



SERVICE MANUAL

AM/FM STEREO RECEIVER **SANSUI EIGHT-DELUXE**



Sansui

SANSUI ELECTRIC CO., LTD.

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

<u>Section</u>	<u>Title</u>	<u>Page</u>
1.	SPECIFICATIONS	2
2.	BLOCK DIAGRAM AND LEVEL DIAGRAM	3
2-1.	Block Diagram	3
2-2.	Level Diagram	4
3.	ALIGNMENTS AND ADJUSTMENTS	5
3-1.	Driver Circuit Board Adjustment	5
3-2.	FM IF Alignment	5, 6
3-3.	FM Dial Calibration and RF Alignment	6
3-4.	FM Signal Meter, Mono Distortion, Tune Meter and Muting Adjustment	7
3-5.	MPX Alignment	7, 8
3-6.	AM IF Dial Calibration, RF and Signal Meter Alignment	9
4.	THREADING OF DIAL CORD	11
5.	TROUBLESHOOTING CHART	12
5-1.	Troubleshooting on Power Supply Section	12
5-2.	Troubleshooting on Audio Section	12, 13, 14
5-3.	Troubleshooting on RF Section	14, 15
6.	PARTS LOCATIONS AND PARTS LIST	16
6-1.	F-1419A FM IF Circuit Board	16, 17
6-2.	F-1261C FM MPX Circuit Board	18, 19
6-3.	F-1417D AM Circuit Board	20, 21
6-4.	F-1472 Equalizer Circuit Board	21, 22
6-5.	Special Parts List in FM Frontend	22
6-6.	F-1476 Accessory Switch Circuit Board	22
6-7.	F-1477 Accessory Switch Circuit Board	22
6-8.	F-1473 Tone Control Circuit Board	23
6-9.	F-1474 Driver Circuit Board	24, 25
6-10.	F-1475 Protector Circuit Board	25, 26
6-11.	F-1201A Power Supply Circuit Board	26
6-12.	Other Parts (Front Side)	27
	6-12-1. Section-1	27, 28
	6-12-2. Section-2	29
6-13.	Other Parts (Top Side)	30
6-14.	Other Parts (Bottom Side)	30, 31
7.	PACKING LIST	31
8.	ACCESSORY PARTS LIST	31
9.	MAINTENANCE	31
9-1.	Voltage Adjustment	31
10.	SCHEMATIC DIAGRAM OF TUNER SECTION	32
11.	SCHEMATIC DIAGRAM OF AUDIO SECTION	33
12.	REPLACEMENT OF MAIN PARTS	34
12-1.	Tuner Section	34

1. SPECIFICATIONS

AUDIO SECTION

POWER OUTPUT (at rated distortion)
 MUSIC POWER (IHF) 200W into 4Ω
 160W into 8Ω
 CONTINUOUS POWER (1kHz, each channel driven)
 80/80W into 4Ω
 60/60W into 8Ω
 CONTINUOUS POWER (1kHz, both channels driven)
 55W +55W into 8Ω
 CONTINUOUS POWER (both channels driven, from
 20 to 20,000Hz)..... 50W +50W into 8Ω

TOTAL HARMONIC DISTORTION
 POWER AMPLIFIER ONLY
 less than 0.2% at rated output
 PRE AMPLIFIER ONLY (PHONO to PRE output)
 less than 0.1% at rated output
 (VR-30dB)
 PRE AMPLIFIER ONLY (AUX to PRE output)
 less than 0.1% at rated output
 OVERALL (AUX to POWER output)
 less than 0.2% at rated output

INTERMODULATION DISTORTION (70Hz: 7,000Hz
 =4:1 SMPTE method)
 POWER AMPLIFIER ONLY
 less than 0.3% at rated output
 OVERALL (AUX to POWER output)
 less than 0.3% at rated output

POWER BANDWIDTH (IHF) ..5 to 40,000Hz
 LOAD IMPEDANCE 4 to 16Ω
 DAMPING FACTOR approximately 60 at 8Ω load
 INPUT SENSITIVITY AND IMPEDANCE (1kHz, for
 rated output)
 PHONO-1 2.5mV 50kΩ
 PHONO-2 2.5mV 30kΩ, 50kΩ
 Max. Input capability more than 300mV at
 0.2% distortion
 AUX 100mV 50kΩ
 TAPE MONITOR-1, 2..... 100mV 50kΩ
 N.R. ADAPTOR 100mV 50kΩ
 4-CH ADAPTOR..... 100mV 50kΩ
 POWER AMPLIFIER INPUT .. 800mV 100kΩ

OUTPUT LEVEL
 TAPE MONITOR (DIN)..... 30mV
 TAPE MONITOR (PIN) 100mV
 TAPE MONITOR (PHONE type) .. 100mV
 PRE AMPLIFIER 800mV
 Max. Output 3V at 0.2% distortion

FREQUENCY RESPONSE
 POWER AMPLIFIER ONLY
 5 to 50,000Hz $\begin{matrix} +0.5 \\ -1.0 \end{matrix}$ dB
 OVERALL (AUX to POWER output)
 10 to 40,000Hz $\begin{matrix} +1.0 \\ -1.5 \end{matrix}$ dB

EQUALIZATION (at REC OUT) RIAA Curve
 30 to 15,000Hz \pm 1dB

CHANNEL SEPARATION (1kHz, at rated output)
 POWER AMPLIFIER ONLY better than 60dB

OVERALL (PHONO to POWER output)
 better than 50dB
 OVERALL (AUX to POWER output)
 better than 50dB

HUM AND NOISE (IHF)
 POWER AMPLIFIER ONLY better than 90dB
 OVERALL (PHONO to POWER output)
 better than 70dB

OVERALL (AUX to POWER output) better than 80dB

SWITCHES AND CONTROL
 BASS \pm 15dB at 50Hz (3dB step)
 MIDRANGE \pm 5dB at 1,000Hz (1dB step)
 TREBLE \pm 15dB at 15,000Hz (3dB step)
 LOUDNESS +10dB at 50Hz, +8dB at 10,000Hz
 LOW FILTER -10dB at 50Hz (12dB/oct.)
 HIGH FILTER -10dB at 15,000Hz (12dB/oct.)

TUNER SECTION

<FM>
 TUNING RANGE..... 88 to 108MHz
 SENSITIVITY (IHF) 1.7μV
 TOTAL HARMONIC DISTORTION
 MONO less than 0.3%
 STEREO..... less than 0.5%
 SIGNAL TO NOISE RATIO better than 65dB
 SELECTIVITY better than 80dB
 CAPTURE RATIO 1.5dB
 IMAGE REJECTION better than 100dB at 98MHz
 IF REJECTION better than 100dB at 98MHz
 SPURIOUS RESPONSE REJECTION
 better than 100dB at 98MHz
 STEREO SEPARATION better than 35dB at 400Hz
 FREQUENCY RESPONSE ... 30 to 12,000Hz \pm $\begin{matrix} 0.5 \\ 1.5 \end{matrix}$ dB
 ANTENNA IMPEDANCE ... 300Ω balanced,
 75Ω unbalanced

<AM>
 TUNING RANGE..... 535 to 1605kHz
 SENSITIVITY (bar antenna) .. 48dB/m at 1,000Hz
 IMAGE REJECTION ... better than 100dB/m at 1,000kHz
 IF REJECTION better than 100dB/m at 1,000kHz
 SELECTIVITY better than 30dB at 1,000Hz

OTHERS

SEMICONDUCTORS

TRANSISTORS..... 85
 FETs 3
 ICs..... 3
 DIODES 44
 ZENER DIODES 4

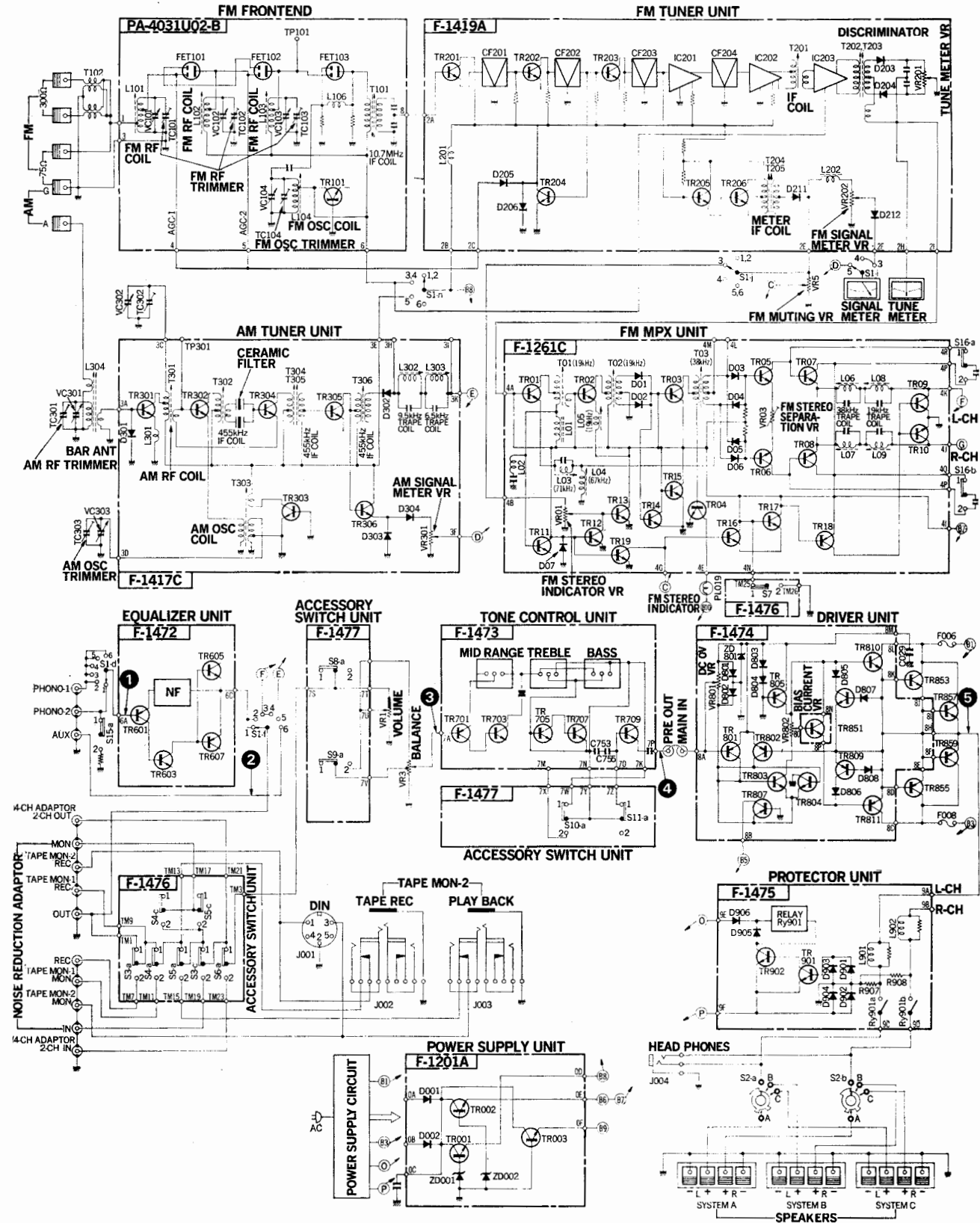
POWER REQUIREMENTS

VOLTAGE 100V, 117V, 220V, 240V 50/60Hz
 CONSUMPTION ... 140W (rated), 420VA (max)
 DIMENSIONS 140mm(5 $\frac{5}{16}$ "H), 447mm(17 $\frac{5}{16}$ "W),
 328mm (12 $\frac{5}{16}$ "D)
 WEIGHT 16.2kg (35.7 lbs.) net,
 19.1kg (42.1 lbs.) shipping

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

2. BLOCK DIAGRAM AND LEVEL DIAGRAM

2-1. Block Diagram

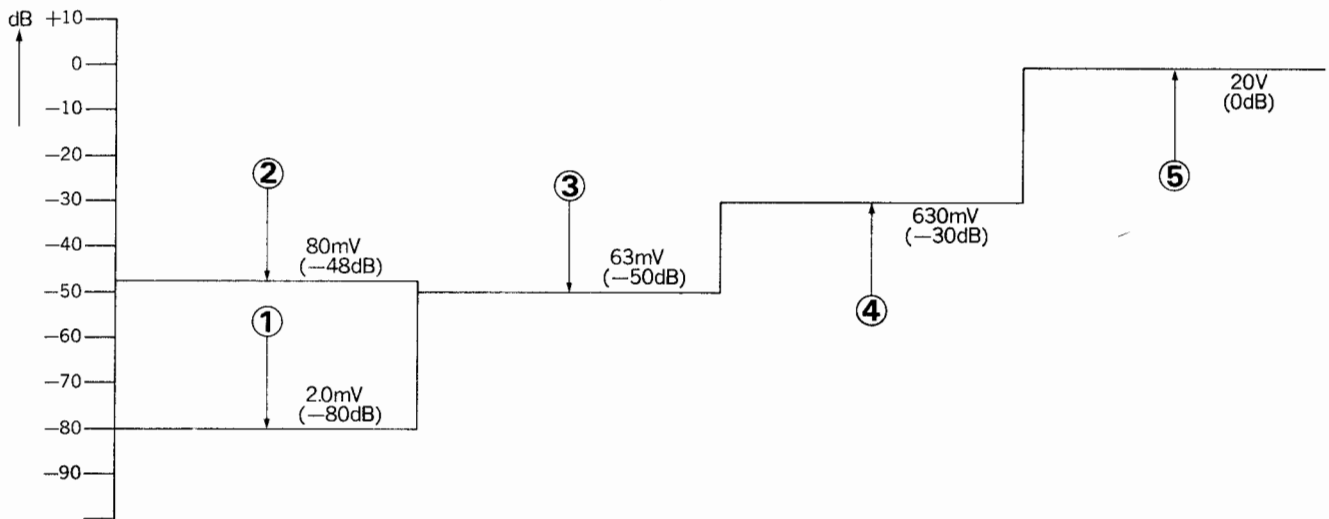


2-2. Level Diagram

* Each number (①, ②, ③....) indicated in Level Diagram corresponds to the number in Block Diagram.

1. VOLUME control.....Maximum
2. BASS, TREBLE, BALANCE volume controlCenter
3. Input.....PHONO-1 2.0mV 1kHz sine wave
AUX 80mV 1kHz sine wave
(output impedance of 600Ω at an audio oscillator)
4. Output20V (50W) 8Ω

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



- | | |
|--|--|
| <p>S 1a~j : SELECTOR</p> <ol style="list-style-type: none"> 1. PHONO-2 2. PHONO-1 3. FM-AUTO 4. FM-MONO 5. AM 6. AUX <p>S 2a~b : SPEAKER SELECTOR</p> <ol style="list-style-type: none"> 1. OFF 2. A 3. B 4. A+B 5. A+C <p>S 3a~b : N.R. ADAPTOR</p> <ol style="list-style-type: none"> 1. OUT 2. REC <p>S 4a~b : TAPE MONITOR-1</p> <ol style="list-style-type: none"> 1. REC 2. MON <p>S 5a~b : TAPE MONITOR-2</p> <ol style="list-style-type: none"> 1. OUT 2. IN <p>S 6a~b : 4-CH ADAPTOR</p> <ol style="list-style-type: none"> 1. OUT 2. IN | <p>S 7 : FM MUTING</p> <ol style="list-style-type: none"> 1. ON 2. OFF <p>S 8a~b : MODE</p> <ol style="list-style-type: none"> 1. STEREO 2. MONO <p>S 9a~b : LOUDNESS</p> <ol style="list-style-type: none"> 1. OFF 2. ON <p>S 10a~b : HIGH FILTER</p> <ol style="list-style-type: none"> 1. OFF 2. ON <p>S 11a~b : LOW FILTER</p> <ol style="list-style-type: none"> 1. OFF 2. ON <p>S 15a~b : PHONO-2 PICK UP ROAD</p> <ol style="list-style-type: none"> 1. 50kΩ 2. 30kΩ <p>S 16a~b : FM DE-EMPHASIS</p> <ol style="list-style-type: none"> 1. 75μS 2. 50μS |
|--|--|

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. Driver Circuit Board Adjustment (See Figs. 3-1 and 3-2)

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

STEP	SUBJECT	EQUIPMENT	OUTPUT	MEASURE ADJUST	ADJUST FOR	CONDITION
1	DC 0 V L-ch	DC Volt meter	F-1475 terminal 9A	F-1474 (left side board) VR801	0 V	oChange lead's polarity if meter swings backward oStep down meter's range accordingly
2	DC 0 V R-ch	Same as above	F-1475 terminal 9B	F-1474 (right side board) VR801	Same as above	Same as above
3	Bias current L-ch	DC miliam meter	F006 Fig. 3-1	F-1474 (left side board) VR802	15mA	oLeave fuse of minus side in the holder oStep down meter's range accordingly
4	Bias current R-ch	Same as above	F007 Fig. 3-1	F-1474 (right side board) VR802	Same as above	Same as above

Fig. 3-1

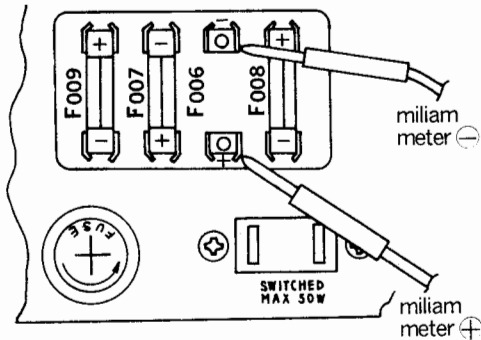
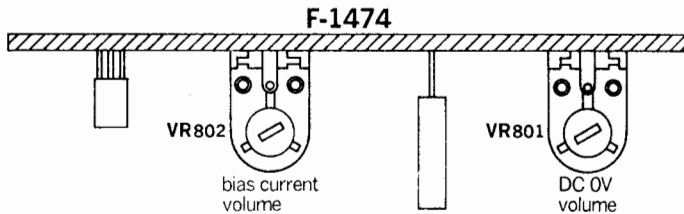
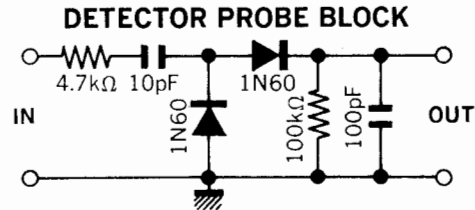
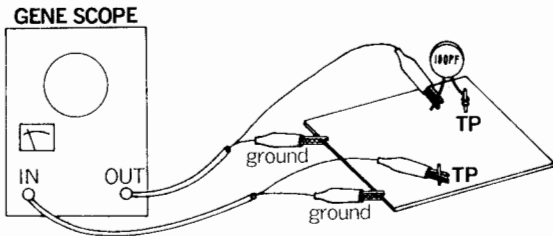


Fig. 3-2



3-2. FM IF Alignment (See Figs. 3-8, 3-9 and 3-10 on page 10)

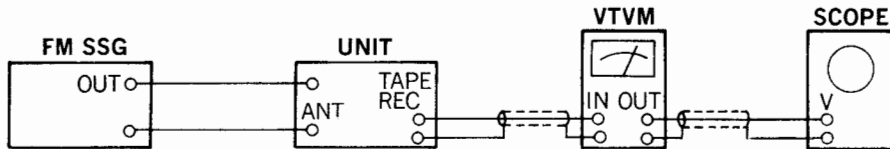
- Note:** 1. Selector FM AUTO
 2. Master Volume Minimum
 3. Output level of genescope After attenuator
 4. Sweepwidth 1.5~2cm/150kHz
 5. Frequency band 9.5~11.5MHz
 6. Connection Connect the output of genescope to TP101 through 100pF ceramic capacitor.
 7. After IF adjustment, proceed adjustments of VR201 and VR202 certainly.



STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
		FROM	TO				
1	IF coil	Output 60dB Genescope	TP101 Fig. 3-9	F-1419A IC202 (terminal 3 Fig. 3-8) Detector probe	T101 upper & lower cores	Max. IF waveform 1 as Fig. 3-10	oTurn VR201 center oTurn VR202 fully CCW.
2	Meter coil	Same as above	Same as above	F-1419A terminal 2E Genescope (Direct)	T204, T205	Max. IF waveform 2 Set the center of waveform 2 with waveform 1 as Fig 3-10	
3	Descriminator coil	Same as above	Same as above	F-1419A terminal 2I Genescope (Direct)	T202 T203	Max. linearity of S curve Set the center of S curve with waveforms 1 & 2 as Fig. 3-10	
4	IF coil			Same as above	T201	Max. noise	

3-3. FM Dial Calibration and RF Alignment (See Fig. 3-9 on page 10)

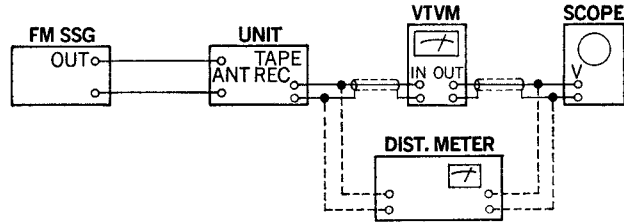
- Note:**
1. SelectorFM AUTO
 2. Master VolumeMinimum
 3. FM MUTING switchOFF (pushed in)
 4. Confirm start point of dial pointer before alignment.
 5. In Step 3 and 4, if Step 1 and 2 are readjusted, repeat Step 3 and 4 again.
 6. Nonmetric, plastic alignment tools should be used for RF alignment.



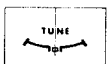


STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
		FROM	TO				
1	88MHz Dial Calibration	88MHz ANT input 10dB 1kHz (100% MOD) FM SSG	ANT terminal 300Ω	REC OUT L or R-ch VTVM & Scope	L104	Max. output	oSet Dial on 88MHz
2	108MHz Dial Calibration	108MHz ANT input 10dB 1kHz (100% MOD) FM SSG	Same as above	Same as above	TC104	Same as above	oSet Dial on 108MHz
3	Confirm 88MHz Dial Calibration	Same as Step 1	Same as above	Same as above		Confirm 88MHz Dial Calibration	oIf not, repeat from Step 1
4	Confirm 108MHz Dial Calibration	Same as Step 2	Same as above	Same as above		Confirm 108MHz Dial Calibration	oIf not, repeat from Step 2
5	90MHz RF Adj.	90MHz ANT input 10dB 1kHz (100% MOD) FM SSG	Same as above	Same as above	L101 L102 L103	Max. output	oTune FM SSG (Max. indication of Signal Meter)
6	106MHz RF Adj.	106MHz ANT input 10dB 1kHz (100% MOD) FM SSG	Same as above	Same as above	TC101 TC102 TC103	Same as above	oSame as above

3-4. FM Signal Meter, Mono Distortion, Tune Meter and Muting Adjustment (See Figs. 3-8 and 3-11 on page 10)

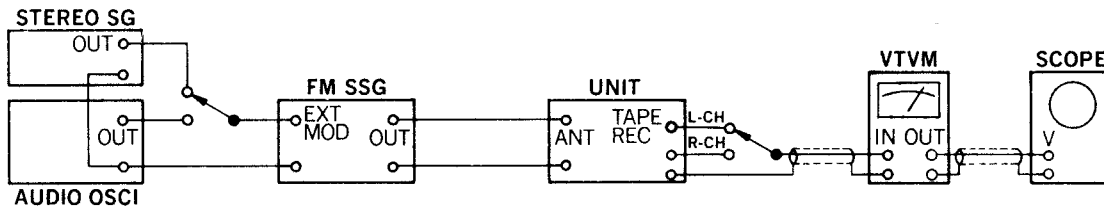
- Note: 1. SelectorFM AUTO
2. Master VolumeMinimum



STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
		FROM	TO				
1	Signal Meter	98MHz ANT input 60dB 1kHz (100% MOD) FM SSG	ANT terminal 300Ω	Signal meter	VR202	4.3 on meter 	<ul style="list-style-type: none"> ◦Tune FM SSG (Max. indication of Signal Meter) ◦Before adjustment, if meter swung out or not enough, preadjust VR202 until the reasonable point
2	Distortion	Same as above	Same as above	Tune meter	T203	Center on Tune meter 	<ul style="list-style-type: none"> ◦Tune FM SSG (Max. indication of Signal Meter) ◦Turn VR201 center
3	Distortion	Same as above	Same as above	REC OUT L or R-ch Dist. meter & Scope	T202	Min. distortion	◦Tune FM SSG (Max. indication of Signal Meter)
4	Tune Meter	Same as above	Same as above	Tune meter	VR201	Center on Tune meter 	<ul style="list-style-type: none"> ◦Set FM MUTING switch to OFF (pushed in) ◦Tune interstation noise
5	Confirm Distortion	Same as above	Same as above	REC OUT L or R-ch VTVM & Scope		Min. distortion	◦Tune FM SSG (Center indication of Tune Meter)
6	Muting Level	98MHz ANT input 14dB 1kHz (100% MOD) FM SSG	Same as above	REC OUT L or R-ch VTVM & Scope	VR5	Audio signal just muted	<ul style="list-style-type: none"> ◦Set FM MUTING switch to OFF (pushed in) ◦Tune the Tune Meter to center and make the muting switch to on (pushed out)

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

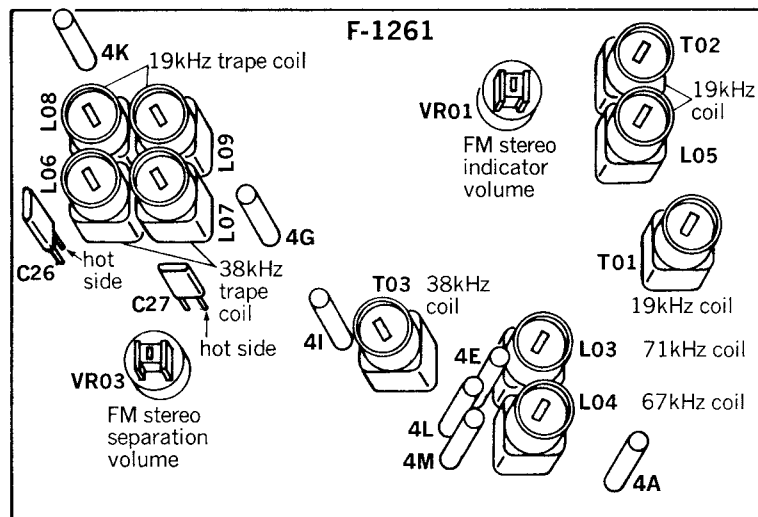
- Note: 1. Selector.....FM AUTO
2. Master VolumeMinimum
3. FM MUTING switchOFF (pushed in)



STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
		FROM	TO				
1	67kHz SCA coil	98MHz ANT input 60dB FM SSG 67kHz(100% MOD) Audio Osci.	ANT terminal 300Ω	F-1261C terminal 4M VTVM & Scope	L404	Min. 67kHz	

STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
		FROM	TO				
2	71kHz SCA coil	98MHz ANT input 60dB FM SSG 71kHz (100% MOD) Audio Osc.	Same as above	Same as above	L403	Min. 71kHz	
3	19kHz Trape coil (low pass filter)	19kHz Output 5V Audio Osc.	F-1261C terminal 4A	REC OUT L & R-ch VTVM & Scope	L408(L-ch) L409(R-ch)	Min. 19kHz	oL408 is for L-ch REC OUT oL409 is for R-ch REC OUT
4	38kHz Trape coil (low pass filter)	38kHz Output 5V Audio Osc.	F-1261C C26 Hot Side (L-ch) C27 Hot Side (R-ch)	Same as above	L406(L-ch) L407(R-ch)	Min. 38kHz	oL406 is for L-ch REC OUT oL407 is for R-ch REC OUT
5	19kHz & 38kHz coil	98MHz ANT input 60dB FM SSG Pilot 19kHz (10% MOD) Stereo SG	ANT terminal 300Ω	F-1261C terminal 4L VTVM & Scope	T401 L405 T402 T403	Max. 19kHz, 38kHz	oTurn VR401 fully CW. oTurn VR403 fully CCW.
6	Indicator (Lighting level)	98MHz ANT input 22dB FM SSG Pilot 19kHz (10% MOD) Stereo SG	Same as above	Stereo inde. lamp	VR401	Lighting point	oTune FM SSG (Center indication of Tune Meter)
7	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	L405	Min. output	
8	Separation	Same as above	Same as above	Same as above	VR403	Same as above	
9	Distortion	Same as above	Same as above	REC OUT L-ch Dist. meter & Scope	L405	Min. distortion	
10-1	Confirm Separation	Same as above	Same as above	REC OUT L-ch VTVM & Scope		Confirm the output level	
10-2	Confirm Separation	Same as above	Same as above	REC OUT R-ch VTVM & Scope		Confirm the output of R-ch which should be more than 35dB against 0dB	oIf less than 35dB, adjust VR403

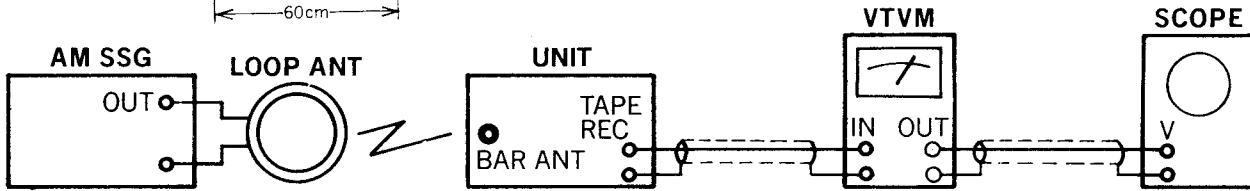
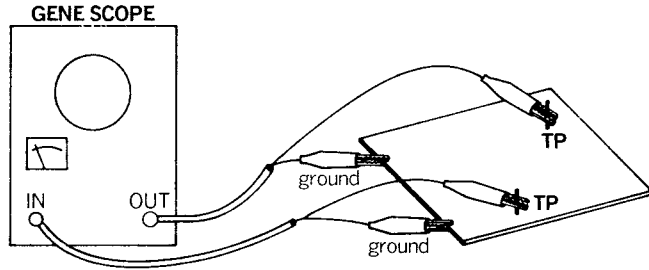
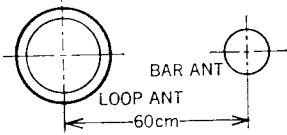
Fig. 3-3



3-6. AM IF, Dial Calibration, RF and Signal Meter Alignment (See Figs. 3-5, 3-6 and 3-7 on page 10)

- Note:**
1. SelectorAM
 2. Master VolumeMinimum
 3. Confirm 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 input as it attenuates input sensitivity for 26dB. (See Fig. 3-4)
 5. Nonmetric, plastic alignment tools should be used for RF alignment.

Fig. 3-4



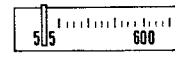

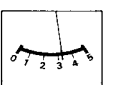
STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
		FROM	TO				
1	IF coil	Output 60dB Genescope	OSC trimmer cap. (TC303) Fig. 3-6	F-1417C terminal 3G Genescope input	T302 T304 T305 T306	Max. IF wave-form Fig. 3-7	oBetter to adjust T304 at last for easiness
2	535kHz Dial Calibration	545kHz ANT input 60dB 400Hz (30% MOD) AM SSG Use loop ANT	Bar ANT	REC OUT L or R-ch VTVM & Scope	T303	Max. output	oIf broadcasting station is near, it might be used 
3	1400kHz Dial Calibration	1400kHz ANT input 60dB 400Hz (30% MOD) AM SSG Use loop ANT	Same as above	Same as above	TC303	Same as above	Same as above 
4	Confirm 535kHz Dial Calibration	Same as Step 2	Same as above	Same as above		Confirm 535kHz Dial Calibration	oIf not, repeat from Step 2
5	Confirm 1400kHz Dial Calibration	Same as Step 3	Same as above	Same as above		Confirm 1400kHz Dial Calibration	oIf not, repeat from Step 3
6	600kHz RF Adj.	600kHz ANT input 60dB 400Hz (30% MOD) AM SSG Use loop ANT	Same as above	Same as above	L304 T301	Max. output	
7	1400kHz RF Adj.	Same as Step 3	Same as above	Same as above	TC301 TC302	Same as above	
8	Signal meter	1000kHz ANT input 74dB 400Hz (30% MOD) AM SSG Use loop ANT	Same as above	Signal Meter	VR301	3.3 on meter 	oTune AM SSG (Max. indication of signal meter) oBefore adjustment, if meter swang out or not enough, pre-adjust VR301 until the reasonable point
9	6.5kHz Trape coil (low pass filter)	6.5kHz Output 1V Audio Osci.	F-1417C terminal 3G	REC OUT L or R-ch VTVM & Scope	L303	Min. 6.5kHz	
10	9.5kHz Trape coil (low pass filter)	9.5kHz Output 1V Audio Osci.	Same as above	Same as above	L302	Min. 9.5kHz	

Fig. 3-5

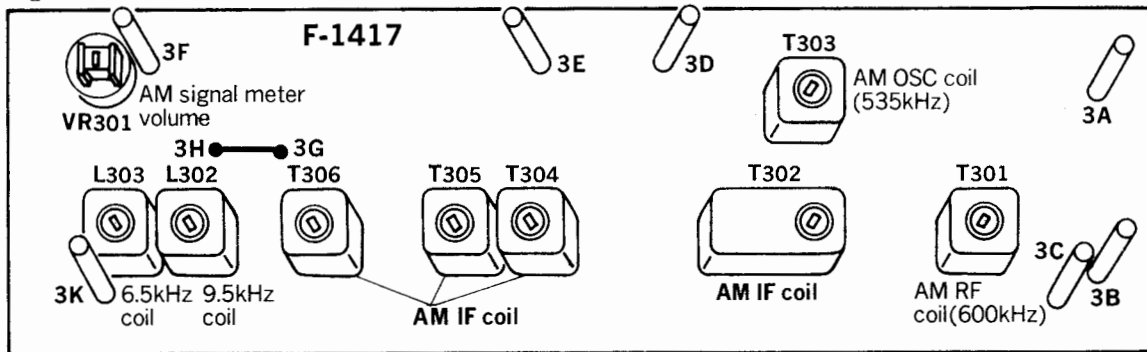


Fig. 3-6

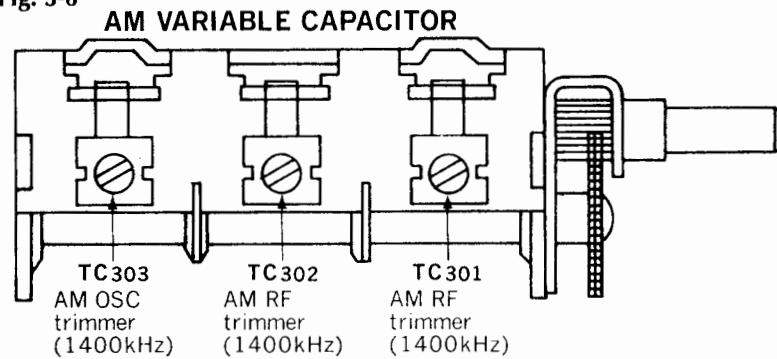


Fig. 3-7

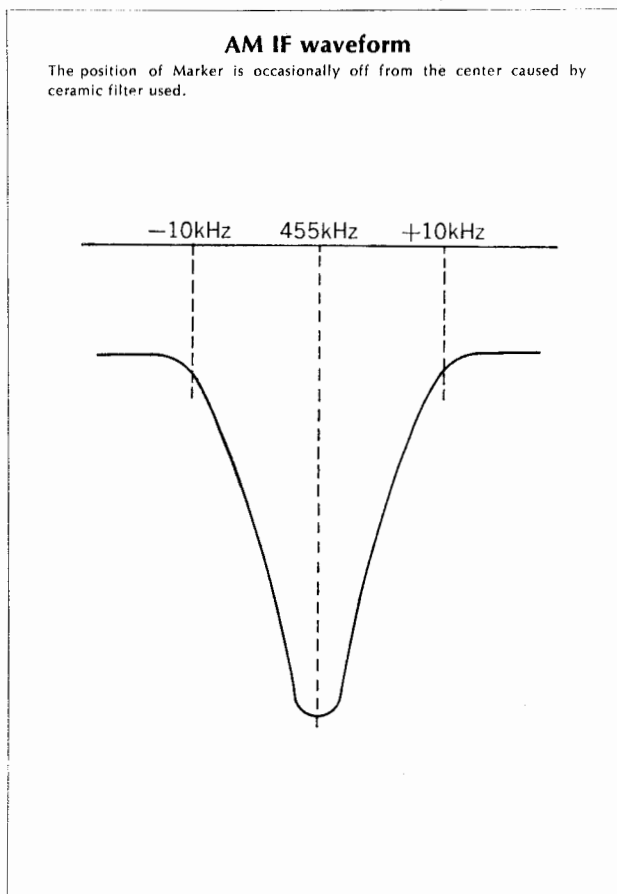


Fig. 3-8

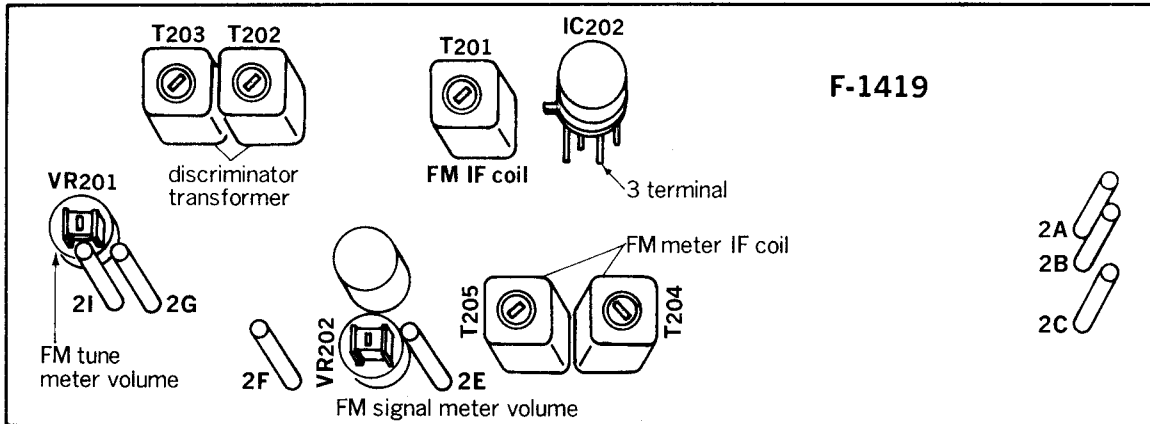


Fig. 3-9

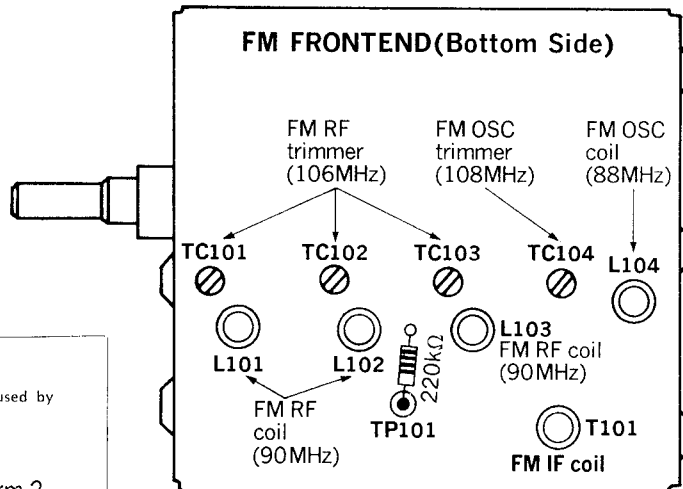


Fig. 3-10

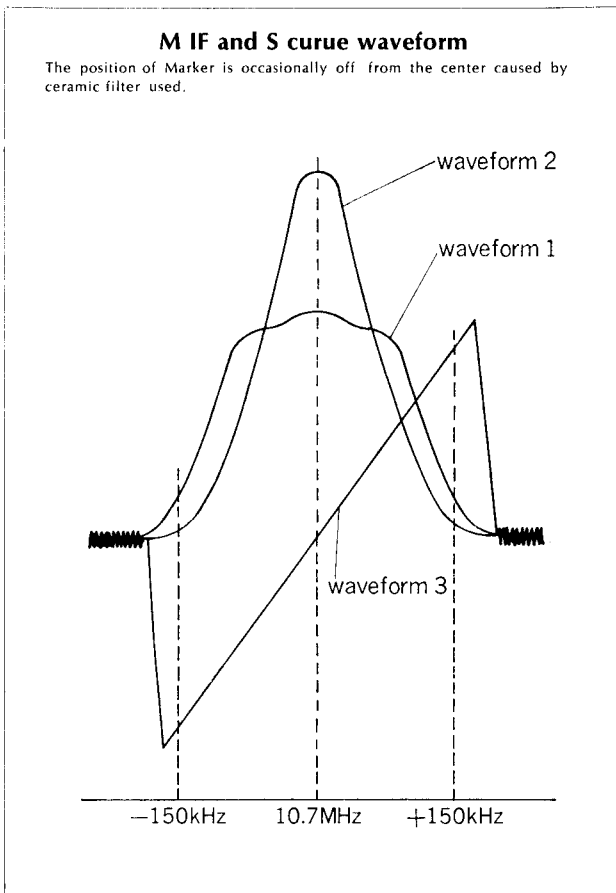
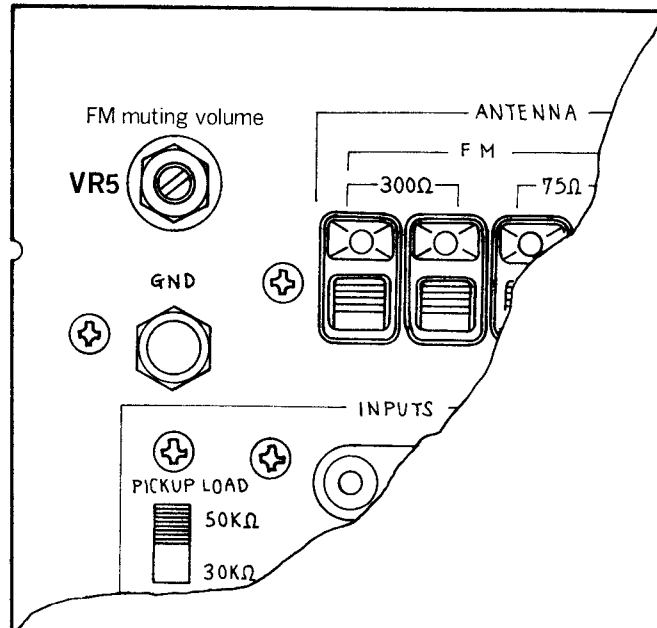


Fig. 3-11



4. THREADING OF DIAL CORD

If dial cord is cut or slips, replace cord by following procedures. As EIGHT-DELUXE is using 0.5mmφ cord at both dial pointer-driving and variable capacitor-driving mechanisms, please replace it with same type certainly.

* Length of dial cord:

- Dial pointer side200cm (78.7 in.)
- Variable capacitor side150cm (59 in.)

1. Dial Pointer-Driving Mechanism

* Proceed the threading by using inside groove of dial pulley 1 and 2.

* Proceed from 1 to 19 in numerical order as shown in Fig. 4-2.

- 1) Close AM and FM variable capacitors completely (maximum capacitance) and tie cord to B of dial pulley 2.
- 2) Thread cord in the direction of arrow from 1 to 5.
- 3) After 6, pass cord through dial spring and thread it in the direction of arrow from 7 to 13.
- 4) Thread from 13 to 18, then pass cord through dial spring and go to 19.
- 5) Give a tension to cord by holding the end of cord and tie it to B of dial pulley 2.

2. Variable Capacitor-Driving Mechanism

* Proceed the threading by using outside groove of dial pulley 1 and 2.

* Proceed from 1 to 14 in numerical order as shown in Fig. 4-1.

- 1) Close AM and FM variable capacitors completely (maximum capacitance) and tie cord to A of dial pulley 2.
- 2) Thread cord in the direction of arrow from 1 to 4.
- 3) After 4, wind cord two and half turns around the tuning shaft clockwise and toward the TUNING knob, then go on to 12.
- 4) After 13, pass cord through dial spring and go on to 14.
- 5) Give a tension to cord by holding the end of cord and turning the TUNING knob clockwise, then tie cord to B of dial pulley 2.

* Make sure that the dial mechanism operates correctly by turning the TUNING knob.

* After procedures, lock the knots of cord with paint certainly.

3. Attachment of Dial Pointer

- 1) Turn the TUNING knob and close the variable capacitors completely (maximum capacitance).
- 2) Set the dial pointer to "0" on dial scale (starting point) and tighten the dial pointer ass'y. (See Fig. 4-3)

* Make sure that the dial mechanism operates correctly by turning the TUNING knob.

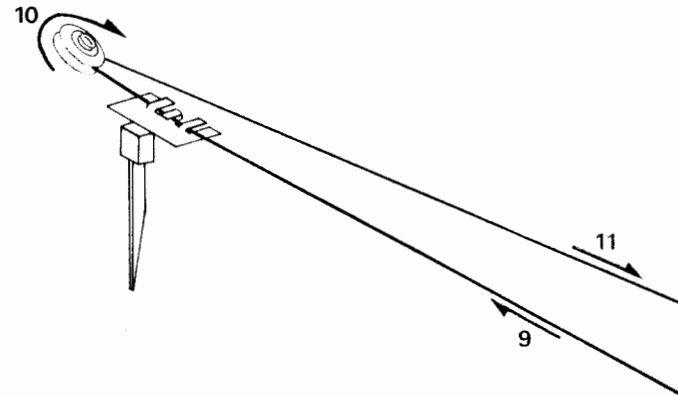
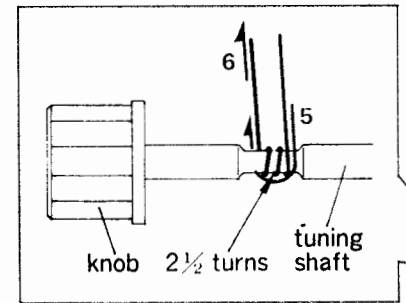
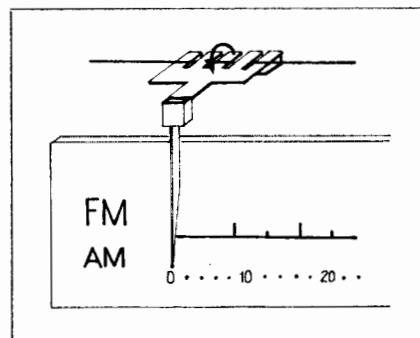
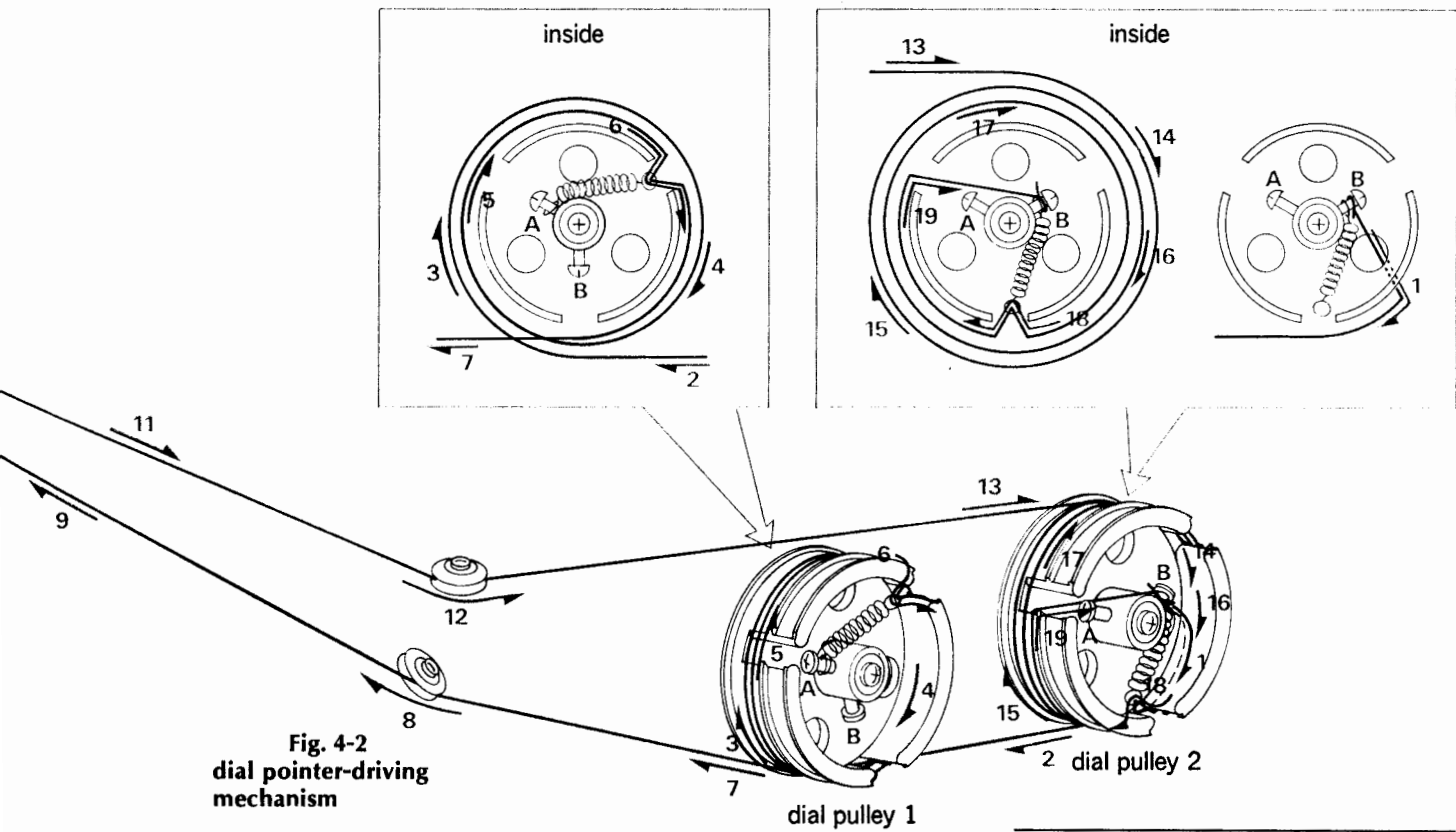
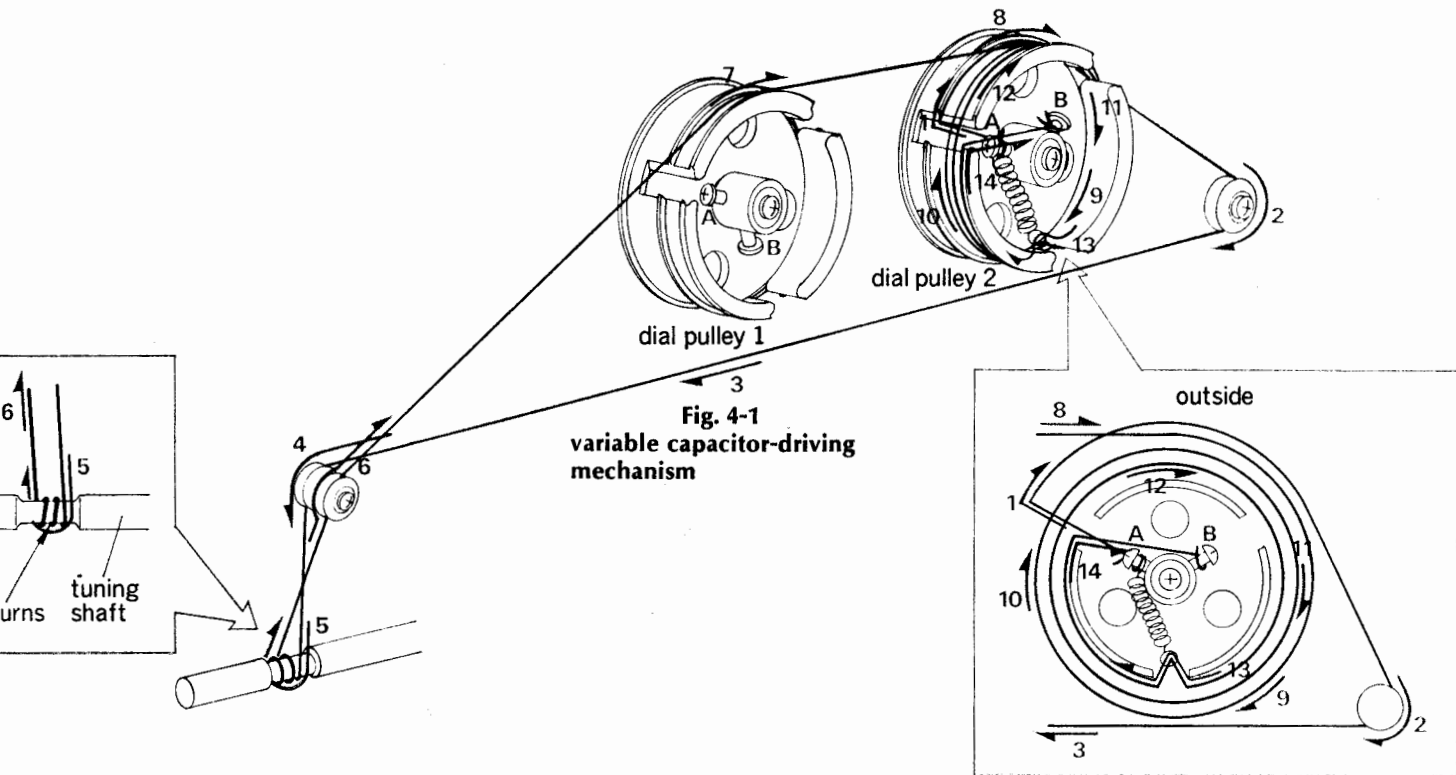


Fig. 4-3





Stock No.	Description
6036030	Dial Cord (0.5mm ϕ)
6906041	Spring G
6906010	Spring E

5. TROUBLESHOOTING CHART

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 cord 2. Power fuse F ₀₀₁ open 3. Imperfect contact of voltage selector 4. F ₀₀₅ fuse open 5. Imperfect contact of power switch S ₁₇
1-2. Each lamp lighted		
1) +44V not supplied to terminal 8L on F-1474		6. F ₀₀₆ , F ₀₀₇ quick acting fuse open 7. Defective D ₀₀₉
2) -44V not supplied to terminal 8C on F-1474		8. F ₀₀₈ , F ₀₀₉ quick acting fuse open 9. Defective D ₀₀₉
3) -49V not supplied to terminal 8B on F-1474		10. Defective D ₀₀₇ , D ₀₀₈
4) +14V not supplied to terminal OD on F-1201A		11. F ₀₀₄ wired-in fuse open 12. Defective D ₀₀₂ on F-1201A 13. Defective TR ₀₀₁ on F-1201A 14. Defective ZD ₀₀₁ on F-1201A
5) +24V not supplied to terminal OE on F-1201A		15. F ₀₀₃ wired-in fuse open 16. Defective D ₀₀₁ on F-1201A 17. Defective TR ₀₀₂ on F-1201A 18. Defective ZD ₀₀₂ on F-1201A
6) +47V not supplied to terminal OF on F-1201A		19. Defective TR ₀₀₃ on F-1201A
7) +8V not supplied to terminal OH on F-1201A		20. F ₀₀₅ wired-in fuse open 21. Defective D ₀₀₄ on F-1201A

5-2. Troubleshooting on Audio Section

1. Quick acting fuse not open

1-1. Correct voltage not supplied to collector of each power transistor (TR ₈₅₃ , TR ₈₅₄ , TR ₈₅₇ , TR ₈₅₈ +44V; TR ₈₅₅ , TR ₈₅₆ , TR ₈₅₉ , TR ₈₆₀ -44V)		1. Defective power supply section
1-2. Correct voltage supplied to collector of each power transistor (Same as above)		
1) Center voltage not adjustable by VR ₈₀₁ on F-1474		2. Defective TR ₈₀₁ ~TR ₈₀₃ on F-1474 3. Defective D ₈₀₁ , D ₈₀₂ on F-1474 4. Imperfect contact of VR ₈₀₁ on F-1474
2) Center voltage adjustable by VR ₈₀₁ on F-1474		5. Driver circuit F-1474 normal

2. Quick acting fuse open

Symptom	Check Point	Cause & What to Do
2-1. After replacement, fuse open again		6. Defective TR ₈₅₇ , TR ₈₅₉ (TR ₈₅₈ , TR ₈₆₀) 7. Defective TR ₈₅₃ , TR ₈₅₅ (TR ₈₅₄ , TR ₈₅₆) 8. Defective TR ₈₀₅ ~TR ₈₁₁ on F-1474 9. Defective D ₈₀₅ ~D ₈₀₈ on F-1474 10. Defective TR ₈₅₁ (TR ₈₅₂)
2-2. After replacement, fuse not open		
1) Center voltage adjustable to 0V by VR ₈₀₁ on F-1474	1-1) Bias current adjustable to 15mA by VR ₈₀₂ on F-1474 1-2) Bias current not adjustable to 15mA by VR ₈₀₂ on F-1474	11. Set the bias current to 15mA (See page 6) 12. Defective TR ₈₀₃ , TR ₈₀₃ and imperfect contact of VR ₈₀₂ 13. Defective D ₈₀₃ , D ₈₀₄ on F-1474
2) Center voltage not adjustable to 0V by VR ₈₀₁ on F-1474		14. Defective TR ₈₀₁ , TR ₈₀₂ on F-1474 15. Defective TR ₈₀₈ on F-1474 16. Defective D ₈₀₁ , D ₈₀₂ on F-1474 17. Defective TR ₈₀₇ on F-1474 18. Imperfect contact of VR ₈₀₁ on F-1474

3. AUX inoperative

3-1. Both channels inoperative	1) +23V supplied to terminal 7Q on F-1473 2) +23V not supplied to terminal 7Q on F-1473	1. Defective auxiliary unit, or connecting cord 2. Defective protector circuit F-1475 3. Defective power supply circuit F-1201A 4. F ₀₀₂ wired-in fuse open 5. Defective power supply section
3-2. One channel inoperative	1) +23V supplied to terminal 7Q on F-1473 2) +23V not supplied to terminal 7Q on F-1473	6. Imperfect contact of S _{1-r} on SELECTOR switch 7. Imperfect contact of S _{8-n} on MODE switch 8. Imperfect contact of switch circuit F-1476 9. Defective TR ₇₀₁ , TR ₇₀₃ , TR ₇₀₅ , TR ₇₀₇ , TR ₇₀₉ (TR ₇₀₂ , TR ₇₀₄ , TR ₇₀₆ , TR ₇₀₈ , TR ₇₁₀) on F-1473 10. Imperfect contact of VR ₁ , VR ₃ (VR ₂ , VR ₄) 11. Imperfect contact of S _{2-n} (S _{2-l}) on SPEAKER SELECTOR switch 12. Defective power supply section

4. PHONO inoperative

Symptom	Check Point	Cause & What to Do
4-1. Both channels inoperative	1) +47V supplied to terminal 6F on F-1472	1. Defective turntable
	2) +47V not supplied to terminal 6F on F-1472	2. Defective power supply section
4-2. One channel inoperative	1) Reverse the output cord of L and R-ch from turntable	3. Defective turntable
		4. Defective TR ₆₀₁ , TR ₆₀₃ , TR ₆₀₅ , TR ₆₀₇ (TR ₆₀₂ , TR ₆₀₄ , TR ₆₀₆ , TR ₆₀₈) on F-1472
	1-1) Inoperative channel reverse	5. Imperfect contact of S _{1-d, e} on SELECTOR switch
		6. Imperfect contact of S _{1-f, g} on SELECTOR switch

5-3. Troubleshooting on RF Section

1. FM inoperative

- * Before check, set FM MUTING switch to OFF.
- * Confirm DC 13.5V supplied to terminal 2B on F-1419A.
- * Confirm DC 12V supplied to terminal 6 on FM Frontend (PA-4031U02-B).

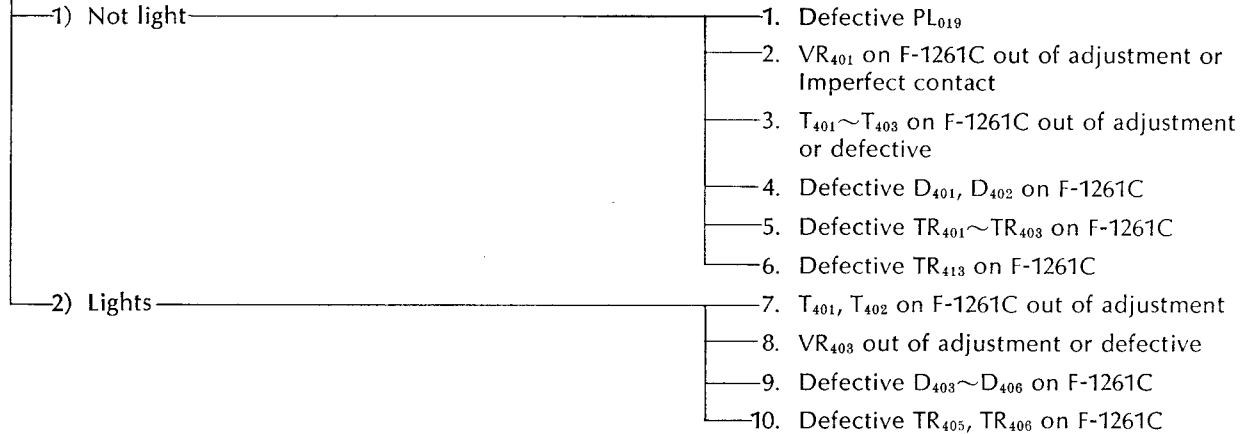
1-1. Signal meter operative	1) Tune meter operative	1. Defective MPX circuit on F-1261C	
	2) Tune meter not operative	2. Defective IC ₂₀₁ ~IC ₂₀₃ on F-1419A	
1-2. Signal meter not operative	1) Broadcasting sound can be heard (Tune meter operative)	3. Defective CF ₂₀₄ on F-1419A	
		4. Defective T ₂₀₁ ~T ₂₀₃ on F-1419A	
		5. Defective TR ₂₀₅ , TR ₂₀₆ on F-1419A	
		6. Defective T ₂₀₄ , T ₂₀₅ on F-1419A	
	2) Broadcasting sound can not be heard (Tune meter not operative)	7. Imperfect contact of S _{1-j} on SELECTOR switch	
		8. Imperfect contact of VR ₂₀₂ on F-1419A	
		9. Defective Signal meter (AM too)	
		10. Defective TR ₂₀₁ ~TR ₂₀₃ on F-1419A	
		11. Defective CF ₂₀₁ ~CF ₂₀₄ on F-1419A	
		12. Defective IC ₂₀₁ ~IC ₂₀₃ on F-1419A	
		13. Defective T ₂₀₁ ~T ₂₀₃ on F-1419A	
		14. Defective FM Frontend	
		2. FM Muting circuit inoperative	1. Defective TR ₄₁₆ ~TR ₄₁₈ on F-1261C
			2. Defective TR ₄₀₉ , TR ₄₁₀ on F-1261C
3. Imperfect contact of VR ₅			
4. Imperfect contact of S ₇ on FM MUTING switch			

3. No channel separation on FM stereo broadcasting

Symptom	Check Point	Cause & What to Do
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* Confirm that SELECTOR switch is set to FM AUTO.

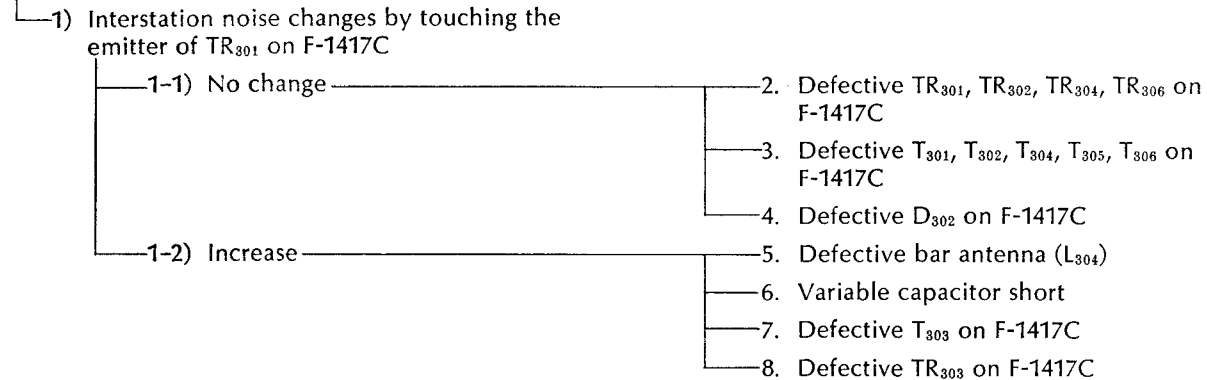
3-1. Stereo Indicator Lamp



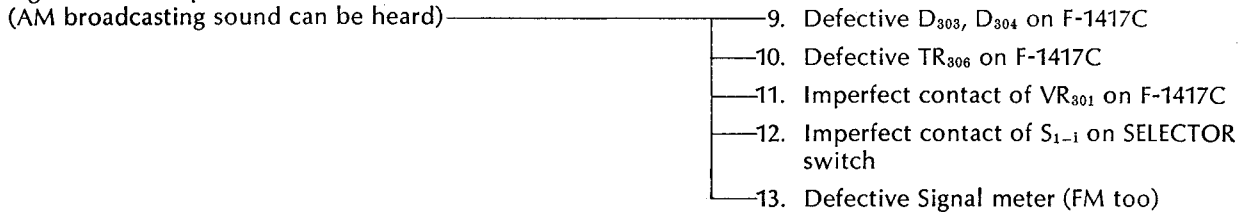
4. AM inoperative

1-1. +13.5V not supplied to terminal 3E on F-1417C ————— 1. Defective power supply section

1-2. +13.5V supplied to terminal 3E on F-1417C



1-3. Signal meter inoperative

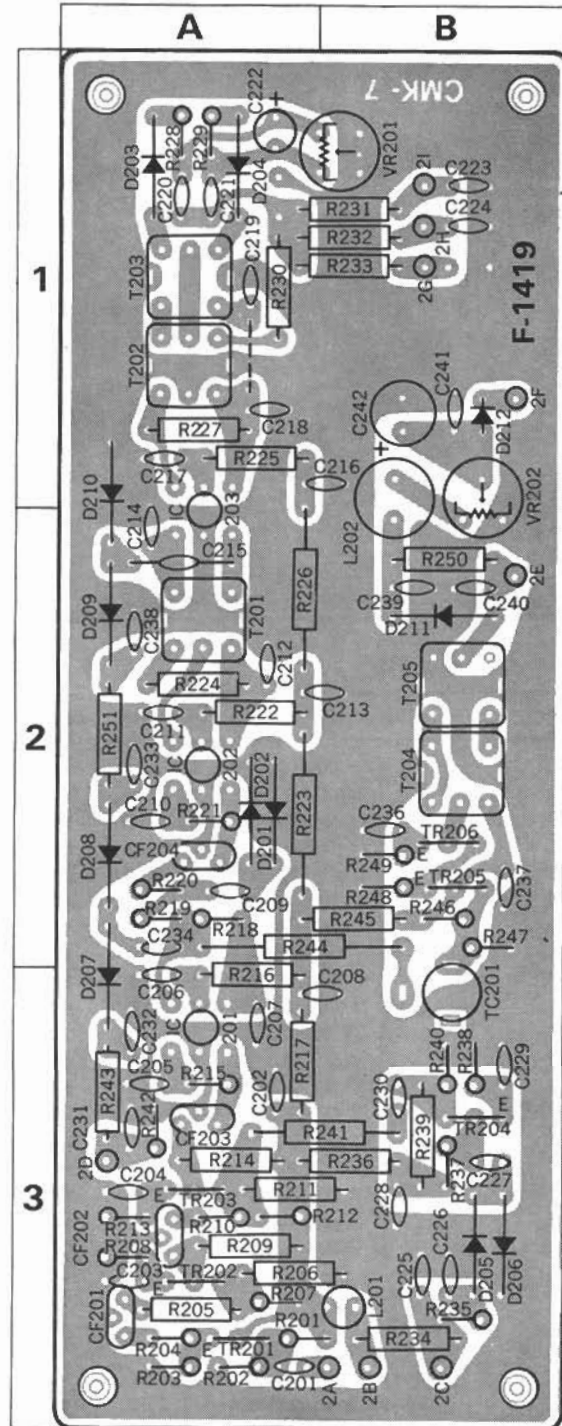


6. PARTS LOCATIONS AND PARTS LIST

6-1. F-1419A FM IF Circuit Board

(Stock No. 7520600 Complete Circuit Board F-1419A)

Conductor Side



Parts List

Parts No.	Stock No.	Description	Position
TR201	0305571	2SC380A-0	} Transistor
TR202	0306113	2SC738D	
TR203	0306113	2SC738D	
TR204	0306112	2SC738C	
TR205	0305791	2SC930D	
TR206	0305791	2SC930D	
IC201	0360070	μ PC555A	} IC
IC202	0360070	μ PC555A	
IC203	0360070	μ PC555A	
D203	0311060	1N60P	} Diode
D204	0311060	1N60P	
D205	0310330	1N60	
D206	0310330	1N60	
D211	0310330	1N60	
D212	0340090	DS430	
CF201	0910200	SFE-10.7MD	} Ceramic Filter
CF202	0910200	SFE-10.7MD	
CF203	0910200	SFE-10.7MD	
CF204	0910200	SFE-10.7MD	
T201	4235860	MTKAC-22641N	} FM IFT
T202	4235750	MTKAC-21238QAS	
T203	4235760	MTKAC-21239SBS	
T204	4235840	MTKAC-22478DZK	
T205	4235920	MTKAC-22558N	
L201	4900100	LF43R3K (3.3 μ H)	3 B
L202	4900180	LF5333J (33mH)	1, 2 B
C201	0657102	0.001 μ F 50V	} $\pm 10\%$ C.C.
C202	0657223	0.022 μ F 50V	
C203	0657223	0.022 μ F 50V	
C204	0657223	0.022 μ F 50V	
C205	0657223	0.022 μ F 50V	
C206	0657223	0.022 μ F 50V	
C207	0657223	0.022 μ F 50V	
C208	0657223	0.022 μ F 50V	
C211	0657223	0.022 μ F 50V	
C212	0657223	0.022 μ F 50V	
C213	0657223	0.022 μ F 50V	
C214	0657223	0.022 μ F 50V	
C216	0657223	0.022 μ F 50V	
C217	0657223	0.022 μ F 50V	
C218	0657223	0.022 μ F 50V	
C220	0660101	100pF 50V	
C221	0660101	100pF 50V	
C222	0512100	10 μ F 16V E.C.	
C223	0660470	47pF 50V $\pm 10\%$ C.C.	

to be continued

Abbreviations

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

F-1419A Parts List

Parts No.	Stock No.	Description	Position
C224	0657223	0.022 μ F 50V	1 B
C225	0657223	0.022 μ F 50V	3 B
C226	0657223	0.022 μ F 50V	3 B
C227	0657102	0.001 μ F 50V	3 B
C228	0657223	0.022 μ F 50V	3 B
C229	0657223	0.022 μ F 50V	3 B
C230	0669210	10pF 50V $\pm 0.25\mu$ F	C.C. 3 B
C236	0657223	0.022 μ F 50V	2 B
C237	0657223	0.022 μ F 50V	2 B
C239	0657223	0.022 μ F 50V	2 B
C240	0657223	0.022 μ F 50V	2 B
C241	0657223	0.022 μ F 50V	1 B
C243	0669232	47pF 50V $\pm 10\%$	C.C.
R201	0106682	6.8k Ω	3 A
R202	0106332	3.3k Ω	3 A
R203	0106102	1k Ω	3 A
R204	0106221	220 Ω	3 A
R205	0107101	100 Ω	3 A
R206	0107152	1.5k Ω	3 A, B
R207	0106332	3.3k Ω	3 A
R208	0106102	1k Ω	3 A
R209	0107681	680 Ω	3 A
R210	0106101	100 Ω	3 A
R211	0107152	1.5k Ω	3 A, B
R212	0106332	3.3k Ω	3 A
R213	0106102	1k Ω	3 A
R214	0107681	680 Ω	3 A
R215	0106681	680 Ω	3 A
R216	0107101	100 Ω	3 A
R217	0107100	10 Ω	3 A
R218	0106681	680 Ω	2 A
R221	0106681	680 Ω	2 A
R222	0107101	100 Ω	2 A
R223	0107100	10 Ω	2 A
R224	0107103	10k Ω	2 A
R225	0107101	100 Ω	1 A
R227	0107682	6.8k Ω	1 A
R228	0106102	1k Ω	1 A
R229	0106102	1k Ω	1 A
R230	0107100	10 Ω	1 A
R231	0107102	1k Ω	1 A, B
R232	0107183	18k Ω	1 A, B
R234	0107105	1M Ω	3 B
R235	0106333	33k Ω	3 B
R236	0107101	100 Ω	3 A, B
R237	0106222	2.2k Ω	3 B
R238	0106102	1k Ω	3 B
R239	0107473	47k Ω	3 B
R240	0106153	15k Ω	3 B
R241	0107102	1k Ω	3 A, B
R245	0107101	100 Ω	2 A, B
R246	0106473	47k Ω	2 B
R247	0106153	15k Ω	2 B
R248	0106222	2.2k Ω	2 B
R249	0106681	680 Ω	2 B
R250	0107472	4.7k Ω	2 B
R252	0106182	1.8k Ω	2 B
R253	0107681	680 Ω	2 B

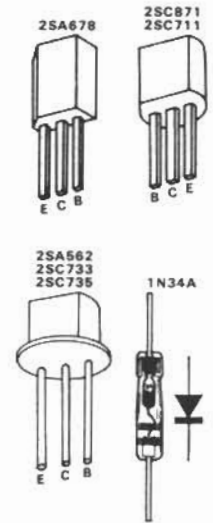
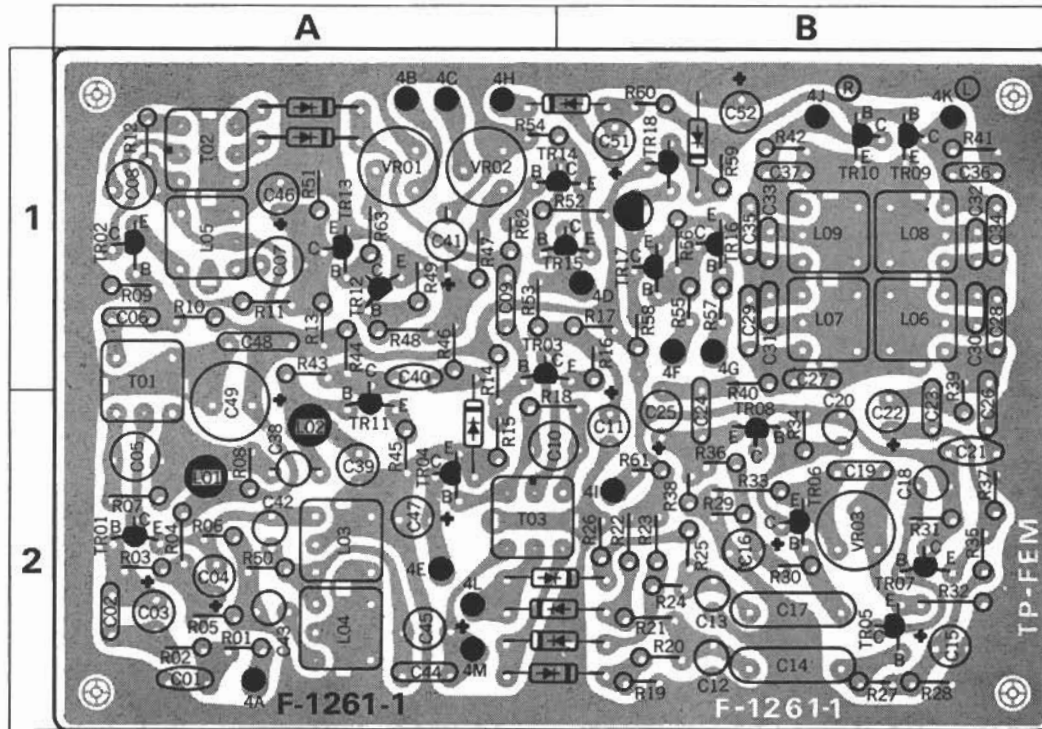
Parts No.	Stock No.	Description	Position
VR201	1035130	10k Ω (B)	1 B
VR202	1035170	47k Ω (B)	1, 2 B
	2260010	Test Pin	

Abbreviations

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

6-2. F-1261C FM MPX Circuit Board (Stock No. 7540760 Complete Circuit Board F-1261C)

Conductor Side



Parts List

Parts No.	Stock No.	Description	Position
TR01	0305475	2SC871 (F)	2 A
TR02	0305731. 2	2SC711 (E, F)	1 A
TR03	0300220. 1	2SA562 (O, Y)	1 A, B
TR04	0305640. 1	2SC735 (O, Y)	2 A
TR05	0305475	2SC871 (F)	2 B
TR06	0305475	2SC871 (F)	2 B
TR07	0305475	2SC871 (F)	2 B
TR08	0305475	2SC871 (F)	2 B
TR09	0305370. 1	2SC733 (O, Y)	1 B
TR10	0305370. 1	2SC733 (O, Y)	1 B
TR11	0305731. 2	2SC711 (E, F)	1, 2 A
TR12	0305370. 1	2SC733 (O, Y)	1 A
TR13	0305731. 2	2SC711 (E, F)	1 A
TR14	0305370. 1	2SC733 (O, Y)	1 A, B
TR15	0305370. 1	2SC733 (O, Y)	1 A, B
TR16	0305370. 1	2SC733 (O, Y)	1 B
TR17	0305370. 1	2SC733 (O, Y)	1 B
TR18	0300291. 2	2SA678 (6, 7)	1 B
TR19	0305731. 2	2SC711 (E, F)	1 B
D01	0310400	1N34A	Diode
D02	0310400	1N34A	
D03	0310401	1N34A (Yellow)	
D04	0310401	1N34A (Yellow)	
D05	0310401	1N34A (Yellow)	
D06	0310401	1N34A (Yellow)	
D07	0310400	1N34A	
T01	4240520	CAN1290A 19kHz MPX Coil	1, 2 A
T02	4240540	CAN1328YCB 19kHz MPX Coil	1 A
T03	4240530	CAN1327YCB 38kHz MPX Coil	2 A, B

Parts No.	Stock No.	Description	Position
L01	4900090	2.2mH	Micro-Inductor
L02	4900090	2.2mH	
L03	4240560	CAN1291HM2 71kHz MPX Coil	2 A
L04	4240410	CAN1056HM2 67kHz MPX Coil	2 A
L05	4240550	CAN1294AYC 19kHz MPX Coil	1 A
L06	4240400	CAN1055HM2	19kHz MPX Coil
L07	4240400	CAN1055HM2	
L08	4240400	CAN1055HM2	
L09	4240400	CAN1055HM2	
C01	0660101	100pF 50V	C.C. 2 A
C02	0600107	0.01 μF 50V	M.C. 2 A
C03	0515339	3.3 μF 50V	E.C. 2 A
C04	0515339	3.3 μF 50V	
C05	0629001	6800pF 50V	P.C. 2 A
C06	0600227	0.022 μF 50V	M.C. 1 A
C07	0629001	6800pF 50V	P.C. 1 A
C08	0629001	6800pF 50V	
C09	0600227	0.022 μF 50V	M.C. 1 A
C10	0629002	2700pF 50V	P.C. 2 A, B
C11	0515339	3.3 μF 50V	E.C. 2 B
C12	0620821	820pF 50V	P.C. 2 B
C13	9620821	820pF 50V	
C14	0600228	0.22 μF 50V	M.C. 2 B
C15	0515339	3.3 μF 50V	E.C. 2 B
C16	0515339	3.3 μF 50V	
C17	0600228	0.22 μF 50V	M.C. 2 B
C18	0620102	1000pF 50V	P.C. 2 B
C19	0620561	560pF 50V	
C20	0620102	1000pF 50V	P.C. 2 B
C21	0657473	0.047 μF 50V	

to be continued

F-1261C Parts List

Parts No.	Stock No.	Description	Position
C22	0573339	3.3 μ F 25V	T.C. 2 B
C23	0600227	0.022 μ F 50V	} M.C. 1, 2 B
C24	0600227	0.022 μ F 50V	
C25	0573339	3.3 μ F 25V	T.C. 2 B
C26	0600686	0.0068 μ F 50V	} M.C. 1, 2 B
C27	0600686	0.0068 μ F 50V	
C28	0620561	560pF 50V	} P.C. 1 B
C29	0620561	560pF 50V	
C30	0600226	0.0022 μ F 50V	1 B
C31	0600226	0.0022 μ F 50V	1 B
C32	0600226	0.0022 μ F 50V	1 B
C33	0600226	0.0022 μ F 50V	} M.C. 1 B
C34	0600226	0.0022 μ F 50V	
C35	0600226	0.0022 μ F 50V	
C36	0600226	0.0022 μ F 50V	
C37	0600226	0.0022 μ F 50V	
C38	0620221	220pF 50V	
C39	0620472	4700pF 50V	
C40	0657103	0.01 μ F 50V	C.C. 1 A
C41	0573688	0.68 μ F 25V	T.C. 1 A
C42	0620222	2200pF 50V	} P.C. 2 A
C43	0620271	270pF 50V	
C44	0600227	0.022 μ F 50V	M.C. 2 A
C45	0513100	10 μ F 25V	} E.C. 1 A
C46	0515109	1 μ F 50V	
C47	0512100	10 μ F 16V	2 A
C48	0600108	0.1 μ F 50V	M.C. 1 A
C49	0513101	100 μ F 25V	} E.C. 1, 2 A
C53	0512100	10 μ F 16V	
C54	0600227	0.022 μ F 50V	M.C. 1 A
C55	0573109	1 μ F 25V	T.C. 1 A
R01	0106102	1k Ω	2 A
R02	0106102	1k Ω	2 A
R03	0106104	100k Ω	2 A
R04	0106104	100k Ω	2 A
R05	0106223	22k Ω	2 A
R06	0106222	2.2k Ω	2 A
R07	0106333	33k Ω	2 A
R08	0106103	10k Ω	2 A
R09	0106123	12k Ω	1 A
R10	0106104	100k Ω	1 A
R11	0106102	1k Ω	1 A
R12	0106333	33k Ω	1 A
R13	0106473	47k Ω	1 A
R14	0106104	100k Ω	1, 2 A
R15	0106104	100k Ω	} $\pm 5\% \frac{1}{4}W$ C.R. (E.L.R.) 2 A
R16	0106181	180 Ω	
R17	0106182	1.8k Ω	
R18	0106223	22k Ω	
R19	0106334	330k Ω	
R20	0106472	4.7k Ω	
R21	0106472	4.7k Ω	2 B
R22	0106334	330k Ω	2 B
R23	0106334	330k Ω	2 B
R24	0106472	4.7k Ω	2 B
R25	0106472	4.7k Ω	2 B
R26	0106334	330k Ω	2 B
R27	0106104	100k Ω	2 B
R28	0106333	33k Ω	2 B
R29	0106333	33k Ω	2 B
R30	0106104	100k Ω	2 B
R31	0106563	56k Ω	2 B

Parts No.	Stock No.	Description	Position
R32	0106562	5.6k Ω	2 B
R33	0106562	5.6k Ω	2 B
R34	0106563	56k Ω	2 B
R35	0106104	100k Ω	2 B
R36	0106104	100k Ω	2 B
R37	0106392	3.9k Ω	2 B
R38	0106392	3.9k Ω	2 B
R39	0106472	4.7k Ω	1, 2 B
R40	0106472	4.7k Ω	1 B
R41	0106562	5.6k Ω	1 B
R42	0106562	5.6k Ω	1 B
R43	0106105	1M Ω	1 A
R44	0106332	3.3k Ω	1 A
R45	0106680	68 Ω	2 A
R46	0106332	3.3k Ω	} $\pm 5\% \frac{1}{4}W$ C.R. (E.L.R.) 1 A
R47	0106224	220k Ω	
R48	0106224	220k Ω	1 A
R49	0106473	47k Ω	1 A
R50	0106222	2.2k Ω	2 A
R51	0106473	47k Ω	1 A
R52	0106473	47k Ω	1 A, B
R53	0106821	820 Ω	1 A
R54	0106560	56 Ω	1 A, B
R55	0106473	47k Ω	1 B
R57	0106473	47k Ω	1 B
R58	0106103	10k Ω	1 B
R59	0106472	4.7k Ω	1 B
R61	0106470	47 Ω	2 B
R62	0106473	47k Ω	1 A
R63	0106473	47k Ω	1 A
R64	0107153	15k Ω	} $\pm 5\% \frac{1}{4}W$ C.R. (E.L.R.)
R65	0106103	10k Ω	
R66	0107222	2.2k Ω	} $\pm 5\% \frac{1}{4}W$ C.R. (E.L.R.)
R67	0107222	2.2k Ω	
R68	0106560	56 Ω	} $\pm 5\% \frac{1}{4}W$ C.R. (E.L.R.)
VR01	1035210	220k Ω (B)	
VR02	1035170	47k Ω (B)	
	2260010	Test Pin	

Abbreviations

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

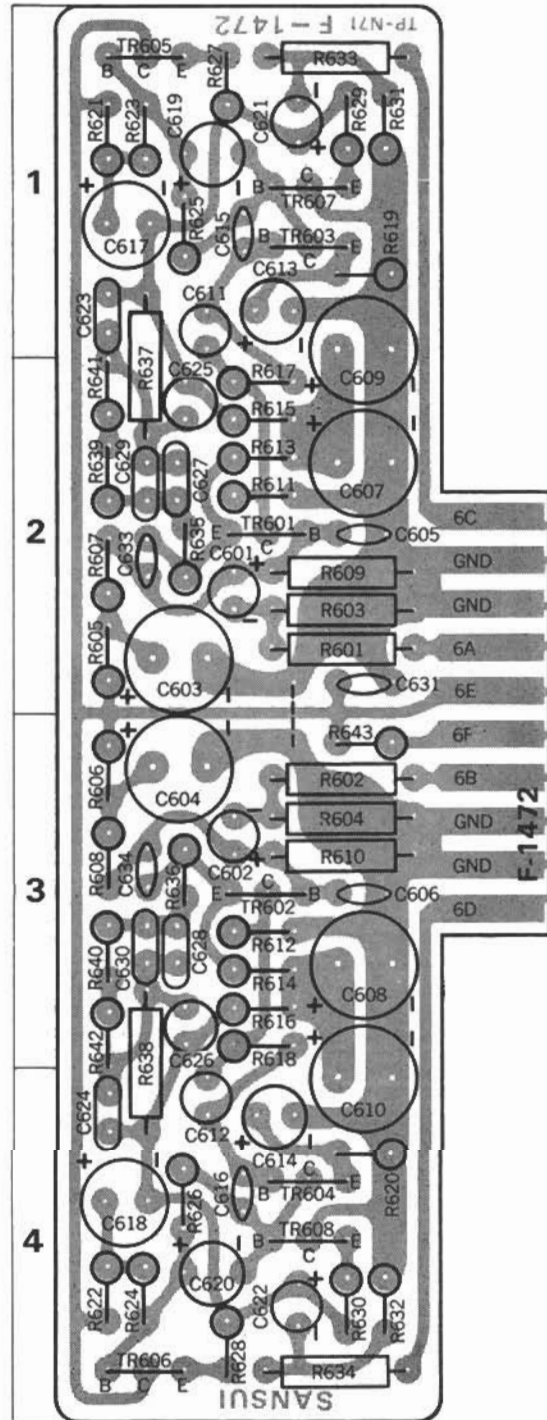
F-1417D Parts List

Parts No.	Stock No.	Description	Position
R341	0106682	6.8kΩ ± 5% ¼W C.R.	
R342	0106473	47kΩ (E.L.R.)	
R343	0107829	8.2Ω ± 5% ¼W C.R.	
C301	0657223	0.022μF 50V C.C.	4
C302	0515109	1μF 50V E.C.	4
C303	0657473	0.047μF 50V	4
C304	0657473	0.047μF 50V	4
C305	0657223	0.022μF 50V	C.C. 4
C306	0657473	0.047μF 50V	4
C307	0515109	1μF 50V E.C.	4
C308	0657473	0.047μF 50V	4
C309	0657473	0.047μF 50V	C.C. 3
C310	0657473	0.047μF 50V	3
C311	0601107	0.01μF 50V M.C.	3
C312	0620471	470 pF 50V P.C.	3
C313	0601107	0.01μF 50V M.C.	4
C314	0660100	10 pF 50V	4
C315	0660150	15 pF 50V	C.C. 3
C316	0657473	0.047μF 50V	4
C317	0657473	0.047μF 50V	3
C318	0512100	10μF 16V E.C.	3
C319	0657473	0.047μF 50V	C.C. 3
C320	0657473	0.047μF 50V	3
C321	0515109	1μF 50V E.C.	3
C322	0657473	0.047μF 50V	3
C323	0657473	0.047μF 50V	3
C324	0657473	0.047μF 50V	C.C. 2
C325	0657473	0.047μF 50V	2
C326	0660470	47 pF 50V	2
C327	0657473	0.047μF 50V	2
C328	0657473	0.047μF 50V	1
C329	0513479	4.7μF 25V E.C.	1
C330	0601476	0.0047μF 50V	1
C332	0601107	0.01μF 50V	1
C333	0601476	0.0047μF 50V	1
C334	0601107	0.01μF 50V	M.C. 1
C335	0601107	0.01μF 50V	1
C336	0601107	0.01μF 50V	1
C337	0601477	0.047μF 50V	1
C338	0657473	0.047μF 50V C.C.	2
C339	0512470	47μF 16V E.C.	2, 3
C340	0657473	0.047μF 50V	2
C341	0657223	0.022μF 50V	C.C. 2
C342	0657223	0.022μF 50V	2
C343	0657223	0.022μF 50V	1
VR301	1035130	10kΩ(B) Semi-Variable Resistor	1
	2260010	} Test Pin	
	2260020		

6-4. F-1472 Equalizer Circuit Board

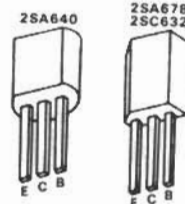
(Stock No. 7550510 Complete Circuit Board F-1472)

Conductor Side



Abbreviations

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



Parts List

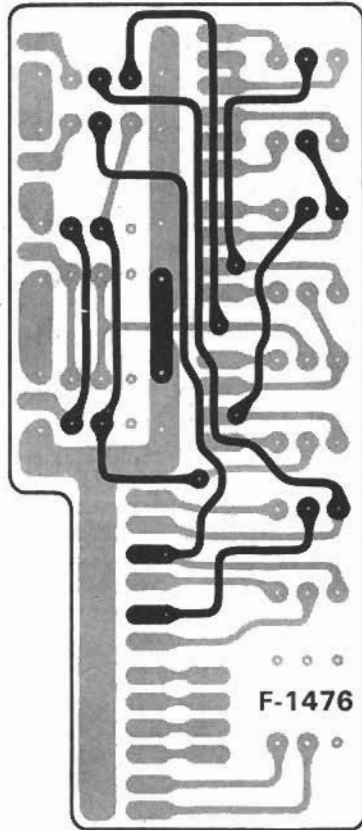
Parts No.	Stock No.	Description	Position
TR601	0300303	2SA640 (K)	} Transistor
TR602	0300303	2SA640 (K)	
TR603	0305766	2SC632A (71 White)	
TR604	0305766	2SC632A (71 White)	
TR605	0305761	2SC632A (71)	
TR606	0305761	2SC632A (71)	
TR607	0300292	2SA678 (7)	
TR608	0300292	2SA678 (7)	
C601	0573229	2.2 μ F 25V	} T.C.
C602	0573229	2.2 μ F 25V	
C603	0515330	33 μ F 50V	} E.C.
C604	0515330	33 μ F 50V	
C605	0660330	33pF 50V	} C.C.
C606	0660330	33pF 50V	
C607	0513470	47 μ F 25V	} E.C.
C608	0513470	47 μ F 25V	
C609	0513470	47 μ F 25V	
C610	0513470	47 μ F 25V	
C611	0620681	680pF 50V	} P.C.
C612	0620681	680pF 50V	
C613	0511330	33 μ F 10V	} E.C.
C614	0511330	33 μ F 10V	
C615	0660220	22pF 50V	} C.C.
C616	0660220	22pF 50V	
C617	0515100	10 μ F 50V	} E.C.
C618	0515100	10 μ F 50V	
C619	0511330	33 μ F 10V	
C620	0511330	33 μ F 10V	
C621	0519101	1 μ F 50V	} E.C. (B.R.N.)
C622	0519101	1 μ F 50V	
C623	0600226	0.0022 μ F 50V	} M.C.
C624	0600226	0.0022 μ F 50V	
C625	0620751	750pF 50V	} P.C.
C626	0620751	750pF 50V	
C629	0600107	0.01 μ F 50V	} M.C.
C630	0600107	0.01 μ F 50V	
C631	0657223	0.022 μ F 50V	C.C.
R601	0107222	2.2k Ω	} $\pm 5\%$ $\frac{1}{4}$ W C.R.
R602	0107222	2.2k Ω	
R603	0107683	68k Ω	} $\pm 5\%$ $\frac{1}{4}$ W C.R. (E.L.R.)
R604	0107683	68k Ω	
R605	0106184	180k Ω	} $\pm 5\%$ $\frac{1}{4}$ W C.R. (E.L.R.)
R606	0106184	180k Ω	
R607	0106334	330k Ω	} $\pm 5\%$ $\frac{1}{4}$ W C.R.
R608	0106334	330k Ω	
R609	0107394	390k Ω	} $\pm 5\%$ $\frac{1}{4}$ W C.R.
R610	0107394	390k Ω	
R611	0106223	22k Ω	} $\pm 5\%$ $\frac{1}{4}$ W C.R. (E.L.R.)
R612	0106223	22k Ω	
R613	0106821	820 Ω	
R614	0106821	820 Ω	
R615	0106563	56k Ω	
R616	0106563	56k Ω	
R617	0106224	220k Ω	
R618	0106224	220k Ω	
R619	0106222	2.2k Ω	
R620	0106222	2.2k Ω	
R621	0106103	10k Ω	} $\pm 5\%$ $\frac{1}{4}$ W C.R. (E.L.R.)
R622	0106103	10k Ω	
R623	0106473	47k Ω	

Parts No.	Stock No.	Description	Position
R624	0106473	47k Ω	} $\pm 5\%$ $\frac{1}{4}$ W C.R. (E.L.R.)
R625	0106332	3.3k Ω	
R626	0106332	3.3k Ω	} $\pm 5\%$ $\frac{1}{4}$ W C.R. (E.L.R.)
R627	0106680	68 Ω	
R628	0106680	68 Ω	} $\pm 5\%$ $\frac{1}{4}$ W C.R. (E.L.R.)
R629	0106680	68 Ω	
R630	0106680	68 Ω	} $\pm 5\%$ $\frac{1}{4}$ W C.R. (E.L.R.)
R631	0106104	100k Ω	
R632	0106104	100k Ω	} $\pm 5\%$ $\frac{1}{4}$ W C.R. (E.L.R.)
R633	0107681	680 Ω	
R634	0107681	680 Ω	} $\pm 5\%$ $\frac{1}{4}$ W C.R. (E.L.R.)
R635	0106101	100 Ω	
R636	0106101	100 Ω	} $\pm 5\%$ $\frac{1}{4}$ W C.R. (E.L.R.)
R637	0107273	27k Ω	
R638	0107273	27k Ω	} $\pm 5\%$ $\frac{1}{4}$ W C.R. (E.L.R.)
R639	0106274	270k Ω	
R640	0106274	270k Ω	} $\pm 5\%$ $\frac{1}{4}$ W C.R. (E.L.R.)
R641	0106223	22k Ω	
R642	0106223	22k Ω	} $\pm 5\%$ $\frac{1}{4}$ W C.R. (E.L.R.)
R643	0106101	100 Ω	

6-5. Special Parts List in FM Frontend

Parts No.	Stock No.	Description
TR101	0305410	SE3001 Transistor
FET101	0370080	3SK39 (Q)
	or	or
	0370081	3SK39 (R)
FET102	0370080	3SK39 (Q)
	or	or
	0370081	3SK39 (R)
FET103	0370080	3SK39 (Q)
	or	or
	0370081	3SK49 (R)

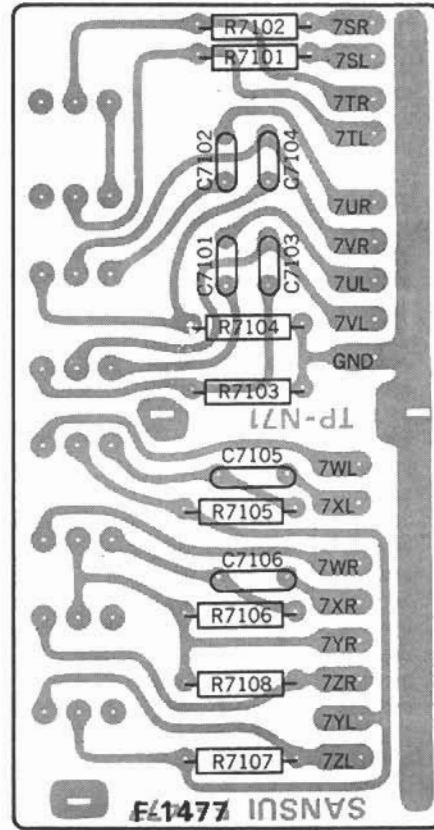
6-6. F-1476 Accessory Switch Circuit Board (Stock No. 7591650 Complete Circuit Board F-1476)
Conductor Side



Parts List

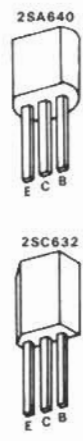
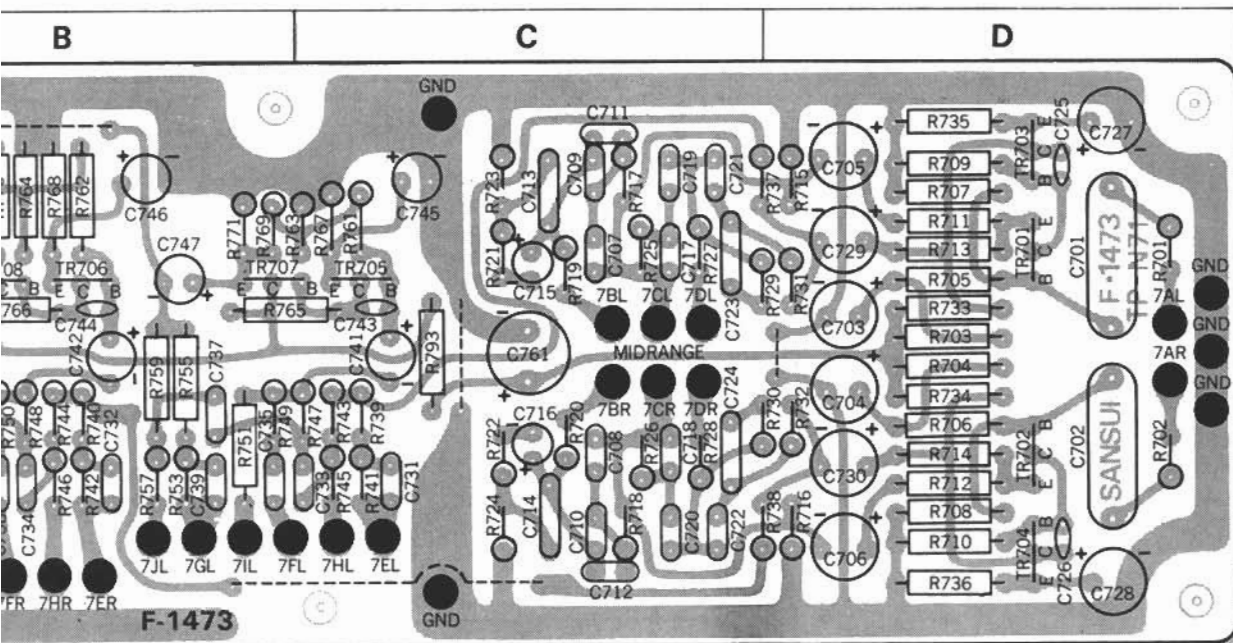
Parts No.	Stock No.	Description
S3	1130310	Push Switch (5 Stage)
S4		
S5		
S6		
S7		
S3	1110210	Push Switch
S4	1110210	Push Switch
S5	1110210	Push Switch

6-7. F-1477 Accessory Switch Circuit Board (Stock No. 7591660 Complete Circuit Board F-1477)
Conductor Side



Parts List

Parts No.	Stock No.	Description
C7101	0640391	390 pF 50V
C7102	0640391	390 pF 50V
C7103	0600227	0.022 μF 50V
C7104	0600227	0.022 μF 50V
		M.I.C.
R7101	0107103	10kΩ
R7102	0107103	10kΩ
R7103	0107223	22kΩ
R7104	0107223	22kΩ
R7105	0107474	470kΩ
R7106	0107474	470kΩ
R7107	0107474	470kΩ
R7108	0107474	470kΩ
		± 5% 1/4W C.R.
S8	1130300	Push Switch (4 Stage)
S9		
S10		
S11		

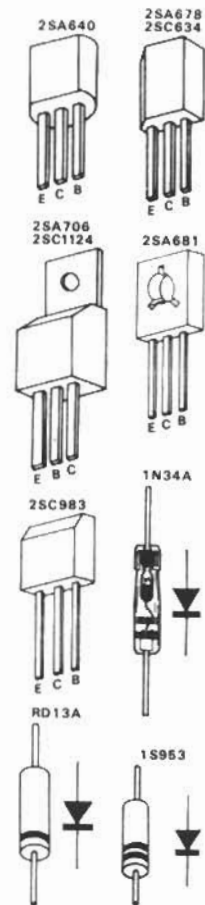
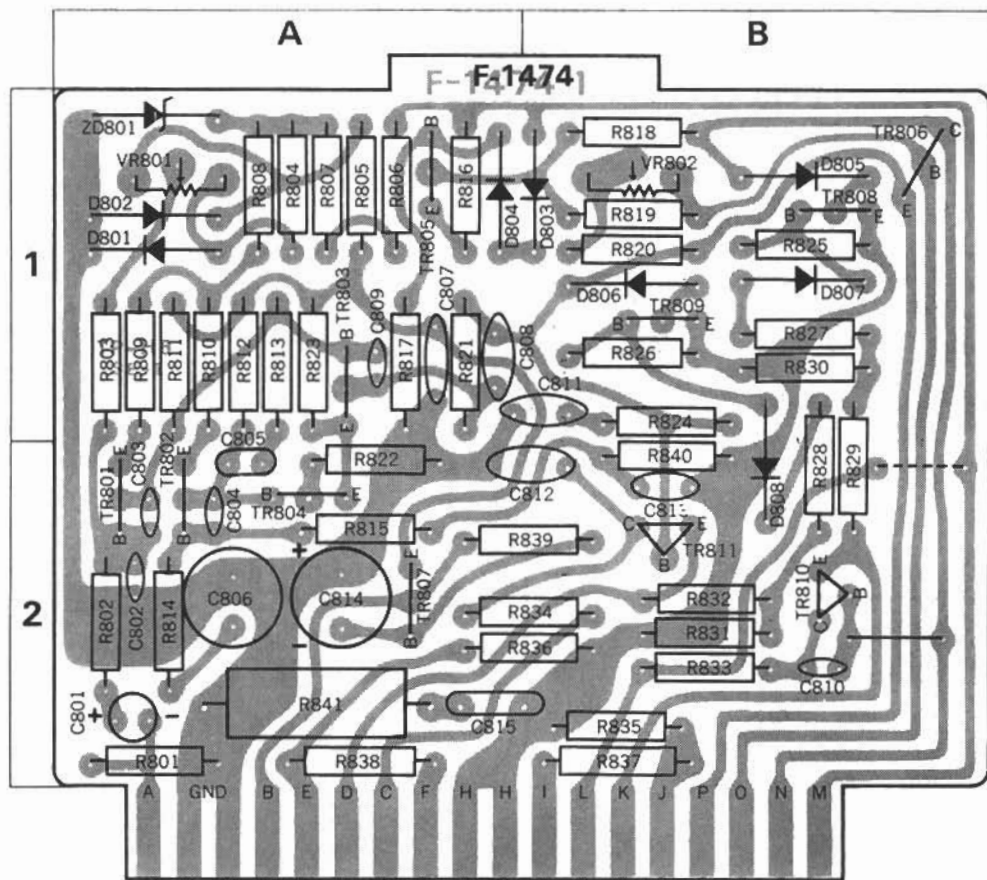


Parts No.	Stock No.	Description	Position
R723	0106152	1.5kΩ	1C
R724	0106152	1.5kΩ	2C
R725	0106472	4.7kΩ	1C
R726	0106472	4.7kΩ	2C
R727	0106822	8.2kΩ	1C
R728	0106822	8.2kΩ	2C
R729	0106334	330kΩ	1C, D
R730	0106334	330kΩ	2C, D
R731	0106153	15kΩ	1D
R732	0106153	15kΩ	2D
R733	0107392	3.9kΩ	1D
R734	0107392	3.9kΩ	2D
R735	0107101	100Ω	1D
R736	0107101	100Ω	2D
R737	0106330	33Ω	1C, D
R738	0106330	33Ω	2C, D
R739	0106102	1kΩ	2C
R740	0106102	1kΩ	2B
R741	0106224	220kΩ	2C
R742	0106224	220kΩ	2B
R743	0106123	12kΩ	2C
R744	0106123	12kΩ	2B
R745	0106152	1.5kΩ	2C
R746	0106152	1.5kΩ	2B
R747	0106472	4.7kΩ	2C
R748	0106472	4.7kΩ	2B
R749	0106102	1kΩ	2B
R750	0106102	1kΩ	2B
R751	0107332	3.3kΩ	2B
R752	0107332	3.3kΩ	2B
R753	0106224	220kΩ	2B
R754	0106224	220kΩ	2B
R755	0107102	1kΩ	1, 2B
R756	0107102	1kΩ	1, 2B
R757	0106332	3.3kΩ	2B
R758	0106332	3.3kΩ	2B
R759	0107123	12kΩ	1, 2B
R760	0107123	12kΩ	1, 2B

Parts No.	Stock No.	Description	Position
R761	0106104	100kΩ ± 5% ¼W C.R. (E.L.R.)	1C
R762	0107104	100kΩ ± 5% ¼W C.R. (E.L.R.)	1B
R763	0106683	68kΩ ± 5% ¼W C.R. (E.L.R.)	1C
R764	0107683	68kΩ	1B
R765	0107333	33kΩ ± 5% ¼W C.R. (E.L.R.)	1B, C
R766	0107333	33kΩ	1B
R767	0106222	2.2kΩ ± 5% ¼W C.R. (E.L.R.)	1C
R768	0107222	2.2kΩ ± 5% ¼W C.R. (E.L.R.)	1B
R769	0106474	470kΩ ± 5% ¼W C.R. (E.L.R.)	1B
R770	0107474	470kΩ ± 5% ¼W C.R. (E.L.R.)	1B
R771	0106472	4.7kΩ ± 5% ¼W C.R. (E.L.R.)	1B
R772	0107472	4.7kΩ	1B
R773	0107104	100kΩ	1A, B
R774	0107104	100kΩ	2A, B
R775	0107122	1.2kΩ ± 5% ¼W C.R. (E.L.R.)	1A
R776	0107122	1.2kΩ	2A
R777	0107332	3.3kΩ	1A
R778	0107332	3.3kΩ	2A
R779	0106223	22kΩ ± 5% ¼W C.R. (E.L.R.)	1A
R780	0106223	22kΩ	2A
R781	0107102	1kΩ	1A
R782	0107102	1kΩ	2A
R783	0107104	100kΩ	1A
R784	0107104	100kΩ	2A
R785	0107184	180kΩ	1A
R786	0107184	180kΩ	2A
R787	0107472	4.7kΩ ± 5% ¼W C.R. (E.L.R.)	1A
R788	0107472	4.7kΩ	2A
R789	0107104	100kΩ	1A
R790	0107104	100kΩ	2A
R791	0107100	10Ω	1A
R792	0107100	10Ω	2A
R793	0107101	100Ω	1, 2C
R794	0106470	47Ω ± 5% ¼W C.R. (E.L.R.)	1, 2A

6-9. F-1474 Driver Circuit Board (Stock No. 7570730 Complete Circuit Board F-1474)

Conductor Side



Parts List

Parts No.	Stock No.	Description	Position
TR801	0300305	2SA640 (L)	2 A
TR802	0300305	2SA640 (L)	2 A
TR803	0306020, 1	2SC983 (R, O)	1 A
TR804	0306020, 1	2SC983 (R, O)	2 A
TR805	0300530, 1	2SA681 (O, Y)	1 A
TR807	0300291, 2	2SA678 (6, 7)	2 A
TR808	0305891, 2	2SC634A (6, 7)	1 B
TR809	0300291, 2	2SA678 (6, 7)	1 B
TR810	0305901, 2	2SC1124 (2, 3)	2 B
TR811	0300401, 2	2SA706 (2, 3)	2 B
} Transistor			
D801	0311050	1S953	1 A
D802	0311050	1S953	1 A
D803	0311050	1S953	1 B
D804	0311050	1S953	1 A
D805	0311050	1S953	1 B
D806	0311050	1S953	1 B
D807	0310400	1N34A	1 B
D808	0310400	1N34A	1, 2 B
} Diode			
ZD801	0315290	RD13A (L) Zener Diode	1 A
C801	0573109	1 μ F 25V T.C.	2 A
C802	0660470	47 μ F 50V	2 A
C804	0660100	100pF 50V	2 A
C805	0600106	0.001 μ F 50V M.C.	2 A
} C.C.			

Parts No.	Stock No.	Description	Position
C806	0531101	100 μ F 10V BP. E.C.	2 A
C807	0657473	0.047 μ F 50V	1 A
C808	0657223	0.022 μ F 50V	1 A
C809	0660330	33pF 50V	1 A
C810	0660470	47pF 50V	2 B
C811	0657473	0.047 μ F 50V	1 A, B
C812	0657473	0.047 μ F 50V	2 A, B
C813	0660100	10pF 50V	2 B
C814	0515330	33 μ F 50V E.C.	2 A
C815	0600108	0.1 μ F 50V M.C.	2 A, B
} C.C.			
R801	0107684	680k Ω	2 A
R802	0107332	3.3k Ω	2 A
R803	0107124	120k Ω	1 A
R804	0107822	8.2k Ω	1 A
R805	0107473	47k Ω	1 A
} $\pm 5\%$ $\frac{1}{4}$ W C.R.			

to be continued

Abbreviations

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

F-1474 Parts List

Parts No.	Stock No.	Description	Position
R806	0107392	3.9kΩ	1 A
R807	0107392	3.9kΩ	1 A
R808	0107822	8.2kΩ	1 A
R809	0107680	68Ω	1 A
R810	0107680	68Ω	1 A
R811	0107682	6.8kΩ	1 A
R812	0107682	6.8kΩ	1 A
R813	0107682	6.8kΩ	1 A
R814	0107332	3.3kΩ	± 5% ¼W C.R.
R815	0107183	18kΩ	2 A
R816	0107151	150Ω	1 A
R817	0107473	47kΩ	1 A
R818	0107390	39Ω	1 B
R819	0107822	8.2kΩ	1 B
R820	0107152	1.5kΩ	1 B
R821	0107101	100Ω	1 A
R822	0107101	100Ω	2 A
R823	0191471	470Ω	± 5% ¼W F.R.
R825	0107271	270Ω	1 B
R826	0107271	270Ω	1 B
R827	0107470	47Ω	1 B
R828	0107470	47Ω	1, 2 B
R829	0107471	470Ω	1, 2 B
R830	0107680	68Ω	1 B
R831	0107680	68Ω	± 5% ¼W C.R.
R832	0107471	470Ω	2 B
R833	0107220	22Ω	2 B
R834	0107220	22Ω	2 A, B
R835	0107101	100Ω	2 B
R836	0107101	100Ω	2 A, B
R837	0171100	10Ω	± 10% 1W M.R.
R838	0171100	10Ω	2 A
R839	0107472	4.7kΩ	± 5% ¼W C.R.
R840	0107823	82kΩ	± 5% ¼W C.R.
R841	0132100	10Ω	± 10% 2W Ce.R.
R842	0106220	22Ω	± 5% ¼W C.R. (E.L.R.)
VR801	1033091	5kΩ(B)	Semi-variable Resistor 1 A
VR802	1033051	1kΩ(B)	(Stand Type) 1 B

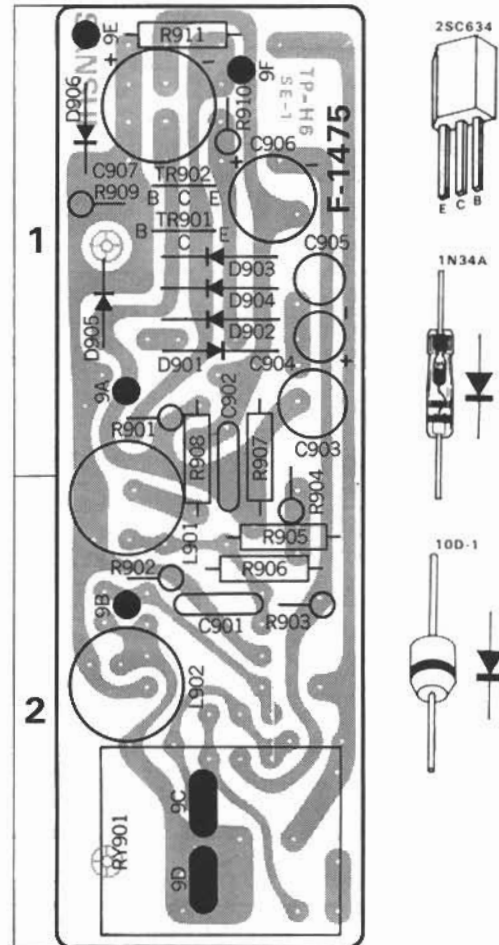
— Abbreviations —

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

6-10 F-1475 Protector Circuit Board

(Stock No. 7598120 Complete Circuit Board F-1475)

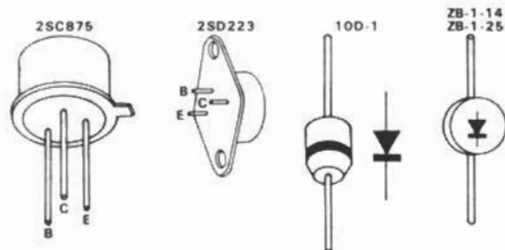
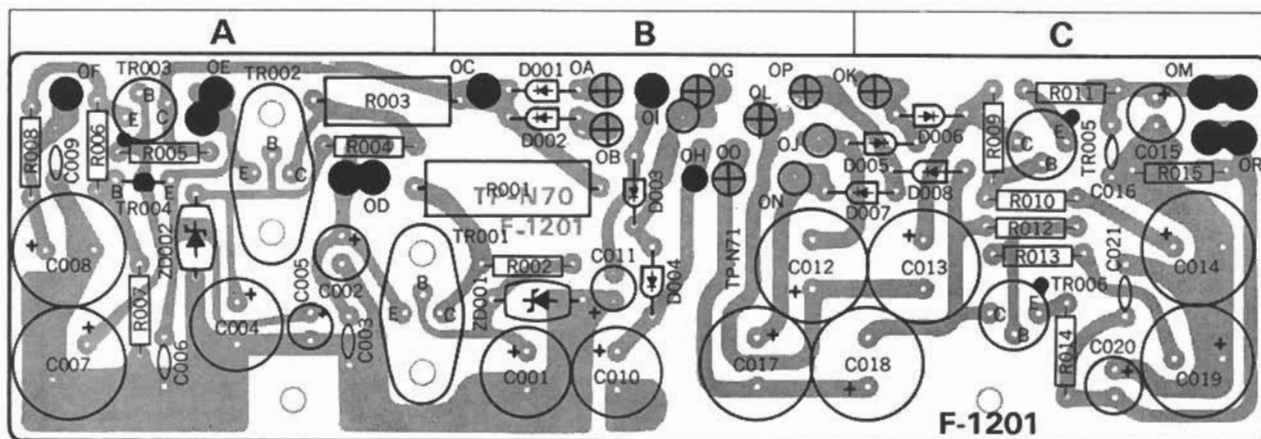
Conductor Side



Parts List

Parts No.	Stock No.	Description	Position
TR901	0305891, 2	2SC634A(6, 7)	Transistor
TR902	0305891, 2	2SC634A(6, 7)	
D901	0310400	1N34A	Diode
D902	0310400	1N34A	
D903	0310400	1N34A	
D904	0310400	1N34A	
D905	0310340	10D-1	
D906	0310340	10D-1	
L901	4290210	2.5μH	Inductor
L902	4290210	2.5μH	
C901	0600477	0.047μF 50V	M.C.
C902	0600477	0.047μF 50V	
C903	0530470	57μF 6.3V	BP.E.C.
C904	0515109	1μF 50V	E.C.
C905	0535109	1μF 50V	BP.E.C.
C906	0510221	220μF 6.3V	E.C.
C907	0515101	100μF 50V	E.C.

6-11. F-1201A Power Supply Circuit Board (Stock No. 7500800 Complete Circuit Board F-1201A) Conductor Side



Parts List

Parts No.	Stock No.	Description	Position
TR001	0308230, 2	2SD223(O,Y,G)	Transistor A, B
TR002	0308230, 2	2SD223(O,Y,G)	
TR003	0305981, 2	2SC875(E,F)	
D001	0310340	10D-1	Diode B, C
D002	0310340	10D-1	
D004	0310340	10D-1	
D007	0310340	10D-1	
D008	0310340	10D-1	
ZD001	0315071	ZB-1-14	Zener Diode B
ZD002	0315080	ZB-1-25	
C001	0512331	330μF 16V	E.C. B
C002	0512470	47μF 16V	
C003	0657473	0.047μF 50V	C.C. A
C004	0513221	220μF 25V	
C005	0513100	10μF 25V	E.C. A
C006	0657473	0.047μF 50V	
C007	0519301	100μF 75V	E.C. A
C008	0519301	100μF 75V	
C009	0657473	0.047μF 50V	C.C. A
C010	0511331	330μF 10V	
C017	0510102	1000μF 6.3V	E.C. B, C
C018	0510102	1000μF 6.3V	
C019	0519301	100μF 75V	
C021	0651333	0.033μF 75V	C.C. C
R001	0185391	390Ω ±10% 5W	Ce.R. A, B
R002	0107152	1.5kΩ ±5% ¼W	
R003	0132101	100Ω ±10% 2W	Ce.R. A, B
R004	0107392	3.9kΩ	
R005	0107472	4.7kΩ	±5% ¼W C.R. A
R008	0107101	100Ω	
R014	0192680	68Ω ±5%	½W C

F-1475 Part List

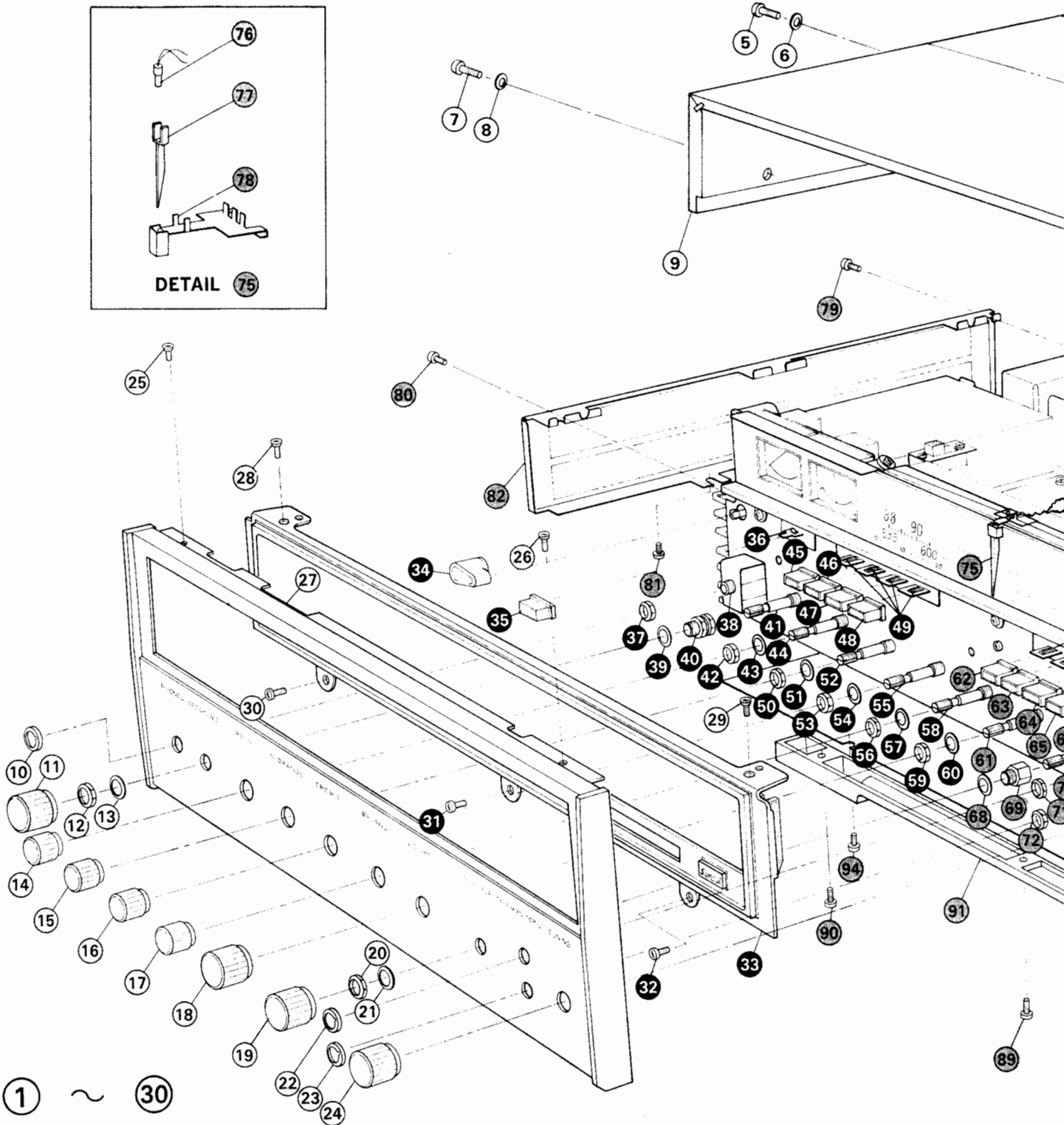
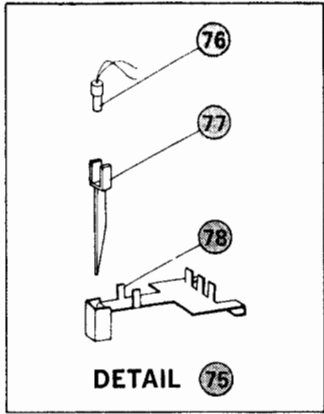
Parts No.	Stock No.	Description	Position
R901	0103689	6.8Ω	±5% ½W C.R. 2
R902	01036		

6-12. Other Parts (Front Side)

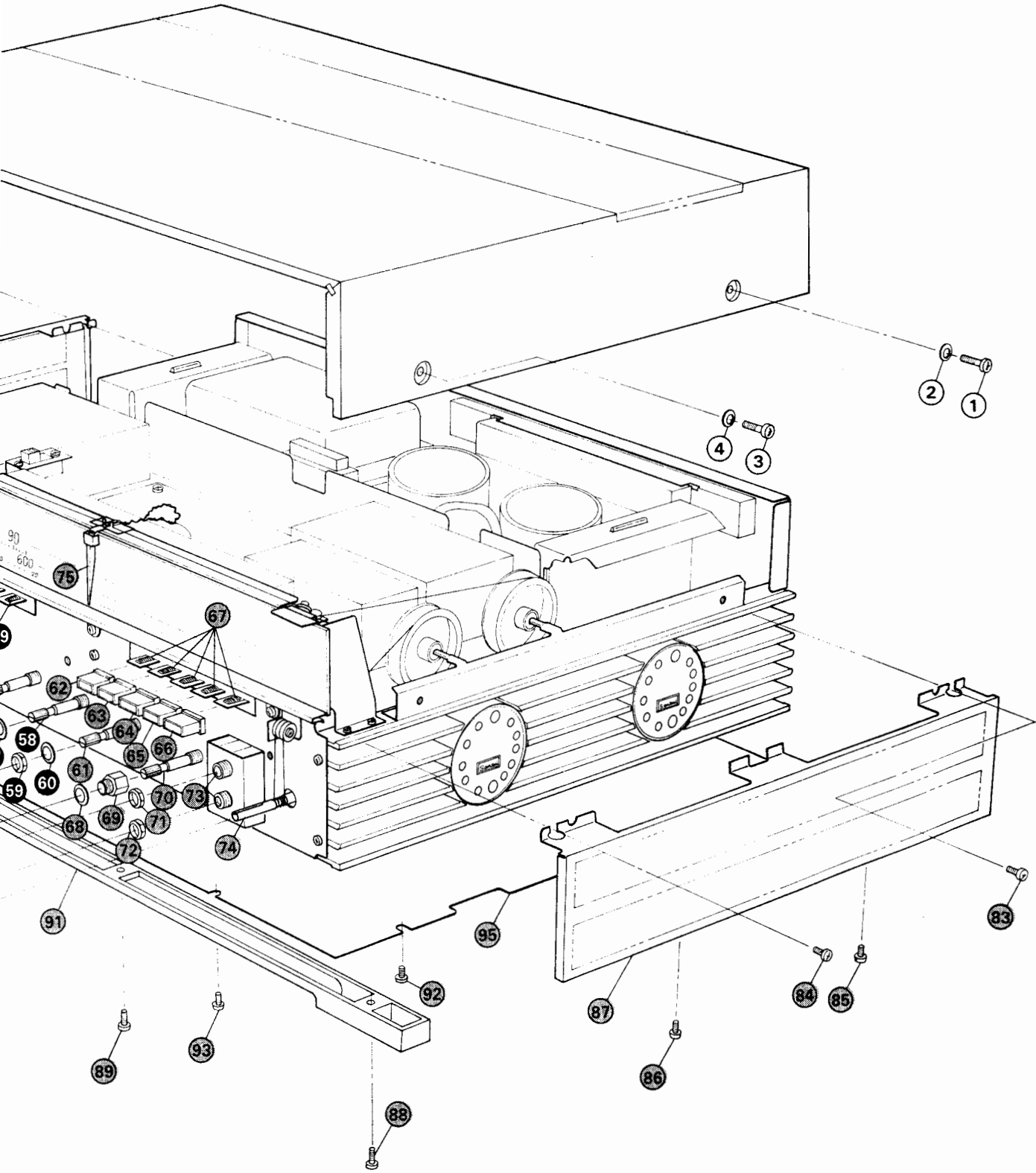
6-12-1. Section-1

Parts List

Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
1	5100164	Binding Head Screw, M4 × 12	50		Hex. Nut, M9
2	5186110	Plane Washer, 4φ	51		Plane Washer, 9φ
3	5100164	Binding Head Screw, M4 × 12	52	1102410	Rotary Switch F-2-2-11, midrange
4	5186110	Plane Washer, 4φ	53		Hex. Nut, M9
5	5100164	Binding Head Screw, M4 × 12	54		Plane Washer, 9φ
6	5186110	Plane Washer, 4φ	55	1102410	Rotary Switch F-2-2-11, treble
7	5100164	Binding Head Screw, M4 × 12	56		Hex. Nut, M8
8	5186110	Plane Washer, 4φ	57		Plane Washer, 8φ
9	5726751	Wood Bonnet	58	1010830	250kΩ (MN) × 2 Balance Volume
10	5176052	Jack Nut, headphone	59		Hex. Nut, M8
11	5317590	M-4 Type Knob, speaker	60		Plane Washer, 8φ
12		Hex. Nut, M9	61	1010820	250kΩ (B) × 2 Volume
13		Plane Washer, 9φ	62	{	Button A Ass'y, noise reduction adaptor
14	5317580	S-4 Type Knob, midrange		5326091	Button A
15	5317580	S-4 Type Knob, treble		5369600	Name Plate, N.R ADAPTOR
16	5317580	S-4 Type Knob, balance	63	{	Button A Ass'y, tape monitor-1
17	5317580	S-4 Type Knob, volume		5326091	Button A
18	5317590	M-4 Type Knob, selector		5369691	Name Plate, TAPE MONITOR-1
19	5317590	M-4 Type Knob, tape monitor-2	64	{	Button A Ass'y, tape monitor-2
20		Hex. Nut, M9		5326091	Button A
21		Plane Washer, 9φ		5369701	Name Plate, TAPE MONITOR-2
22	5176052	Jack Nut, M9	65	{	Button A Ass'y, 4-ch adaptor
23	5176052	Jack Nut, M9		5326091	Button A
24	5316161	J-3 Type Knob, tuning		5369610	Name Plate, 4-CH ADAPTOR
25	5102643	Flat Countersunk Head Screw, M3 × 6	66	{	Button A Ass'y, fm muting off
26	5102643	Flat Countersunk Head Screw, M3 × 6		5326091	Button A
27	7006850	Front Panel		5369660	Name Plate, FM MUTING OFF
28	5102643	Flat Countersunk Head Screw, M3 × 6	67	1130310	Push Switch (5 Stage)
29	5102643	Flat Countersunk Head Screw, M3 × 6	68	5120184	Plane Washer 9φ, selector
30	5101043	Binding Head Screw, M3 × 6	69	5236491	Spacer Nut, M9
31	5101043	Binding Head Screw, M3 × 6	70	1106090	Rotary Switch Y-6-14-6, selector
32	5101043	Binding Head Screw, M3 × 6	71		Hex. Nut, M9
33		Smoked Plate Frame Ass'y	72		Hex. Nut, M9
34	5506522	Shield Cover, power indicator	73	2430210	Jack, tape monitor-2
35	{	Button B Ass'y, power	74	7036341	Tuning Ass'y
	5326081	Button B	75		Dial Pointer Ass'y
	5366240	Name Plate, POWER	76	0400200	Pilot Lamp, lead type (6.3V 75mA)
36	1130350	Push Switch, power	77	5416050	Dial Pointer
37		Hex. Nut, M9	78	5416331	Holder, dial pointer
38	2430200	Jack, headphone	79	5109222	Binding Head Tapping Screw, M3 × 8
39	5120184	Plane Washer, 9φ	80	5109222	Binding Head Tapping Screw, M3 × 8
40	5236491	Spacer Nut, M9	81	5109222	Binding Head Tapping Screw, M3 × 8
41	1102400	Rotary Switch Y-2-2-6, speaker	82	5057983	Cover, heat sink
42		Hex. Nut, M9	83	5109222	Binding Head Tapping Screw, M3 × 8
43		Plane Washer, 9φ	84	5109222	Binding Head Tapping Screw, M3 × 8
44	1102410	Rotary Switch, F-2-2-11, bass volume	85	5109222	Binding Head Tapping Screw, M3 × 8
45	{	Button A Ass'y, low filter	86	5109222	Binding Head Tapping Screw, M3 × 8
	5326091	Button A	87	5057983	Cover, heat sink
	5369630	Name Plate, LOW FILTER	88	5101161	Binding Head Screw, M4 × 6
46	{	Button A Ass'y, high filter	89	5101161	Binding Head Screw, M4 × 6
	5326091	Button A	90	5101161	Binding Head Screw, M4 × 6
	5369640	Name Plate, HIGH FILTER	91	5516171	Foot
47	{	Button A Ass'y, loudness	92	5101161	Binding Head Screw, M4 × 6
	5326091	Button A	93	5101161	Binding Head Screw, M4 × 6
	5369650	Name Plate, LOUDNESS	94	5101161	Binding Head Screw, M4 × 6
48	{	Button A Ass'y, mono	95	5056220	Bottom Plate
	5326091	Button A			
	5369660	Name Plate, MONO			
49	1130300	Push Switch (4 Stage)			



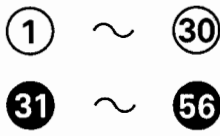
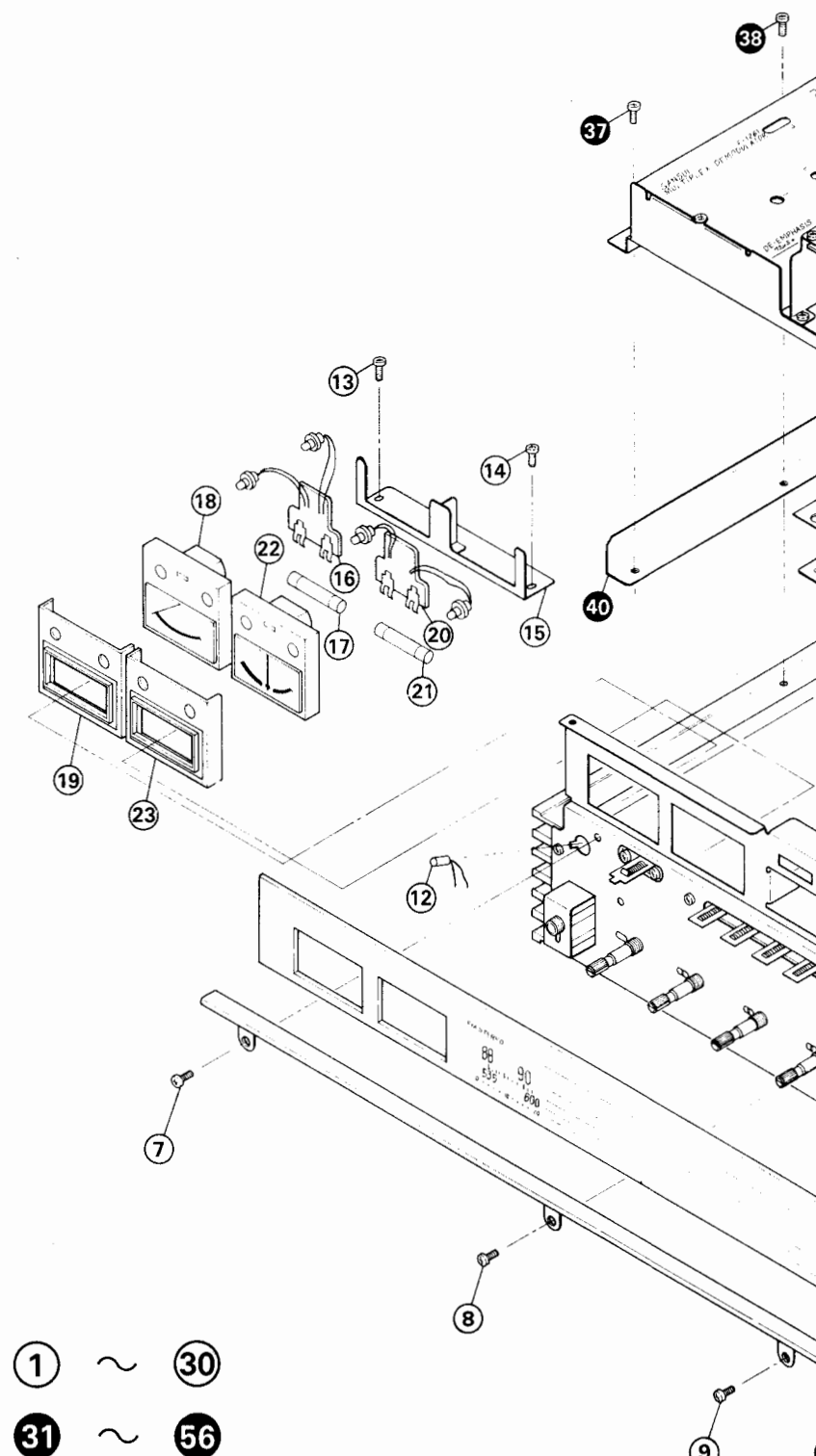
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- ③① ~ ⑥①
- ⑥① ~ ⑨⑤

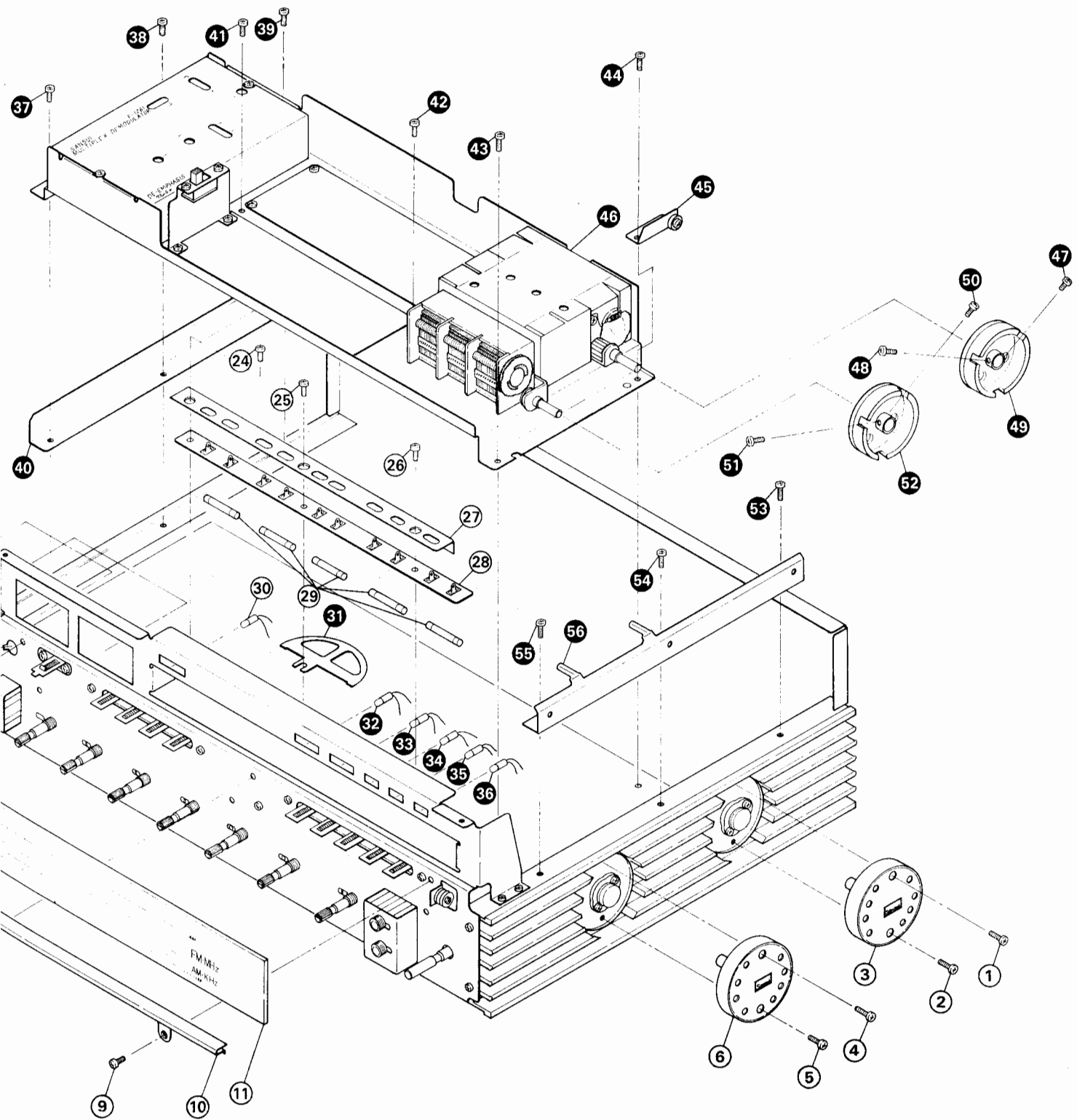


6-12-2. Section-2

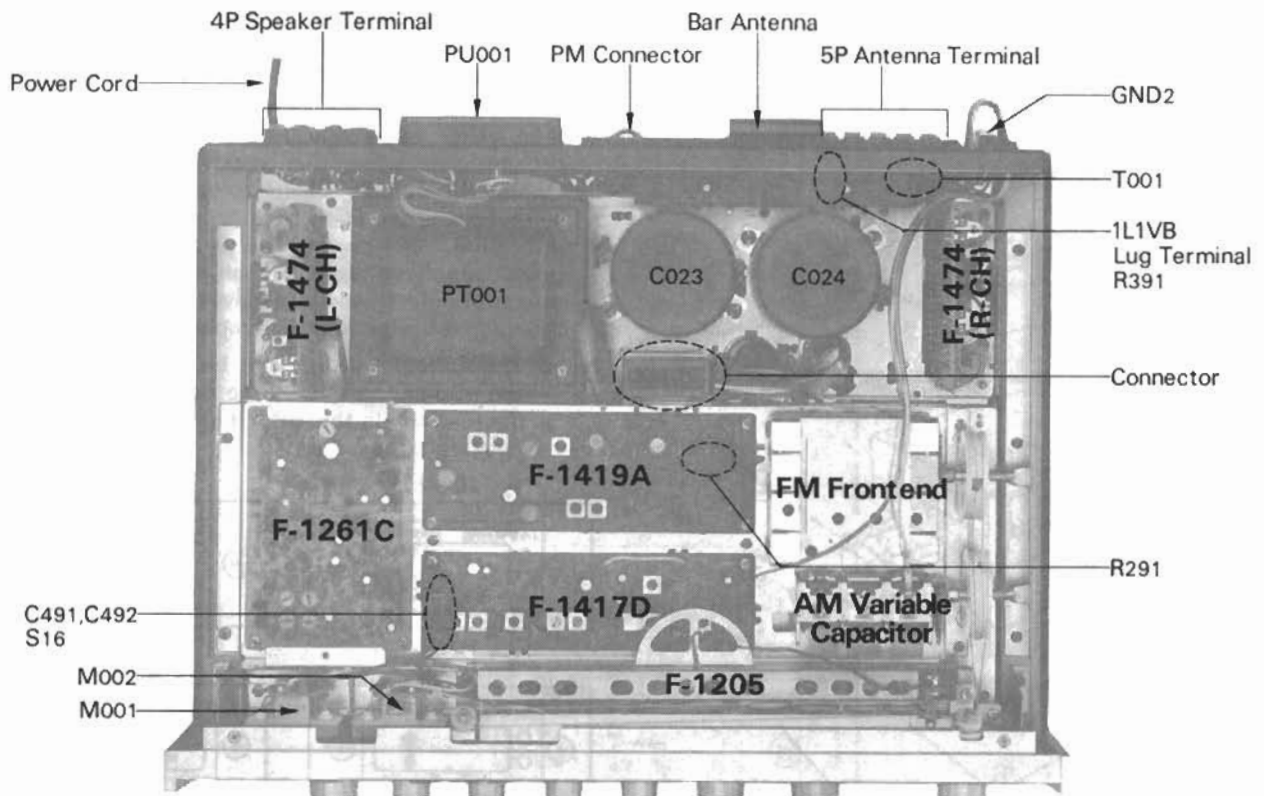
Parts List

Parts No.	Stock No.	Description
1	5109222	Binding Head Tapping Screw, M3×8
2	5109222	Binding Head Tapping Screw, M3×8
3	5066031	Transistor Cover
4	5109222	Binding Head Tapping Screw, M3×8
5	5109222	Binding Head Tapping Screw, M3×8
6	5066031	Transistor Cover
7	5101043	Binding Head Screw, M3×6
8	5101043	Binding Head Screw, M3×6
9	5101043	Binding Head Screw, M3×6
10	5246520	Stopper, dial scale
11	5407421	Dial Scale
12	0400170	Lead Type Lamp (7V 160mA), POWER indicator
13	5101043	Binding Head Screw, M3×6
14	5101043	Binding Head Screw, M3×6
15	5249720	Holder, signal & tune meter
16	7726050	Tuning Lamp Ass'y A
17	0420040	Fuse Type Lamp (7V 300mA), signal meter
18	4300610	Signal Meter
19	5066200	Meter Cover
20	7726050	Tuning Lamp Ass'y A
21	0420040	Fuse Type Lamp (7V 300mA), tune meter
22	4300600	Tune Meter
23	5066200	Meter Cover
24	5101043	Binding Head Screw, M3×6
25	5101043	Binding Head Screw, M3×6
26	5101043	Binding Head Screw, M3×6
27	5246892	Holder, printed circuit board
28		Printed Circuit Board F-1205
29	0420040	Fuse Type Lamp (7V 300mA)
30	0400161	Lead Type Lamp (6V 100mA), STEREO indicator
31	5249590	Guide Plate, lead
32	0400155	Lead Type Lamp (7V 160mA), PHONO-2 indicator
33	0400154	Lead Type Lamp (7V 160mA), PHONO-1 indicator
34	0400170	Lead Type Lamp (7V 160mV), AUX indicator
35	0400153	Lead Type Lamp (7V 160mA), FM indicator
36	0400141	Lead Type Lamp (7V 160mA), AM indicator
37	5109124	Binding Head Tapping Screw, M3×12
38	5109124	Binding Head Tapping Screw, M3×12
39	5109124	Binding Head Tapping Screw, M3×12
40	5246500	Retainer L, wood bonnet
41	5109124	Binding Head Tapping Screw, M3×12
42	5109124	Binding Head Tapping Screw, M3×12
43	5109124	Binding Head Tapping Screw, M3×12
44	5109124	Binding Head Tapping Screw, M3×12
45	5269200	Holder, pulley
46		Tuner Ass'y
47	5100244	Binding Head Screw, M3×8
48	5100244	Binding Head Screw, M3×8
49	6146640	Dial Pulley E
50	5100244	Binding Head Screw, M3×8
51	5100244	Binding Head Screw, M3×8
52	6146343	Dial Pulley C
53	5109122	Binding Head Tapping Screw, M3×8
54	5109122	Binding Head Tapping Screw, M3×8
55	5109122	Binding Head Tapping Screw, M3×8
56	5246490	Retainer R, wood bonnet





6-13. Other Parts (Top Side)



Top Side Parts List

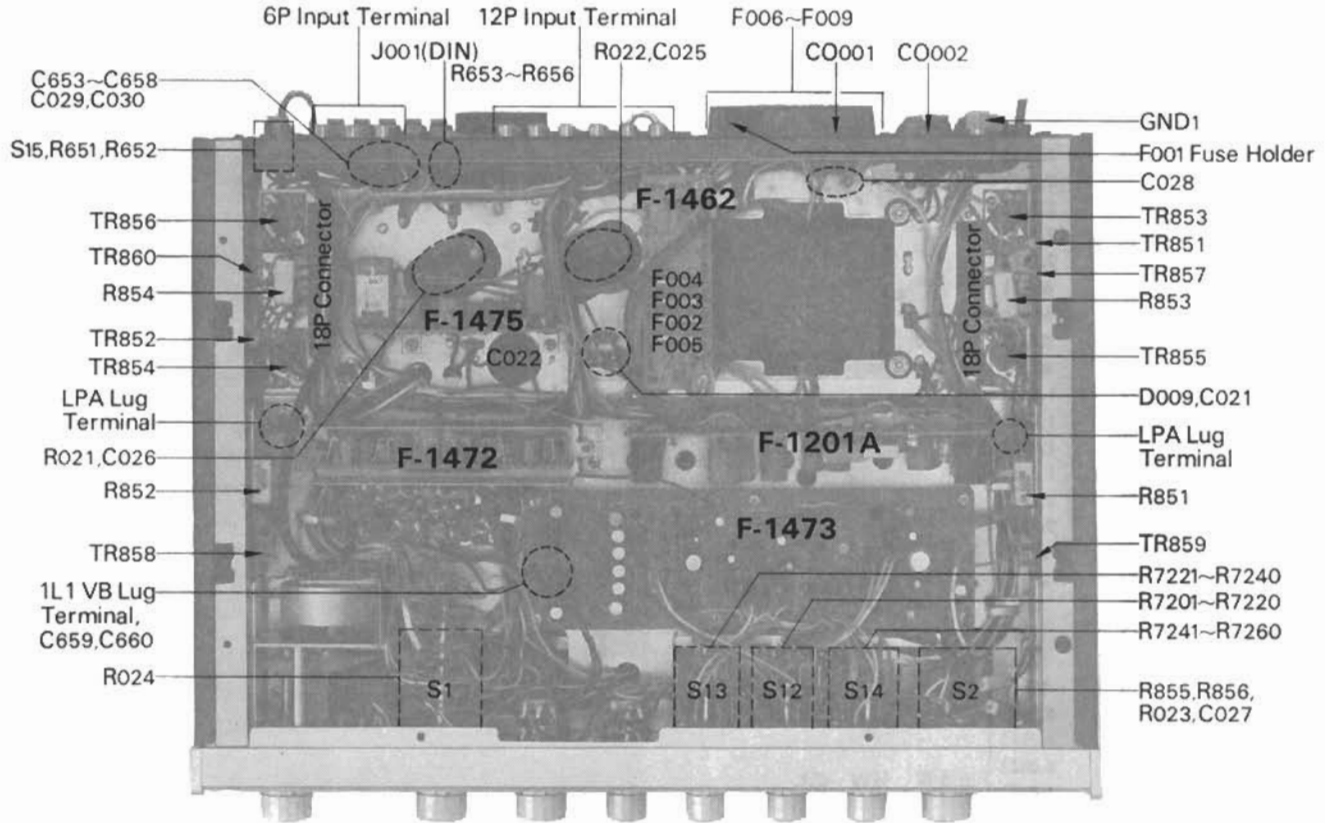
Parts No.	Stock No.	Description
	7510353	FM Frontend
	1200050	AM Variable Capacitor
C023	0559312	8000µF } 50V E.C.
C024	0559312	8000µF }
C491	0620471	470pF } ± 5% 50V P.C.
C492	0620471	470pF }
R291	0107473	47kΩ } ± 5% ¼W C.R.
R391	0107152	1.5kΩ }
	3800020	Power Cord
S16	1110040	Slide Switch
PU001	{ 2410080 2410090	Voltage Selector, socket Voltage Selector, plug
M001	4300610	Signal Meter
M002	4300600	Tune Meter
T001	4290021	75Ω : 300Ω FM Balun
PT001	4001300	Power Transformer
GND2	2230050	Ground Terminal
	4200380	AM Bar Antenna
	2290100	4P Speaker Terminal

Parts No.	Stock No.	Description
	2290110	5P Antenna Terminal
	2460010	PM Connector
	{ 2420070 2420060	Connector, socket Connector, plug
	2110060	1L1VB Lug Terminal

— Abbreviations —

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

6-14. Other Parts (Bottom Side)



Bottom Side Parts List

Parts No.	Stock No.	Description
TR851	0305871	2SC984 (B)
TR852	0305871	2SC984 (B)
TR853	0300151, 2	2SA566 (B, C)
TR854	0300151, 2	2SA566 (B, C)
TR855	0305621, 2	2SC680 (B, C)
TR856	0305621, 2	2SC680 (B, C)
TR857	0300520-2	2SA747 (R, O, Y)
TR858	0300520-2	2SA747 (R, O, Y)
TR859	0305840-2	2SC1116 (R, O, Y)
TR860	0305840-2	2SC1116 (R, O, Y)
D009	0310660	5B2 Diode
C021	0659011	0.01 μ F 500V C.C.
C022	0559501	1000 μ F 63V E.C.
C025	0657473	0.047 μ F 50V
C026	0657473	0.047 μ F 50V
C027	0659802	0.0047 μ F 1.4kV
C028	0659802	0.0047 μ F 1.4kV
C029	0657473	0.047 μ F 50V
C030	0657473	0.047 μ F 50V
C653~656	0800121	0.047 μ F \times 4 50V
C657	0657473	0.047 μ F 50V
C658	0657473	0.047 μ F 50V
C659	0657473	0.047 μ F 50V
C660	0657473	0.047 μ F 50V

Parts No.	Stock No.	Description
R021	0162562	5.6k Ω
R022	0162562	5.6k Ω
R023	0110220	22 Ω
R024	0110220	22 Ω
R651	0107104	100k Ω
R652	0107104	100k Ω
R653	0107184	180k Ω
R654	0107184	180k Ω
R655	0107104	100k Ω
R656	0107104	100k Ω
R851	0155478	0.47 Ω
R852	0155478	0.47 Ω
R853	0155478	0.47 Ω
R854	0155478	0.47 Ω
R855	0162681	680 Ω
R856	0162681	680 Ω
R7201	0107222	2.2k Ω
R7202	0107222	2.2k Ω
R7203	0107272	2.7k Ω
R7204	0107272	2.7k Ω
R7205	0107562	5.6k Ω
R7206	0107562	5.6k Ω
R7207	0107123	12k Ω
R7208	0107123	12k Ω
R7209	0107273	27k Ω
R7210	0107273	27k Ω

to be continued

Bottom Side Parts List

Parts No.	Stock No.	Description
R7211	0107273	27kΩ
R7212	0107273	27kΩ
R7213	0107123	12kΩ
R7214	0107123	12kΩ
R7215	0107562	5.6kΩ
R7216	0107562	5.6kΩ
R7217	0107272	2.7kΩ
R7218	0107272	2.7kΩ
R7219	0107222	2.2kΩ
R7220	0107222	2.2kΩ
R7221	0107681	680Ω
R7222	0107681	680Ω
R7223	0107821	820Ω
R7224	0107821	820Ω
R7225	0107122	1.2kΩ
R7226	0107122	1.2kΩ
R7227	0107182	1.8kΩ
R7228	0107182	1.8kΩ
R7229	0107272	2.7kΩ
R7230	0107272	2.7kΩ
R7231	0107273	27kΩ
R7232	0107273	27kΩ
R7233	0107183	18kΩ
R7234	0107183	18kΩ
R7235	0107123	12kΩ
R7236	0107123	12kΩ
R7237	0107822	8.2kΩ
R7238	0107822	8.2kΩ
R7239	0107682	6.8kΩ
R7240	0107682	6.8kΩ
R7241	0107682	6.8kΩ
R7242	0107682	6.8kΩ
R7243	0107822	8.2kΩ
R7244	0107822	8.2kΩ
R7245	0107103	10kΩ
R7246	0107103	10kΩ
R7247	0107123	12kΩ
R7248	0107123	12kΩ
R7249	0107153	15kΩ
R7250	0107153	15kΩ
R7251	0107153	15kΩ
R7252	0107153	15kΩ
R7253	0107123	12kΩ
R7254	0107123	12kΩ
R7255	0107103	10kΩ
R7256	0107103	10kΩ
R7257	0107822	8.2kΩ
R7258	0107822	8.2kΩ
R7259	0107682	6.8kΩ
R7260	0107682	6.8kΩ
		± 5% ¼W C.R.
		± 5% ¼W C.R.
F001	0431280	5A Power Fuse (100V~117V)
	0431260	3A Power Fuse (220V~240V)
	2300060	Power Fuse Holder
F002	0432830	Wired-In Fuse (1A 250V)
F003	0432850	Wired-In Fuse (2A 250V)
F004	0432850	Wired-In Fuse (2A 250V)
F005	0432900	Wired-In Fuse (5A 250V)
F006	0433280	Quick-Acting Fuse (5A 250V)
F007	0433280	Quick-Acting Fuse (5A 250V)
F008	0433280	Quick-Acting Fuse (5A 250V)
F009	0433280	Quick-Acting Fuse (5A 250V)

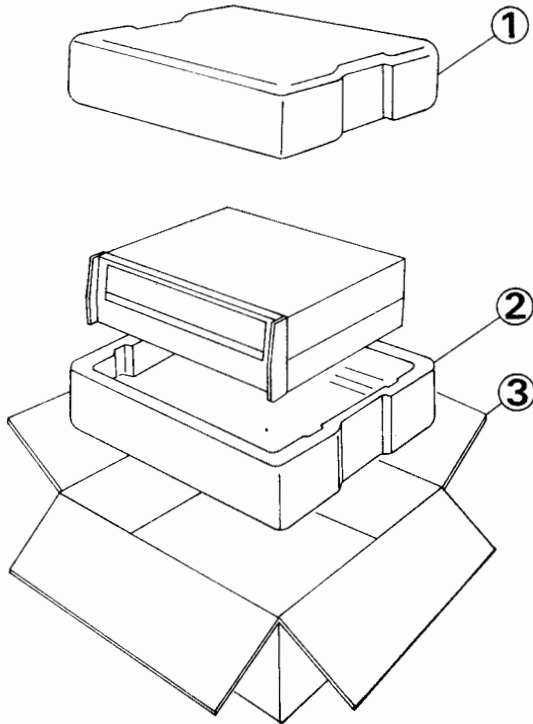
Parts No.	Stock No.	Description
S1	1106090	Rotary Switch, Selector Y-6-14-6
S2	1102400	Rotary Switch, speakers Y-2-2-6
S12	1102410	Rotary Switch, midrange F-2-2-11
S13	1102410	Rotary Switch, treble F-2-2-11
S14	1102410	Rotary Switch, bass F-2-2-11
S15	1110040	Slide Switch
CO001,2	2450040	AC Outlet
J001	2430040	DIN Connector
GND1	2230050	Ground Terminal
	2200330	6P Input Terminal
	2200360	12P Input Terminal
	2420020	18P Connector
	2110100	LPA Lug Terminal
	2110060	1L1VB Lug Terminal

Abbreviations

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

7. PACKING LIST

Parts No.	Stock No.	Description
1	9026101	Stylofoam Packing
2	9026101	Stylofoam Packing
3	9007361	Carton Case



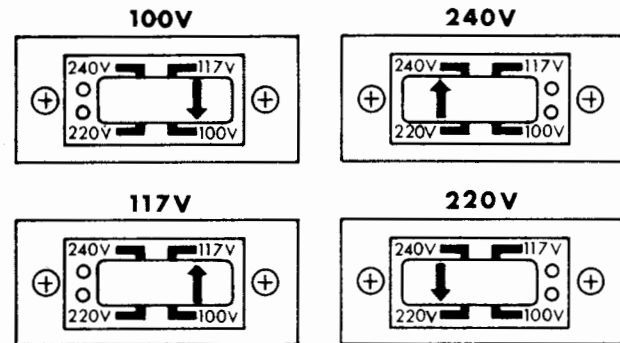
9. MAINTENANCE

9-1. Voltage Adjustment

The Voltage Selector on the rear panel enables you to operate at correct voltage in any areas. The voltage has been preadjusted at the factory, but can be easily changed as follows.

- 1) Remove the two screws securing the name plate on the unit's rear panel, then remove the name plate.
- 2) Unplug the Voltage Selector plug once, and reset it so that the arrow mark on it faces the correct voltage indication. Also change the power fuse when the power supply voltage has changed. For 100/117 volt operation, use a 5-ampere glass-tubed fuse. For 220/240 volt operation, use a 3-ampere one.

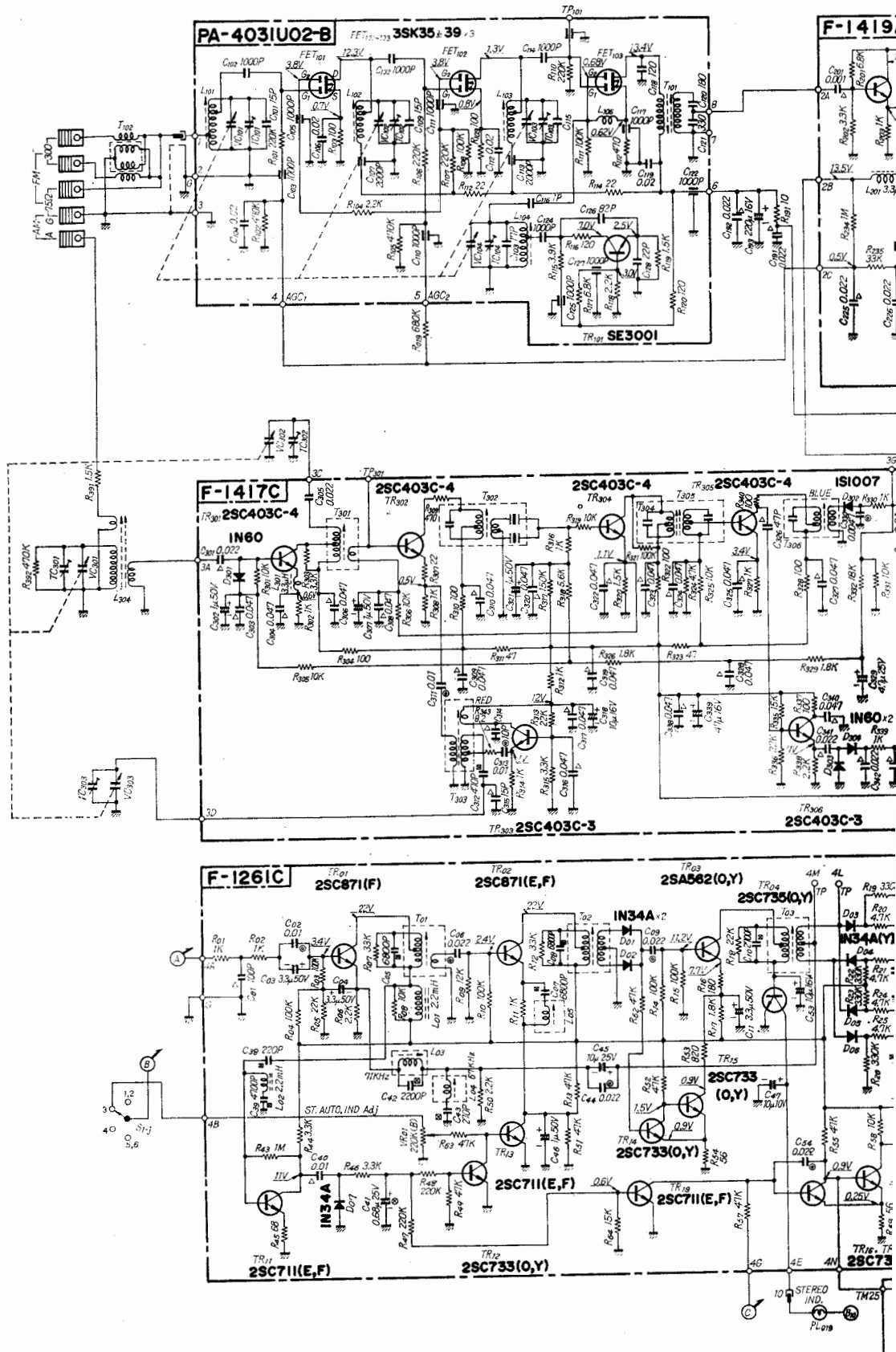
Note: The Voltage Selector can be used to eliminate the trouble caused by the considerable voltage fluctuation. In this case, it should be set to the peak voltage.



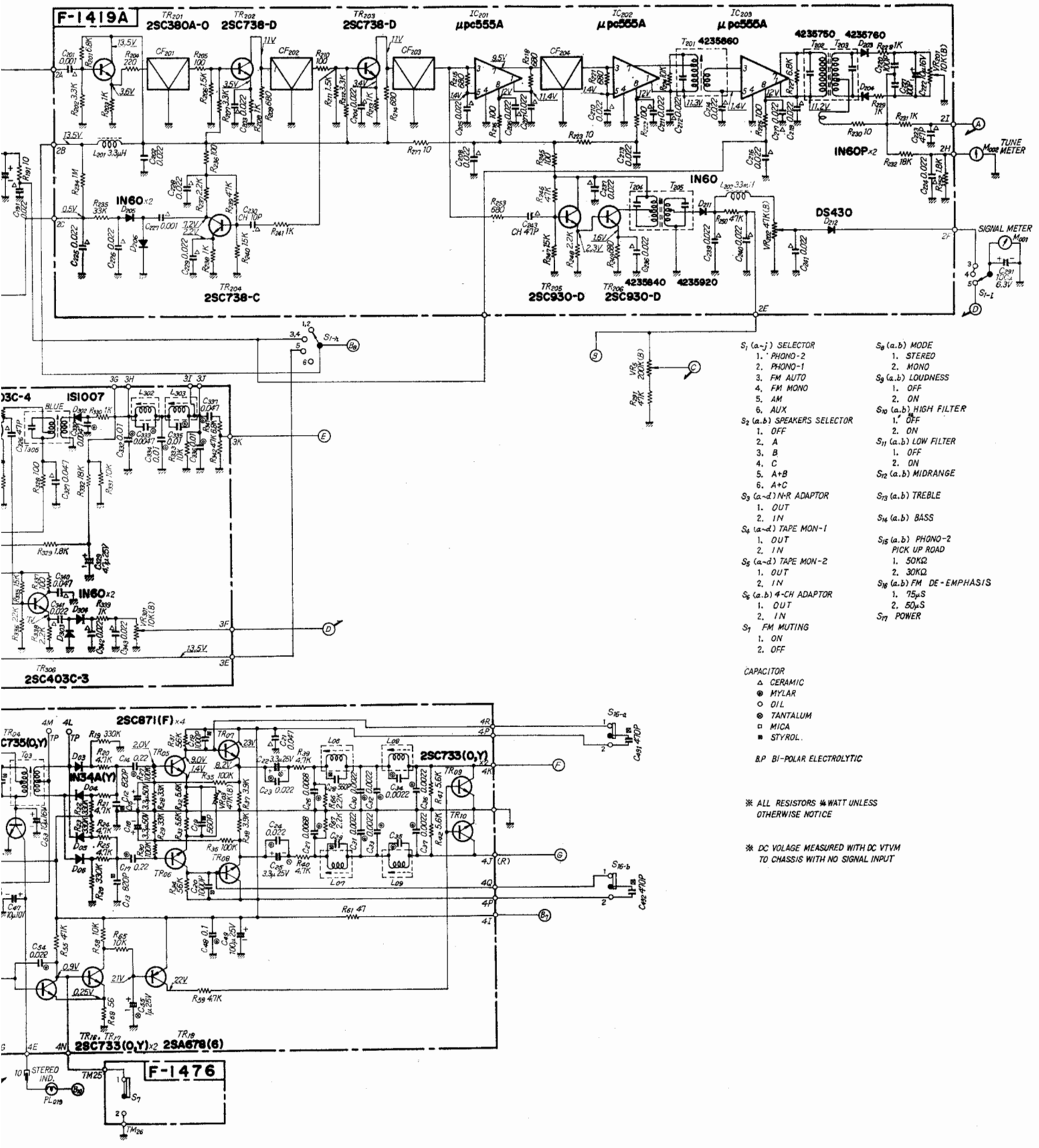
8. ACCESSORY PARTS LIST

Stock No.	Description
9406020	Polishing Cloth
0433280	5A Quick Acting Fuse
3820040	AM/FM ANT
9207550	Operating Instructions
9227550	Operating Instruction Sheet

10. SCHEMATIC DIAGRAM OF TUNER SECTION



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



- S₁ (a-j) SELECTOR**
1. PHONO-2
 2. PHONO-1
 3. FM AUTO
 4. FM MONO
 5. AM
 6. AUX
- S₂ (a,b) SPEAKERS SELECTOR**
1. OFF
 2. A
 3. B
 4. C
 5. A+B
 6. A+C
- S₃ (a-d) N-R ADAPTOR**
1. OUT
 2. IN
- S₄ (a-d) TAPE MON-1**
1. OUT
 2. IN
- S₅ (a-d) TAPE MON-2**
1. OUT
 2. IN
- S₆ (a,b) 4-CH ADAPTOR**
1. OUT
 2. IN
- S₇ FM MUTING**
1. ON
 2. OFF
- S₈ (a,b) MODE**
1. STEREO
 2. MONO
- S₉ (a,b) LOUDNESS**
1. OFF
 2. ON
- S₁₀ (a,b) HIGH FILTER**
1. OFF
 2. ON
- S₁₁ (a,b) LOW FILTER**
1. OFF
 2. ON
- S₁₂ (a,b) MIDRANGE**
1. OFF
 2. ON
- S₁₃ (a,b) TREBLE**
1. OFF
 2. ON
- S₁₄ (a,b) BASS**
1. OFF
 2. ON
- S₁₅ (a,b) PHONO-2 PICK UP ROAD**
1. 50KΩ
 2. 30KΩ
- S₁₆ (a,b) FM DE-EMPHASIS**
1. 75µS
 2. 50µS
- S₁₇ POWER**

CAPACITOR

- △ CERAMIC
- MYLAR
- OIL
- ⊙ TANTALUM
- MICA
- STY-ROL.

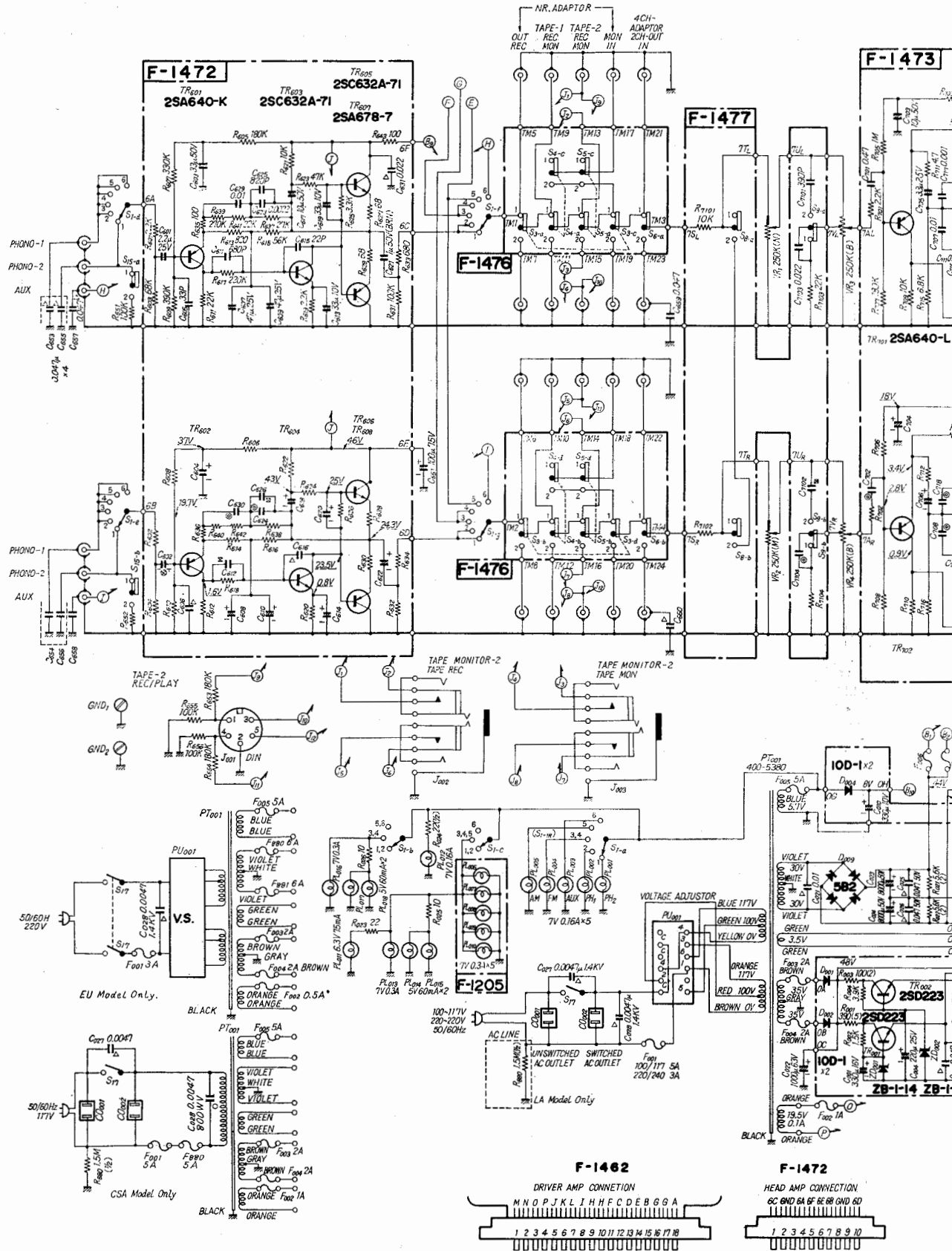
B & P BI-POLAR ELECTROLYTIC

*** ALL RESISTORS 1/4 WATT UNLESS OTHERWISE NOTICE**

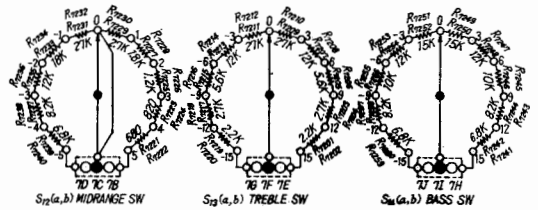
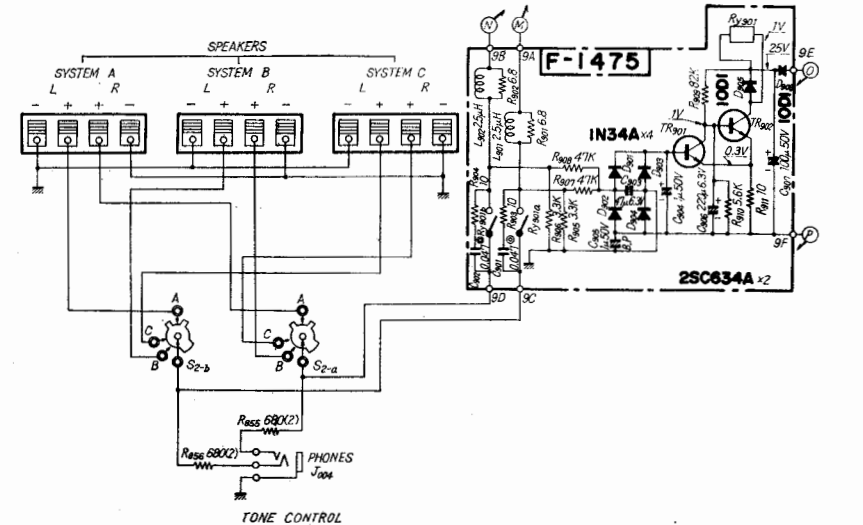
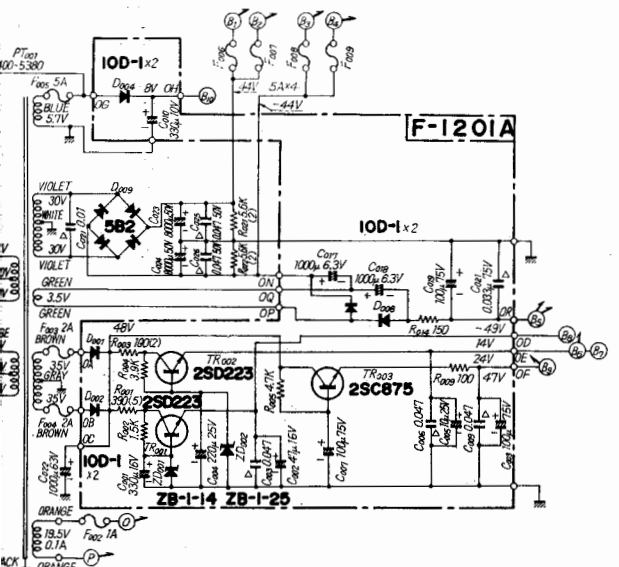
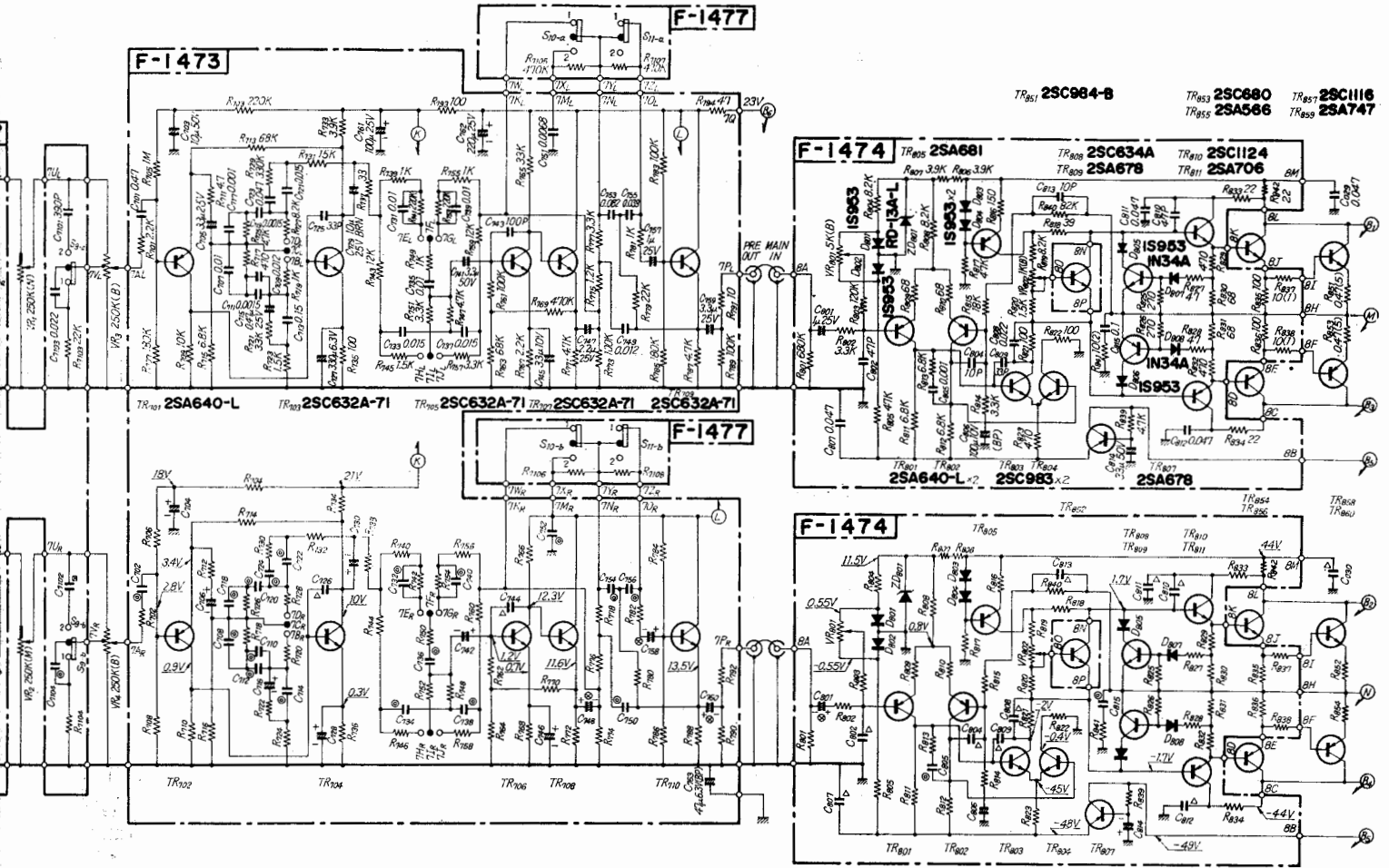
*** DC VOLTAGE MEASURED WITH DC VTVM TO CHASSIS WITH NO SIGNAL INPUT**

11. SCHEMATIC DIAGRAM OF AUDIO SECTION

* Design



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

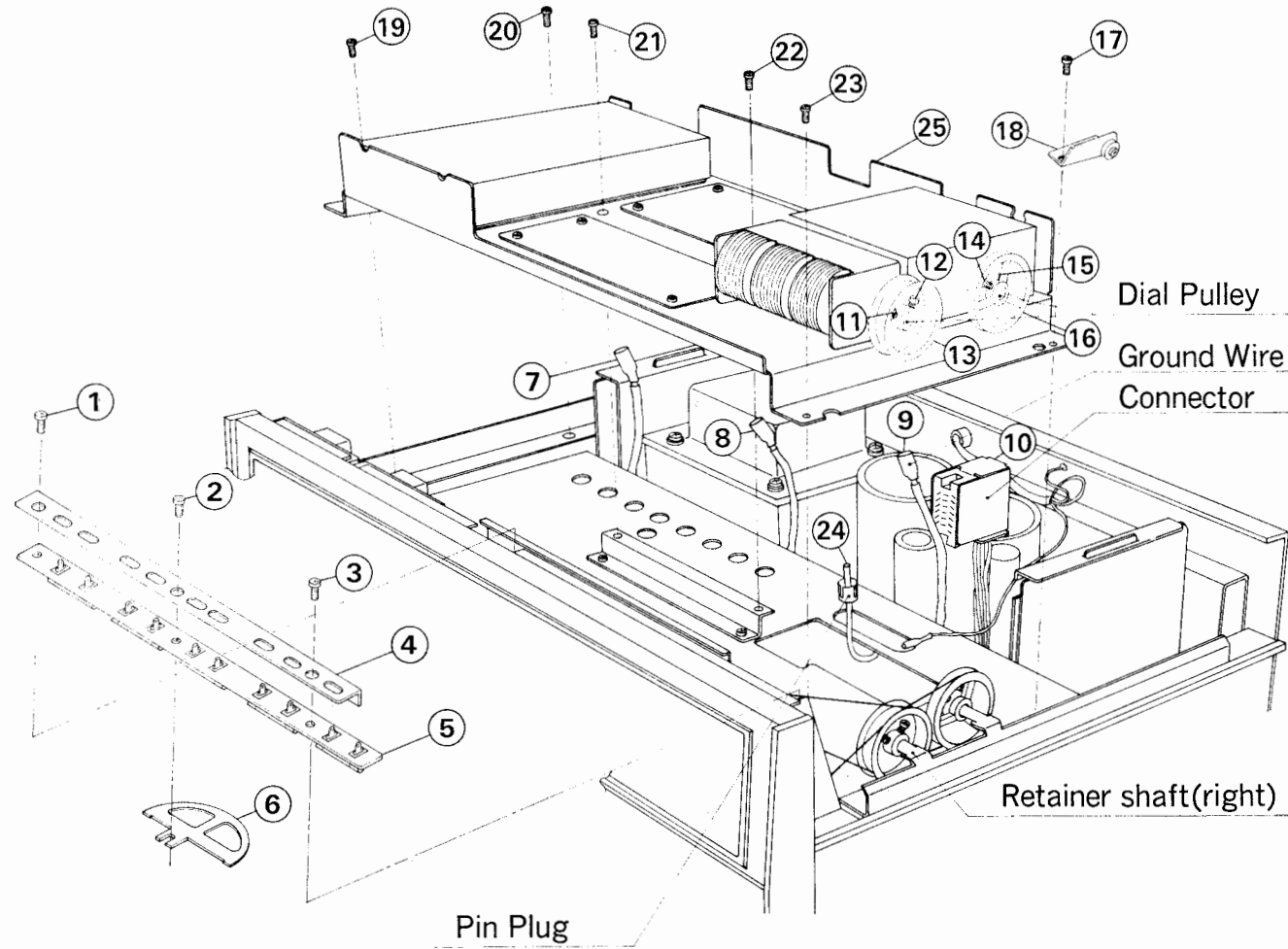


12. REPLACEMENT OF MAIN PARTS

12-1. Tuner Section

- 1) Remove wood bonnet.
- 2) Remove screw ①, ② and ③, then remove P. C. Board holder ④, P. C. Board ⑤ and guide plate ⑥.
- 3) Remove ground wire ⑦, ⑧ and ⑨, then remove connector ⑩.
- 4) Remove screw ⑪, ⑫, ⑬ and ⑭, then remove dial pulley ⑮ and ⑯.
When removing, fix the dial pulley to retainer shaft

- (right) so that the cord does not slip off from dial pulley.
 - 5) Remove screw ⑰ and pulley holder ⑱.
When removing, fix the dial cord with vinyl tape (or masking tape) so that the cord does not slip off.
 - 6) Remove screw ⑲, ⑳, ㉑, ㉒ and ㉓, then remove pin plug ㉔, and tuner section.
- *After attachment, confirm AM and FM Dial Calibration certainly.





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