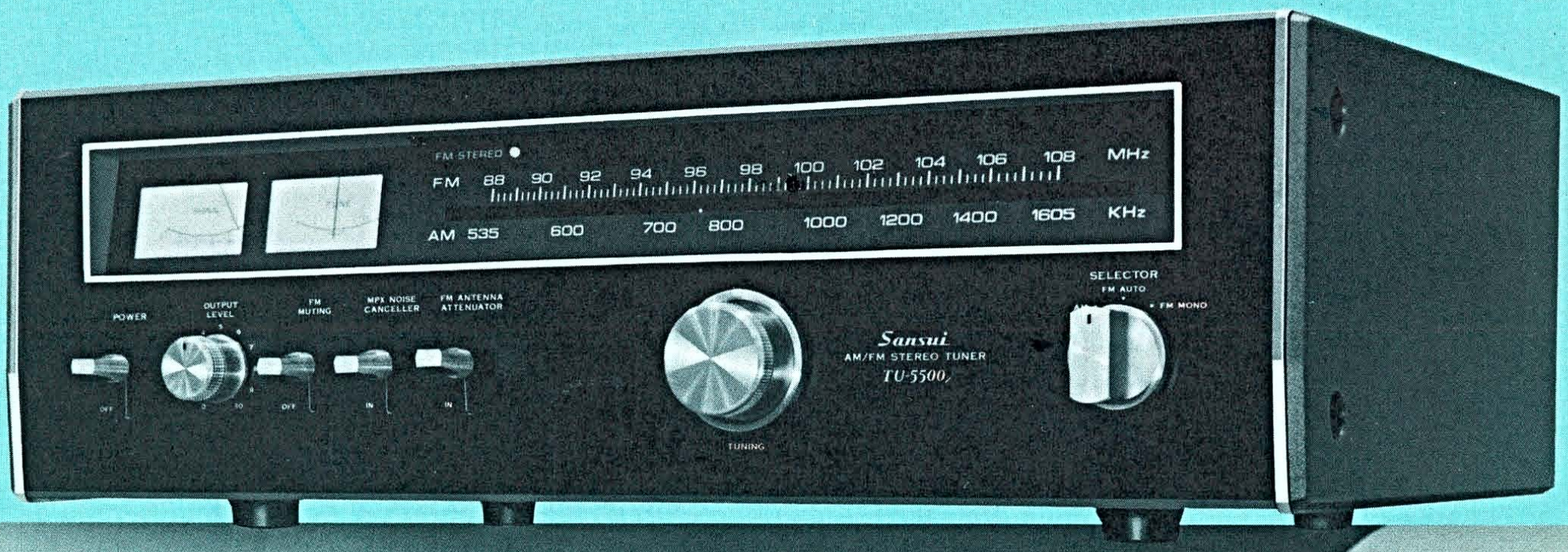
SERVICE MANUAL

AM/FM STEREO TUNER

SANSUI TU-5500



Sansui

SANSUI ELECTRIC CO., LTD.

This service manual is designed for service engineers to repair, adjust, maintain and order the replacement parts of the TU-5500 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

FM SECTION

TUNING RANGE .....88 to 108MHz
SENSITIVITY (IHF) 1.9μV
TOTAL HARMONIC DISTORTION
  MONO .....less than 0.3%
  STEREO .....less than 0.4%
SIGNAL TO NOISE RATIO..better than 70dB
SELECTIVITY .....better than 60dB
CAPTURE RATIO (IHF) ....less than 2.0dB
IMAGE FREQUENCY REJECTION
  .....better than 55dB
IF REJECTION .....better than 80dB
SPURIOUS RESPONSE REJECTION
  .....better than 70dB
STEREO SEPARATION.....better than 40dB at 1KHz
SPURIOUS RADIATION....less than 34dB
FREQUENCY RESPONSE....20 to 15,000Hz
FM ANTENNA INPUT IMPEDANCE
  .....300Ω balanced
  .....75Ω unbalanced
FM ANTENNA ATTENUATOR
  .....−20dB

AM SECTION

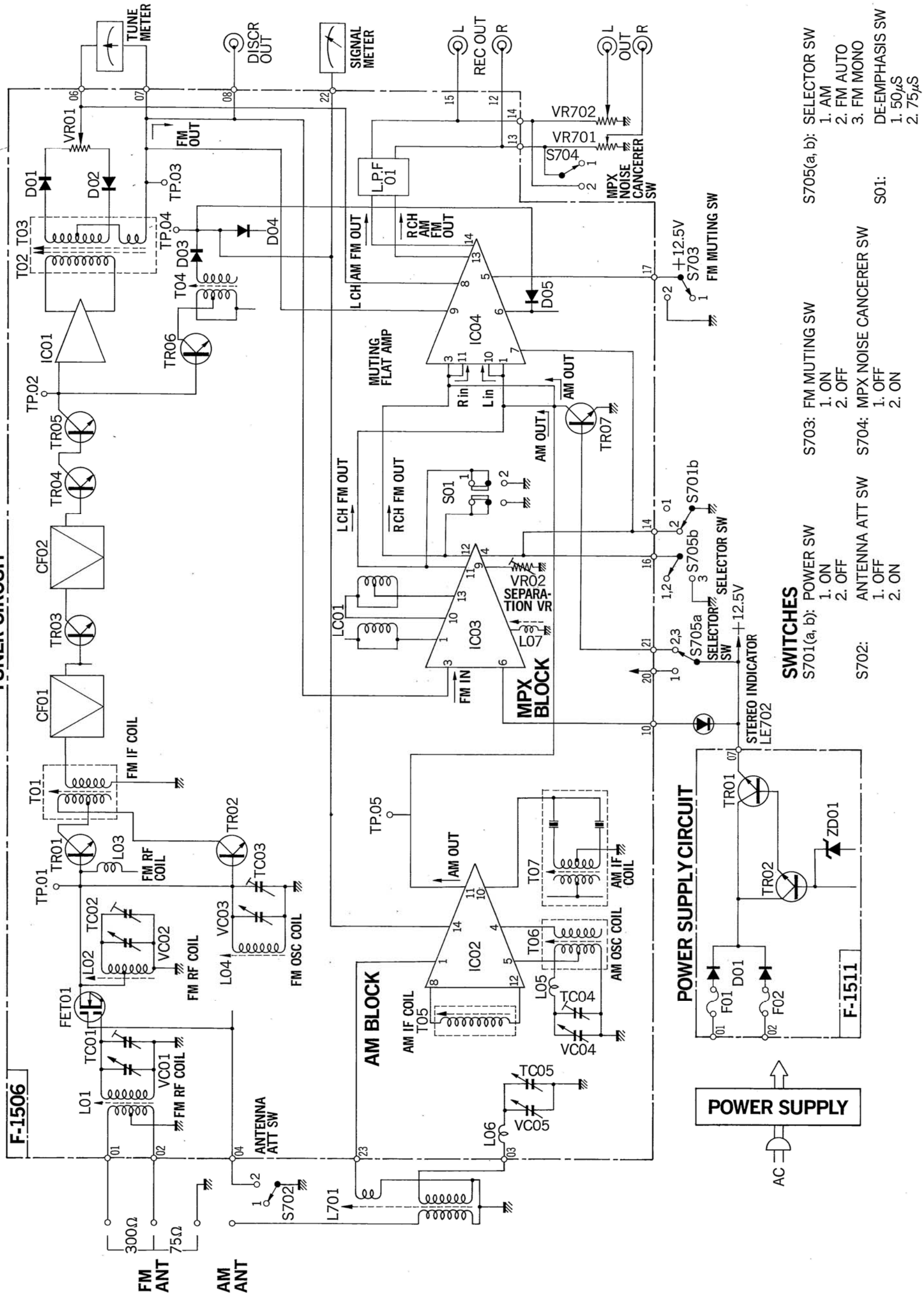
TUNING RANGE .....535 to 1,605KHz
SENSITIVITY (Bar Antenna)..50dB/m
SELECTIVITY .....better than 30dB
IMAGE FREQUENCY REJECTION
  .....better than 80dB/m at 1MHz
IF REJECTION .....better than 80dB/m at 1MHz

OTHERS

OUTPUT.....0 to 0.775V
REC OUTPUT 0.4V
SEMICONDUCTORS
  TRANSISTORS 9
  FET 1
  ICs 4
  DIODES 8
  ZENER DIODE 1
  LEDs 2
POWER REQUIREMENTS
  POWER VOLTAGE 100, 117, 220, 240V 50/60Hz
  POWER CONSUMPTION..9W (rated)
DIMENSIONS .....434mm (17 1/8″) W
  130mm (5 1/8″) H
  243mm (9 9/16″) D
WEIGHT .....6.9Kg (15.2 lbs) net
  8.3Kg (18.3 lbs) packed

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

2. BOLCK DIAGRAM



3. ALIGNMENTS AND ADJUSTMENTS

Abbreviation

Equipment

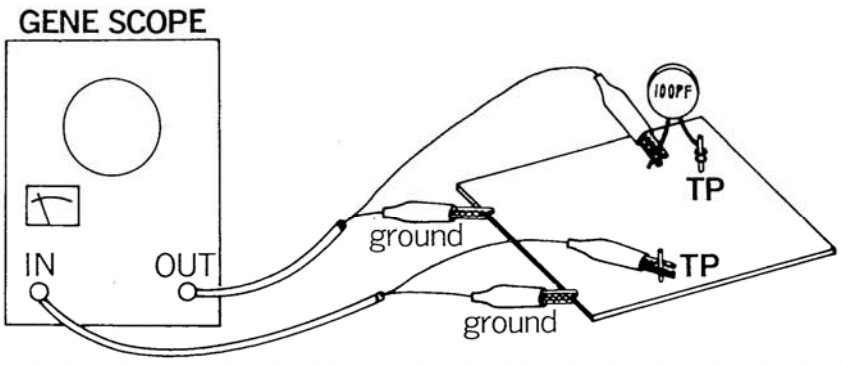
AM FM Generator Oscilloscope .....Genescope
AM Standard Signal Generator .....AM SSG
FM Standard Signal Generator .....FM SSG
FM Stereo Generator .....Stereo SG
Oscilloscope .....Scope
Audio Oscillator .....Audio Osc.
Distortion Meter .....Dist. Meter

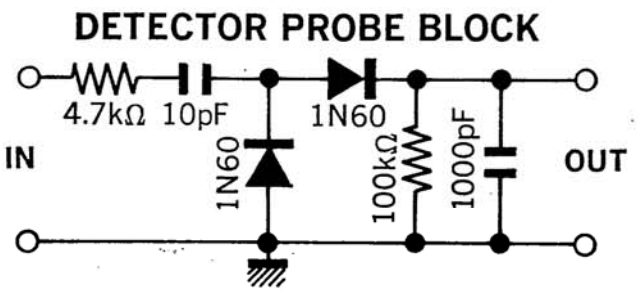
Others

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

3-1. FM IF Alignment (See Figs. 3-4, 3-5 on page 6)

Note: 1. Selector.....FM AUTO
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.
6. FM MUTING switch .....OFF.

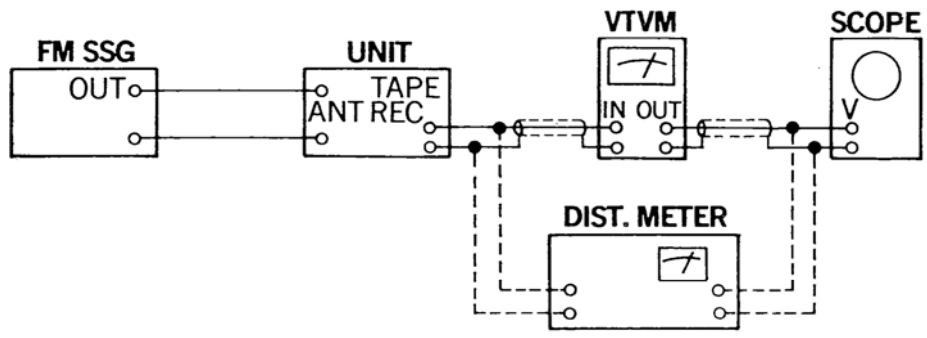


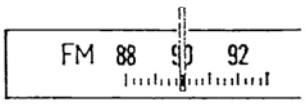
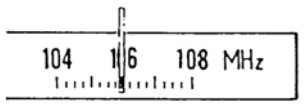


STEP	SUBJECT	FEED SICNAL FROM	FEED SICNAL TO	MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
1	IF coil	Output 65dB Genescope	TP. 1 (Fig. 3-5)	TP. 2 (Fig. 3-5) Use Detector Probe	T01 (Fig. 3-5)	Max. IF wave-form 1 as (Fig. 3-4)	
2	Meter coil	Output 70dB Genescope	Same as above	TP. 4 (Fig. 3-5)	T04 (Fig. 3-5)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

3-2. FM Dial Calibration, Mono Distortion, TUNE meter and RF Alignment (See Fig. 3-5 on page 6)

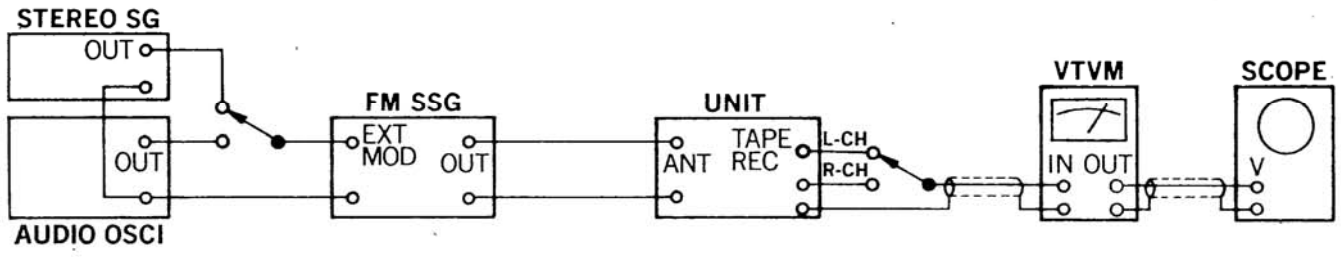
Note: 1. Selector.... .....FM AUTO
2. Confirm start point of dial pointer before alignment.
3. FM MUTING switch .....OFF



STEP	SUBJECT	FEED SIGNAL FROM	FEED SIGNAL TO	MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
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. 3-5)	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	Trimmer TC03 (Fig. 3-5)	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
4	90MHz RF Adj.	90MHz ANT input 50dB 400Hz (100% MOD) FM SSG	Same as above	Same as above	L01, L02 (Fig. 3-5)	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. 3-5)	Same as above	◦Tune FM SSG (Max. indication of Signal Meter)
6	Distortion	98MHz ANT input 60bB 400Hz (100% MOD) FM SSG	Same as above	REC OUT L or R-ch Dist. meter & Scope	T03 (Fig. 3-5)	Min. distortion	Same as above
7	TUNE meter Volume	Same as above	Same as above	TUNE meter	VR01 (Fig. 3-5)	Center on meter	Same as above

3-3. MPX Alignment (See Fig. 3-5 on page 6)

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



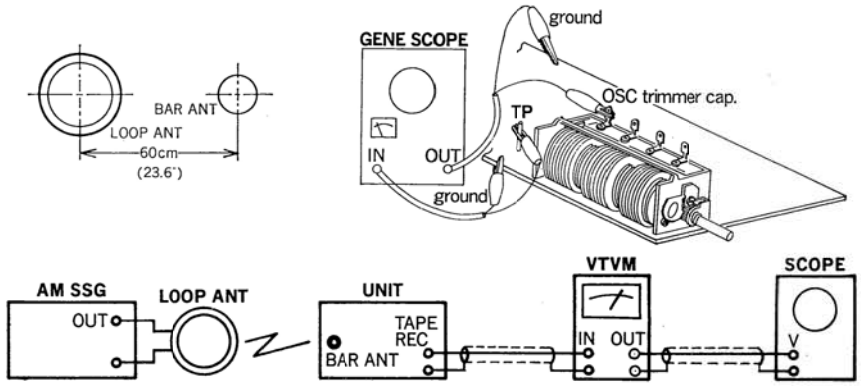
STEP	SUBJECT	FEED SIGNAL FROM	FEED SIGNAL TO	MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
1	19kHz coil	98MHz ANT input 60dB FM SSG Pilot 19kHz (10% MOD) L-ch 1kHz (45% MOD) R-ch (0% MOD) Stereo SG	ANT terminal 300Ω	REC OUT L-ch VTVM & Scope	L07 (Fig. 3-5)	Max. output	◦Tune FM SSG (Max. indication of signal meter)

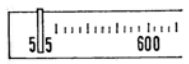
STEP	SUBJECT	FEED SIGNAL FROM	FEED SIGNAL TO	MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
2	Separation	Same as above	Same as above	REC OUT R-ch VTVM & Scope	VR02 (Fig. 3-5)	Min. output	
3	Confirm Separation	98MHz ANT input 60dB FM SSG Pilot 19kHz (10% MOD) L-ch (0% MOD) R-ch 1kHz (45% MOD) Stereo SG	Same as above	REC OUT L-ch VTVM & Scope		Min. output	◦If less the 40dB adjust VR02

3-4. AM IF, Dial Calibration and RF Alignment (See Figs. 3-2, 3-3, 3-5 on page 6)

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

Fig. 3-1



STEP	SUBJECT	FEED SIGNAL FROM	FEED SIGNAL TO	MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
1	IF coil	Output 70dB Genescope	OSC trimmer cap. TC04 (Fig. 3-5)	TP. 5 (Fig. 3-5)	T07 (Fig. 3-5)	Max. IF wave-form (Fig. 3-2)	
2	IF coil	Output 60dB Genescope	Same as above	Same as above	T05 (Fig. 3-5)	Max. IF wave-form (Fig. 3-3)	
3	IF coil	Output 70dB Genescope	Same as above	Same as above		Max. IF wave-form (Fig. 3-3)	◦If not, readjust T07 & T05 slightly
4	535kHz Dial Calibra-tion	535kHz ANT input 86dB 400Hz (30% MOD) AM SSG Use loop ANT	Ba ANT	REC OUT L or R-ch VTVM & Scope	T06 (Fig. 3-5)	Max. output	◦If broadcasting station is near, it might be used 
5	1400kHz Dial Calibra-tion	1400kHz ANT input 86dB 400Hz (30% MOD) AM SSG Use loop ANT	Same as above	Same as above	Trimmer TC04 (Fig. 3-5)	Same as above	Same as above 
6	Confirm 1000kHz Dial Calibro-tion	1000kHz ANT input 86dB 400Hz (30% MOD) AM SSG Use loop ANT	Same as above	Same as above		Confirm 1000kHz Dial Calibration	◦If not, repeat from Step 4, 5

STEP	SUBJECT	FEED SIGNAL FROM	FEED SIGNAL TO	MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
7	600kHz RF Adj.	600kHz ANT input 76dB 400Hz (30% MOD) AM SSG Use loop ANT	Same as above	Same as above	Bar ANT L701	Max. output	
8	1400kHz RF Adj.	1400kHz ANT input 76dB 400Hz (30% MOD) AM SSG Use loop ANT	Same as above	Same as above	Trimmer TC05 (Fig. 3-5)	Same as above	
9	Confirm 100kHz RF Adj.	1000kHz ANT input 76dB 400Hz (30% MOD) AM SSG Use loop ANT	Same as above	Same as above		Confirm 1000kHz RF Adj.	◦If not nepeat from step 7, 8

Fig. 3-2

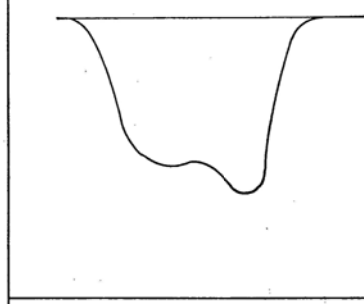


Fig. 3-3

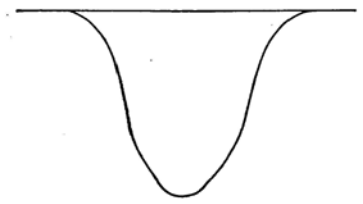


Fig. 3-4

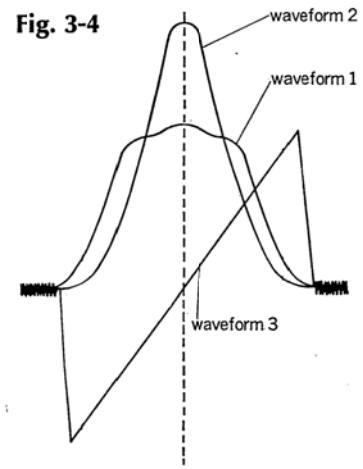
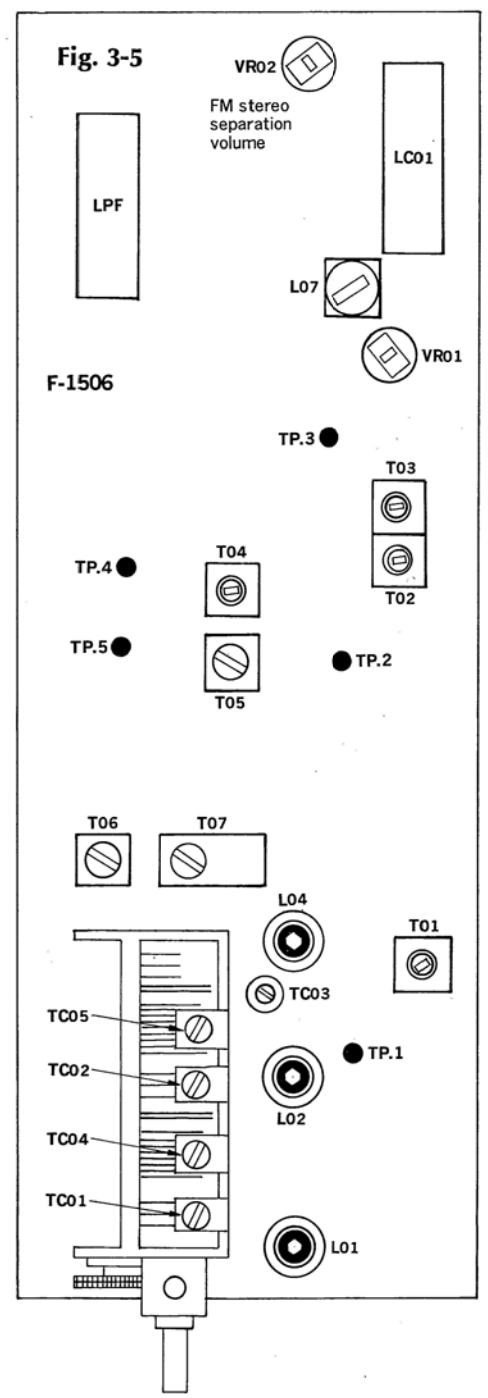


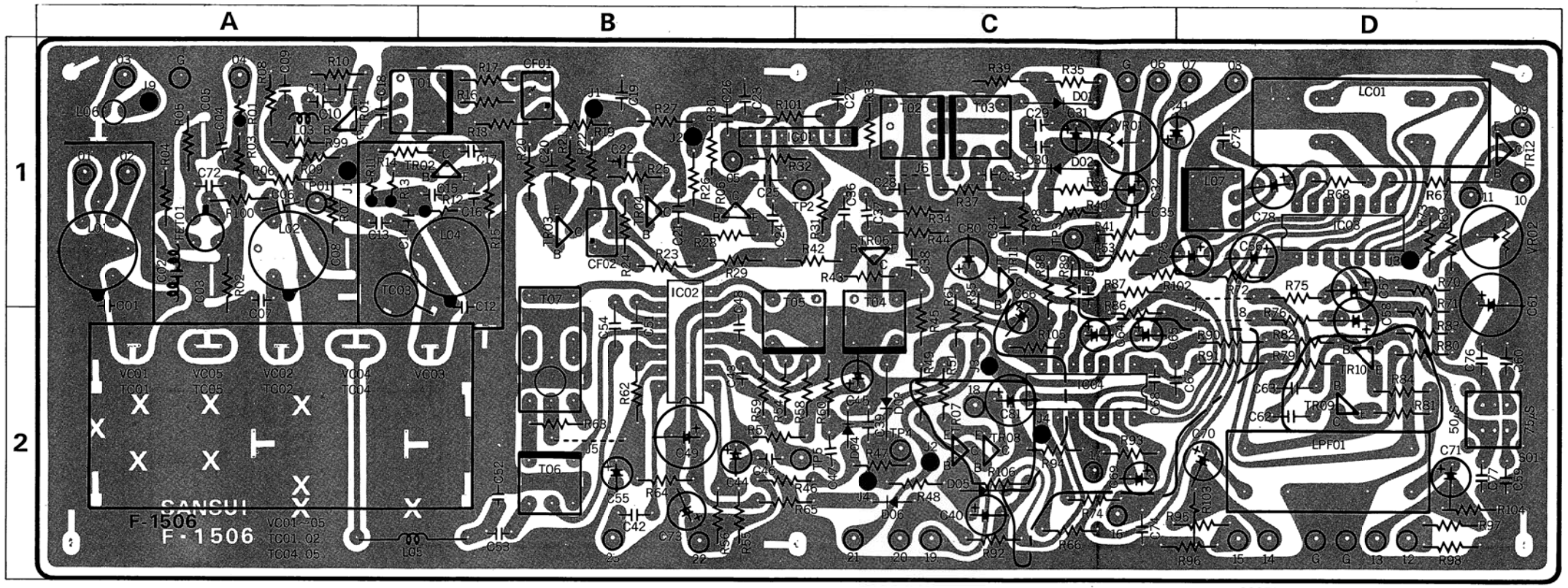
Fig. 3-5



4. PARTS LOCATIONS AND PARTS LISTS

4-1. F-1506B Tuner Circuit Board (Stock No. 7520850 Complete Circuit Board F-1506B)

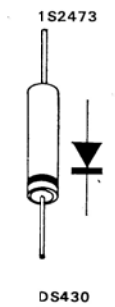
Conductor Side

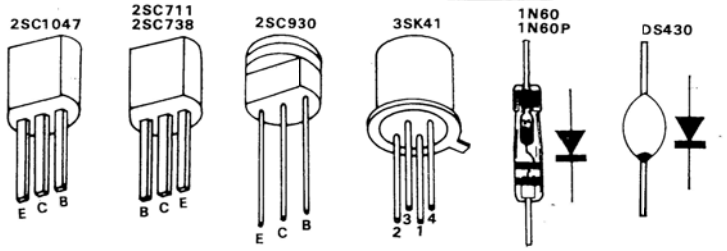


Parts List

Parts No.	Stock No.	Description		Position
TR01	0305801	2SC1047 (B)	Transistor	1 A
TR02	0305790, 1	2SC930 (C, D)	Transistor	1 B
TR03	0306112, 3	2SC738 (C, D)	Transistor	1 B
TR04	0306112, 3	2SC738 (C, D)	Transistor	1 B
TR05	0306112, 3	2SC738 (C, D)	Transistor	1 B
TR06	0306112, 3	2SC738 (C, D)	Transistor	1 B
TR07	0305731, 2	2SC711 (E, F)	Transistor	2 C
IC01	0360120	μPC555H	IC	1 B, C
IC02	0360150	HA1151	IC	1, 2 B
IC03	0360080	HA1120	IC	1 D
IC04	0360140	HA1149	IC	2 C
FET01	0370120, 1	3SK41 (L, K) FET		1 A
D01	0311060	1N60P	Diode	1 C
D02	0311060	1N60P	Diode	1 C
D03	0311160	1S2473	Diode	2 C
D04	0340090	DS-430	Diode	2 C
D05	0340090	DS-430	Diode	2 C
D06	0311160	1S2473 (D)	Diode	2 C
T01	4235930	FM IF Coil		1 A, B
T02	4235750	Discrimminator Coil		1 C
T03	4235760	Discrimminator Coil		1 C
T04	4235940	FM Meter Coil		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	Choke Coil		1 A
L04	4220530	FM OSC Coil		1 A, B

Parts No.	Stock No.	Description		Position
L05	4290011	3.5μH Peaking Coil		2 A, B
L06	4900100	3.3μH Micro Inductor		1 A
L07	4240720	19kHz Coil		1 D
LC01	4240710	MPX Coil Brock		2 D
CF01	0910150	Ceramic Filter		1 B
CF02	0910150	Ceramic Filter		1 B
LPF01	0910220	Low Pass Filter		1 D
VC01~05	1220170	AM FM Variable Capacitor		2 A
TC01, 02	1220170	AM FM Variable Capacitor		2 A
TC04, 05	1220170	AM FM Variable Capacitor		2 A
VR01	1035150	22kΩ(B) TUNE Meter Volume		1 C
VR02	1035070	1kΩ (B) MPX Separation Volume		1 D
C01	0669369	8.2pF	50V C.C.	1 A
C02	0654102	1000pF	50V C.C.	1 A
C03	0659015	2200pF	50V C.C.	1 A
C04	0657223	22000pF	50V C.C.	1 A
C05	0659015	2200pF	50V C.C.	1 A
C06	0669002	3.9pF	50V C.C.	1 A
C07	0669370	10pF	50V C.C.	1 A
C08	0659015	2200pF	50V C.C.	1 A
C09	0654102	1000pF	50V C.C.	1 A
C10	0661220	22pF	50V C.C.	1 A
C11	0657223	22000pF	50V C.C.	1 A
C12	0669370	10pF	50V C.C.	1 A, B
C13	0669200	1pF	50V C.C.	1 A
C14	0669395	10pF	50V C.C.	1 A
C15	0669395	10pF	50V C.C.	1 B
C16	0669370	10pF	50V C.C.	1 B





Parts No.	Stock No.	Description		Position
C17	0657223	22000pF	50V C.C.	1 B
C18	0657223	22000pF	50V C.C.	1 A
C19	0657223	22000pF	50V C.C.	1 B
C20	0657223	22000pF	50V C.C.	1 B
C21	0657223	22000pF	50V C.C.	1 B
C22	0657223	22000pF	50V C.C.	1 B
C23	0657223	22000pF	50V C.C.	1 B
C24	0657223	22000pF	50V C.C.	1 B
C25	0657223	22000pF	50V C.C.	1 B
C26	0657223	22000pF	50V C.C.	1 B
C27	0657223	22000pF	50V C.C.	1 C
C28	0657223	22000pF	50V C.C.	1 C
C29	0660101	100pF	50V C.C.	1 C
C30	0660101	100pF	50V C.C.	1 C
C31	0512100	10μF	16V E.C.	1 C

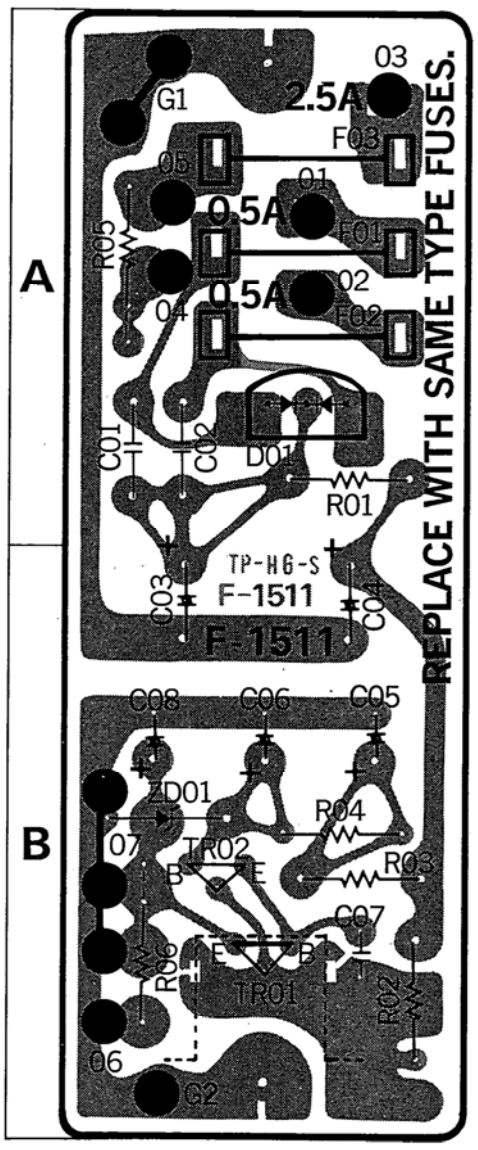
Parts No.	Stock No.	Description		Position
C32	0515109	1μF	50V E.C.	1 C
C33	0660101	100pF	50V C.C.	1 C
C34	0660101	100pF	50V C.C.	1 C
C35	0657223	22000pF	50V C.C.	1 C
C36	0657223	22000pF	50V C.C.	1 C
C37	0657223	22000pF	50V C.C.	1 C
C38	0657223	22000pF	50V C.C.	1 C
C39	0657223	22000pF	50V C.C.	2 C
C40	0519103	0.47μF	50V E.C.	2 C
C41	0512100	10μF	16V E.C.	1 C, D
C42	0657223	22000pF	50V C.C.	2 B
C43	0601106	0.001μF	50V M.C.	2 B
C44	0515109	1μF	50V E.C.	2 B
C45	0511100	10μF	10V E.C.	2 C
C46	0601107	0.01μF	50V M.C.	2 B
C47	0601477	0.047μF	50V M.C.	2 C
C48	0601107	0.01μF	50V M.C.	2 B
C49	0512101	100μF	16V E.C.	2 B
C50	0601106	0.001μF	50V M.C.	1 C
C51	0657223	22000pF	50V C.C.	2 B
C52	0669215 or 0661150	15pF or 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	50V E.C.	1, 2 D
C59	0600826	0.0082μF	50V M.C.	
C60	0600826	0.0082μF	50V M.C.	
C61	0512101	100μF	16V E.C.	1, 2 D
C64	0515109	1μF	50V C.C.	2 C
C65	0515109	1μF	50V C.C.	2 C, D
C66	0519339	3.3μF	50V C.C.	1, 2 C
C67	0601686	0.0068μF	50V M.C.	2 C, D
C68	0601686	0.0068μF	50V M.C.	2 C
C69	0512100	10μF	16V E.C.	2 C
C70	0519105	2.2μF	50V E.C.	2 D
C71	0519105	2.2μF	50V E.C.	2 D
C72	0512221	220μF	16V C.C.	1 A
C73	0510470	47μF	6.3V E.C.	2 B
C74	0600477	0.047μF	50V E.C. (BRN)	2 C
C75	0513479	4.7μF	25V E.C.	1 D
C76	0600157	0.015μF	50V M.C.	2 D
C77	0600157	0.015μF	50V M.C.	2 D
C78	0513479	4.7μF	25V E.C.	1 D
C79	0629001	6800pF	50V P.C.	1 D
TC03	1230090	Trimmer Capacitor		1, 2 A
R01	0106103	10kΩ	¼W C.R. (E.L.R)	1 A
R02	0113394	390kΩ	¼W C.R. (E.L.R)	1 A
R03	0113103	10kΩ	¼W C.R. (E.L.R)	1 A
R04	0113104	100kΩ	¼W C.R. (E.L.R)	1 A
R05	0113101 (3SK41 (L)) or 0113151 (3SK41 (K))	100Ω or 150Ω	¼W S.R.	1 A
R06	0113105	1MΩ	¼W C.R. (E.L.R)	1 A
R07	0113220	22Ω	¼W C.R. (E.L.R)	1 A
R08	0113562	5.6kΩ	¼W C.R. (E.L.R)	1 A
R09	0113123	12kΩ	¼W C.R. (E.L.R)	1 A
R10	0113332	3.3kΩ	¼W C.R. (E.L.R)	1 A
R11	0106822	8.2kΩ	¼W C.R. (E.L.R)	1 A
R12	0106222	2.2kΩ	¼W C.R. (E.L.R)	1 B
R13	0106220	22Ω	¼W C.R. (E.L.R)	1 A
R14	0113222	2.2kΩ	¼W S.R.	1 A, B
R15	0113102	1kΩ	¼W S.R.	1 B
R16	0113471	470Ω	¼W S.R.	1 B
R17	0113221	220Ω	¼W S.R.	1 B
R18	0113392	3.9kΩ	¼W S.R.	1 B

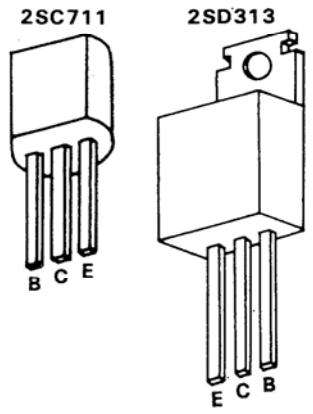
Parts No.	Stock No.	Description	Position
R19	0113152	1.5kΩ	1 B
R20	0113101	100Ω	1 B
R21	0113182	1.8kΩ	1 B
R22	0113471	470Ω	1 B
R23	0113681	680Ω	1 B
R24	0113101	100Ω	1 B
R25	0113271	270Ω	1 B
R26	0113152	1.5kΩ	1 B
R27	0113220	22Ω	1 B
R28	0113271	270Ω	1 B
R29	0113391	390Ω	1 B
R30	0113681	680Ω	1 B
R31	0113472	4.7kΩ	1 B C
R32	0113222	2.2kΩ	1 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
R41	0113473	47kΩ	1 C
R42	0113103	10kΩ	1 C
R43	0113183	18kΩ	1 C
R44	0113102	1kΩ	1 C
R45	0113101	100Ω	1, 2 C
R46	0113122	1.2kΩ	2 B , C
R47	0113682	6.8kΩ	2 C
R48	0113104	100kΩ	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
R58	0113103	10kΩ	2 C
R59	0113182	1.8kΩ	2 B
R61	0113183	18kΩ	1, 2 C
R62	0113392	3.9kΩ	2 B
R63	0113224	220kΩ	2 B
R64	0113151	150Ω	2 B
R65	0113560	56Ω	2 B , C
R66	0113334	330kΩ	2 C
R67	0107102	1kΩ ¼W C.R.	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
R85	0113472	4.7kΩ	1, 2 C
R86	0113563	56kΩ	2 C
R87	0113563	56kΩ	1 C
R88	0113223	22kΩ	1 C
R89	0113223	22kΩ	1 C
R90	0113152	1.5kΩ	2 D
R91	0113152	1.5kΩ	2 D
R92	0113224	220kΩ	2 C
R93	0113222	2.2kΩ	2 C
R94	0113222	2.2kΩ	2 C
R95	0113562	5.6kΩ	2 C, D
R96	0113472	4.7kΩ	2 C, D
R97	0113562	5.6kΩ	2 D
R98	0113472	4.7kΩ	2 D
R99	0113221	220Ω	1 A
R100	0113470	47Ω	1 A
R101	0113220	22Ω	1 B , C
S01	1110270	De-Emphasis Switch	2 D
	2260010	Test Pin	

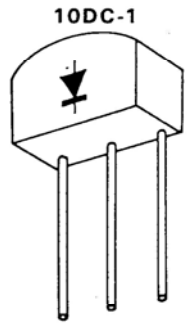
(¼W S.R.)

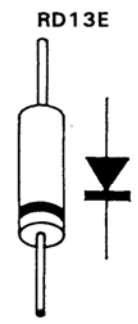
4-2. F-1511 Power Supply Circuit Board

(Stock No. 7500890 Complete Circuit Board F-1511)









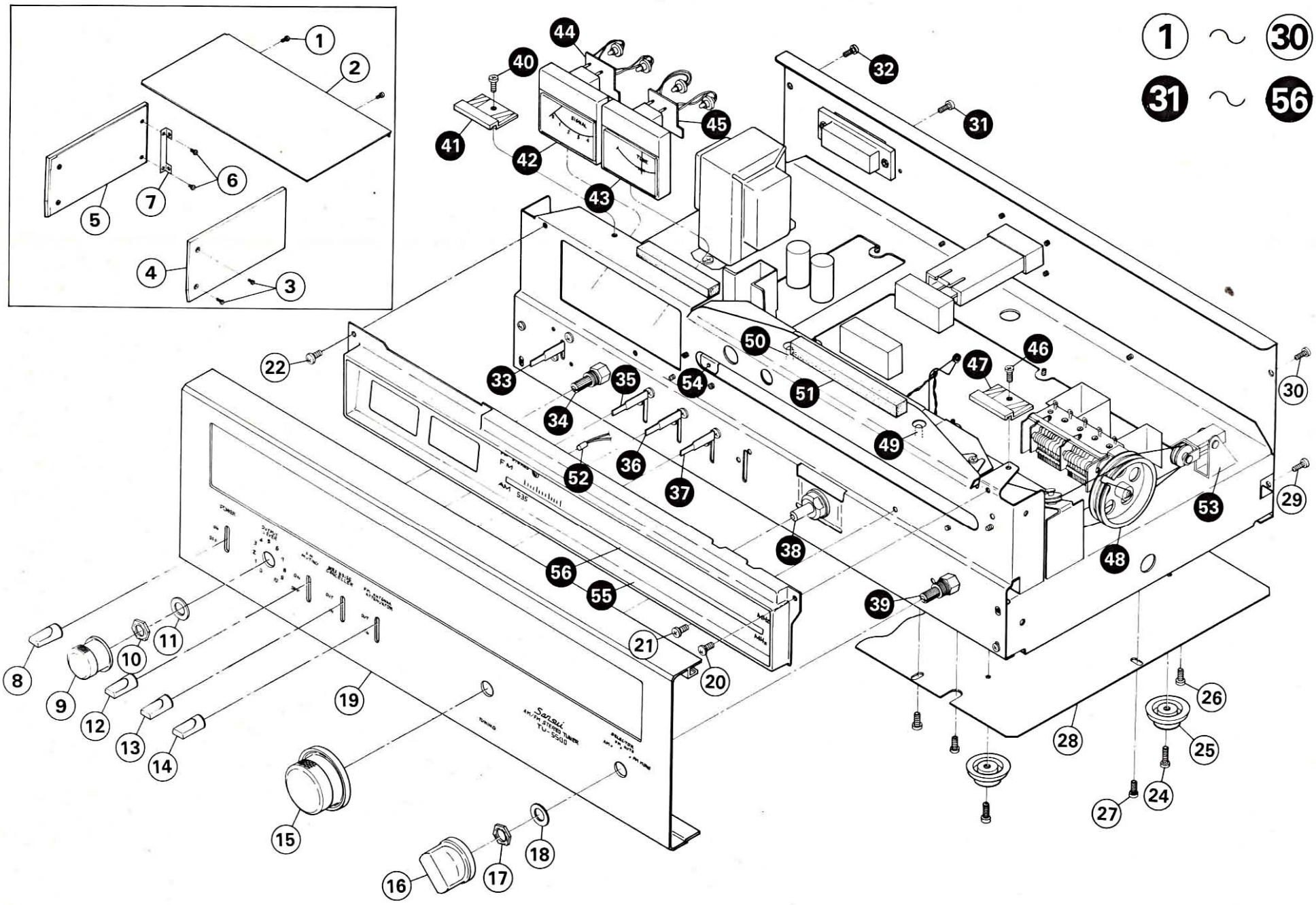
Parts List

Parts No.	Stock No.	Description	Position
TR01	0308392, 3	2SD313 (E, F) Transistor	B
TR02	0305732, 3	2SC711 (E, G) Transistor	B
D01	0310680	10DC-1 Diode	A
ZD01	0315310	RD13A (N) Zener Diode	B
C01	0659011	0.01μF 500V C.C.	A
C02	0659011	0.01μF 500V C.C.	A
C03	0514471	470μF 35V E.C.	B
C04	0514471	470μF 35V E.C.	B
C05	0513470	47μF 25V E.C.	B
C06	0513470	47μF 25V E.C.	B
C07	0601107	0.01μF 50V M.C.	B
C08	0512101	100μF 16V E.C.	B
R01	0103100	10Ω ½W C.R.	A
R02	0107100	10Ω ¼W C.R.	B
R03	0107102	1kΩ ¼W C.R.	B
R04	0107391	390Ω ¼W C.R.	B
R05	0192100	10Ω ½W Fuse Resistor	A
R06	0107102	1kΩ ¼W C.R.	B
F01	0430810	250V 0.5A Power Fuse	A
F02	0430810	250V 0.5A Power Fuse	A
F03	0430860	250V 2.5A Power Fuse	A

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

4-3. Other Parts (Front Side)

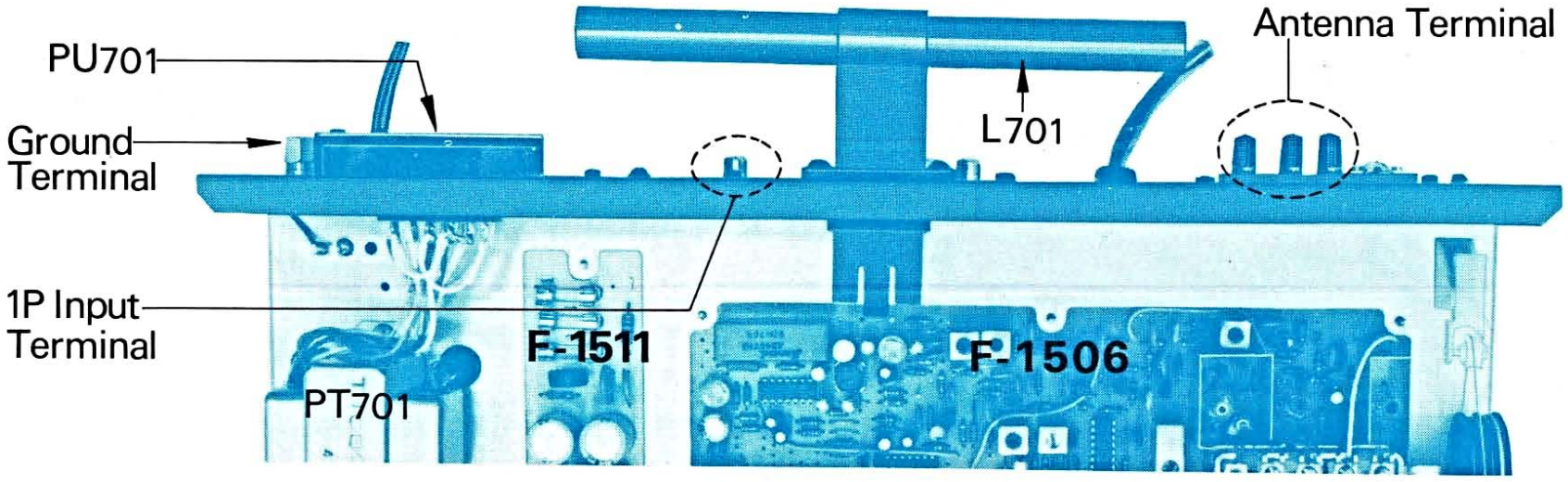


Parts List

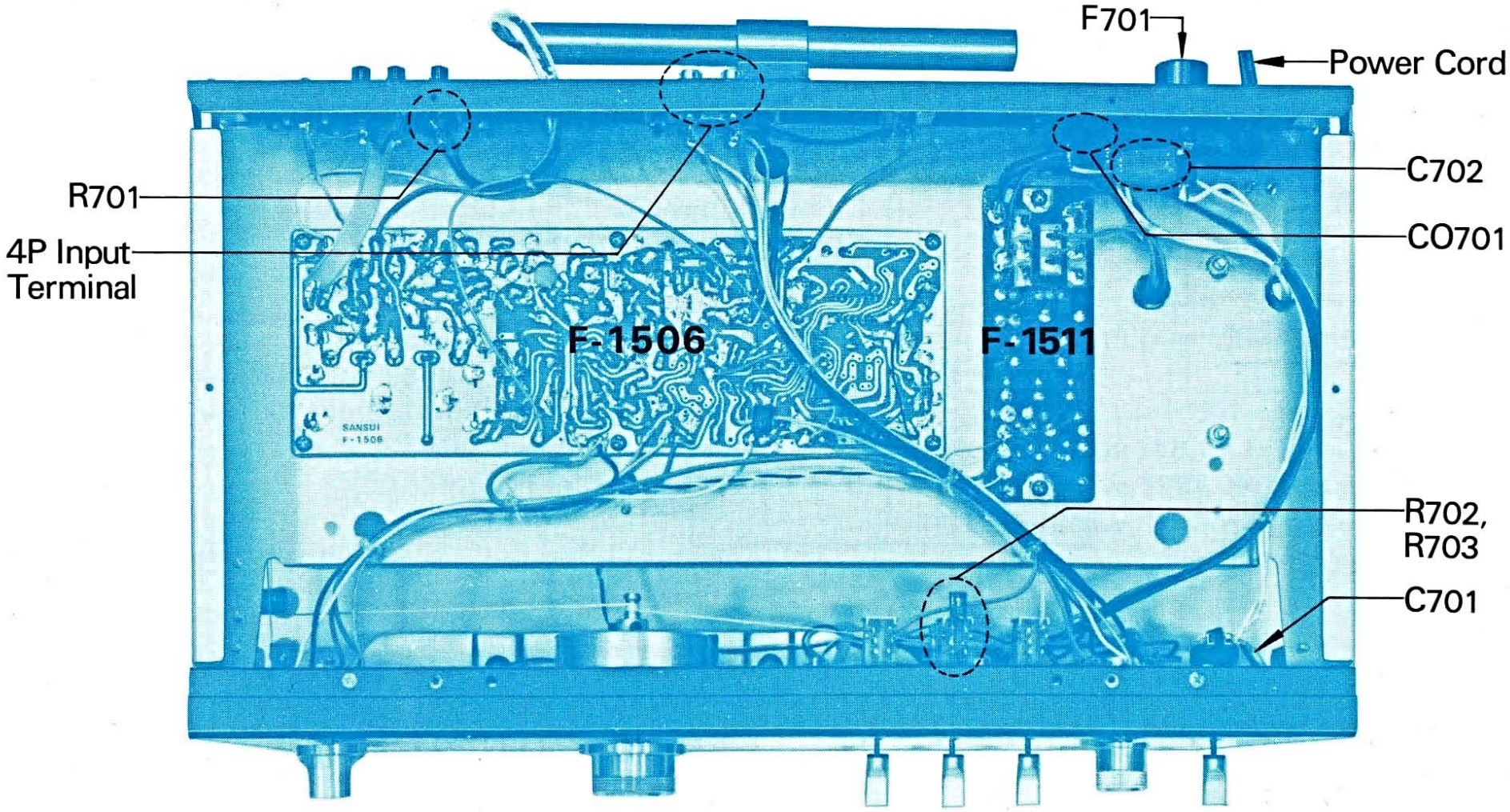
Parts No.	Stock No.	Description
1	5101143	Binding Head Screw, M3×6
2	5006330	Bonnet
3	5101161	Binding Head Screw, M4×6
4	5309270	Side Panel R
5	5309260	Side Panel L
6	5109121	Binding Head Tapping Screw, M3×6
7	5269830	Retainer (Side Panel)
8	5326460	Knob (Power Switch)
9	5317880	S-5 TY Type Knob (Level Volume)
10	5110780	Hex. Nut, M8
11	5120183	Plain washer, 8ϕ
12	5326460	E-1 Type Knob (Muting)
13	5326460	E-1 Type Knob (Noise Canceller)
14	5326460	E-1 Type Knob (Antenna Att.)
15	5317921	T-7 Type Knob (Tuning)
16	5318041	S-5 Metal Type Knob (Selector Switch)
17	5110781	Hex. Nut, M9
18	5120184	Plain Washer, 9ϕ
19	5309310	Front Panel
20	5101043	Binding Head Screw, M3×6
21	5101043	Binding Head Screw, M3×6
22	5101043	Binding Head Screw, M3×6
23	5309450	Dial Scale Flame
24	5166520	Washer Head Tapping Screw, M3×12
25	5516940	Foot
26	5109222	Binding Head Tapping Screw, M3×8
27	5109222	Binding Head Tapping Screw, M3×8
28	5058211	Bottom Plate

Parts No.	Stock No.	Description
29	5109222	Binding Head Tapping Screw, M3×8
30	5109222	Binding Head Tapping Screw, M3×8
31	5109222	Binding Head Tapping Screw, M3×8
32	5109222	Binding Head Tapping Screw, M3×8
33	1170330	Power Switch
34	1011051	Level Volume
35	1170390	Level Switch (Muting)
36	1170390	Level Switch (Noise Canceller)
37	1170390	Level Switch (FM Antenna Att.)
38	7036391	Tuning Unit Ass'y
39	1101590, 1	Selector Switch
40	5101143	Binding Head Screw, M3×6
41	5269880	Panel Holder
42	4300690	Signal Meter
43	4300680	Tune Meter
44	7726040	Lamp Unit
45	7726040	Lamp Unit
46	5101143	Binding Hed Screw, M3×6
47	5269830	Panel Holder
48	6146670	D-44 Pully
49	0400330	7V 100mA Dial Lamp
50	6400330	7V 100mA Dial Lamp
51	5446191	Cover Plate, Dial Lamp
52	7726090	LED Ass'y)B) FM Stereo Indicator
53	7136050	Tention Unit
54	7726070	Dial Pointer Ass'y
55	5407732	Dial Scale
56	5047770	Smoked Plate

4-4. Other Parts (Top Side)



4-5. Other Parts (Bottom Side)



Other Parts List (Top, Bottom Side)

Parts No.	Stock No.	Description
C701	0659801	0.01μF 1.4kV Ceramic Capacitor
C702	0605477	0.047μF 250V Mylar Capacitor
C703	0601157	0.015μF 50V Mylar Capacitor
R701	0113122	1.2kΩ ¼W Solid resistor
R702	0113681	680Ω ¼W Solid resistor
F701	0431222	1A Power fuse (100~117V)
	0431212	0.5A Power fuse (220~240V)
	2300060	AC Fuse holder
CO701	2450060	AC Outlet

Parts No.	Stock No.	Description
PT701	4002020	Power trasformen
	3800090	Power Cord
	2200320	4P Input terminal
	2230051	Ground terminal
	2200290	1P Input terminal
	2210190	Antenna terminal
L701	4200660	Bar Antenna
PU701	2410090	Voltage selector, Plug
	2410080	Voltage selector, Socket
	5268600	Voltage selector, Cover

5. THREADING OF DIAL CORD

* If a dial cord is cut off or slips, replace it by following procedures.
  As TU-5500 uses 0.6mmϕ Cord, please replace it with the same type certainly.
* The length of dial cord is approximately 170cm (66 inch).

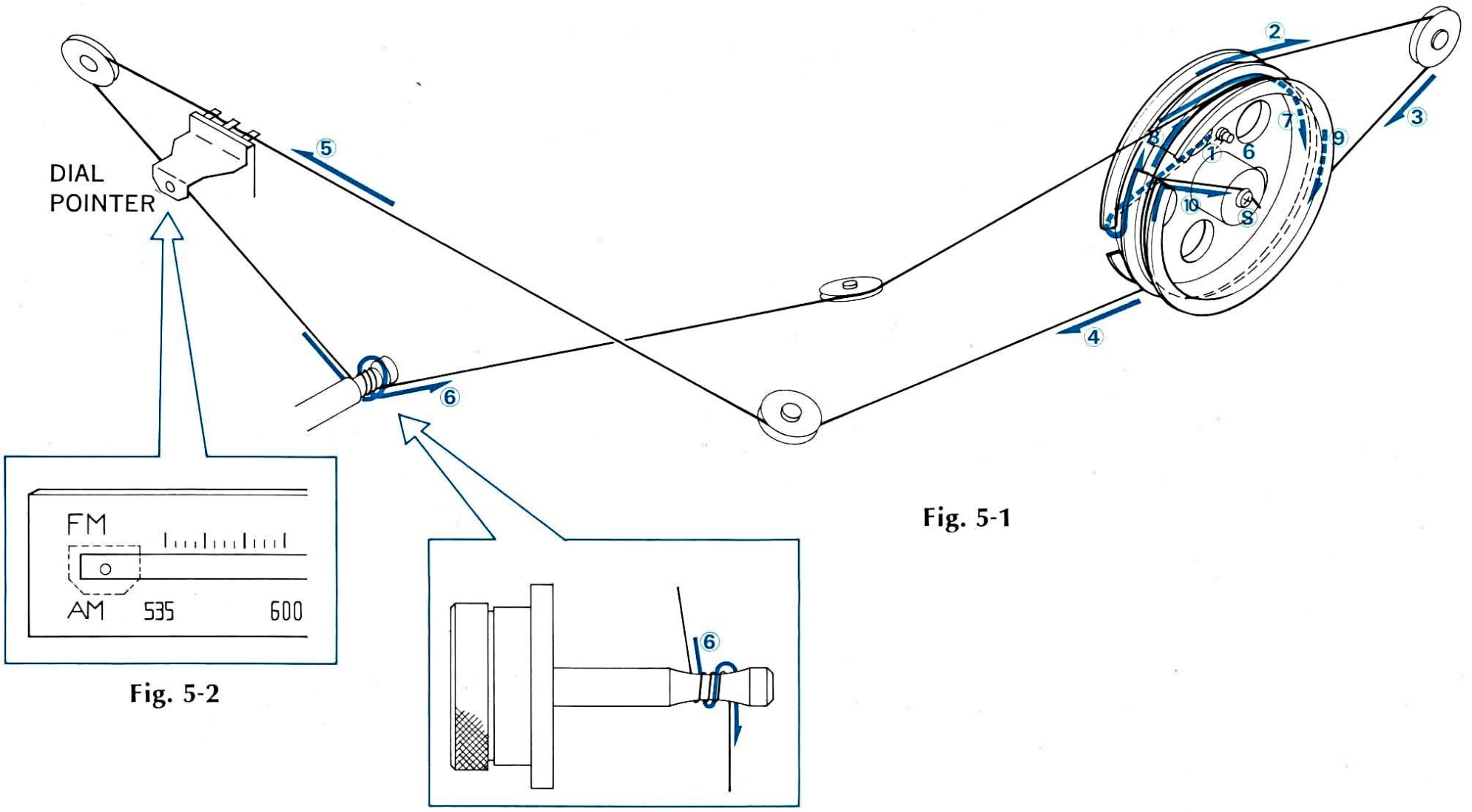


Fig. 5-2

Fig. 5-1

1. Threading of Dial Cord.

Thread the dial cord in numerical order from ① to ⑩ as Fig. 5-1.

1) Close the variable capacitor completely (Max. capacitance).
2) Only when you replace variable capacitor with new one, turn up the screw Ⓢ completely so that the screw 6 on dial pulley is positioned as shown in Fig. 5-1.
3) Tie the cord to screw 6 and thread it in the direction of arrow from ① to ⑤
4) Then, after winding the cord 3 turns around the tuning shaft counterclockwies, thread it from ⑦ to ⑩.
5) After ⑩, tie the cord to the screw Ⓢ 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 counterclockwies so that the cord's tension will be more obtained.
   *After procedure 5), lock the knot ⑩ of the cord and the screw ⑥ 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. 5-2.
   *Confirm that the dial pointer runs smoothly on the dial scale by turning the tuning shaft.

Stock No.	Description
6036050	Dial Cord (0.6mmϕ)

6. TROUBLESHOOTING CHART

〈Notices when servicing this unit〉

○**On Light Emitted Diode (LED)**

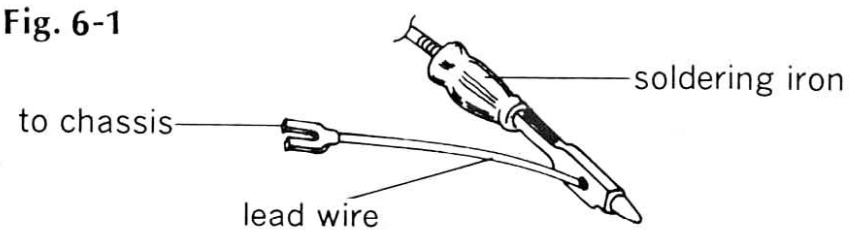
The LED used as Pilot Lamp driven by constant current has characteristics of extreme low reverse break-down voltage (DC 3V) and also it would be easily influenced by discharge voltage from capacitors in power amplifier section.

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. 6-1)

Fig. 6-1



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

6-1. 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 S701 3. Imperfect contact of voltage selector PU-701 4. Power fuse F701 open 5. F03 on F-1511 open 6. Defective power transformer, PT701
1-2. Power indicator lamp not lighted		
	1) +12V not supplied to terminal [07] on F-1511	7. F01, F02 on F-1511 open 8. Defective D01 on F-1511 9. Defective TR01, TR02 on F-1511 10. Defective ZD01 on F-1511
	2) +12V supplied to terminal [07] on F-1511	11. Defective Light Emited Diode LED701

6-2. Troubleshooting on Tuner Section

Symptom	Check Point	Cause & What to Do
1. FM and AM inoperative		
1-1. +12V not supplied to terminal [19], [20], [21] on F-1506		1. Defective power supply section (F-1511)
1-2. +12V supplied to terminal [19], [20], [21] on F-1506		2. Defective LPF01 on F-1506 3. Defective IC04 on F-1506
2. FM Section		
* Before check, set MUTING switch to OFF		
2-1. FM inoperative only		
	1) Signal meter inoperative	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	10. Defective IC01 on F-1506 11. Defective T02, T03 on F-1506 12. Defective D01, D02 on F-1506

to be continued

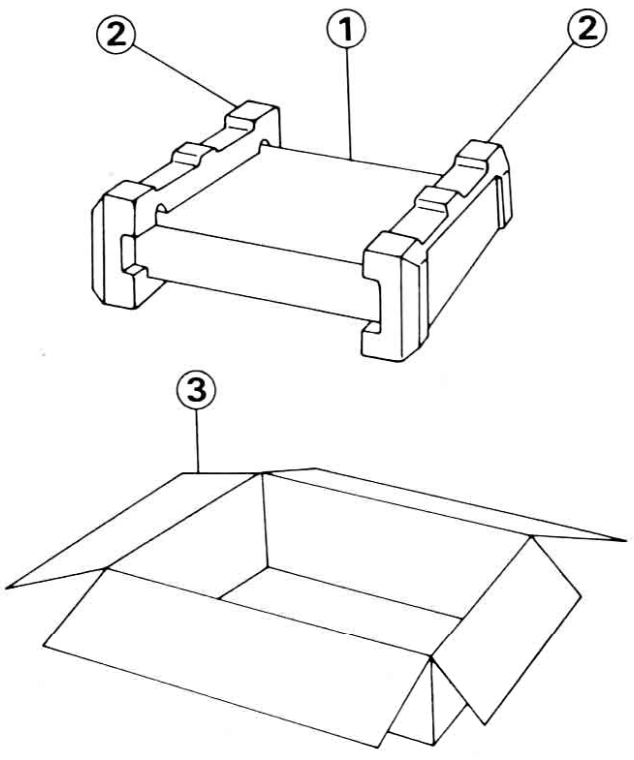
Symptom	Check Point	Cause & What to Do
2-2. Stereo indicator lamp not lighted		
	1) No channel seperation on FM stereo broadcasting	
	1-1) MPX output signals including Rand L not supplied to [11] and [12] of IC03 on F-1506	13. Defective IC03 on F-1506
		14. L07 out of adjustment on F-1506
		15. Defective L07 on F-1506
		16. Defective LC01 on F-1506
		17. Defective VR02 on F-1506
	2) Operative channel separtion on FM stereo broadcating	18. Defective Light Emited Diode LED702
2-3. Signal meter inoperative (FM broadcasting sound can be heard)		19. Defective TR06 on F-1506
		20. Defective T04 on F-1506
		21. Defective D03, D04 on F-1506
		22. Defective signal meter
2-4. Muting circuit inoperative (FM Section will be inoperative when the Muting is switched ON)		23. Defective muting switch S703
		24. RF, IF out of adjustment on F-1506
		25. Defective FM Antenna Attenuator S702

3. AM Section

3-1. AM inoperative		
	1) Signal meter operative (AM broadcasting sound can not be heard)	26. Defective TR07 on F-1506
		27. Defective IC04
		28. Defective LPF01 on F-1506
	2) Signal meter-inoperative (AM broadcasting sound can not be heard)	29. Shorted IC02 on F-1506
		30. Defective T05～T07 on F-1506
		31. Defective L05, L06 on F-1506
		32. Opened coil of Bar Antenna L701
		33. Uncomplete tracking IF adjustment

7. PACKING LIST

Parts No.	Stock No.	Description
1	9116640	Vinyl Cover
2	9027790	Stylofoam Packing
3	9008032	Carton Case

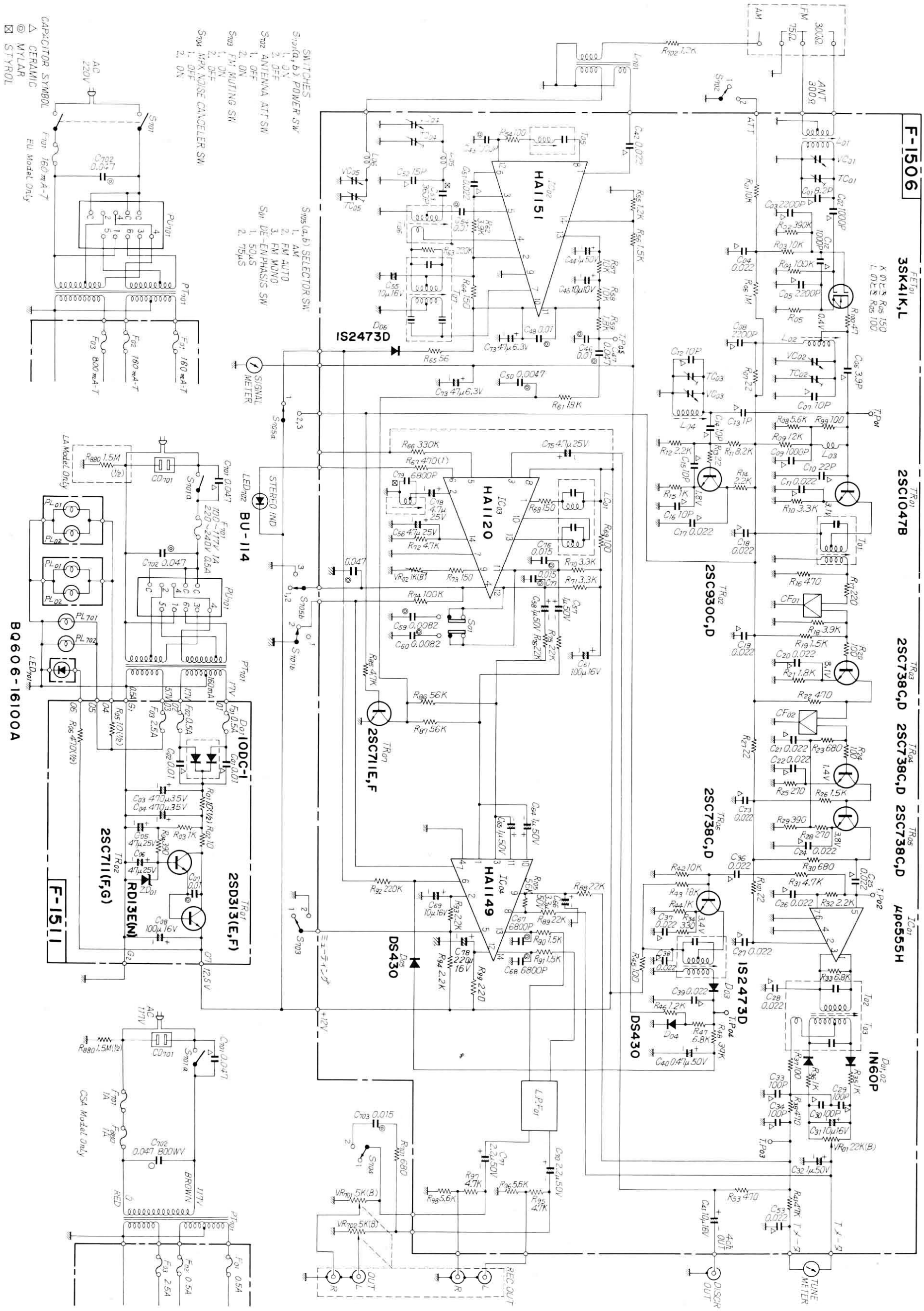


8. ACCESSORY PARTS LIST

Stock No.	Description
3820091	FM Antenna
3810180	Pinplug Cord
9208370	Operating instructions
9228370	Operating instruction sheet

9. SCHEMATIC DIAGRAM

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



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