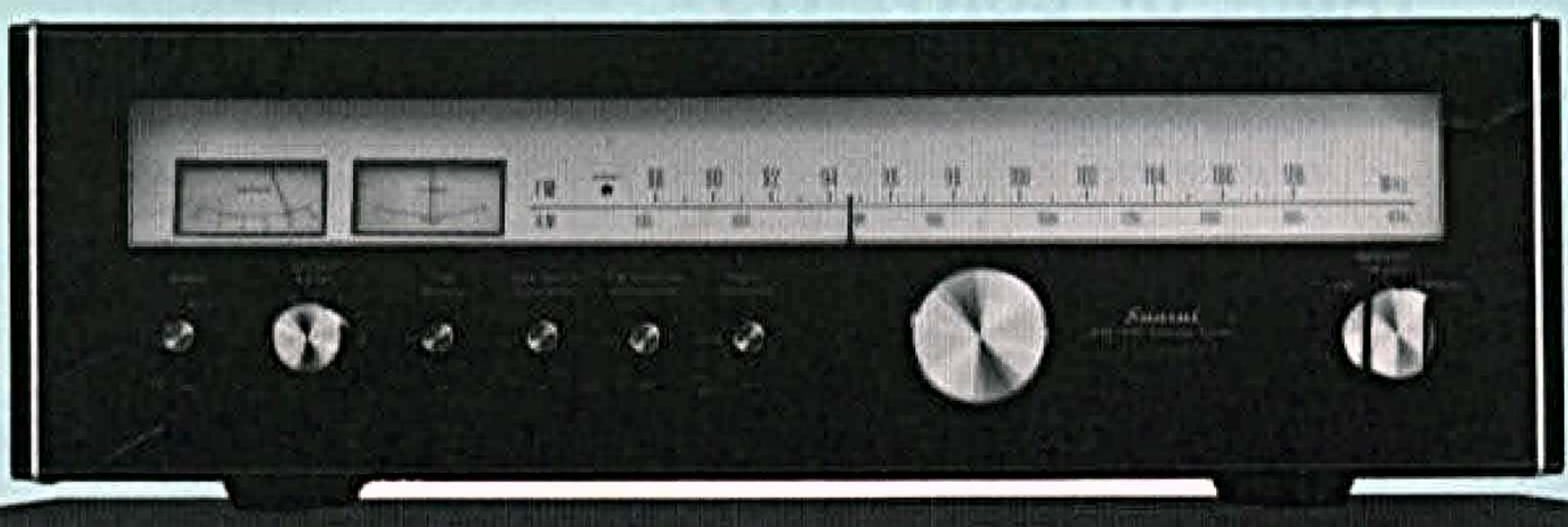
SERVICE MANUAL

AM/FM STEREO TUNER

SANSUI TU-7900



Sansui

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This service manual is designed for service engineers to repair, adjust, maintain and order the replacement parts of the TU-7900 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.

TABLE OF CONTENTS

1. SPECIFICATIONS

FM SECTION

TUNING RANGE . . . . . 88 to 108 MHz
USABLE SENSITIVITY (IHF) . . 9.8dBf (1.7μV)
(DIN) . . 0.9μV
(1 kHz, Modulation 30%, S/N 26dB)
MAX. INPUT CAPABILITY . . more than 125dBf
50dB QUIETING SENSITIVITY
STEREO (IHF) 35dBf (32μV)
MONO (IHF) 15dBf (3μV)
TOTAL HARMONIC DISTORTION
STEREO . . . . . less than 0.35% (1 kHz)
MONO . . . . . less than 0.25% (1 kHz)
SIGNAL TO NOISE RATIO
STEREO . . . . . better than 65dB
MONO . . . . . better than 75dB
ALTERNATE CHANNEL SELECTIVITY
. . . . . better than 85dB ±400 kHz)
CAPTURE RATIO . . . . . less than 1.5dB
AM SUPPRESSION . . . . . better than 55dB
IMAGE RESPONSE RATIO (IHF)
. . . . . better than 70dB (98 MHz)
IF RESPONSE RATIO (IHF) . . better than 95dB (98 MHz)
SPURIOUS RESPONSE RATIO (IHF)
. . . . . better than 85dB (98 MHz)
SPURIOUS RADIATION . . . . less than 34dB
STEREO SEPARATION . . . . . better than 30dB (100 Hz)
better than 40dB (1 kHz)
FREQUENCY RESPONSE (IHF)
. . . . . +0.5dB, −2.0dB (30 to 15,000 Hz)
ANTENNA IMPEDANCE . . . . 75 ohms unbalanced
300 ohms balanced
FM ANTENNA ATTENUATION
. . . . . −20dB

AM SECTION

TUNING RANGE . . . . . 535 to 1,605 kHz
SENSITIVITY (Bar antenna) . . 50dB/m (1,000 kHz)
SELECTIVITY . . . . . better than 30dB (1,000 kHz)
IMAGE RESPONSE RATIO (IHF)
. . . . . better than 30dB (1,000 kHz)
IF RESPONSE RATIO (IHF) . . better than 30dB (1,000 kHz)

OTHERS

OUTPUT LEVEL (FM 100% modulation)
OUTPUT . . . . . 0 to 775 mV
DOLBY FM . . . . . 200 mV
POWER REQUIREMENTS . . . . 100, 120, 220, 240V, 50/60 Hz
120V (Usable 110-130V), 60 Hz (For U.S.A. & Canada only)
POWER CONSUMPTION . . . . 18 W (rated)
DIMENSIONS . . . . . 430 mm (16-15/16") W
132 mm (5-1/4") H
243 mm (9-9/16") D
WEIGHT . . . . . 6.6 kg (14.6 lbs) net
7.7 kg (17.0 lbs) packed

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

2. ADJUSTMENT

Abbreviations

Equipment

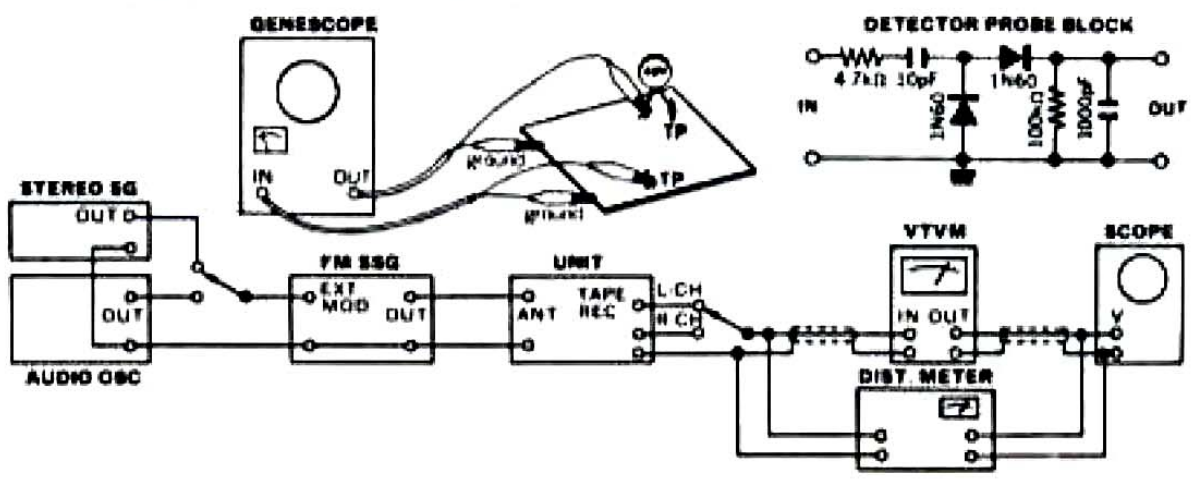
AM FM Generator Oscilloscope . . . . . Genescope
AM Standard Signal Generator . . . . . AM SSG
FM Standard Signal Generator . . . . . FM SSG
FM Stereo Generator . . . . . Stereo SG
Oscilloscope . . . . . Scope
Audio Oscillator . . . . . Audio Osc.
Distortion Meter . . . . . Dist. Meter

Others

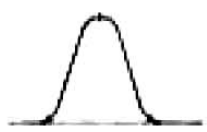
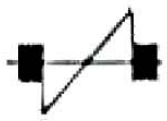
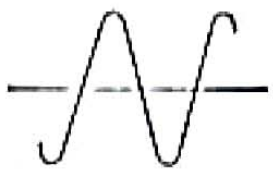
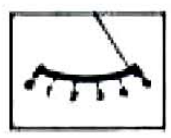
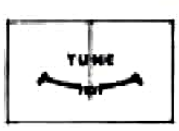
Clockwise . . . . . CW.
Counterclockwise . . . . . CCW.
Antenna . . . . . ANT.
Modulation . . . . . MOD.

2-1. FM Adjustment & Alignment

Note: 1. Selector ..... FM AUTO
2. FM MUTING Switch ..... OFF
3. Connection ..... Connect the output of genescope to TP through 100pF ceramic capacitor.
4. Output level of genescope ..... After attenuator
   Sweep width ..... 1.5~2cm/150 kHz
   Frequency band ..... 9.5~11.5 MHz



1) FM IF & Tracking Adjustment (See Fig. 2-1, 2-2, 2-3 on page 5)

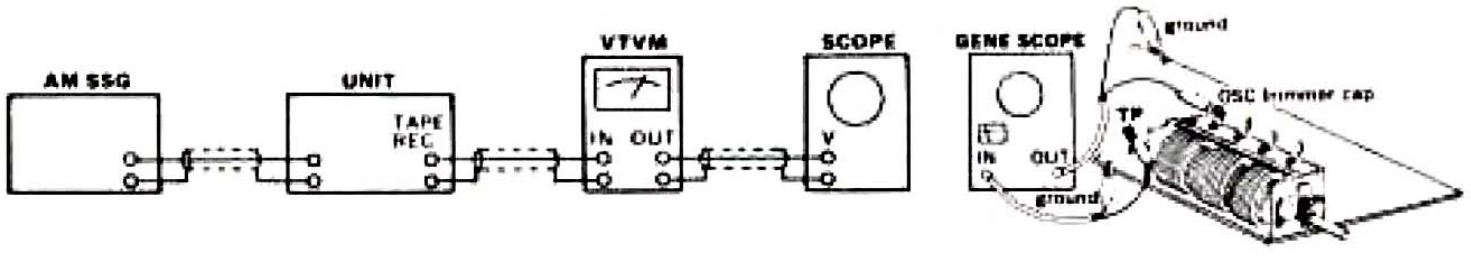
STEP	SUBJECT	FEED SIGNAL FROM	FEED SIGNAL TO	MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
1.	IF Coil	Output 90dB Genescope	TP01 FM Pack F-1519	Terminal 01 of F-2549 Use Detector Probe	L05 F-1519	Max. Output	
		Output 50dB Genescope	Same as above	TP01 F-2549 Use Detector Probe	T01 F-2549	Same as above	
2.	Muting Coil	Output 50dB Genescope	Same as above	TP03 F-2549	T04 F-2549	Same as above	
3.	Discrimina-tor Coil	Output 50dB Genescope	Same as above	TP02 F-2549	T02 T03 F-2549	Max. linearity of S Curve	
4.	90MHz Dial Calibra-tion	90MHz ANT Input 60dB 400Hz (100% MOD) FM SSG	ANT terminal 300Ω	REC OUT L or R-CH VTVM & Scope	L06 F-1519	Max. Output	
	106MHz Dial Calibra-tion	106MHz ANT Input 60dB 400Hz (100% MOD) FM SSG	Same as above	Same as above	TC04 F-1519	Same as above	
5.	90MHz RF Adj.	90MHz ANT Input 60dB 400Hz (100% MOD) FM SSG	Same as above	Same as above	L01, L02 L03 F-1519	Same as above	
	106MHz RF Adj.	106MHz ANT Input 60dB 400Hz (100% MOD) FM SSG	Same as above	Same as above	TC01 TC02 TC03 F-1519	Same as above	
6.	Signal Meter Volume	98MHz ANT Input 100dB 400Hz (100% MOD) FM SSG	Same as above	Signal Meter	VR02 F-1519	4.7 on meter	
7.	MONO Distortion	98MHz ANT Input 60dB 400Hz (100% MOD) FM SSG	Same as above	REC OUT L or R-CH Dist Meter & Scope	T02 T03 T01	Max. Output Min Distortion F-2549	T01 slightly adjust
8.	Tune Meter Volume	98MHz ANT Input 60dB 400Hz (100% MOD) FM SSG	Same as above	Tuning Meter	VR01 F-2549	Center on meter	

2) MPX Alignment (See Fig. 2-2, 2-3 on page 5)

STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
		FROM	TO				
1.	PLL VCO Adj.	98MHz ANT Input 60dB FM SSG Pilot 19kHz (10% MOD) L-CH 1kHz (45% MOD) R-CH (0% MOD) STEREO SG	ANT terminal 300Ω	Stereo Indicator	VR04 F-2549	Light Indicator	Adjust the VR within center of lighting level
	PLL VCO Adj. (In case of using Freq Counter)		Make short between TP02 of F-2549 and chassis	TP04 Use Freq. Counter	VR04 F-2549	76kHz (±200Hz)	
2.	Separation	98MHz ANT Input 60dB FM SSG Pilot 19kHz (10% MOD) L-CH (0% MOD) R-CH 1kHz (45% MOD) STEREO SG	ANT Terminal 300Ω	REC OUT L-CH VTVM & Scope	VR05 F-2549	Min. Output −35dB	
3.	Distortion	Same as above	Same as above	REC OUT L-CH Dist, Meter & Scope	L05 1 Side 2 Side FM Pack F-1519	Min. Distortion	If less than 0.3%, adjust L05 slightly
4.	Separation	98MHz ANT Input 60dB FM SSG Pilot 19kHz (10% MOD) L-CH 1kHz (45% MOD) R-CH (0% MOD) STEREO SG	Same as above	REC OUT R-CH VTVM & Scope	VR05 F-2549	Min. Output −40dB	
5.	Muting level & Indicator level	98MHz ANT Input 23dB FM SSG Pilot 19kHz (10% MOD) L-CH (0% MOD) R-CH (45% MOD)	Same as above	Stereo Indicato	VR03 F-2546	Muting level 23dB Indicator lighting level 23dB	
6.	Nois Canceller Volume	98MHz ANT Input 50dB FM SSG Pilot 19kHz (10% MOD) L-CH (0% MOD) R-CH (45% MOD)	Same as above	REC OUT L-CH VTVM & Scope	VR01 F-2550	Turn VR01 fully C.C.W., then adjust it (VR01) so that the separation will be −22 ±2dB	Noise Canceller Switch....IN

2-2. AM IF & Tracking Adjustment (Fig. 2-2, 2-3 on page 5)

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



1) AM IF & Tracking Adjustments

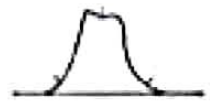
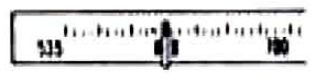
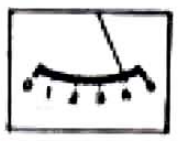
STEP	SUBJECT	FEED SIGNAL FROM	FEED SIGNAL TO	MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
1.	IF Coil	Genescope Output 70dB	TC05 FM Pack F-1519	TP05 F-2549	CF04 F-2549	Max. Output	
2.	600kHz Dial Calibration	600kHz ANT Input 60dB 400Hz (MOD 30%) AM SSG	AM ANT terminal	REC OUT L or R-CH VTVM & Scope	T05 F-2549	Same as aboue	
	1400kHz Dial Calibration	1400kHz ANT Input 60dB 400Hz (MOD 30%) AM SSG	Same as above	Same as above	TC05 FM Pack	Same as above	
3.	600kHz RF Adj.	600kHz ANT Input 50dB 400Hz (MOD 30%) AM SSG	Same as above	Same as above	Bar Antenna T702	Same as above	
	1400kHz RF Adj.	1400kHz ANT Input 50dB 400Hz (MOD 30%) AM SSG	Same as above	Same as above	TC06 FM Pack F-1519	Same as above	
4.	Signal Meter Volume	1000kHz ANT Input 80dB	Same as above	Signal Meter	VR06 F-2549	4. 3 on meter	

Fig. 2-1

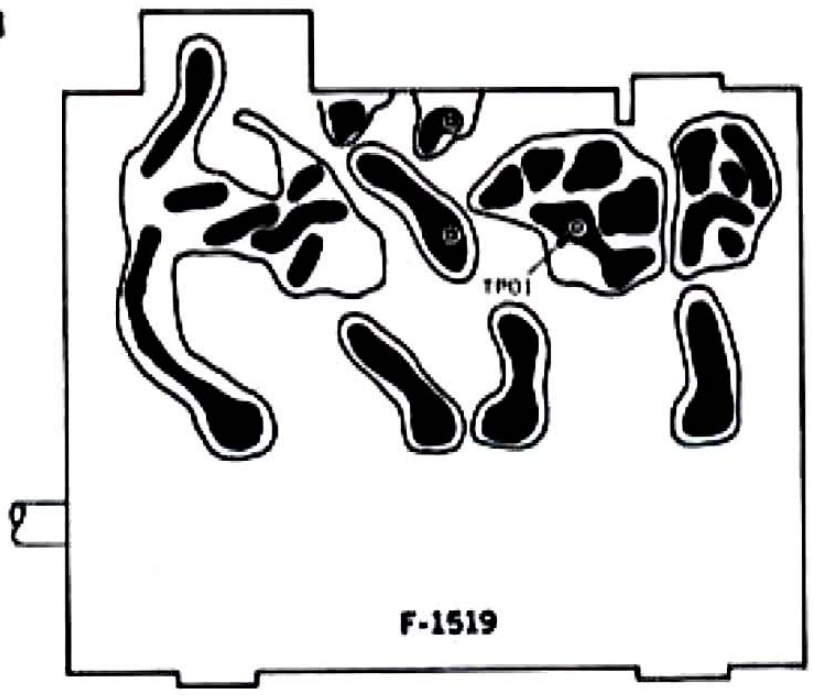


Fig. 2-3

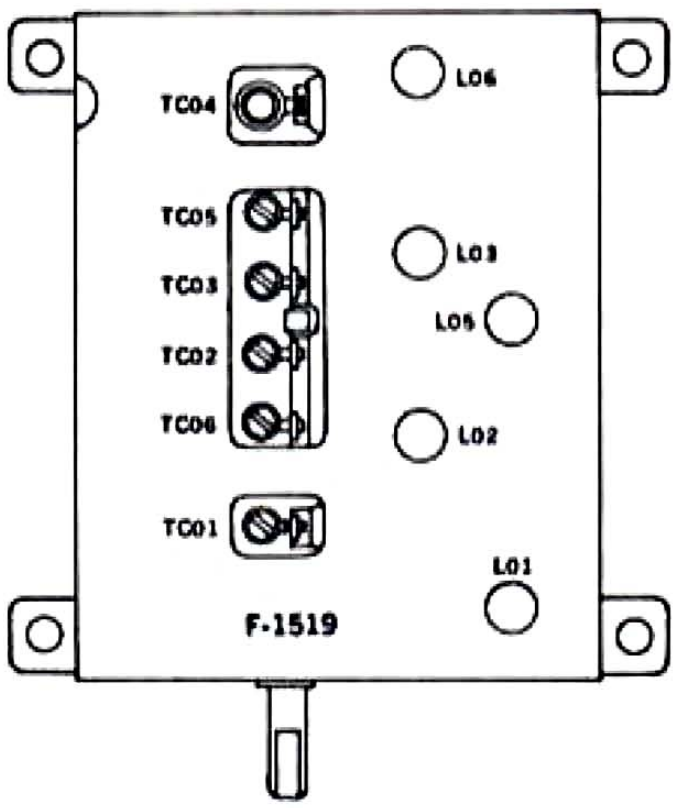
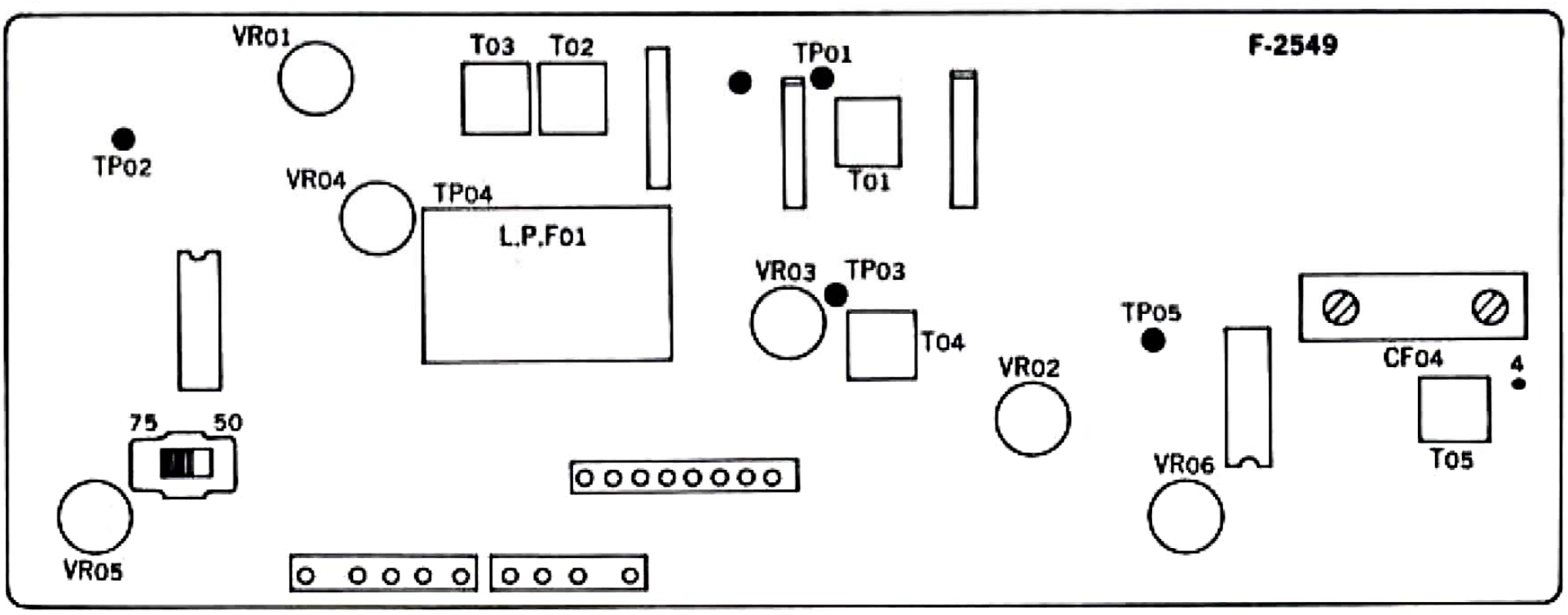


Fig. 2-2



3. THREADING OF DIAL CORD

*If a dial cord is cut off or slips, replace it by following procedures. As this unit uses 0.6mmϕ cord, please replace it with the same type certainly.
*The length of dial cord is approximately 170cm (66.9 inch).

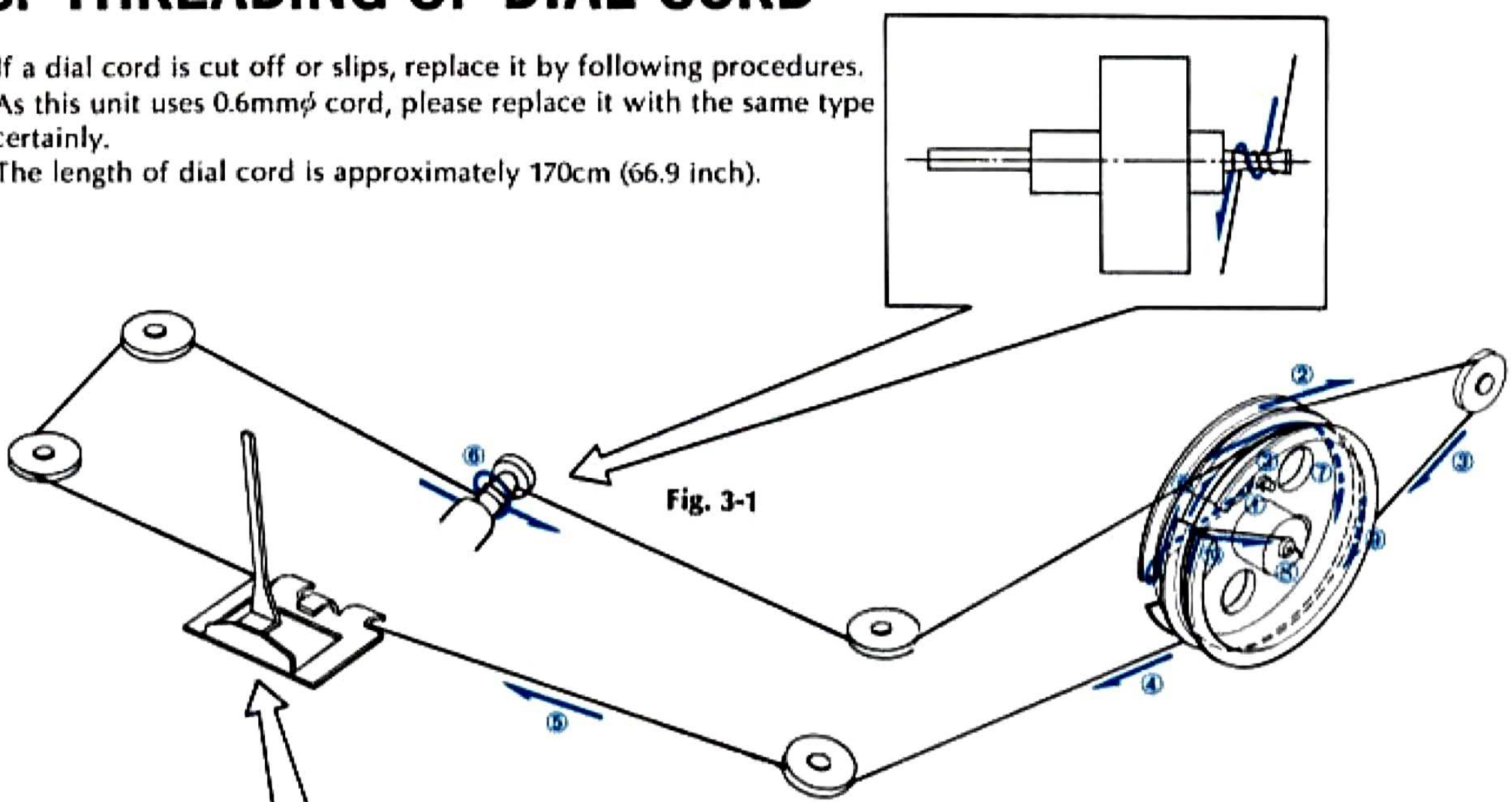


Fig. 3-1

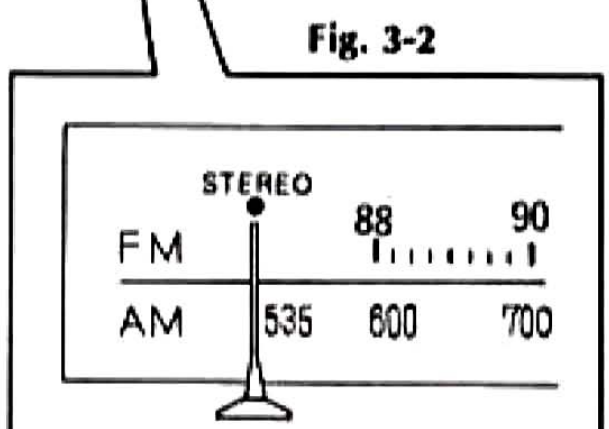


Fig. 3-2

3-1. Threading of Dial Cord

Thread the dial cord in numerical order from ① to ⑩ as Fig. 3-1.

1) Close the variable capacitor completely (Max. capacitance).
2) Tie dial cord to the screw, 3 of the dial pulley.
3) Thread cord in the direction of arrow from ① to ⑩.
4) After ⑩, tie the cord to the screw S of the dial pulley.

3-2. Attachment of Dial Pointer

1) Close the variable capacitor completely.
2) Set the dial pointer to the Stereo Indicator on dial scale as Fig. 3-2.

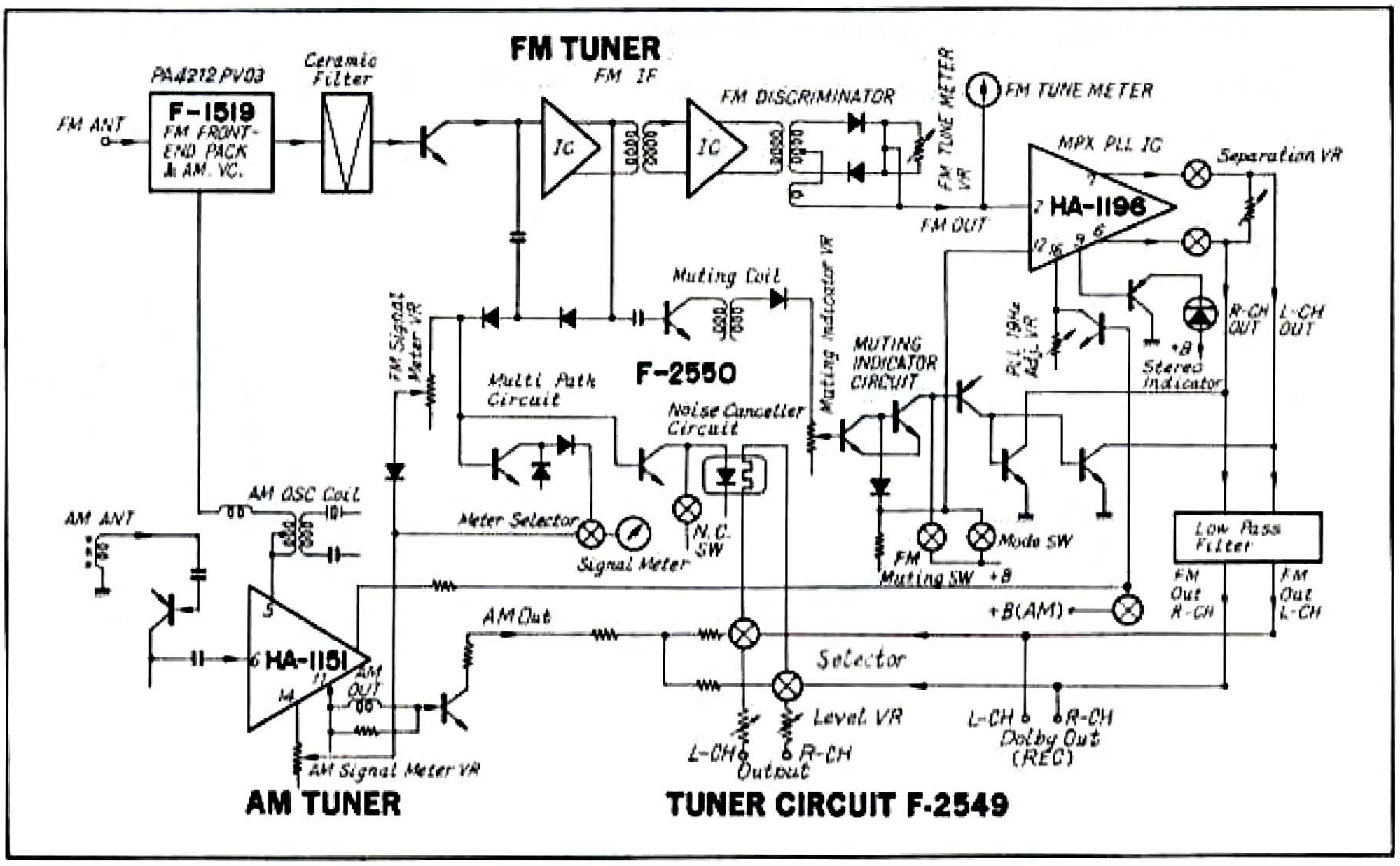
*Confirm that the dial pointer runs smoothly on the dial scale by turning the tuning shaft.

Parts List

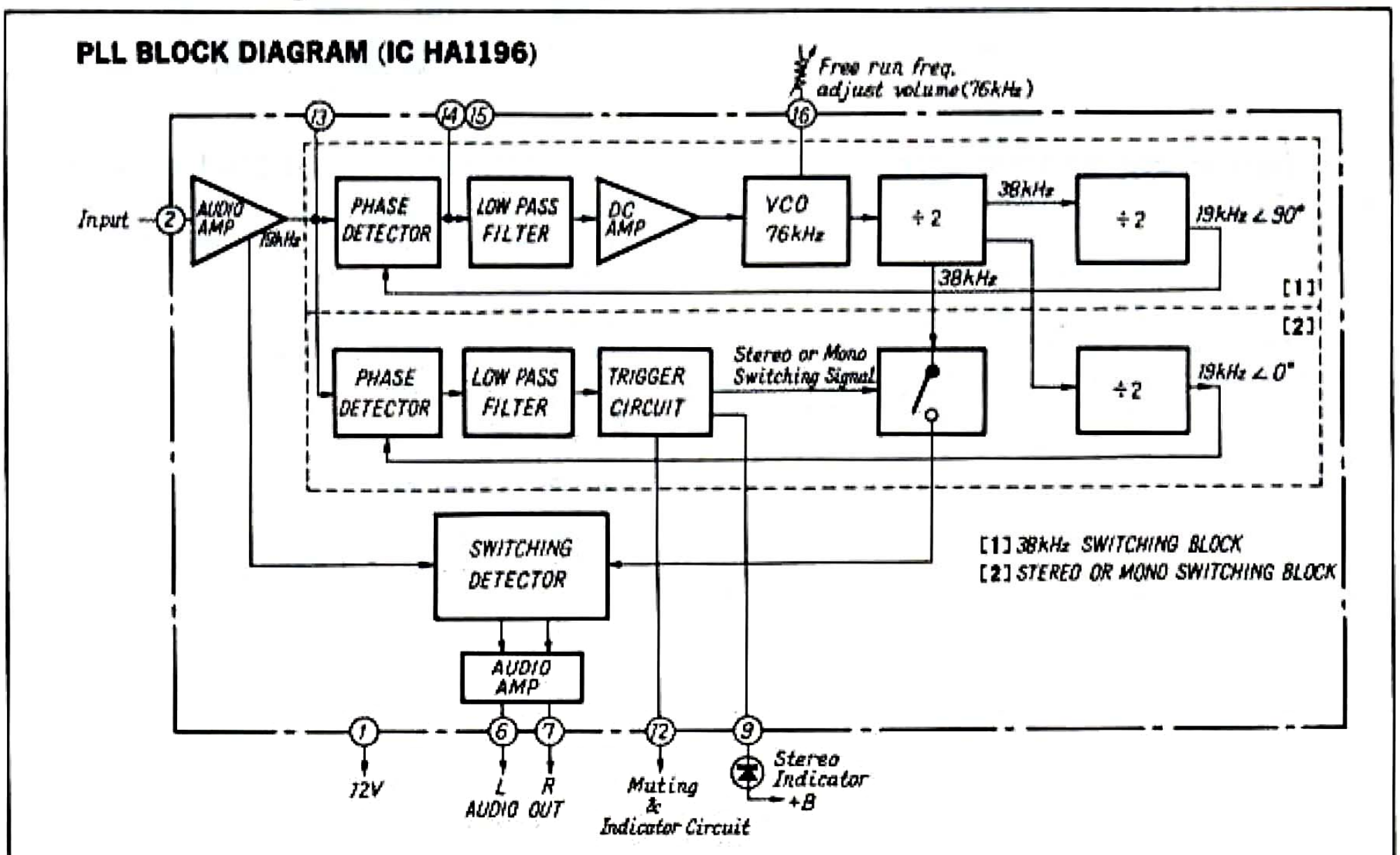
Parts No.	Stock No.	Description
1	6036050	Dial Cord (0.6mmϕ)
2	6146670	D-44 Dial Pulley

4. OPERATION BLOCK DIAGRAM

4-1. FM, AM Tuner Block Diagram



4-2. PLL Block Diagram (IC HA1196)



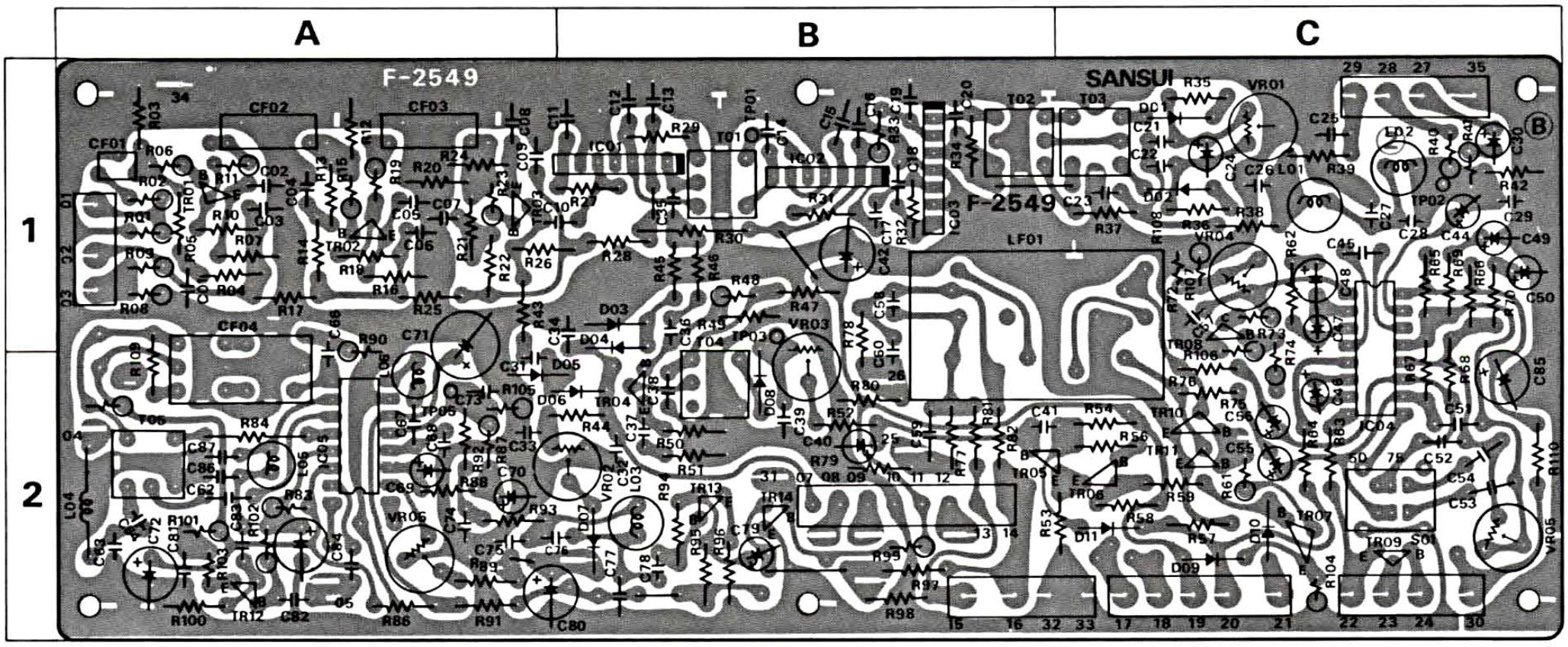
5. TROUBLESHOOTING CHART

Symptom	Defective Circuit or Section	Cause
1) Both AM and FM inoperative	Power supply section inoperative	1. Power fuse, F701 opens 2. AC fuse, F01, F02 on F-1511 opens 3. Defective TR01, TR02 on F-1511
2) AM Inoperative	Defective semiconductors Defective Coil	1. Defective TR12 on F-2549 2. Defective IC05 on F-2549 3. Defective TR13, TR14 on F-2549 4. Osc coil, T05 opens 5. Bar antenna coil, T702 opens
3) AM poor sensitivity	Incorrect adjustment	1. IF or Tracking out of adjustment
4) Signal meter does not properly operate on AM reception	Defective meter circuit	1. Signal meter volume, VR06 out of adjustment 2. Defective signal meter, M703
5) FM inoperative	Defective FRONT-END PACK F-1519 Defective IF section	1. Defective FET01, TR01, TR02 on F-1519 2. Coil, L01~L06 on F-1519 opened 3. Defective TR01~TR03 on F-2549 4. Defective IC01~IC03 on F-2549 5. T01, T02 on F-2549 opened
6) FM poor sensitivity	Incorrect adjustment Poor FM input signal	1. RF and Tracking out of adjustment 2. IF coil and discriminator coil out of adjustment 3. Weak electric field intensity area 4. Defective FM Antenna
7) Signal meter does not properly operate on FM reception	Defective meter circuit	1. Defective D05~D07 on F-2549 2. Signal meter volume, VR02 out of adjustment
8) MPX inoperative	Defective PLL circuit Defective semiconductors	1. Defective IC04 on F-2549 2. TR10, TR11 on F-2549 shorted
9) No channel separation on FM stereo reception	Incorrect adjustment	1. Muting coil, T04 out of adjustment 2. Defective IC04 on F-2549 3. Muting, Indicator volume, VR03 out of adjustment 4. Freerun Frequency adjust volume, VR04 out of adjustment 5. Separation volume, VR05 out of adjustment 6. Defective TR08 on F-2549
10) Troubles on Muting or indicator circuit	Muting inoperative No indicator light up	1. Defective TR05~TR07 on F-2549 2. T09, VR03 on F-2549 out of adjustment 3. TR10, TR11 opens 4. Defective TR04, TR05 on F-2549 5. T04, VR03 on F-2549 out of adjustment 6. TR09~F-2549 opens 7. Stereo indicator, PL707 opens

6. PARTS LOCATION & PARTS LIST

6-1. F-2549 FM, AM Tuner Circuit Board (Stock No. 7521261)

Conductor Side



Parts List

Parts No.	Stock No.	Description	Position
TR01	0306113	2SC738 (D)	1 A
TR02	0306113	2SC738 (D)	1 A
TR03	0306112	2SC738 (C)	1 A
TR04	0306112, 3	2SC738 (C, D)	2 B
TR05	0305731, 2	2SC711 (E, F)	2 B
TR06	0305731, 2	2SC711 (E, F)	2 C
TR07	0300281, 2	2SA628 (D, E)	2 C
TR08	0305731	2SC711 (E)	1 C
TR10, 11	0306390, 1	2SC1636-1, 2	2 C
	0305641	2SC735 (Y)	
TR12	0300281	2SA628 (D)	2 A
TR13	0306091	2SC1312R (G)	2 B
IC01	0360120	μPC555H	1 B
IC02	0360120	μPC555H	1 B
IC03	0360120	μPC555H	1 B
IC04	0360320	HA1196	1, 2 C
IC05	0360150	HA-1151	2 A
D01	0311060	1N60-P	1 C
D02	0311060	1N60-P	1 C
D03	0310330, 1	1N60	1 B
D04	0310330, 1	1N60	1 B
D05	0310330, 1	1N60	2 A, B
D06	0310330, 1	1N60	2 A, B
D07	0310330, 1	1N60	2 B
D08	0310330, 1	1N60	2 B
D09	0311160	1S2473D	2 C
	0311180	1S1583	
D10	0311160	1S2473D	2 C
	0311180	1S1588	
D11	0311160	1S2473D	2 C
	0311180	1S1588	
C01	0657223	22000pF	1 A
C02	0657223	22000pF	1 A
C03	0657223	22000pF	1 A
C04	0657223	22000pF	1 A
C05	0657223	22000pF	1 A
C06	0657223	22000pF	1 A
C07	0657223	22000pF	1 A
C08	0657223	22000pF	1 A
C09	0657223	22000pF	1 A
C10	0657102	1000pF	1 A, B
C11	0657223	22000pF	1 B
C12	0657223	22000pF	1 B
C13	0657223	22000pF	1 B
C14	0657223	22000pF	1 B
C15	0657473	47000pF	1 B
C16	0657223	22000pF	1 B
C18	0657473	47000pF	1 B
C19	0657223	22000pF	1 B
C20	0657223	22000pF	1 B
C21	0657101	100pF	1 C
C22	0657101	100pF	1 C
C23	0657101	100pF	1 C
C24	0512100	10μF 16V E.C.	1 C
C25	0657223	22000pF 50V C.C.	1 C

Parts No.	Stock No.	Description	Position
C26	0620181	180pF	1 C
C27	0620331	330pF 50V P.C.	1 C
C28	0620101	100pF	1 C
C29	0620151	150pF 50V P.C.	1 C
C30	0512100	10μF 16V E.C.	1 C
C31	0657221	220pF	2 A
C32	0657221	220pF	2 B
C33	0657223	22000pF	2 A
C34	0657221	220pF	1 B
C35	0657102	1000pF 50V C.C.	1 B
C36	0657102	1000pF	1 B
C37	0657223	22000pF	2 B
C38	0657223	22000pF	2 B
C39	0657101	100pF	2 B
C40	0519101	1μF 50V E.C.	2 B
C41	0657221	220pF 50V C.C.	2 B
C42	0512470	47μF 16V E.C.	1 B
C44	0519101	1μF 50V E.C.	1 C
C45	0600477	0.04μF 50V M.C.	1 C
C46	0519103	0.47μF 50V T.C.	2 C
C47	0519104	1.5μF 50V E.C.	1 C
C48	0519102	3.3μF 50V E.C.	1 C
C49, 50	0512100	10μF 16V E.C.	1 C
C51, 52	0600126	0.0012μF 50V M.C.	2 C
C53, 54	0620511	510pF 50V P.C.	2 C
C55, 56	0519101	1μF 50V E.C.	2 C
C57	0629005	360pF 50V P.C.	1 C
C59, 60	0600186	0.0018μF 50V M.C.	1, 2 B
C62	0657103	10000pF 50V C.C.	2 A
C63	0669400	15pF 50V C.C.	2 A
C64	0620361	360pF 50V P.C.	2 A
C66	0657103	10000pF	1, 2 A
C67	0600126	0.0012μF 50V C.C.	2 A
C68	0600127	0.012μF	2 A
C69	0512100	10μF 16V	2 A
C70	0515339	3.3μF 50V	2 A
C71	0512101	100μF 16V	1, 2 A
C72	0512100	10μF 16V	2 A
C73	0600337	0.033μF	2 A
C74	0600157	0.015μF	2 A
C75	0600107	0.01μF 50V M.C.	2 A
C76	0600107	0.01μF	2 A, B
C77	0600227	0.022μF	2 B
C78	0600337	0.033μF	2 B
C79	0519101	1μF 50V E.C.	2 B
C80	0510470	47μF 6.3V E.C.	2 A, B
C81	0657223	22000pF	2 A
C82	0657102	1000pF 50V C.C.	2 A
C83	0657102	1000pF	2 A
C84	0657473	47000pF	2 A
C85	0512471	470μF 16V E.C.	2 C
C86	0661150	15pF 50V C.C.	2 A
C87	0661150	15pF	2 A
R01	0113102	1.0kΩ ¼W S.R.	1 A
R02	0113101	100Ω	1 A

Parts No.	Stock No.	Description	Position
R03	0113332	3.3kΩ	1 A
R04	0113102	1.0kΩ ¼W S.R.	1 A
R05	0113471	470Ω	1 A
R06	0106151	150Ω ¼W C.R.	1 A
R07	0113122	1.2kΩ ¼W S.R.	1 A
R08	0106333	33kΩ ¼W C.R.	1 A
R09	0106104	100kΩ ¼W C.R.	1 A
R10	0113331	330Ω	1 A
R11	0113101	100Ω	1 A
R12	0113332	3.3kΩ ¼W S.R.	1 A
R13	0113471	470Ω	1 A
R14	0113102	1.0kΩ	1 A
R15	0106151	150Ω ¼W C.R.	1 A
R16	0113122	1.2kΩ	1 A
R17	0113479	4.7Ω ¼W S.R.	1 A
R18	0113331	300Ω	1 A
R19	0106101	100Ω ¼W C.R.	1 A
R20	0113222	2.2kΩ	1 A
R21	0113471	470Ω ¼W S.R.	1 A
R22	0113562	5.6kΩ	1 A
R23	0106221	220Ω ¼W C.R.	1 A
R24	0113391	390Ω	1 A
R25	0113476	4.7Ω	1 A
R26	0113102	1.0kΩ	1 A
R27	0113102	1.0kΩ	1 B
R28	0113479	4.7Ω	1 B
R29	0113103	10kΩ	1 B
R30	0113479	4.7Ω	1 B
R31	0113102	1.0kΩ ¼W S.R.	1 B
R32	0113102	1.0kΩ	1 B
R33	0113479	4.7Ω	1 B
R34	0113103	10kΩ	1 B
R35	0113102	1.0kΩ	1 C
R36	0113102	1.0kΩ	1 C
R37	0113101	100Ω	1 C
R38	0113471	470Ω	1 C
R39	0113153	15kΩ	1 C
R40	0106104	100kΩ ¼W C.R.	1 C
R41	0106471	470Ω	1 C
R42	0113103	10kΩ	1 C
R43	0113102	1.0kΩ	1 A
R44	0113222	2.2kΩ ¼W S.R.	2 A, B
R45	0113102	1.0kΩ	1 B
R46	0113332	3.3kΩ	1 B
R47	0113222	2.2kΩ	1 B
R48	0106183	18kΩ ¼W C.R.	1 B
R49	0113103	10kΩ	1 B
R50	0113102	1.0kΩ	2 B
R51	0113820	82Ω	2 B
R52	0113683	68kΩ	2 B
R53	0113820	82Ω	2 C
R54	0113473	47kΩ ¼W S.R.	2 C
R56	0113104	100kΩ	2 C
R57	0113104	100kΩ	2 C
R58	0113562	5.6kΩ	2 C
R59	0113333	33kΩ	2 C

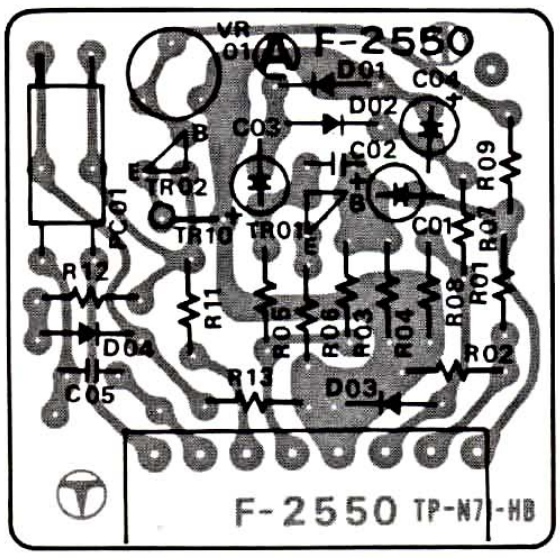
Parts No.	Stock No.	Description	Position
R61	0106472	4.7kΩ 1/4W C.R.	2C
R62	0113102	1.0kΩ	1C
R63	0113102	1kΩ	2C
R64	0113104	100kΩ	2C
R65, 66	0113273	27kΩ 1/4W S.R.	1C
R67, 68	0113473	47kΩ	1, 2C
R69, 70	0113682	6.8kΩ	1C
R71	0113103	10kΩ	
R72	0107223	22kΩ 1/4W C.R.	1C
R73	0106222	2.2kΩ 1/4W C.R.	1C
R74	0106104	180kΩ 1/4W C.R.	1, 2C
R75, 76	0113152	1.5kΩ	2C
R77, 78	0113333	33kΩ	1, 2B
R79, 80	0113223	22kΩ	2B
R81, 82	0113182	1.8kΩ 1/4W S.R.	2B
R83	0113392	3.9kΩ	2A
R84	0113100	10Ω	2A
R85	0106331	330Ω 1/4W C.R.	2A
R86	0113151	150Ω	2A
R87	0113103	10kΩ 1/4W S.R.	2A
R88	0113272	2.7kΩ	2A
R89	0113152	1.5kΩ	2A

Parts No.	Stock No.	Description	Position
R90	0106562	5.6kΩ 1/4W C.R.	1, 2A
R91	0113101	100Ω	2A
R92	0113182	1.8kΩ	2A
R93	0113102	1.0kΩ 1/4W S.R.	2A
R94	0113224	220kΩ	2B
R95	0113561	560Ω	2B
R96	0113221	220Ω 1/4W S.R.	2B
R97, 98	0106153	15kΩ 1/4W C.R.	2B
R100	0113332	3.3kΩ 1/4W S.R.	2A
R101	0106152	1.5kΩ 1/4W	2A
R102	0106473	47kΩ	2A
R103	0106390	39Ω	2A
R104	0106123	12kΩ	2C
R105	0106153	15kΩ 1/4W C.R.	2A
R106	0106473	47kΩ	1, 2C
R107	0107184	180kΩ	1C
R108	0107472	4.7kΩ	1C
L01	4900250		1C
L02	4900240	Inductor	1C
L03	4900220		2B
L04	4290011	Choke Coil	2A
L05	4900110	Inductor	2A

Parts No.	Stock No.	Description	Position
L06	4900110	Inductor	1A
T01	4235860	FM IF Coil	1B
T02	4235750		1B
T03	4235760	FM IF Coil	1C
T04	4235940		2B
T05	4220550	OSC Coil	2A
CF01	0910150	Ceramic Filter	1A
CF02	0910330	Low Pass Filter	1A
CF03	0910330		1A
CF04	0910280	Ceramic Filter	1, 2A
LF01	0910360	Low Pass Filter	1, 2B C
VR01	1035150	22kΩ B	1C
VR02	1035170	47kΩ B	2A, B
VR03	1035170	47kΩ B	1, 2B
VR04	1034250	4.7kΩ B	1C
VR05	1035190	100kΩ B	2C
VR06	1035110	4.7kΩ B	2A
S01	1110270	De-enphasis Switch	
	2410570	5P Pin Assy Type D	
	2410590	4P Pin Assy Type D	
	2410740	8P Pin Assy Type A	

6-2. F-2550 Multi-path Circuit Board (Stock No. 7521271)

Conductor Side



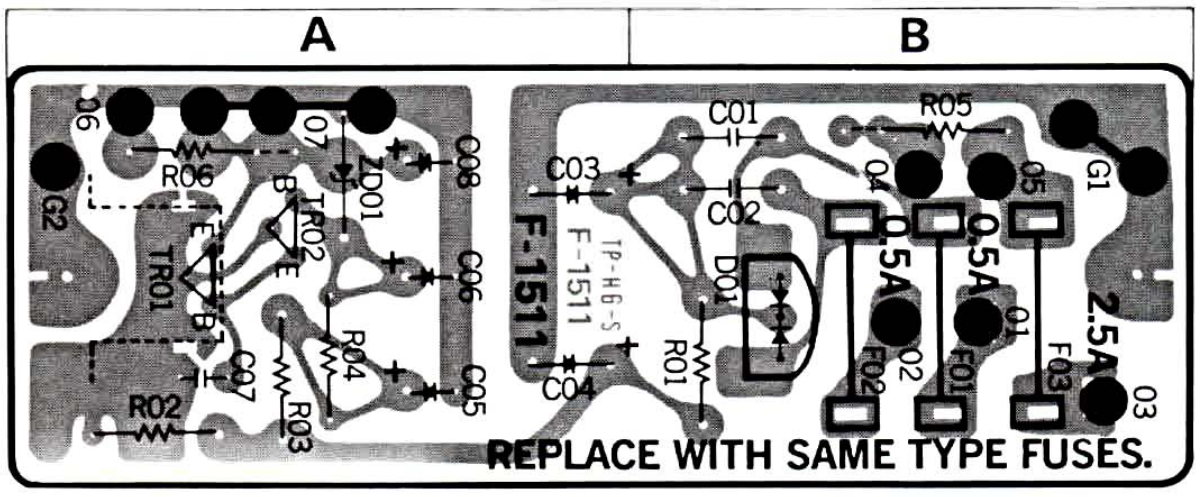
Parts List

Parts No.	Stock No.	Description
TR01	0305731, 2	2SC711 (E, F) } Transistor
TR02	0305733	2SC711 (G) }
D01	0310330, 1	1N60
D02	0310330, 1	1N60
D03	0310330, 1	1N60
D04	0310330, 1	1N60
PC01	0920060	Photo-cell Lamp
C01	0515109	1μF 50V E.C.
C02	0657101	100pF 50V C.C.
C03	0513479	4.7μF 25V E.C.
C04	0512100	10μF 16V E.C.
C05	0600107	0.01μF 50V M.C.

Parts No.	Stock No.	Description
R01	0113473	47kΩ
R02	0113104	100kΩ
R03	0113563	56kΩ
R04	0113103	10kΩ
R05	0113182	1.8kΩ 1/4W S.R.
R06	0113331	330Ω
R07	0113392	3.9kΩ
R08	0113223	22kΩ
R09	0113153	15kΩ
R10	0113479	4.7Ω
R11	0113102	1.0kΩ 1/4W S.R.
R12	0113561	560Ω
R13	0113470	47Ω
	1035430	100kΩ B
	2420300	8P Connector Assy Type A

6-3. F-1511 Power Supply Circuit Board (Stock No. 7501531)

Conductor Side



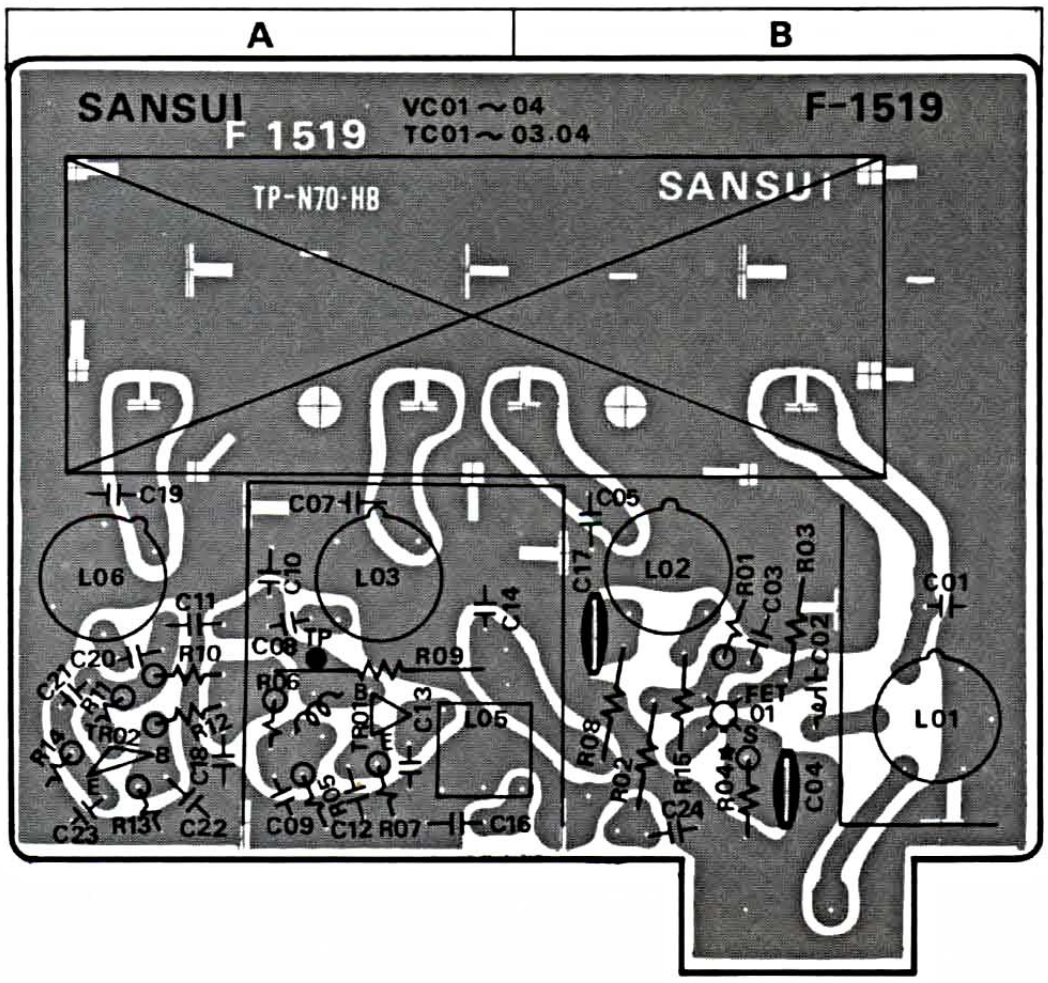
Parts List

Parts No.	Stock No.	Description	Position
TR01	0308392, 3	2SD313 (E, F) } Transistor	A
TR02	0305732, 3	2SC711 (E, G) }	A
D01	0310680	10DC-1 Diode	B
ZD01	0315310	RD13A (N) Zener Diode	A
	0315071	EQB01-14	
C01	0655103	10000 pF 500V C.C.	B
C02	0655103	10000 pF 500V C.C.	B
C03	0514471	470μF 35V E.C.	A
C04	0514471	470μF	A
C05	0513470	47μF 25V E.C.	A

Parts No.	Stock No.	Description	Position
C06	0513470	47μF 25V E.C.	A
C07	0657103	10000 pF 50V M.C.	A
C08	0512101	100μF 16V E.C.	A
R01	0103100	10Ω 1/2W C.R.	B
R02	0107100	10Ω	A
R03	0107102	1kΩ 1/4W C.R.	A
R04	0107391	390Ω	A
F01	0430810	250V 0.5A } Power Fuse	B
F02	0430810	250V 0.5A }	B
F03	0430860	250V 2.5A }	B

6-4. F-1519 FM Pack (Stock No. 7510651)

Conductor Side

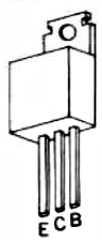
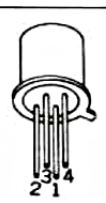


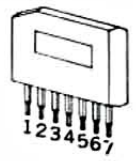
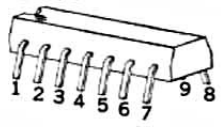
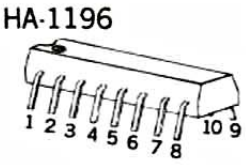
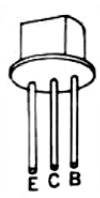
Parts List

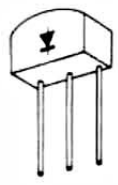
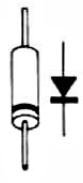
Parts No.	Stock No.	Description	Position
TR_{01}	0305800, 1	2SC1047 (A, B) } Transistor	A
TR_{02}	0305790, 1	2SC930 (C, D) }	A
FET_{01}	0370131, 2	3SK41 (K, L) FET	B
L_{01}	4200640	Antenna Coil	B
L_{02}	4210330	RF Coil (1)	B
L_{03}	4210220	RF Coil (2)	A
L_{04}	4290110	Choke Coil	A
L_{05}	4235910	IF Coil	A, B
L_{06}	4220430	OSC Coil	A
$VC_{01\sim04}$ / $TC_{01\sim03}$	1220130	FM, AM Variable Capacitor	A, B / A, B
TC_{04}	1230090	FM OSC Trimmer	A, B

Parts No.	Stock No.	Description	Position
C_{01}	0669342	5.6pF	B
C_{02}	0657102	1000pF	B
C_{03}	0657223	0.022μF 50V C.C.	B
C_{04}	0659015	2200pF	B
C_{05}	0669345	10pF	B
C_{06}	0679023	0.39pF 500V Gimmick Capacitor	B
C_{07}	0669345	10pF	A
C_{08}	0669210	10pF	A
C_{09}	0657102	1000pF	A
C_{10}	0661220	22pF	A
C_{11}	0669202	2.2pF	A
C_{12}	0657223	0.022μF 50V C.C.	A
C_{13}	0660121	120pF	A
C_{14}	0657223	0.022μF	A
C_{16}	0660331	330pF	A
C_{17}	0659015	2200pF	B
C_{18}	0657223	0.022μF	A
C_{19}	0669375	15pF	A
C_{20}	0657102	1000pF	A
C_{21}	0669209	8.2pF	A
C_{22}	0657223	0.022μF 50V C.C.	A
C_{23}	0661220 / 0669221	22pF	A
C_{24}	0657223	0.022μF	B
R_{01}	0106105	1MΩ ¼W C.R.(E.L.R.)	B
R_{02}	0113104	100kΩ ¼W S.R.	B
R_{03}	0113104	100kΩ	B
R_{04}	0106101 / 0106680	100Ω (3SK41(1)K) / 68Ω (3SK41(1)L)	B
R_{05}	0106682	6.8kΩ ¼W C.R.(E.L.R.)	A
R_{06}	0106123	12kΩ	A
R_{07}	0106392	3.9kΩ	A
R_{08}	0113121	120Ω ¼W S.R.	B
R_{09}	0113271	270Ω	A
R_{10}	0106392	3.9kΩ	A
R_{11}	0106121	120Ω	A
R_{12}	0106682	6.8kΩ ¼W C.R.	A
R_{13}	0106222	2.2kΩ	A
R_{14}	0106182	1.8kΩ	A
R_{15}	0113680	68Ω ¼W S.R.	B
	2260010	Test Pin	

6-5. Figures of Semiconductors

SEMICONDUCTORS	COMPLETE CIRCUIT BOARD
2SC1047 	F-1519 (FM PacK)
2SA628 2SC711 2SC738 2SC1312R 	F-2511 F-2549 F-2550
2SC930 	F-1519 (FM PacK)
2SD313 	F-2511
3SK41 	F-1519 (FM Pack)

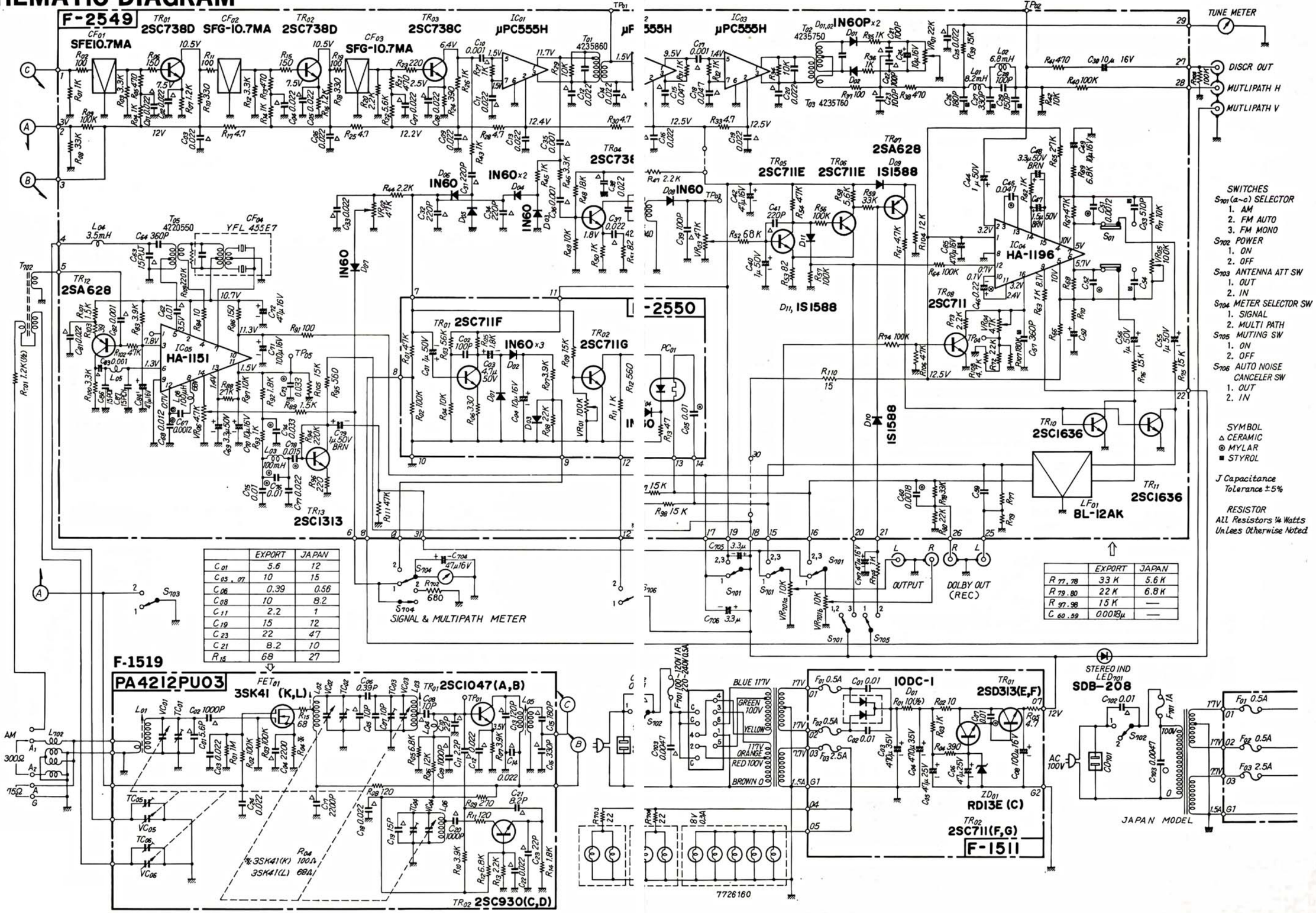
SEMICONDUCTORS	COMPLETE CIRCUIT BOARD
μPC555HR 	F-2549
HA-1151 	F-2549
HA-1196 	F-2549
2SC1636-1 	F-2549
2SC735 	F-2549

SEMICONDUCTORS	COMPLETE CIRCUIT BOARD
1N60 1N60P 	F-2549 F-2550
10DC-1 	F-2511
1S1583 1S2473D 	F-2549
RD-13A EQB01-14 	F-2511

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
BP.E.C.: Bi-Polar Electrolytic Capacitor
C.C. : Ceramic Capacitor
Mi.C. : Mica Capacitor
O.C. : Oil Capacitor
P.C. : Polystyrene Capacitor
E.C. : Tantalum Capacitor

7. SCHEMATIC DIAGRAM



	EXPORT	JAPAN
C01	5.6	12
C05 , 07	10	15
C06	0.39	0.56
C08	10	8.2
C11	2.2	1
C19	15	12
C23	22	47
C21	8.2	10
R16	68	27

	EXPORT	JAPAN
R 77 , 78	33 K	5.6 K
R 79 , 80	22 K	6.8 K
R 97 , 98	15 K	—
C 60 , 59	0.0018μ	—