
PLAY Pin Jacks 150mV 50kΩ
REC/PLAY DIN Socket ..150mV 50kΩ
RECORDING OUTPUT
TAPE
REC Pin Jacks 150mV
REC/PLAY DIN Socket ..30mV
SWITCHES AND CONTROLS
BASS .....+10dB, −10dB at 50Hz
TREBLE .....+10dB, −10dB at 10,000Hz
LOUDNESS .....+10dB at 50Hz
+8dB at 10,000Hz

TUNER SECTION

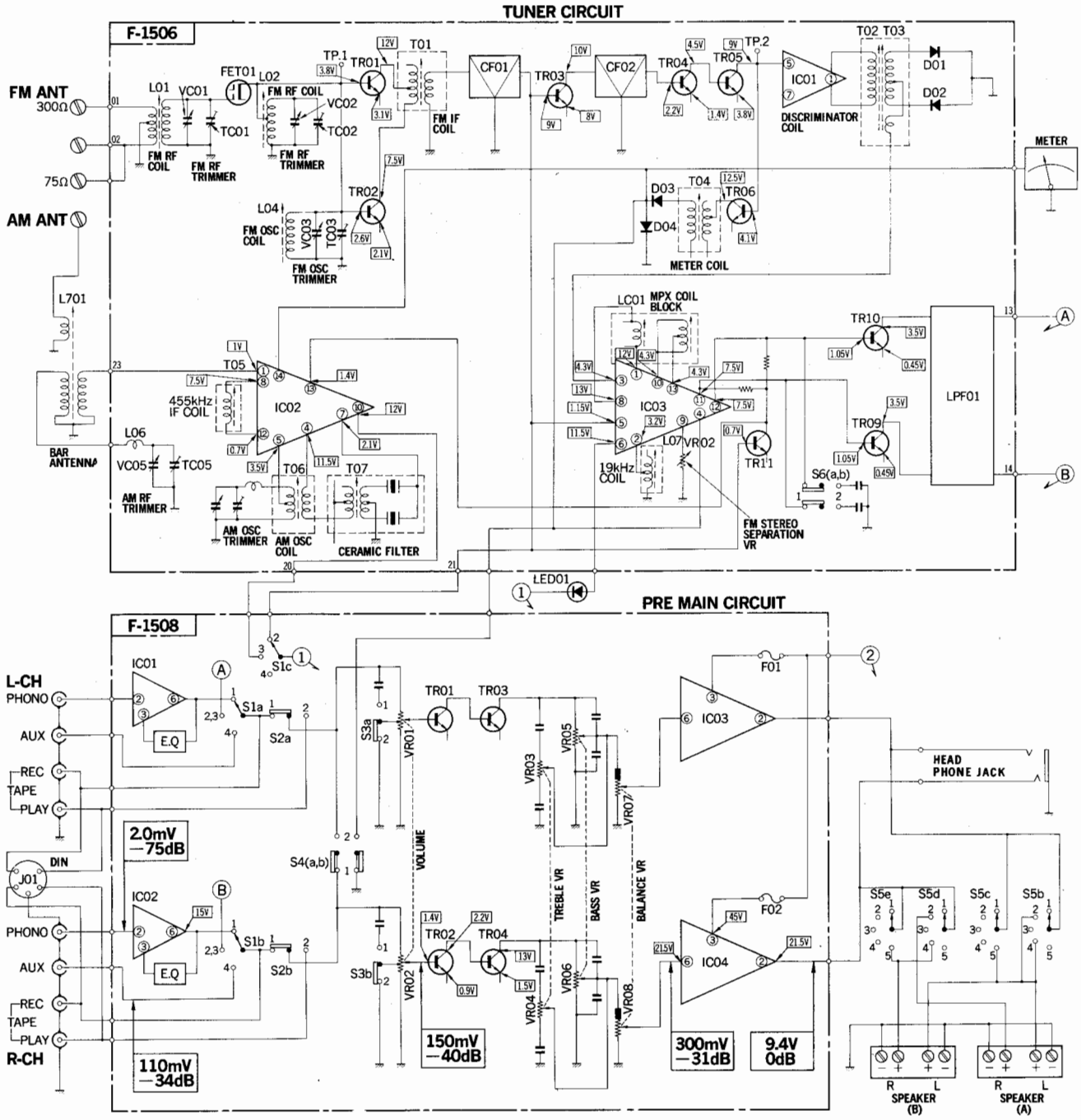
<FM>
TUNING RANGE .....88 to 108MHz
SENSITIVITY (IHF).....2.5μV
TOTAL HARMONIC DISTORTION
MONO.....0.4%
STEREO.....0.7%
SIGNAL TO NOISE RATIO ..better than 65dB
SELECTIVITY .....better than 60dB
CAPTURE RATIO 2.5dB
IMAGE REJECTION .....better than 55dB at 98MHz
IF REJECTION.....better than 75dB at 98MHz
SPURIOUS RESPONSE REJECTION
.....better than 65dB at 98MHz
SPURIOUS RADIATION ....less than 34dB
STEREO SEPARATION .....better than 40dB at 1kHz
FREQUENCY RESPONSE ....30 to 15,000Hz
ANTENNA INPUT IMPEDANCE
.....300Ω balanced, 75Ω unbalanced
<AM>
TUNING RANGE.....535 to 1,605kHz
SENSITIVITY (bar antenna) ..53dB/m at 1MHz
SELECTIVITY .....better than 30dB at 1MHz
IMAGE FREQUENCY REJECTION
.....better than 80dB/m at 1MHz
IF REJECTION.....better than 80dB/m at 1MHz

OTHERS

SEMICONDUCTORS
TRANSISTORS 16
DIODES..... 6
FET 1
ICs 7
ZENER DIODE 3
LED (Light Emited Diode).. 1
POWER REQUIREMENTS
VOLTAGE 100, 117, 220, 240V 50/60Hz
CONSUMPTION .....40W (rated), 90W (max.)
DIMENSIONS .....424mm (16¾") W,
135mm (5⅜") H,
285mm (11¼") D
WEIGHT .....7.7kg (17.0 lbs.) net
9.2kg (20.3 lbs.) Packed

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

2. BLOCK DIAGRAM AND VALUE OF EACH LEVEL



S1(a-c): SELECTOR
1. PHONO
2. FM AUTO
3. AM
4. AUX

S2(a, b): TAPE MONITOR
1. OFF
2. ON

S3(a, b): LOUDNESS
1. ON
2. OFF

S4(a, b): MODE
1. STEREO
2. MONO

S5(a-e): POWER, SPEAKERS
1. POWER OFF
2. SPEAKER(A)
3. SPEAKER OFF (HEAD PHONE)
4. SPEAKER(B)
5. SPEAKER(A+B)

S6(a, b): FM DE-EMPHASIS
1. 50μS
2. 75μS

3. THREADING OF DIAL CORD

If a dial cord is cut off or slips, replace it by following procedures. As 441 uses 0.6mmϕ cord, please replace it with the same type certainly.

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

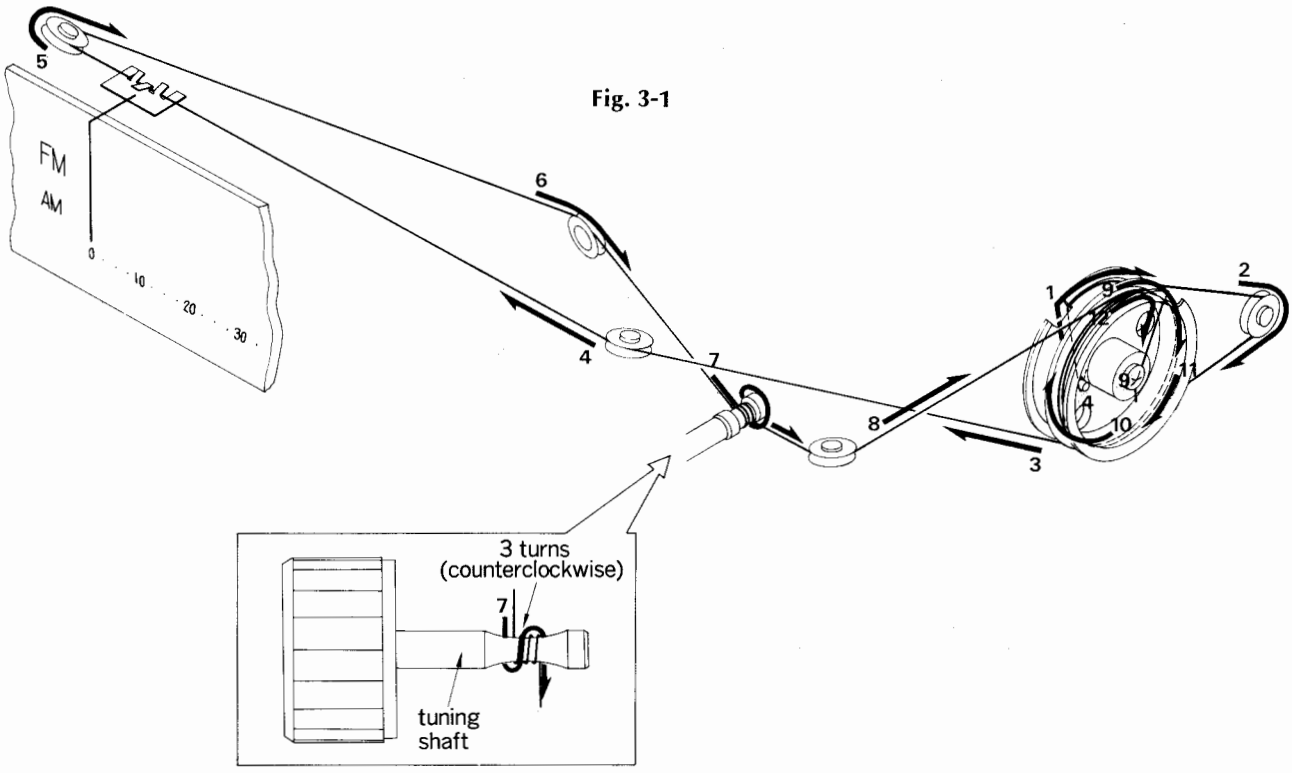


Fig. 3-1

3-1. Threading of Dial Cord

Thread dial cord in numerical order from 1 to 12 as shown in Fig. 3-1.

1) Close the variable capacitor completely (Max. capacitance) and tie cord to number ④ screw of the dial pulley.
2) Thread cord in the direction of arrow from 1 to 6, then wind cord three turns around the tuning shaft counterclockwise.
3) Thread cord in the direction of arrow from 7 to 8, then wind it two turns on the dial pulley from 9 to 12.
4) After 12, tie cord to number ⑨ screw of the dial pulley.

*When you perform procedure (4) successfully, please refer to the followings.

①To strengthen the dial cord tension, hold around the end of cord and pull it toward the Front Panel.

②Then, turn tuning shaft counterclockwise, as the cord tension will be more constantly obtained.

③Tie the cord to number ⑨ screw of the dial pulley (Same as procedure 4).

5) After procedures, lock the knots of cord with paint.

3-2. Attachment of Dial Pointer

1) Close the variable capacitor completely.
2) Set the dial pointer to "0" on dial scale and install the dial pointer ass'y.

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

Conditions of Level Measuring

*Value of each level in block diagram was measured by the followings.

1. MASTER VOLUME .....Maximum
2. BASS, TREBLE, BALANCE volume .....Center
3. Input .....PHONO 2.0mV 1KHz Sine Wave
   AUX 100mV 1kHz Sine Wave
   (Output impedance of 600Ω at an audio oscillator)
4. Output 9.4V (11W) 8Ω

Note: Each voltage value is for reference and measured by a VTVM. In some recorder, the actual voltage value is in minor difference from the reference value.

4. ALIGNMENTS AND ADJUSTMENTS

Abbreviation

Equipment

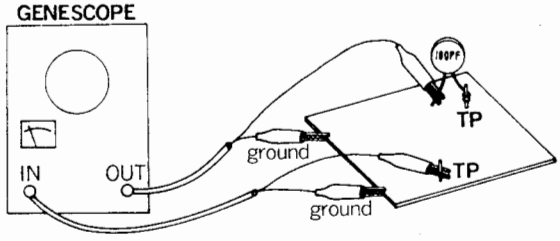
AM FM Generator Oscilloscope .....Genescope
AM Standard Signal Generator .....AM SSG
FM Standard Signal Generator .....FM SSG
FM Stereo Generator .....Stereo SG
Oscilloscope .....Scope
Audio Oscillator .....Audio Osc.
Distortion Meter .....Dist. Meter

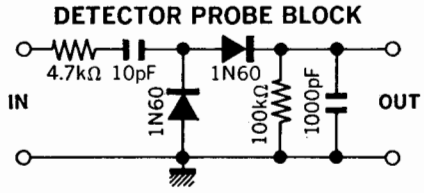
Others

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

4-1. FM IF Alignment (See Figs. 4-4 and 4-5 on page 8)

Note: 1. Selector.....FM AUTO
2. Master Volume .....Minimum
3. Output level of genescope ..After attennator
4. Sweepwidth.....1.5~2cm/150kHz
5. Frequency band .....9.5~11.5 MHz
6. Connection .....Connect the output of genescope to TP. 1 through 100pF ceramic capacitor.



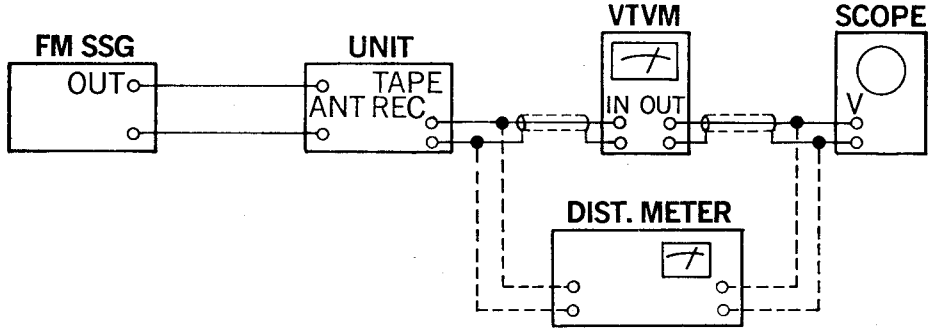


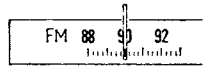
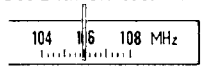
STEP	SUBJECT	FEED SIGNAL FROM	FEED SIGNAL TO	MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
1	IF Coil	Output 65dB Genescope	TP. 1 (Fig. 4-5)	TP. 2 (Fig. 4-5) Use Detector Probe	T01 (Fig. 4-5)	Max. IF waveform 1 as Fig. 4-4	
2	Descrimina-tor Coil	Output 70dB Genescope	TP. 1 (Fig. 4-5)	TP. 3 (Fig. 4-5) Direct from Genescope	T02 (Fig. 4-5) T03 (Fig. 4-5)	Max. linearity of S curve Set the center of S curve to of waveform 1 as Fig. 4-4	
3	Meter Coil	Output 70dB Genescope	TP. 1 (Fig. 4-5)	TP. 4 (Fig. 4-5) Direct from Genescope	T04 (Fig. 4-5)	Max. IF waveform 2 Set the center of waveform 2 to of waveform 1 as Fig. 4-4	

4-2. FM Dial Calibration, MONO Distortion and RF Alignment

(See Fig. 4-5 on page 8)

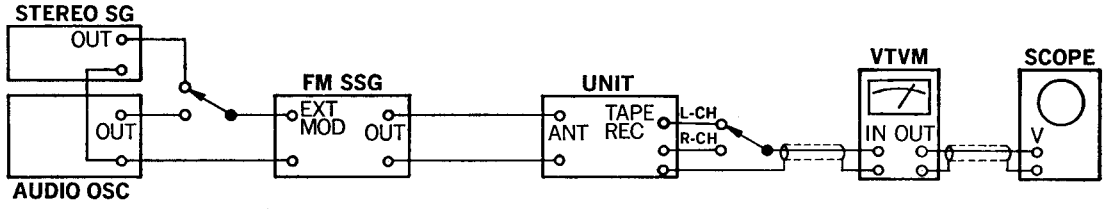
Note: 1. Selector.....FM AUTO
2. Master Volume .....Minimum
3. Confirm start point of dial pointer before alignment.



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	FM ANT terminal 300Ω	REC OUT L or R-ch VTVM & Scope	L04 (Fig. 4-5)	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	TC03 (Fig. 4-5)	Max. Output	◦ Set Dial on 106MHz 
3	Confirm 90MHz Dial Calibration	Same as Step 1	Same as above	Same as above		Confirm 90MHz Dial Calibration	◦ If not, repeat from Step 1
4	Confirm 106MHz Dial Calibration	Same as Step 2	Same as above	Same as above		Confirm 106MHz Dial Calibration	◦ If not, repeat from Step 2
5	90MHz RF Adj.	90MHz ANT input 50dB 400Hz (100% MOD) FM SSG	Same as above	Same as above	L01 L02 (Fig. 4-5)	Max. Output	◦ Tune FM SSG (Max. indication of Signal Meter)
6	106MHz RF Adj.	106MHz ANT input 50dB 400Hz (100% MOD) FM SSG	Same as above	Same as above	TC01 TC02 (Fig. 4-5)	Max. Output	Same as above
7	Distortion	98MHz ANT input 60dB 400Hz (100% MOD) FM SSG	Same as above	REC OUT L or R-ch Dist. meter & Scope, VTVM	T03 (Fig. 4-5)	Min. Distortion	◦ Turn core T02 Max. output

4-3. MPX Alignment (See Fig. 4-5 on page 8)

Note: 1. Selector.....FM AUTO
2. Master Volume .....Minimum

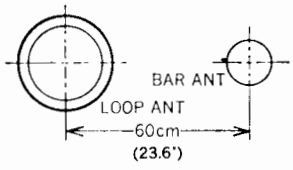


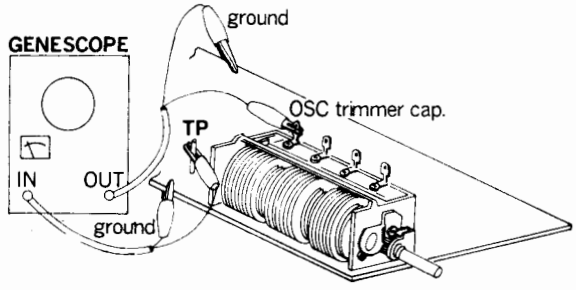
STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
		FROM	TO				
1	19KHz Coil	98MHz ANT input 60dB FM SSG Pilot 19KHz (10% MOD) L-CH 1KHz (45% MOD) R-CH (0% MOD) Stereo SG	FM ANT terminal 300Ω	REC OUT L-ch VTVM & Scope	L07 (Fig. 4-5)	Max. Output	
2	Separation	Same as above	Same as above	REC OUT R-ch VTVM & Scope	VR02 (Fig. 4-5)	Min. Output	
3	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		Min. Output	◦ If less than 40dB, repeat from Step 1, 2

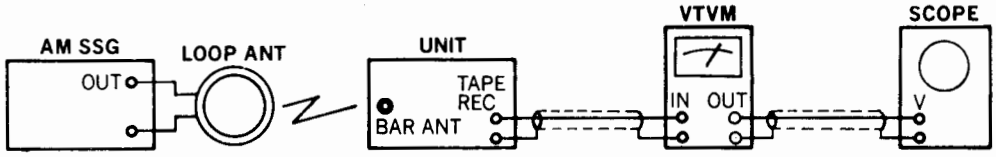
4-4. AM IF, Dial Calibration, RF Alignment (See Figs. 4-2, 4-3 and 4-5 on page 8)

Note: 1. Selector.....AM
2. Master Volume .....Minimum
3. Confrm start point of dial pointer before alignment.
4. In case of using loop antenna, increase output of AM SSG for 26dB than bar antenna's direct input as it attenuates input sesitivity for 26dB (See Fig. 4-1)

Fig. 4-1







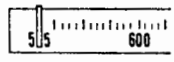
STEP	SUBJECT	FEED SIGNAL FROM	FEED SIGNAL TO	MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
1	IF coil	Output 70dB Genescope	OSC Trimmer Cap. TC 04 (Fig. 4-5)	TP. 5 (Fig. 4-5)	T07 (Fig. 4-5)	Max. IF wave-form as Fig. 4-2	
2	IF coil	Output 60dB Genescope	Same as above	Same as above	T05 (Fig. 4-5)	Max. IF wave-form as Fig. 4-3	
3	Confirm IF coil	Same as above	Same as above	Same as above		Max. IF wave-form as Fig. 4-3	◦If not, repeat from Step 1 & 2
4	535KHz Dial Calibra-tion	535KHz ANT input 86dB 1KHz (30% MOD) AM SSG Use loop ant.	Bar ant.	REC OUT L or R-ch VTVM & Scope	T06 (Fig. 4-5)	Max. Output	◦If broadcasting station is near, it might be used 
5	1400KHz Dial Calibra-tion	1400KHz ANT input 86dB 1KHz (30% MOD) AM SSG Use loop ant.	Bar ant.	Same as above	TC 04 (Fig. 4-5)	Max. Output	◦Same as above 
6	Confirm 535KHz Dial Calibra-tion	Same as Step 4	Same as above	Same as above		Max. Output	◦If not, repeat from Step 4
7	Confirm 1000KHz Dial Calibra-tion	1000KHz ANT input 86dB 1KHz (30% MOD) AM SSG Use loop ant.	Bar ant.	REC OUT L or R-ch VTVM & Scope		Max. Output	
8	Confirm 1400KHz Dial Calibra-tion	Same as Step 5	Same as above	Same as above		Max. Output	◦If not, repeat from Step 5
9	600KHz RF Adj.	600KHz ANT input 76dB 1KHz (30% MOD) AM SSG Use loop ant.	Same as above	Same as above	Bar ant. L701	Max. Output	
10	1400KHz RF Adj.	1400KHz ANT input 76dB 1KHz (30% MOD) AM SSG Use loop ant.	Same as above	Same as above	TC05 (Fig. 4-5)	Max. Output	

Fig. 4-2

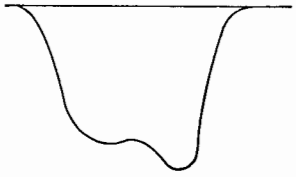


Fig. 4-3

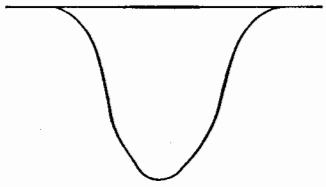


Fig. 4-4

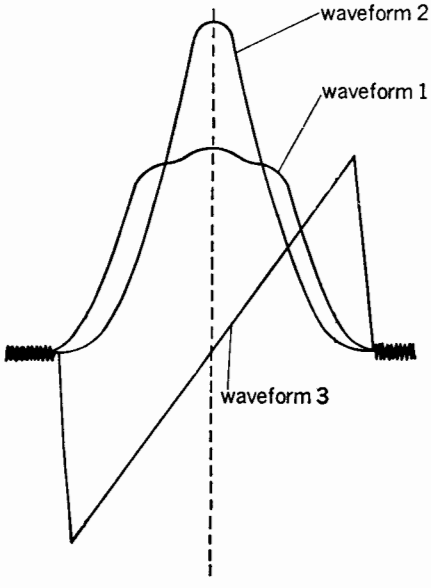
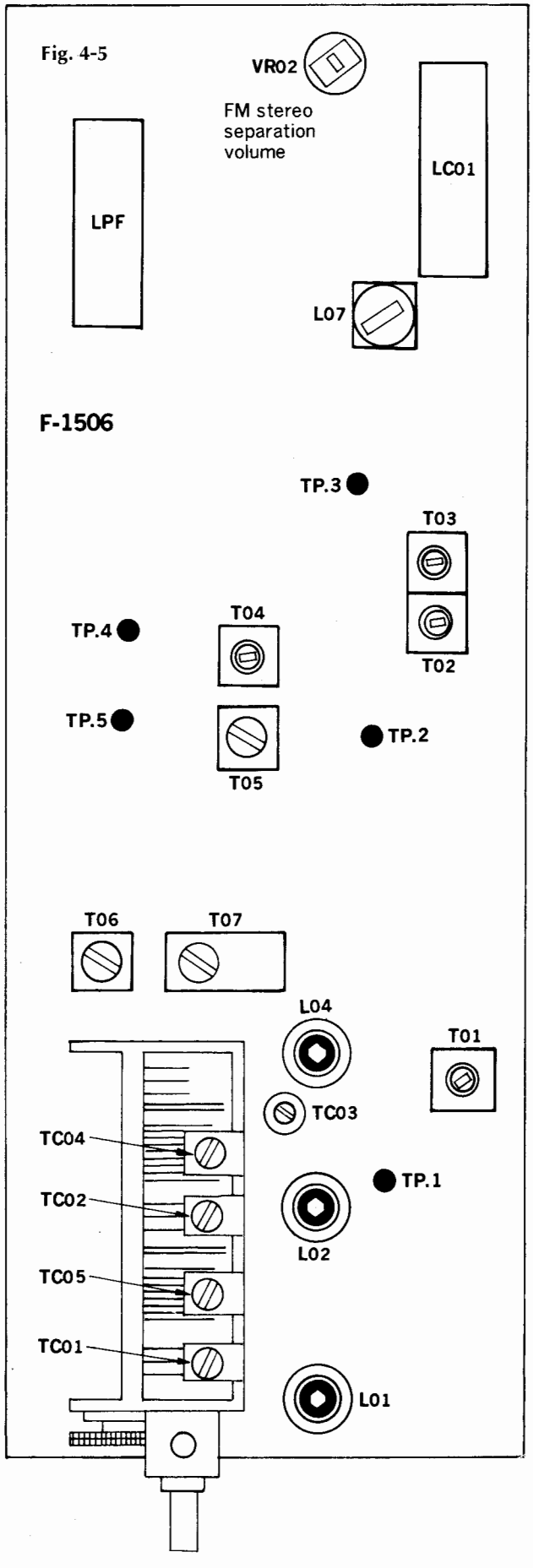


Fig. 4-5



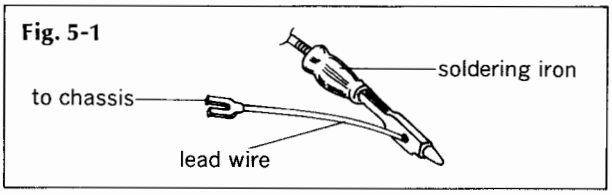
5. TROUBLESHOOTING CHART

〈Notices when servicing this unit〉

◦**On Light Emitted Diode (LED)**
The LED used as pilot Lamp driven by constant current has characteristics of extreme low reverse break-down voltage (DC 3V) and also it would be easily influenced by discharge voltage from capacitors in power amplifier section.
Therefore, after power switch is turned OFF and lapse of a few seconds, perform the replacement of LED.

◦**Notice when replacing IC**
1) Do not vent the leads of IC more than 3 times.
2) When using a soldering iron, IC should be absolutely isolated from current leakage of the iron. In order to protect IC against break-down, connect a lead wire from the iron to ground (chassis) as shown below. (Fig. 5-1)

Fig. 5-1



3) As IC is extremely weak against heat, use a soldering iron as shorter as possible.

◦**Notice after replacing power IC**
After replacing power IC, check DC bias current (20mA~80mA) on power amplifier section. If the value is under 20mA or over 80mA, the IC must be replaced again because it may be probably caused of troubles again.

5-1. Troubleshooting on Power Supply Section

Symptom	Check Point	Cause & What to Do
1. No power supplied to each section		
1-1. Each lamp not lighted		1. Imperfect contact of power supply plug
		2. Defective power switch S5
		3. Powet fuse F701 opens
		4. F03 on F701 opens
		5. Defective power transformer PT01
1-2. Each lamp lighted		
	1) +45V not supplied to terminal [3] of IC03, IC04 on F-1508	6. F01, F02 Quick acting fuse on F-1508 opens
		7. Defective D04 on F-1508
	2) +12.5V not supplied emitter of TR05 on F-1508	8. Defective TR05 on F-1508
		9. Defective TR06 on F-1508
		10. Defective D03 on F-1508
	3) +37V not supplied emitter of TR07 on F-1508	11. Defective TR07 on F-1508

5-2. Troubleshooting on Audio Section

1. Quick acting fuse open

1-1. After replacement, fuse opens again		
	1) DC bias current is over 80mA	1. Defective IC03 (IC04) on F-1508
1-2. After replacement, fuse not open		
	1) DC bias current is not between 20mA and 80mA	2. Defective IC03 (IC04) on F-1508

2. AUX inoperative

2-1. Both channels inoperative		
	1) +37V not supplied to collector of TR01 (TR02) on F-1508	3. Defective power supply circuit section
2-2. One channel inoperative		
	1) +37V supplied to collector of TR01 (TR02) on F-1508	4. Defective TR01, TR03 (TR02, TR03) on F-1508
		5. Imperfect contact of accessory switch and volume

Symptom	Check Point	Cause & What to Do

3. PHONO inoperative

3-1. Both channels inoperative
- 1) +32V not supplied to terminal [7] of IC01 (IC02) on F-1508 → 6. Defective power supply circuit section
- 2) +32V supplied to terminal [7] of IC01 (IC02) on F-1508 → 7. Defective turntable

3-2. One channel inoperative
- 1) Reverse the output cords of L and R-ch from turntable
  - 1-1) Inoperative channel reverse → 8. Imperfect contact of the output cord; 9. Defective turntable
  - 1-2) Inoperative channel not reverse → 10. Defective IC01 (IC02) on F-1508; 11. Imperfect contact of SELECTOR switch

5-3. Troubleshooting on Tuner Section

1. Both FM and AM inoperative (AUDIO section operative)

1-1. Both channels inoperative
- 1) +12V not supplied to terminal [20], [21] on F-1506 → 1. Imperfect contact of SELECTOR switch S1c; 2. Defective power supply section

1-2. One channel inoperative AM and FM → 3. Defective TR09 (TR10) on F-1509

2. FM Section

2-1. FM inoperative only
- 1) Tune FM signal or FM broadcasting station
  - 1-1) Signal meter inoperative → 4. Defective FET01 on F-1506; 5. Defective TR01~TR05 on F-1506; 6. Defective CF01, CF02 on F-1506; 7. Defective L01~L04 on F-1506; 8. Defective T01 on F-1506
  - 1-2) Signal meter inoperative (Interstation noise too low compared with proper unit) → 9. Defective IC01 on F-1506; 10. Defective T02, T03 on F-1506; 11. Defective D01, D02 on F-1506

2-2. Signal meter inoperative (FM broadcasting sound can be heard) → 12. Defective TR06 on F-1506; 13. Defective T04 on F-1506; 14. Defective D03, D04 on F-1506; 15. Defective signal meter

2-3. No channel separation on FM stereo broadcasting
*Confirm that SELECTOR switch is set to FM AUTO
- 1) Indicator lamp not lighted → 16. Defective IC03 on F-1506; 17. Defective L07 on F-1506; 18. Defective Volume VR02 on F-1506; 19. Defective LED01 on F-1506
- 2) Indicator lamp lighted → 20. L07 out of adjustment on F-1506; 21. VR02 out of adjustment on F-1506

3. AM Section

3-1. AM inoperative
- 1) Interstation noise change by touching the terminal [23] on F-1506 (No change) → 22. Defective IC02 on F-1506; 23. Defective T05 on F-1506; 24. Defective T06 on F-1506; 25. Defective TR11 on F-1506
- 2) Interstation noise change by touching the terminal [23] on F-1506 (Increase) → 26. Defective bar antenna; 27. Variable capacitor shorted

3-2. Signal meter inoperative → 28. Defective IC02 on F-1506; 29. Defective signal meter

6. PARTS LOCATIONS AND PARTS LISTS

6-1. F-1506F Tuner Circuit Board (Stock No. 7520970 Complete Circuit Board F-1506F)

Parts List

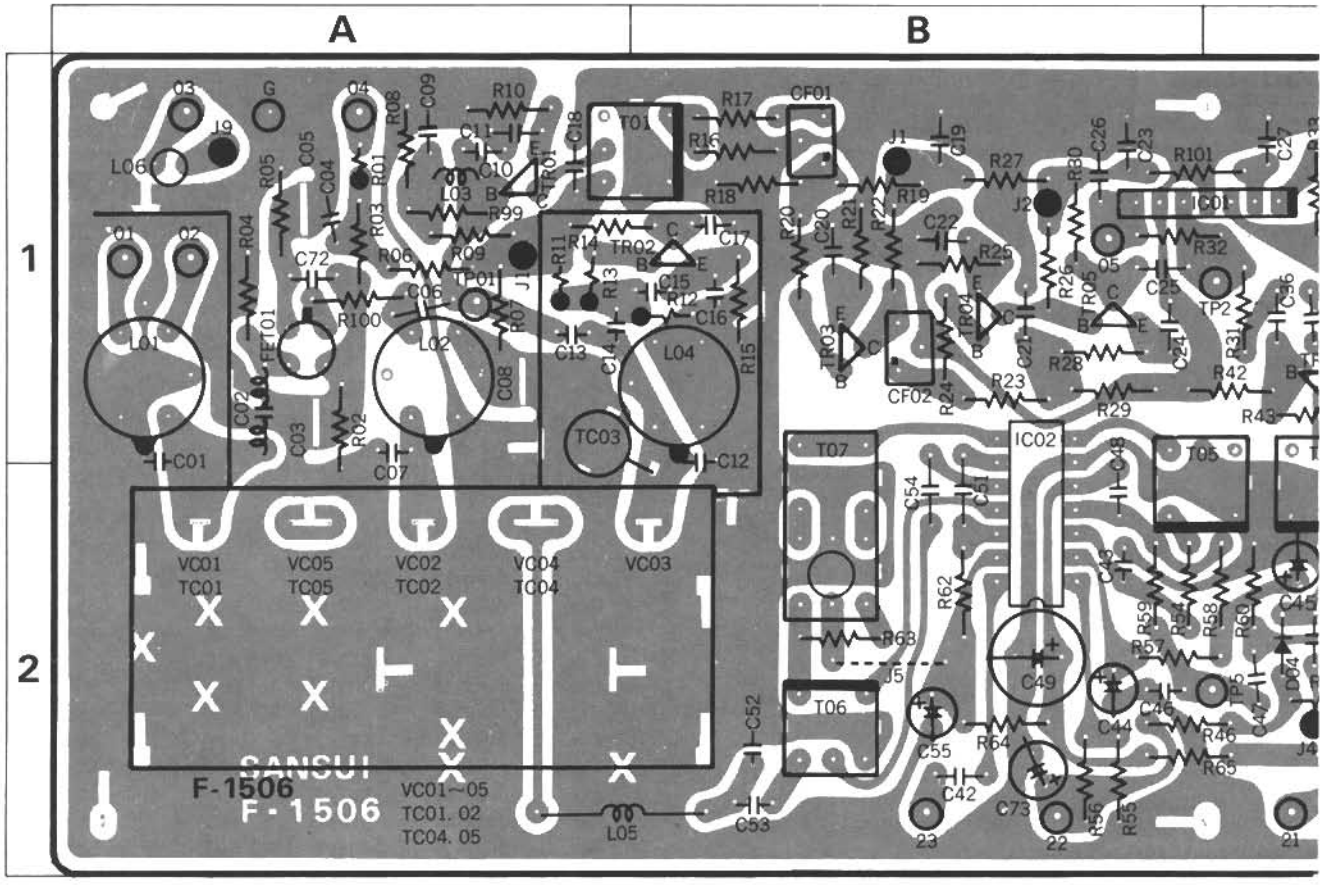
Parts No.	Stock No.	Description	Position
TR01	0305801	2SC1047B (G)	1A
TR02	0305790, 1	2SC930 (C, D)	1B
TR03	0306112, 3	2SC738 (C, D)	1B
TR04	0306112, 3	2SC738 (C, D)	1B
TR05	0306112, 3	2SC738 (C, D)	1B
TR06	0306112, 3	2SC738 (C, D) Transistor	1C
TR07	0305731, 2	2SC711 (E, F)	2C
TR08	0305731, 2	2SC711 (E, F)	2C
TR09	0306090, 1	2SC1312 (F, G)	2D
TR10	0306090, 1	2SC1312 (F, G)	2D
TR11	0305731, 2	2SC711 (E, F)	1C
IC01	0360120	μPC555H	1B, C
IC02	0360150	HA1151 IC	1, 2B
IC03	0360080	HA1120	1D
FET01	0370131, 2	3SK41 (L, K) FET	1A
D01	0311060	1N60P	1C
D02	0311060	1N60P	1C
D03	0311160	1S2473D Diode	2C
D04	0340090	DS430	2C
T01	4235930	FM IF Coil	1A, B
T02	4235750	FM Discriminator Coil	1C
T03	4235760		1C
T04	4235940	FM Meter Coil	1, 2C
T05	4230620	AM IF Coil	1, 2B C
T06	4220550	AM OSC Coil	2B
T07	0910270	Ceramic Filter	1, 2B
L01	4200560	FM ANT Coil	1A
L02	4210300	FM RF Coil	1A
L03	4010120	Peaking Coil	1A
L04	4220530	FM OSC Coil	1A, B
L05	4290530	Peaking Coil	2A, B
L06	4900100	Inductor Coil	1A
L07	4240720	19kHz MPX Coil	1D
LC01	4240710	MPX Coil Block	2D
CF01	0910150	Ceramic Filter	1B
CF02	0910150		1B
LPF01	0910220	Low Pass Filter	2D
VC	1220170	Variable Capacitor	1, 2B
TC03	1230090	Trimmer Capacitor	1A
VR02	1035070	1kΩ(B) FM STEREO Separation VR	1D
C01	0669369	8.2pF 50V C.C.	1A
C02	0650102	1000pF	1A
C03	0659015	2200pF	1A
C04	0657223	22000pF	1A
C05	0659015	2200pF	1A
C06	0669002	3.9pF	1A
	0669205	3.9pF	
C07	0669370	10pF	1A
C08	0659015	2200pF	1A
C09	0650102	1000pF	1A

Parts No.	Stock No.	Description	Position
C10	0661220	22pF	1A
	0669221	22pF	
C11	0657223	22000pF	1A
C12	0669370	10pF	1A, B
C13	0669200	1pF	1A
C14	0669370	10pF	1A
C15	0669370	10pF 50V C.C.	1B
C16	0669370	10pF	1B
C17	0657223	22000pF	1B
C18	0657223	22000pF	1A
C19	0657473	47000pF	1B
C20~28	0657223	1000pF	1B.1C
C29, 30	0660101	100pF	1C
C31	0512100	10μF 16V E.C.	1C
C33, 34	0660101	100pF 50V C.C.	1C
C36~39	0657223	22000pF	1C.2C
C40	0519103	0.47μF 50V E.C.	2C
C42	0657223	22000pF 50V C.C.	2C
C43	0601106	0.001μF 50V M.C.	2B
C44	0515109	1μF 50V E.C.	
C45	0515339	3.3μF	2C
C46	0601107	0.01μF	2B
C47	0601477	0.047μF 50V M.C.	2C
C48	0601107	0.01μF	2B
C49	0512101	100μF 16V E.C.	2B
C50	0601106	0.001μF 50V M.C.	1C
C51	0657223	22000pF 50V C.C.	2B
C52	0669215	15pF	2B
C53	0620361	360pF 50V P.C.	2B
C54	0601107	0.01μF 50V M.C.	2B
C55	0512100	10μF 16V E.C.	2B
C56	0513479	4.7μF 25V E.C.	1D
C57	0515109	1μF 50V E.C.	1D
C58	0515109	1μF	1, 2D
C59	0600826	0.0082μF 50V M.C.	2D
C60	0600826	0.0082μF	2D
C61	0512101	100μF 16V E.C.	1, 2D
C62	0601108	0.1μF 50V M.C.	2D
C63	0601108	0.1μF	2D
C70	0519101	1μF 50V E.C.	2D
C71	0519101	1μF	2D
C72	0650102	1000pF 50V C.C.	1A
C73	0510470	47μF 6.3V E.C.	2B
C74	0601477	0.047μF 50V M.C.	2C
C75	0513479	4.7μF 25V E.C.	1D
C76	0600157	0.015μF 50V M.C.	2D
C77	0600157	0.015μF	2D
C78	0513479	4.7μF 25V E.C.	1D
C79	0629001	6800pF 50V P.C.	1D

Abbreviations

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

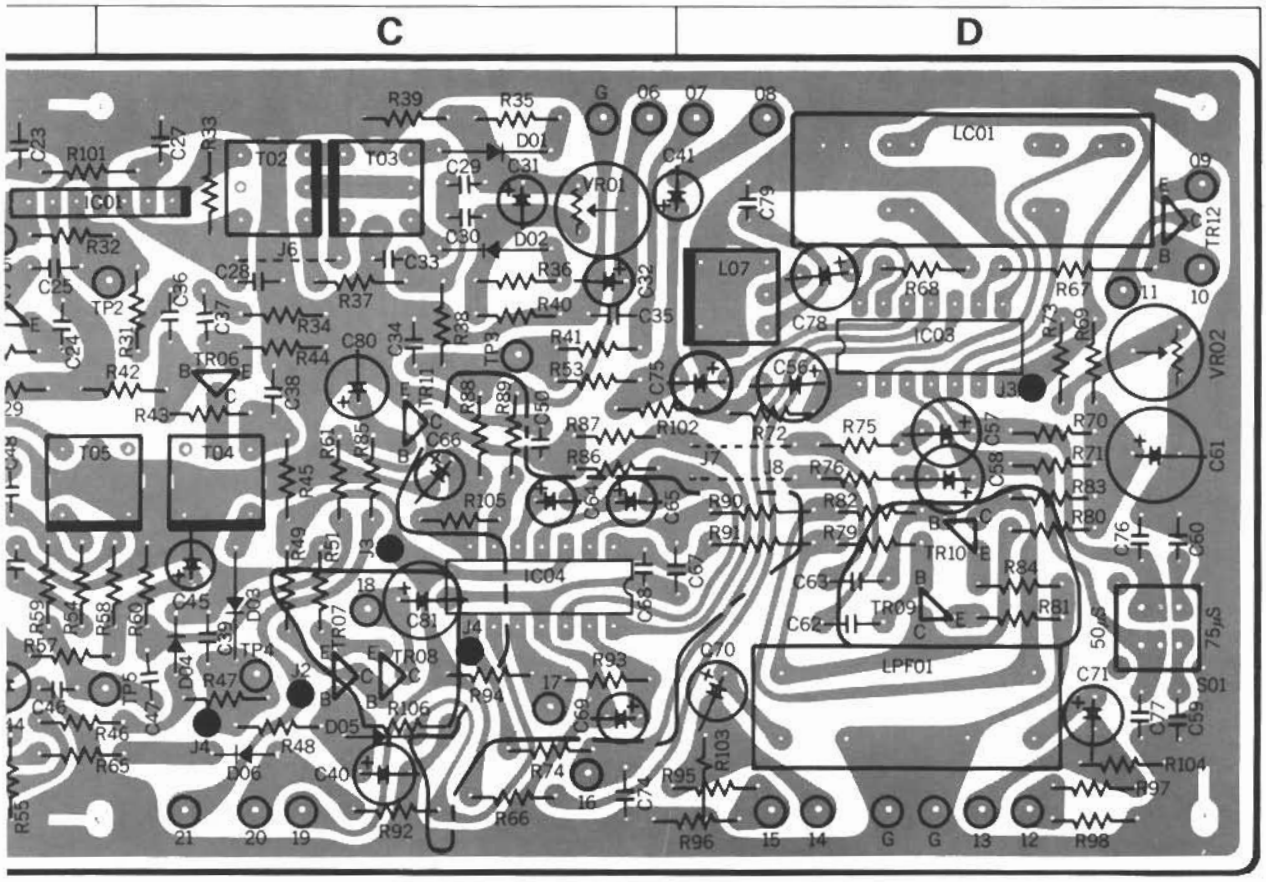
F-1506F Conductor Side

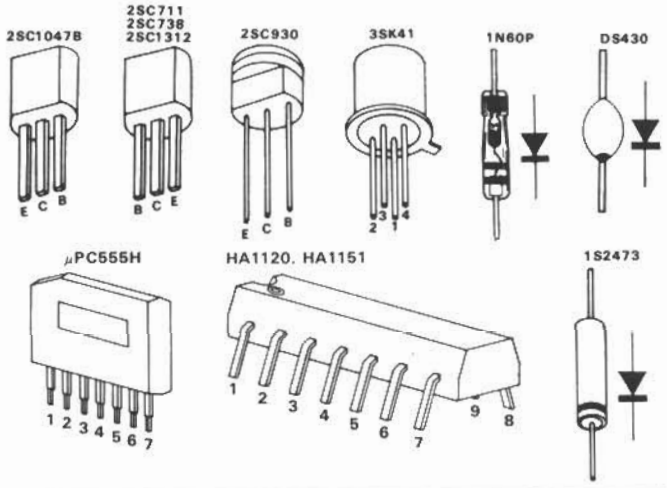


Parts List

Parts No.	Stock No.	Description	Position
R02	0113394	390kΩ	1 A
R03	0113103	10kΩ ¼W S.R.	1 A
R04	0113104	100kΩ	1 A
R05	0113101	100Ω (3SK41 (L)) ¼W S.R.	1 A
	0113151	150Ω (3SK41 (K))	1 A
R06	0113105	1MΩ	1 A
R07	0113220	22Ω	1 A
R08	0113562	5.6kΩ ¼W 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 ¼W C.R. (E.L.R.)	1 B
R13	0116220	22Ω	1 A
R14	0113222	2.2kΩ	1 A, B
R15	0113102	1kΩ ¼W 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 ¼W S.R.	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

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 ¼W S.R.	1 C
R43	0113183	18kΩ	1 C
R44	0113102	1kΩ	1 C
R45	0113101	100Ω	1, 2 C
R46	0113182	1.8kΩ	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	0113122	1.2kΩ	2 B
R56	0113152	1.5kΩ	2 B
R57	0113103	10kΩ	2 B, C





Parts No.	Stock No.	Description	Position
R58	0113103	10kΩ	2C
R59	0113182	1.8kΩ ¼W S.R.	2B
R60	0113473	47kΩ	2C
R61	0113153	15kΩ	1, 2C
R62	0113392	3.9kΩ	2B
R63	0113224	220kΩ	2B
R64	0113151	150Ω ¼W S.R.	2B
R65	0113101	100Ω	2B, C
R66	0113334	330kΩ	2C
R67	0171471	470Ω 1W M.R.	1D
R68	0113151	150Ω	1D
R69	0113101	100Ω	1D
R70	0113332	3.3kΩ	1D
R71	0113332	3.3kΩ	2D
R72	0113472	4.7kΩ	1D
R73	0113151	150Ω	1D
R74	0113104	100kΩ	2C
R75	0113223	22kΩ	1D
R76	0113223	22kΩ ¼W S.R.	2D
R77	0113101	100Ω	
R78	0113101	100Ω	
R79	0113684	680kΩ	2D
R80	0113332	3.3kΩ	2D
R81	0113181	180Ω	2D
R82	0113684	680kΩ	2D
R83	0113332	3.3kΩ	2D
R84	0113181	180Ω	2D

Parts No.	Stock No.	Description	Position
R85	0113472	4.7kΩ	1, 2C
R86	0113563	56kΩ	2C
R87	0113563	56kΩ	1C
R99	0113101	100Ω	1A
R100	0113470	47Ω	1A
R101	0113220	22Ω ¼W S.R.	1B, C
R102	0113123	12kΩ	1C, D
R103	0113332	3.3kΩ	2D
R104	0113332	3.3kΩ	2D
R701	0113122	1.2kΩ	
S01	1110270	Slide Switch	2D

6-2. F-1508 Pre•Main Amp. & Power Circuit Board (Stock No. 7592080 Complete Circuit Board)

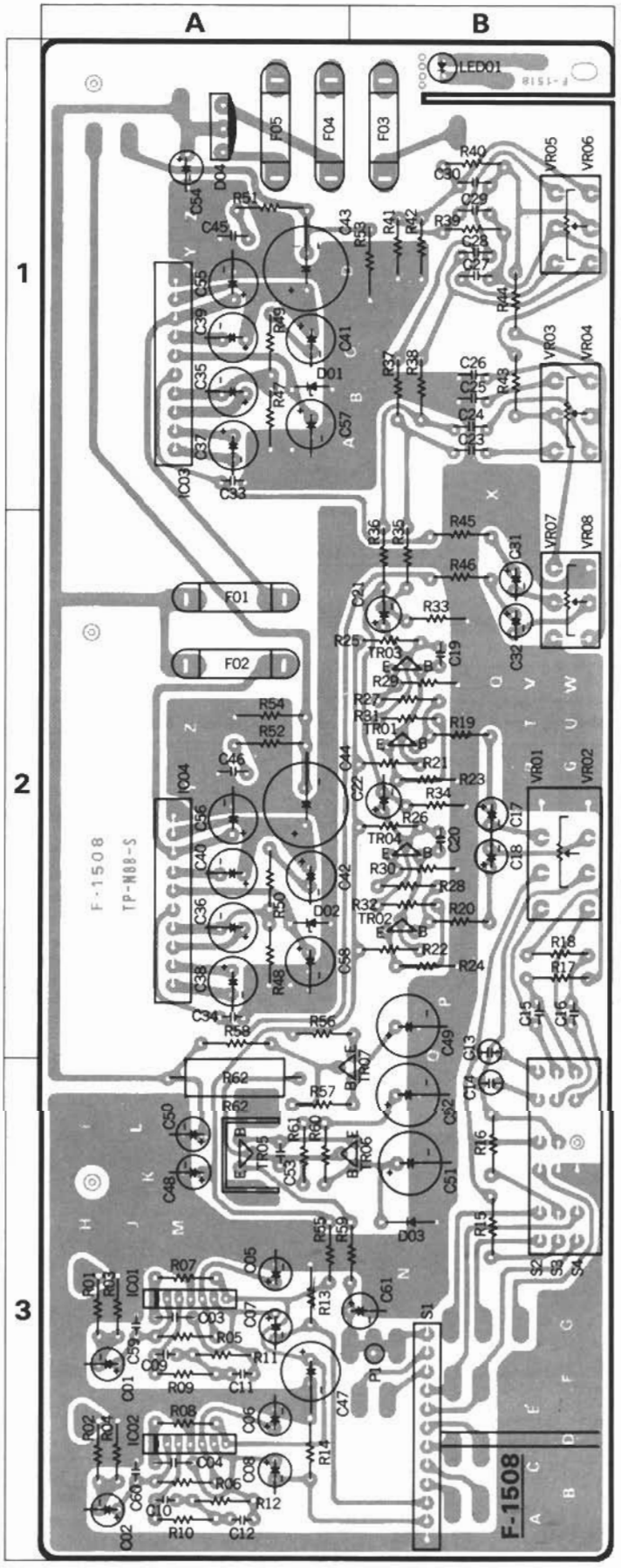
Parts List

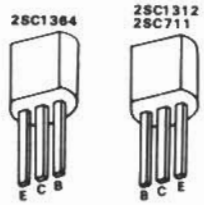
Parts No.	Stock No.	Description	Position
TR01, 02	0306091	2SC1312 (G) }	2 B
TR03, 04	0305731, 1	2SC711 (E, F)	2 B
TR05	0308362, 3	2SD330 (D, E) } Transistor	3 A
TR06	0306131, 2	2SC1364 (6, 7)	3 A, B
TR07	0301131, 2	2SC1364 (6, 7) }	3 A, B
IC01, 02	0360180	BA-311 } IC	3 A
IC03, 04	0360130	STK-016B }	1 A . 2 A
D01, 02	0316290	RD-13E (B) }	1 A . 2 A
D03	0316320	RD-13E-C } Diode	3 B
D04	0310680	10DC-1 }	1 A
VR01, 02	1011020	250kΩ(B)×2 }	2 A . 2 B
VR03, 04	1011030, 1	100kΩ(A)×2 } Variable Resistor	1 B
VR05, 06	1011030, 1	100kΩ(A)×2 }	1 B
VR07, 08	1011040, 1	250kΩ(HB) }	2 B
C01, 02	0519105	2.2μF 50V E.C.	3 A
C03, 04	0660101	100 pF 50V C.C.	3 A
C05, 06	0511330	33μF 10V E.C.	3 A
C07, 08	0519103	0.47μF 50V E.C.	3 A
C09, 10	0600566	0.0056μF } 50V M.C.	3 A
C11, 12	0600227	0.022μF }	3 A
C13, 14	0620391	390 pF 50V P.C.	2, 3 B . 3B
C15, 16	0600227	0.022μF 50V M.C.	2 B
C17, 18	0519101	1μF 50V E.C.	2 B
C19, 20	0660220	22 pF 50V C.C.	2 B
C21, 22	0515109	1μF 50V E.C.	2 B
C23, 24	0600156	0.0015μF }	1 B
C25, 26	0600107	0.01μF } 50V M.C.	1 B
C27, 28	0600127	0.012μF }	1 B
C29, 30	0519108	0.1μF }	1 B
C31, 32	0519101	1μF 50V E.C.	2 B
C33, 34	0660221	220 pF 50V C.C.	1 A . 2 A
C35, 36	0513470	47μF }	1 A . 2 A
C37, 38	0513101	100μF } 25V E.C.	1 A . 2 A
C39, 40	0513470	47μF }	1 A . 2 A
C41, 42	0513330	33μF }	1 A . 2 A
C43, 44	0514102	1000μF 35V E.C.	1 A . 2 A
C45, 46	0601477	0.047μF 50V M.C.	1 A . 2 A
C47	0515221	220μF }	3 A
C48	0515100	10μF } 50V E.C.	3 A
C49	0515101	100μF }	2 B
C50	0515100	10μF }	3 A
C51	0512221	220μF 16V E.C.	3 B
C52	0514221	220μF 35V E.C.	3 B
C53	0657223	0.022μF 50V C.C.	3 A
C54	0659011	0.01μF 250V C.C.	1 A
C55	0512221	220μF 16V E.C.	1 A
C57	0512100	10μF }	1 A
C58	0512100	10μF } 16V E.C.	2 A
C61	0512101	100μF }	3 A, B
C703	0559351	2200μF 50V E.C.	
R01, 02	0107222	2.2kΩ }	3 A
R03, 04	0107104	100kΩ }	3 A
R05, 06	0107104	100kΩ } ¼W C.R.	3 A
R07, 08	0107474	470kΩ }	3 A
R09, 10	0107123	12kΩ }	3 A
R11, 12	0107154	150kΩ }	3 A
R13, 14	0107104	100kΩ }	3 A
R15, 16	0107123	12kΩ }	3 B
R17, 18	0107183	18kΩ }	2 B
R19, 20	0107222	2.2kΩ }	2 B
R21, 22	0107224	220kΩ }	2 B
R23, 24	0107332	3.3kΩ }	2 B
R25, 26	0107822	8.2kΩ }	2 B
R27, 28	0107274	270kΩ }	2 B
R29, 30	0107561	560Ω }	2 B
R31, 32	0107104	100kΩ }	2 B
R33, 34	0107683	68kΩ } ¼W C.R.	2 B
R35, 36	0107822	8.2kΩ }	2 B
R37, 38	0107183	18kΩ }	1 B
R39, 40	0107393	39kΩ }	1 B
R41, 42	0107332	3.3kΩ }	1 B
R43, 44	0107103	10kΩ }	1 B
R45, 46	0107222	2.2kΩ }	2 B
R47, 48	0107470	47Ω }	1 A . 2 A
R49, 50	0107182	1.8kΩ }	1 A . 2 A
R51, 52	0171100	10Ω 1 W M.C.	1 A . 2 A
R53, 54	0103471	470Ω ½W C.R.	1 B . 2 A
R55	0107681	680Ω }	3 A
R56	0107121	120Ω } ¼W C.R.	2 A, B
R57	0107102	1kΩ }	3 A, B
R58	0103562	560Ω ½W C.R.	2 A
R59	0107100	10Ω }	3 A, B
R60	0107102	1kΩ } ¼W C.R.	3 A
R61	0107102	1kΩ }	3 A
R62	0183271	270Ω 3 W Ce.R.	3 A
F01, 02	0433610	2A 125V Quick Acting Fuse	2 A
S1	1101570	F-1-3-4 Rotary Switch	3 B
S2~4	1130870	SUB Type Push Switch	3 B

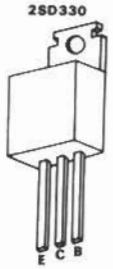
Abbreviations

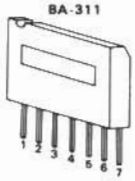
C.R.	:	Carbon Resistor	**BP.E.C.**	:	Bi-Polar Electrolytic Capacitor
S.R.	:	Solid Resistor			
Ce.R.	:	Cement Resistor	**C.C.**	:	Ceramic Capacitor
M.R.	:	Metallized Film Resistor	**Mi.C.**	:	Mica Capacitor
			O.C.	:	Oil Capacitor
M.C.	:	Mylar Capacitor	**P.C.**	:	Polystyrene Capacitor
E.C.	:	Electrolytic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

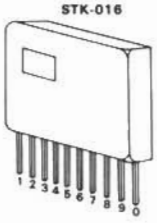
Conductor Side

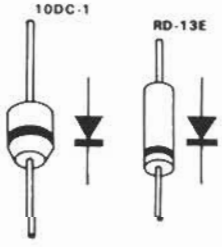




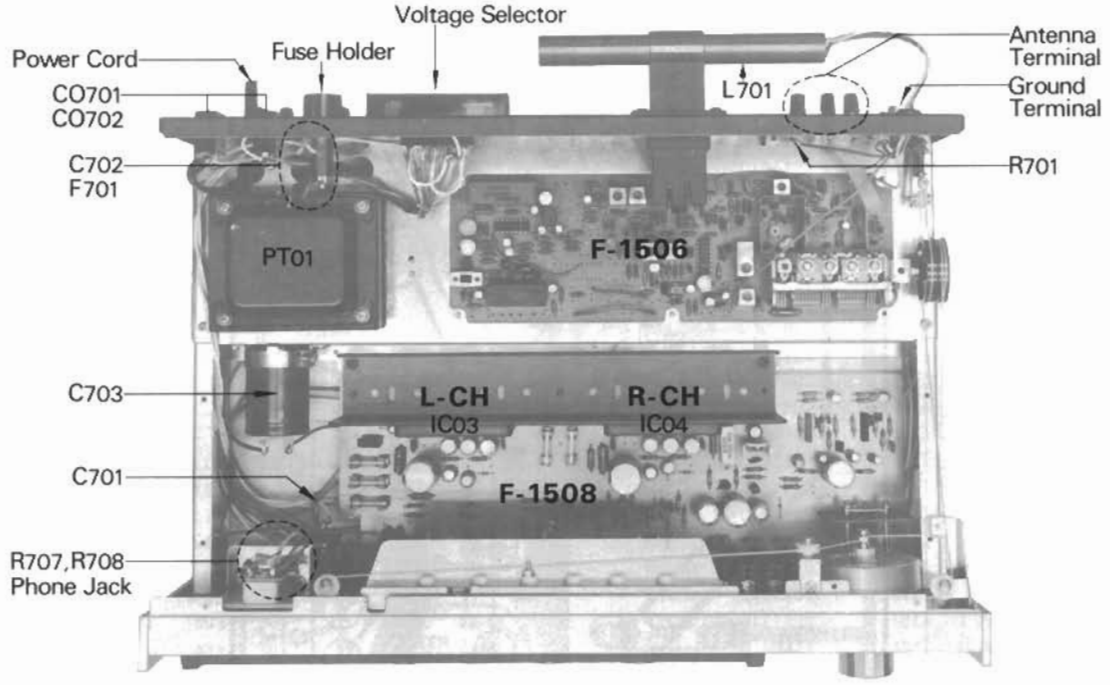








6-3. Other Parts (Top Side)

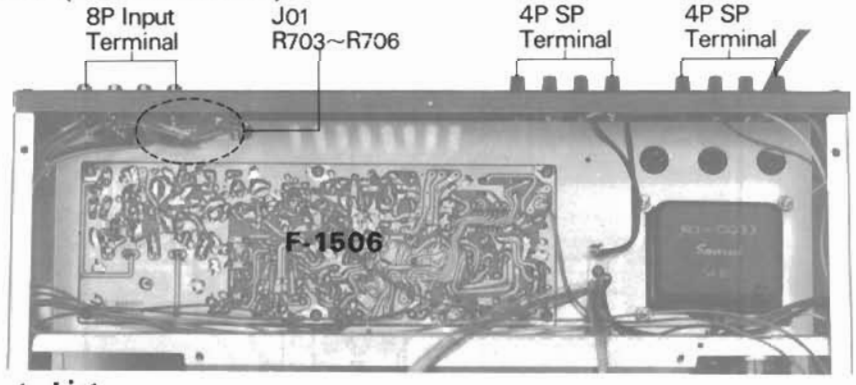


Top Side Parts List

Parts No.	Stock No.	Description
IC03	0360130	STK-016 Power IC
IC04	0360130	STK-016
C701	0659802	0.0047μF 1.4kV C.C.
C702	0659802	0.0047μF
C703	0559351	2200μF 50V E.C.
R701	0113122	1.2kΩ ¼W C.R.
R707	0103271	270Ω ½W C.R.
R708	0103271	270Ω
L701	4200650	Bar Antenna
F701	2300060	Fuse Holder
	0431220	1A (220~240V) Power, Fuse

Parts No.	Stock No.	Description
F701	0431232	1.5A (100~117V) Power, Fuse
CO701	2450050	AC Outlet
CO702	2450050	AC Outlet
PT01	4002100	Power Transformer
PU01	2410080	Voltage Selector, Socket
	2410090	Voltage Selector, Plug
	2210190	Antenna Terminal
	2230051	Ground Terminal
	2430200	Phone Jack
	3800020	Power Cord

6-4. Other Parts (Bottom Side)



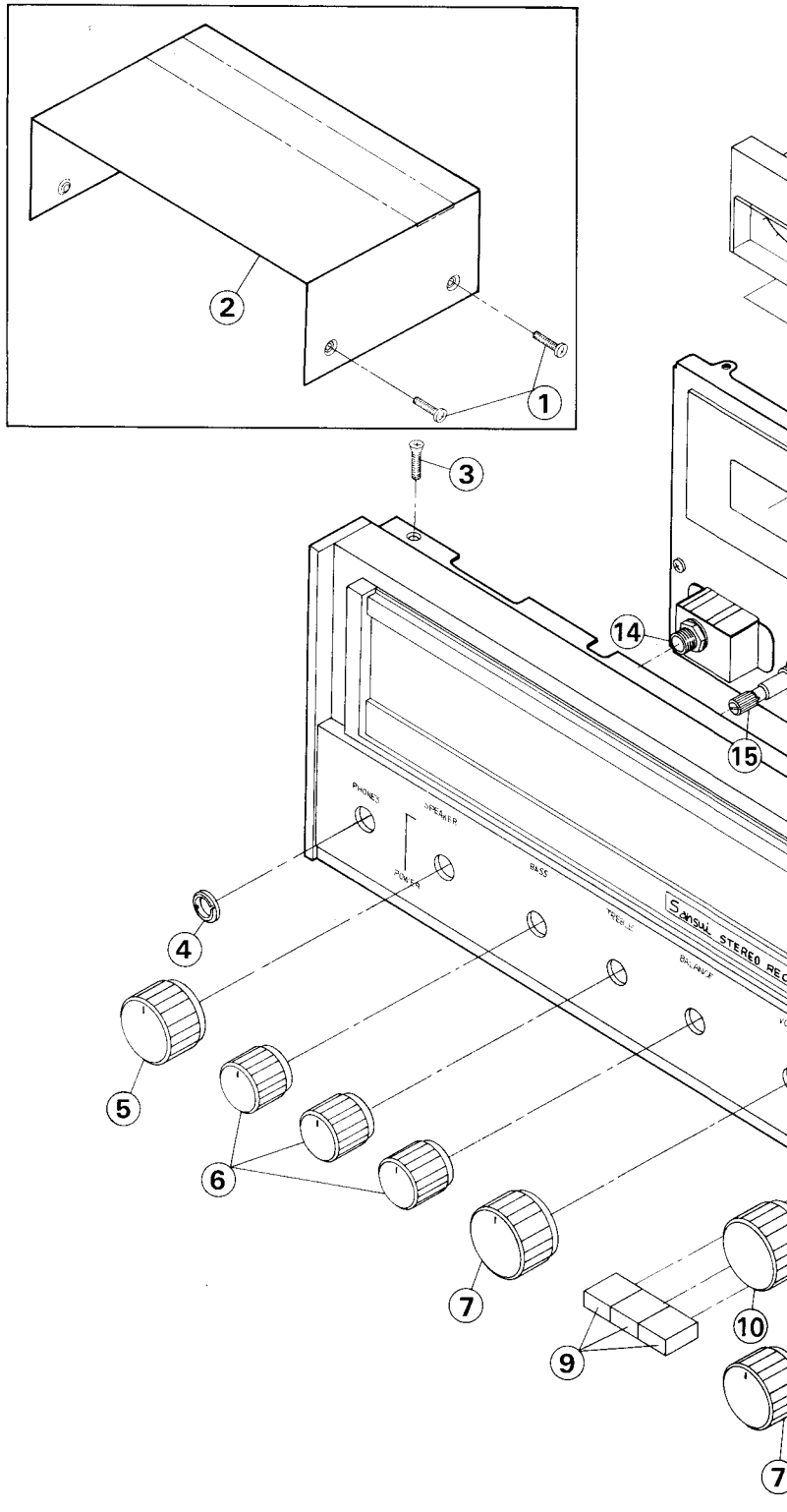
Bottom Side Parts List

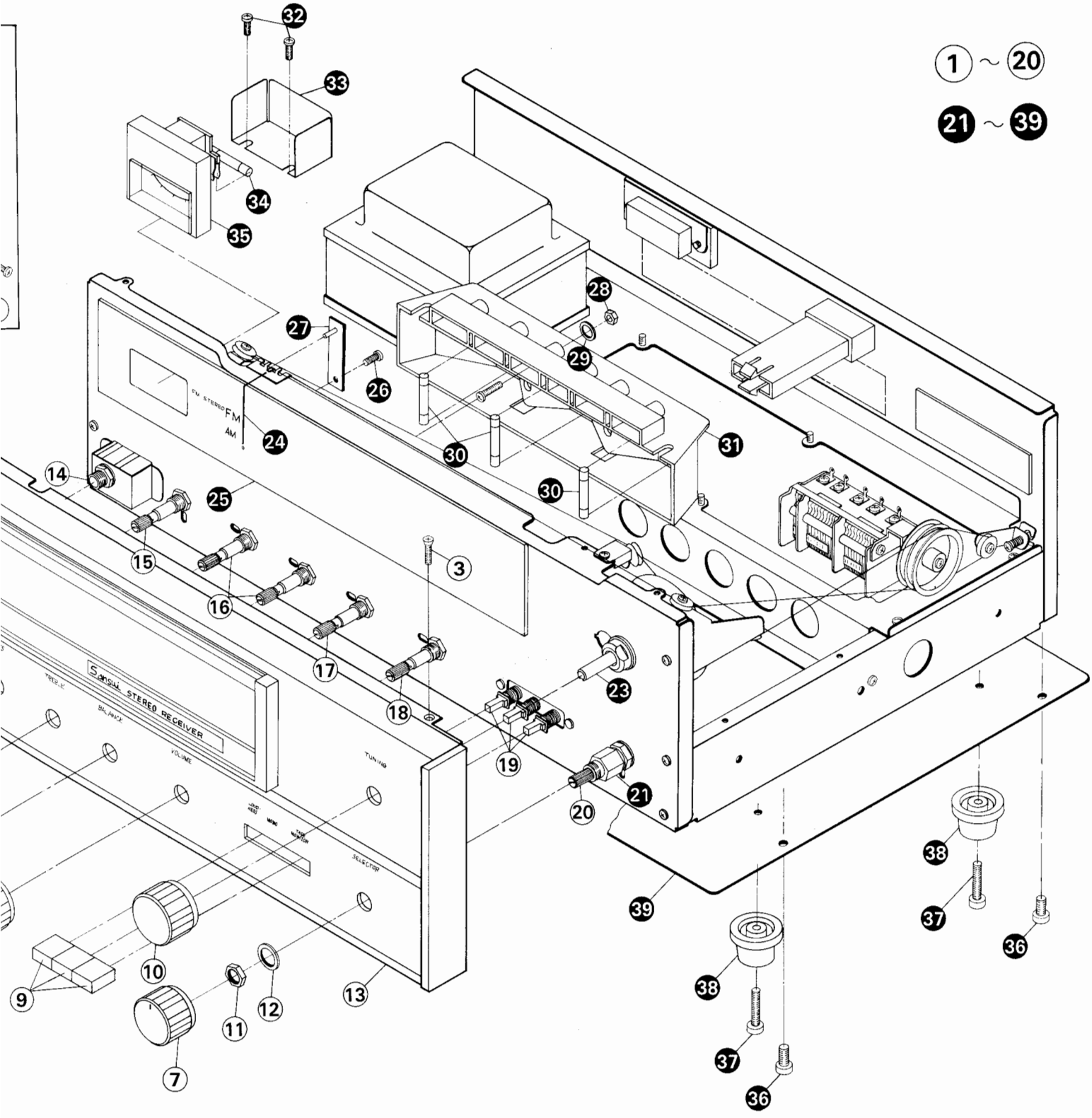
Parts No.	Stock No.	Description
R703	0107394	390kΩ ¼W C.R.
R704	0107394	390kΩ
R705	0107104	100kΩ
R706	0107104	100kΩ

Parts No.	Stock No.	Description
J01	2430040	DIN Connector
	2210200	4P Speaker Terminal
	2200340	8P Input Terminal

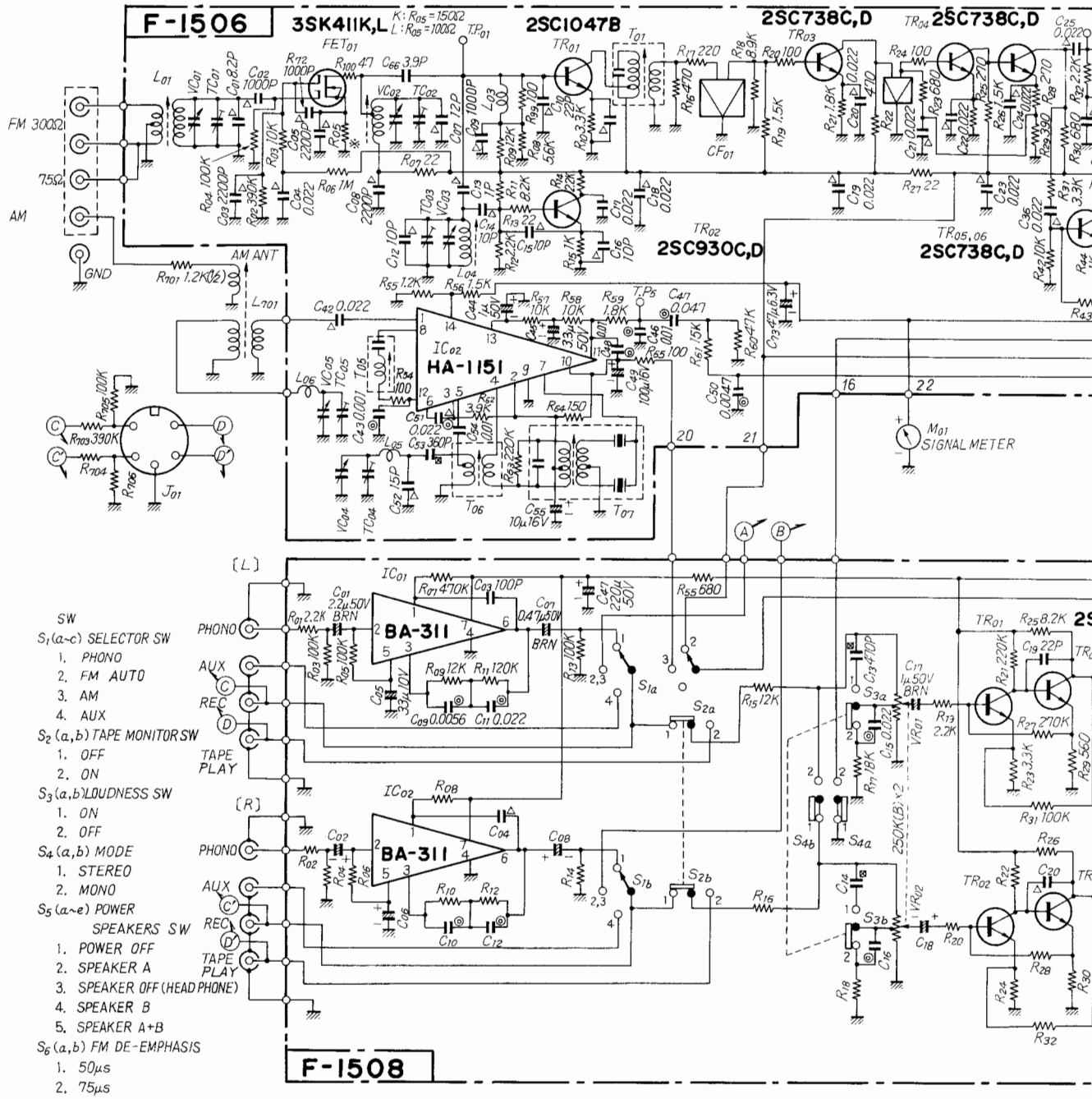
6-5. Other Parts (Front Side)

Parts No.	Stock No.	Description
1	5101161	Binding Head Screw, M4×6
2	5006320	Bonnet
3	5102843	Flat Countersunk Head Screw, M3×6
4	5176052	Nut, headphone jack
5	5317730	M-3 Type Knob, POWER, SPEAKER and SELECTOR
6	5317740	S-3 Type Knob, tone control
7	5317720	L-1 Type Knob, VOLUME
9	5326420	Button, LOUDNESS, MONO and TAPE MONITOR
10	5317820	T-6 Type Knob, TUNING
11	5110781	Hex. Nut, M9
12	5120184	Plain Washer, 9ϕ
13	7006980	Front Panel
	5047760	Smoked Plate
14	2430200	Headphone Jack
15	1101581	Rotary Switch Y-1-2-5, POWER and SPEAKER
16	1011030	100kΩ(A)×2 BASS and TREBLE volume
17	1011040	250kΩ(B)×2 (MN) BALANCE volume
18	1011020	250kΩ(B)×2 VOLUME
19	1130870	Push Switch
20	1101570	Rotary Switch F-1-3-4, SELECTOR
21	5236490	Spacer Nut, M9
23	7036400	Tuning Ass'y
24	5416361	Dial Pointer Ass'y
25	5407690	Dial Scale
26	5109122	Binding Head Screw, M3×8
27	2591920	LED Circuit Board F-1518
	0319010	LED (FM Stereo Indicator)
28	5110241	Hex. Nut, M3
29	5120141	Plain Washer, 3ϕ
30	0420040	Fuse Type Lamp (7V, 300mA)
31	5058150	Indicator Box
32	5109122	Binding Head Tapping Screw, M3×8
33	5269700	Meter Holder
34	0420040	Fuse Type Lamp (7V, 300mA)
35	7726060	Meter Lamp Unit B
	4300610, 1	Signal Meter
36	5109222	Binding Head Tapping Screw, M3×8
37	5101164	Binding Head Screw, M4×12
38	5516911	Foot
39	5058200	Bottom Plate

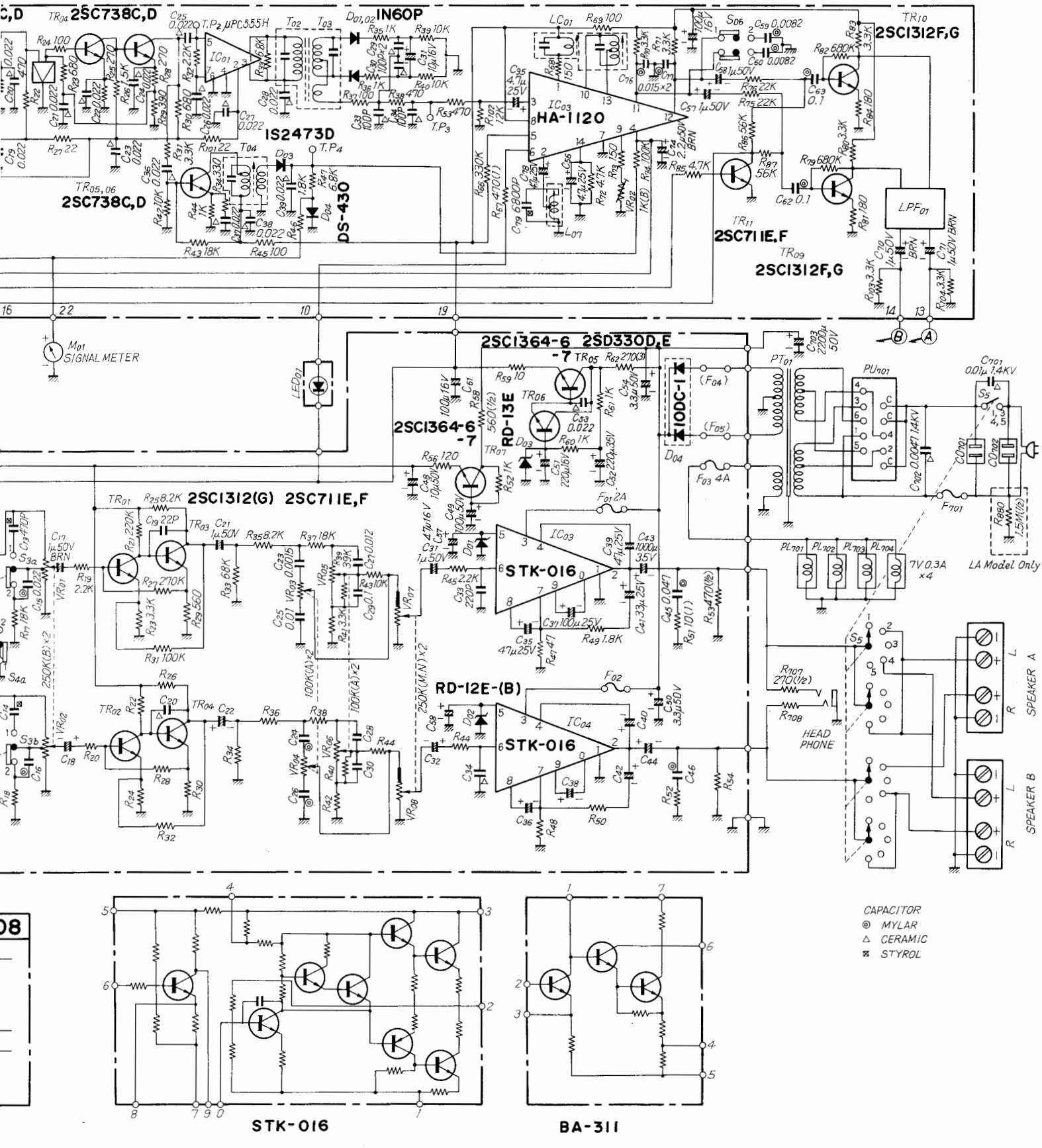



1 ~ 20
21 ~ 39
SANSUI STEREO RECEIVER
VOLUME
TUNING
SELECTOR
FM STEREO
FM
AM

7. SCHEMATIC DIAGRAM

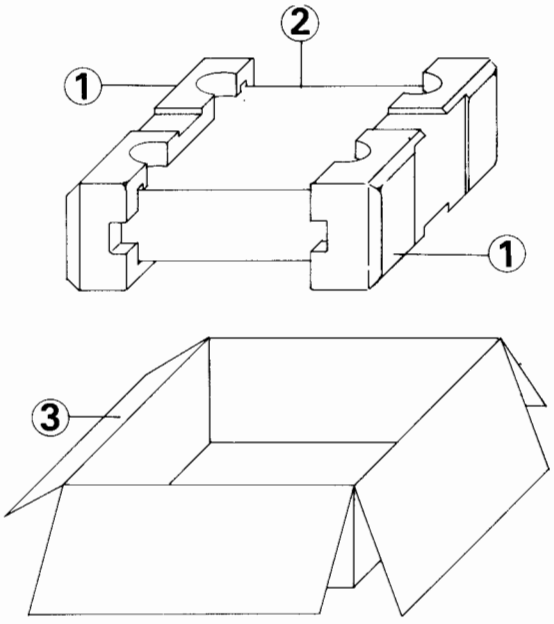


* Design and specifications subject to change without notice for improvements.



8. PACKING LIST

Parts No.	Stock No.	Description
1	9027780	Stylofoam Packing
2	9116152	Vinyl Cover
3	9007990	Carton Case



9. ACCESSORY PARTS LIST

Stock No.	Description
3820091	FM Antenna
0433610	2A Quick Acting Fuse
9208190	Operating Instructions
9228190	Operating Instruction Sheet

Sansui

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SM019

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