GENERAL ELECTRIC SERVICE INFORMATION

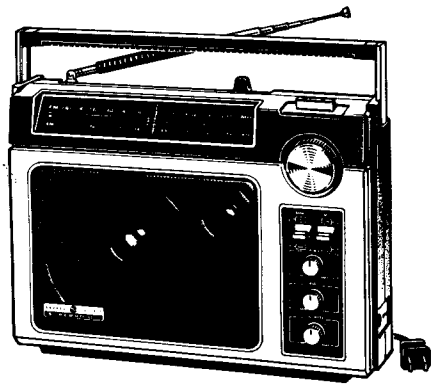
MODEL 7-2885F FM/AM PORTABLE RADIO

FILE TAB 7

CAUTION: THIS MANUAL IS DESIGNED FOR USE BY QUALIFIED ELECTRONIC TECHNICIANS ONLY. CONSUMER USERS ARE URGED TO CONTACT QUALIFIED FACTORY AUTHORIZED SERVICE FACILITIES FOR REPAIRS.

FEATURES

● Air-gang tuning capacitor with tuned RF on FM and AM ● 976mm (38") swivel whip antenna 200mm (7-7/8") AM ferrite rod antenna ● External AM and FM antenna terminals Ceramic IF filter plus 3 IF tuned circuits on FM ● Four IF tuned circuits on AM ● AFC (Automatic Frequency Control) with AFC defeat switch for fine tuning of adjacent stations ● Precision vernier tuning ● Two-speaker performance: 6-1/2" high sensitivity speaker, plus piezo tweeter ● 700mw RMS audio output ● Separate Bass and Treble controls ● Loudness control boosts bass ● 6 "D" size batteries (not incl.) for up to 460 hours battery life ● Two-way Power: Automatic switching from batteries to AC when plugged in ● Separate power On/Off switch ● Earphone jack for optional earphone or headphone ● GE AM/FM Integrated Circuit (IC)
Optional: Earphone 5-1082, Headphone 3-5750



SERVICE SPECIFICATIONS

ELECTRICAL	120 Volts AC, 60Hz 9 Volts DC
BATTERIES	6 "D" Size
TUNING RANGE	AM - 530 - 1630KHz FM - 87.5 - 109MHz
INTERMEDIATE FREQUENCIES	AM - 455 KHz FM - 10.7 MHz
SPEAKER IMPEDANCE	8 ohms - Woofer 140 ohms -Tweeter

SENSITIVITY (Average)	AM - Better than 65uv/M for 20db quieting FM - Better than 8 uv for 30db quieting
POWER OUTPUT @ 10% DISTORTION (Average)	900MW
MINIMUM VOLUME HUM (Average)	1.1MV
CURRENT DRAIN @ IDLE CURRENT (Average)	AM - 15mA FM - 21mA

ALIGNMENT PROCEDURE

AM ALIGNMENT -FUNCTION SWITCH IN AM POSITION

	AM Generator - RF Radiated Signal Modulated 30% at 400Hz				
	GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
1.	455 KHz	Closed	Output Meter	T4, T5, T6, T9	Adjust for maximum. Repeat until no further improvement is noted.
2.	1630 KHz	Open		C1K	Adjust for maximum.
3.	510 KHz	Closed	Across Speaker	L5	Adjust for maximum. Repeat Steps 2 & 3 until set will tune to both band end frequencies.
4.	1400 KHz	Tune to Signal		C1G, C1I	Adjust for maximum.
5.	580 KHz	Tune to Signal		T10, L6	Adjust for maximum. Repeat Steps 4 and 5 until no further improvement is noted.

FM ALIGNMENT - FUNCTION SWITCH IN FM POSITION

	High Side of FM Sweep Generator thru a .04MF capacitor to TP1. Use only enough Marker Signal for Indication.				
	GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
1.	10.7 MHz	Open	Scope at TP2 Use Pad (See Figure 1)	T1, T2, T3	Adjust for maximum gain and symmetry. Repeat as necessary.
2.	10.7 MHz	Open	Scope at TP3 Use Pad (See Figure 2)	T7, T8	Adjust for maximum gain and symmetrical S-Curve.
	FM Generator - Modulated RF Radiated Signal				
3.	109.0 MHz	Open	Output Meter	C15	Adjust for maximum.
4.	87.5 MHz	Closed		L4	Spread or compress coil windings slightly to raise or lower frequency. Repeat Steps 3 & 4.
5.	108.0 MHz	Tune to Signal	Across Speaker	C1J, C1H	Adjust for maximum.
6.	88 MHz	Tune to Signal		L1, L2	Spread or compress coil windings slightly to obtain optimum alignment. Repeat Steps 5 & 6.

FM AFC ALIGNMENT (R17 TRIM POT)

1. Tune FM dial to a no signal area near the center of the FM Band (98 MHz).
2. With the AFC switch S2 in OFF position, connect a high impedance voltmeter (Triplett 630-NS or equivalent) to S2 pin A1 and measure the D.C. voltage. Note: Voltmeter chosen must not cause noise in FM Band which would cause incorrect alignment.
3. Next connect voltmeter to S2 pin A2 and adjust R17 trim pot to the same voltage as measured in Step 2. Accuracy of voltage adjustment to voltage measured in Step 2 should be better than ± 5%.

FIGURE 1

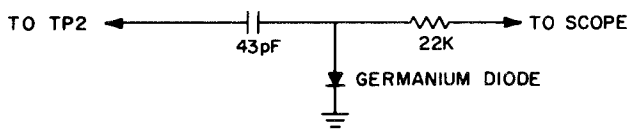
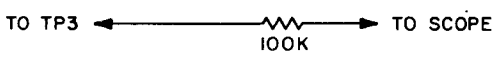
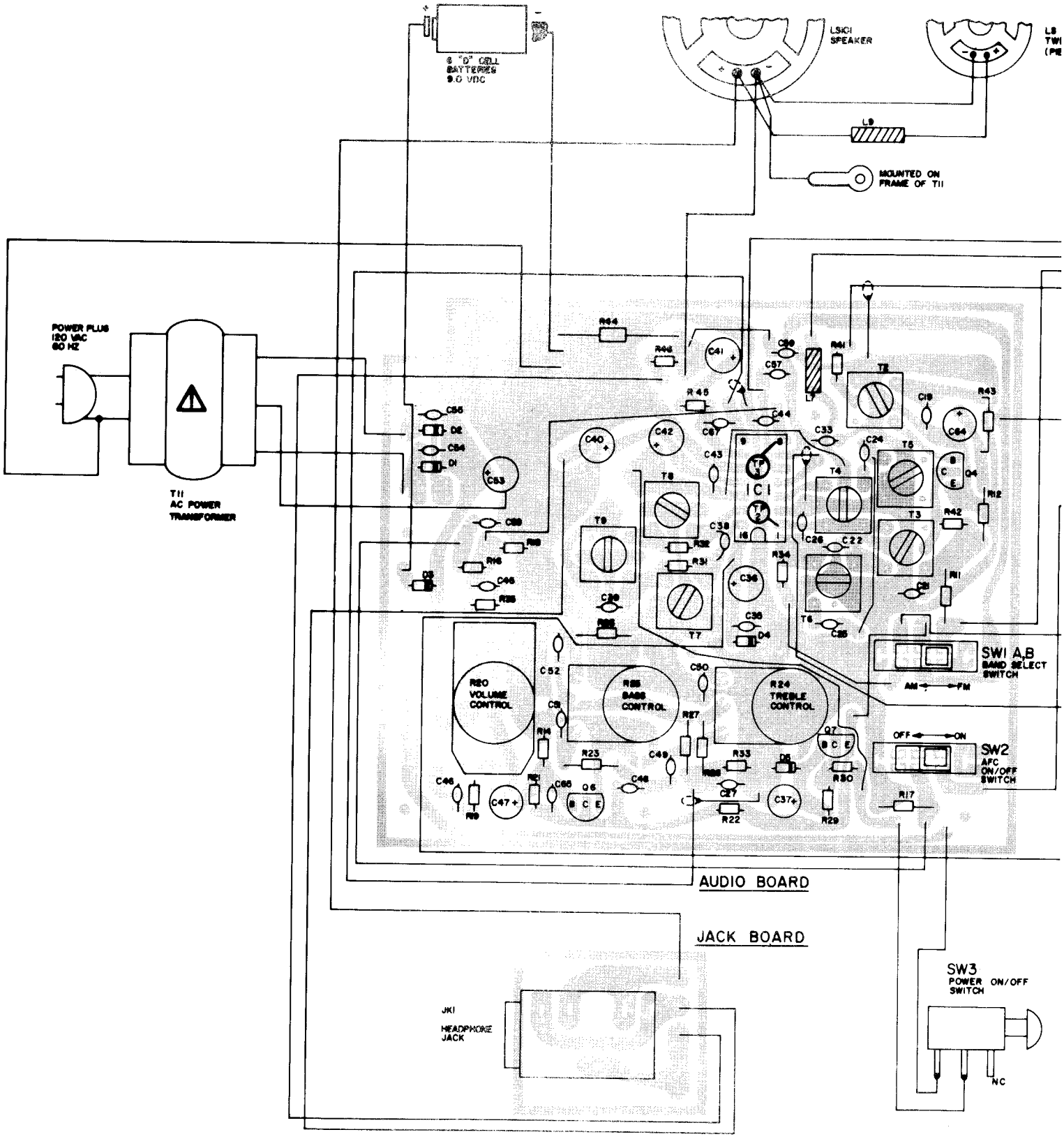
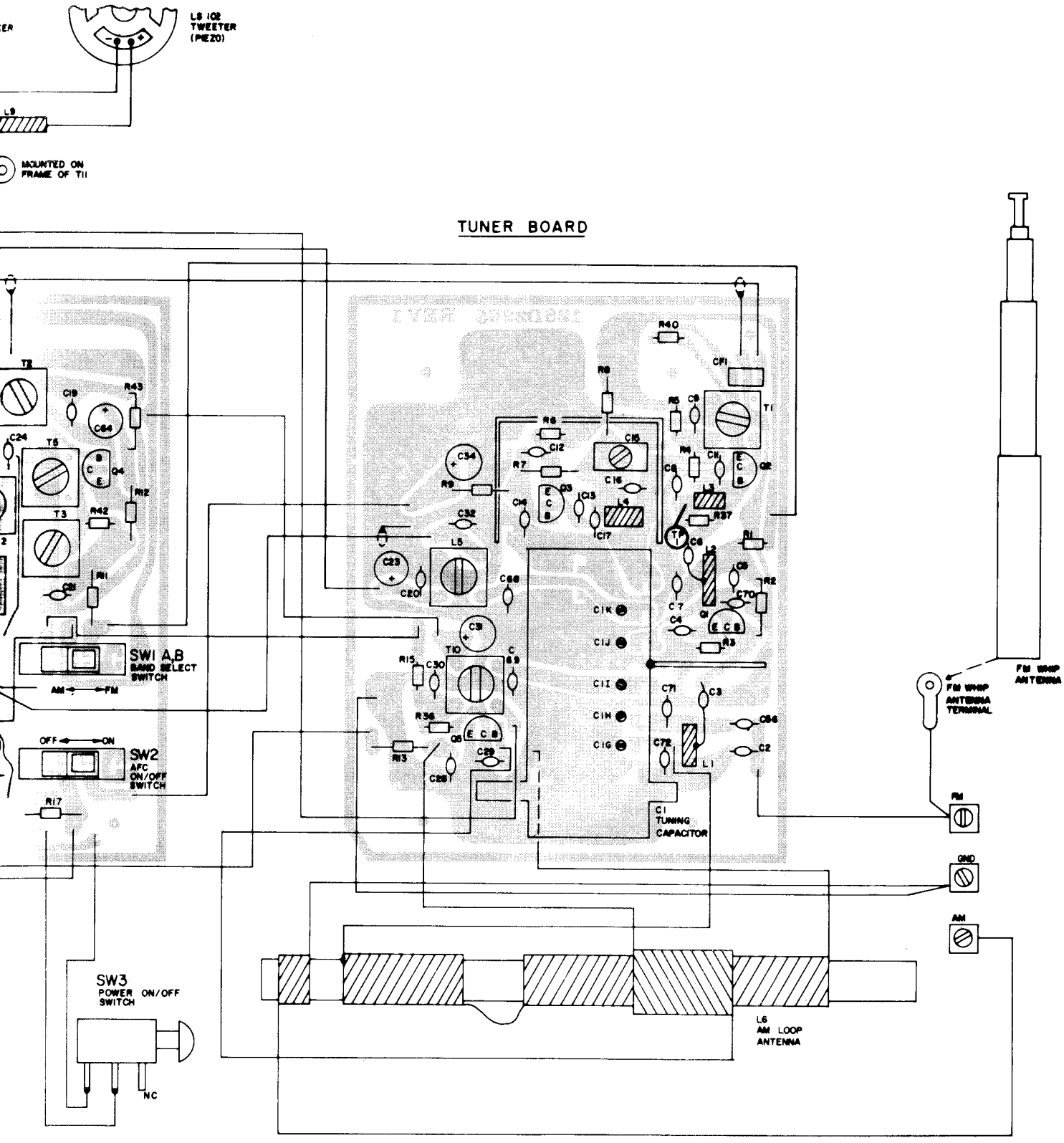


FIGURE 2

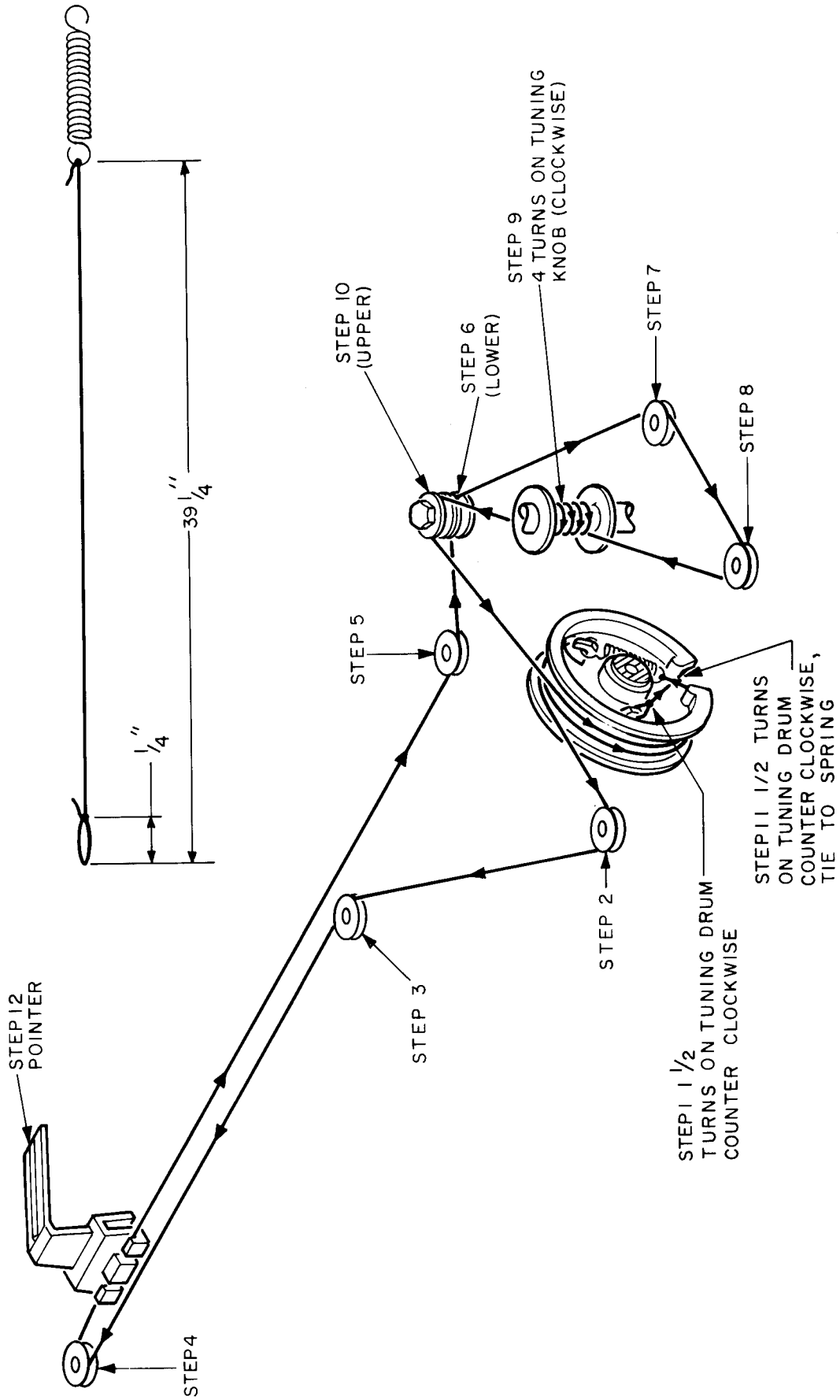




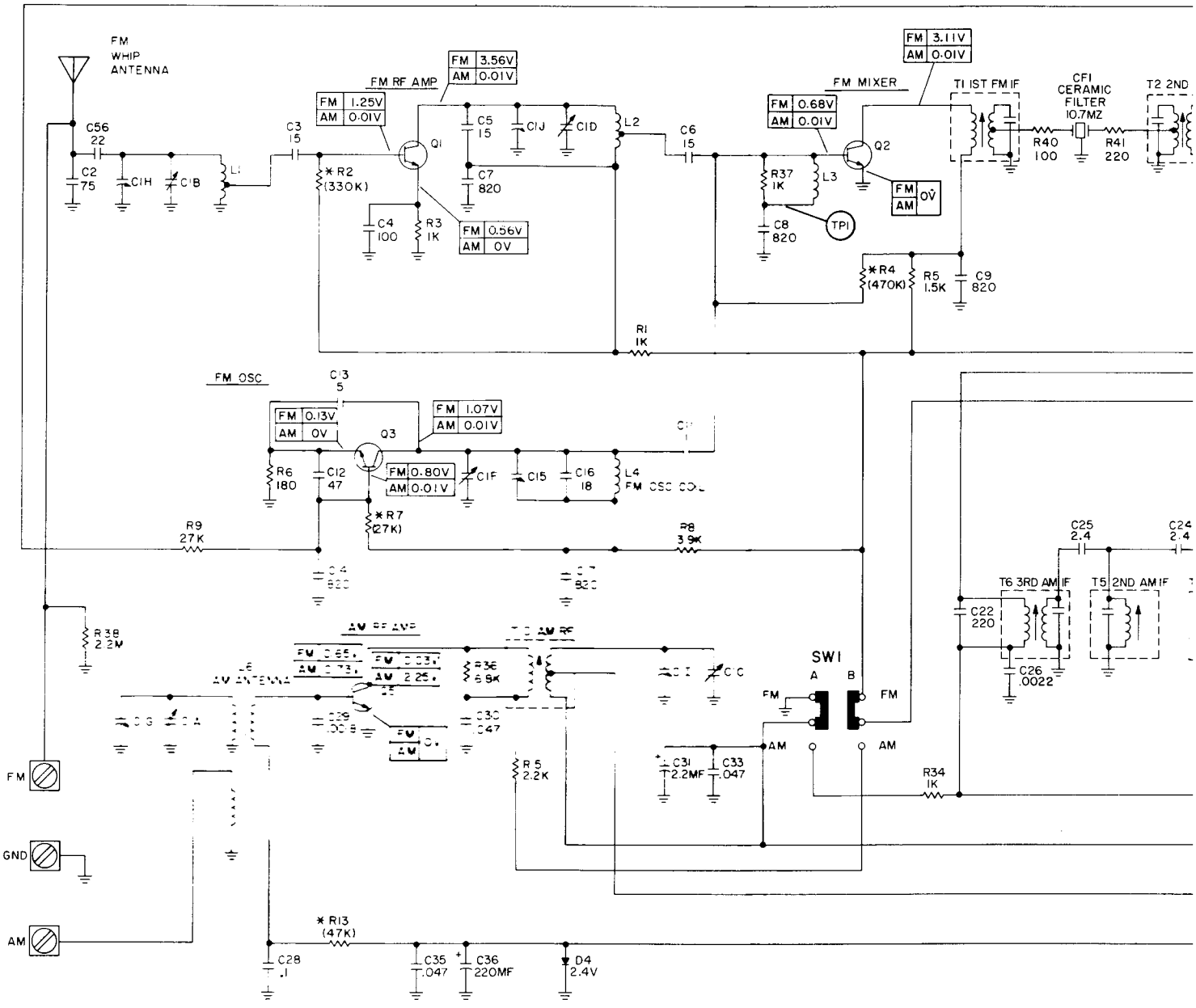
COMPONENT LAYOU

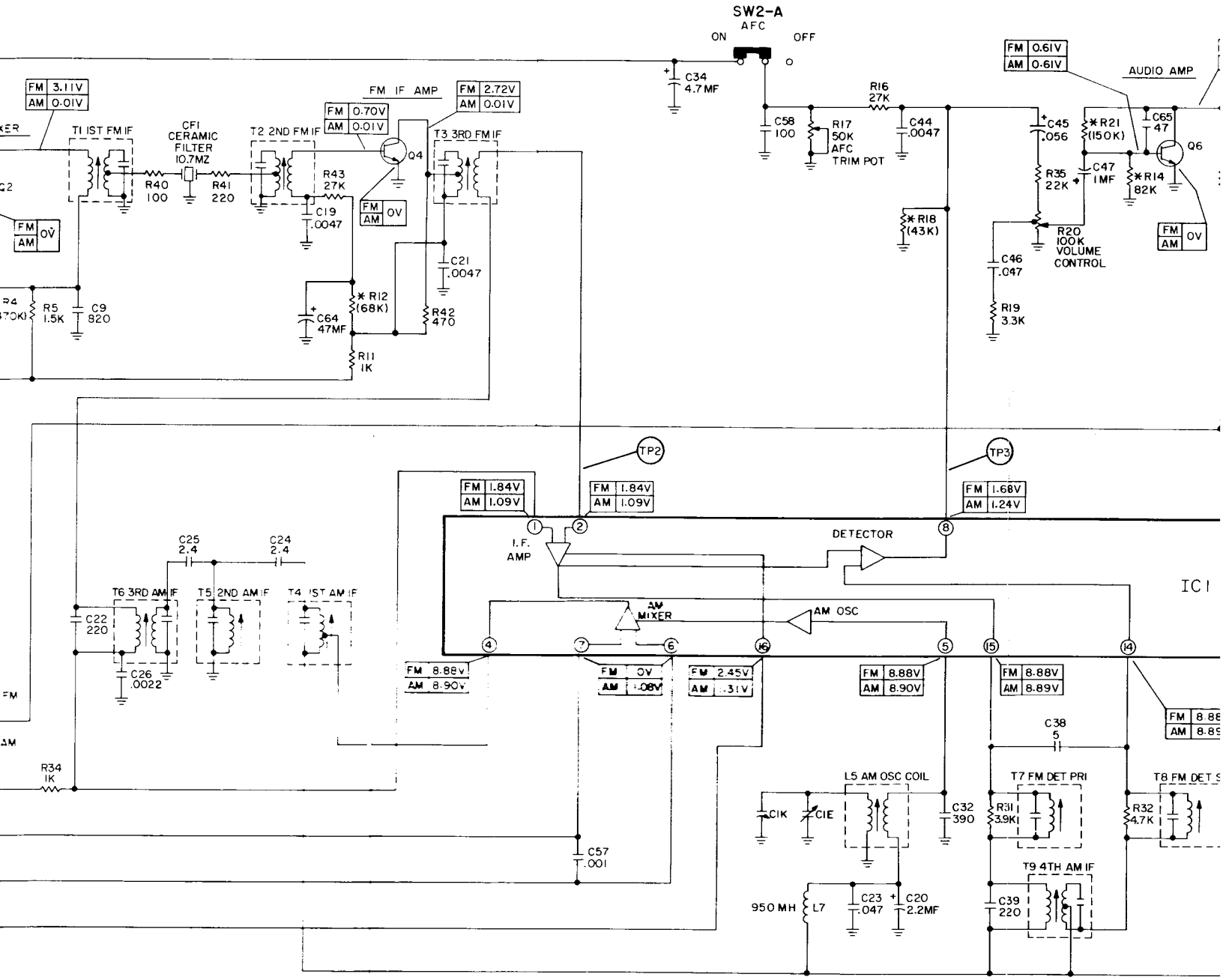


COMPONENT LAYOUT TOP VIEW 7-2885F

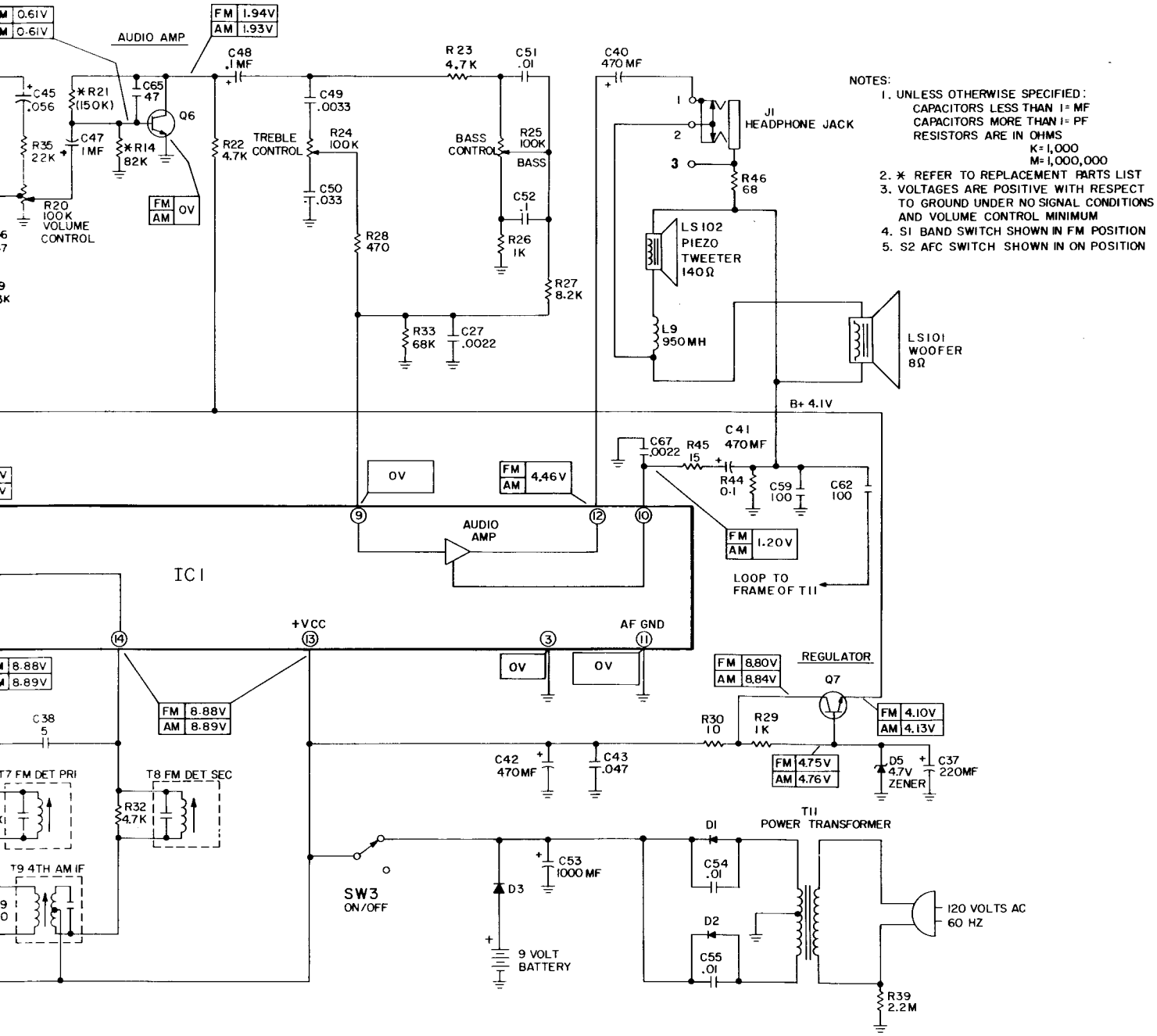


DIAL CORD STRINGING 7-2885F

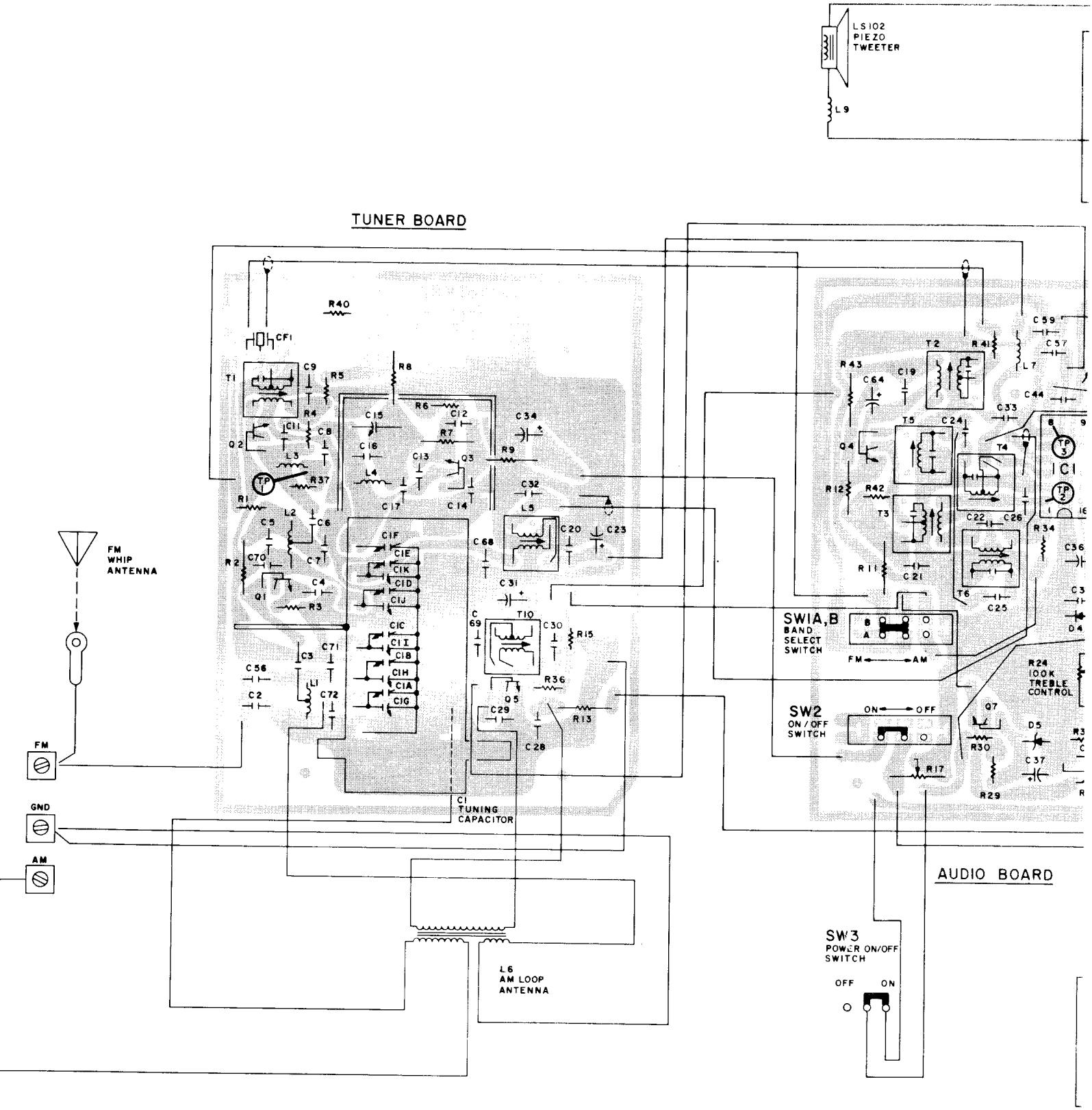

FM WHIP ANTENNA
FM RF AMP
FM MIXER
FM OSC
AM RF AMP
AM ANTENNA
1ST FM IF
CFI CERAMIC FILTER 10.7MZ
T2 2ND
T6 3RD AM IF
T5 2ND AM IF
SW1
FM
GND
AM
C56 22
C2 75
C1H
C1B
L1
C3 15
*R2 (330K)
Q1
C5 15
C1J
C1D
L2
C6 15
C7 820
C4 100
R3 1K
R37 1K
L3
Q2
C8 820
TP1
*R4 (470K)
R5 1.5K
C9 820
R40 100
R41 220
R1 1K
C13 5
Q3
R6 180
C12 47
C1F
C15
C16 18
L4 FM OSC COIL
*R7 (27K)
R9 27K
R8 3.9K
C25 2.4
C24 2.4
C22 220
C26 .0022
R38 2.2M
R36 6.8K
C31 2.2MF
C33 .047
R34 1K
R5 2.2K
*R13 (47K)
C28 .1
C35 .047
C36 220MF
D4 2.4V



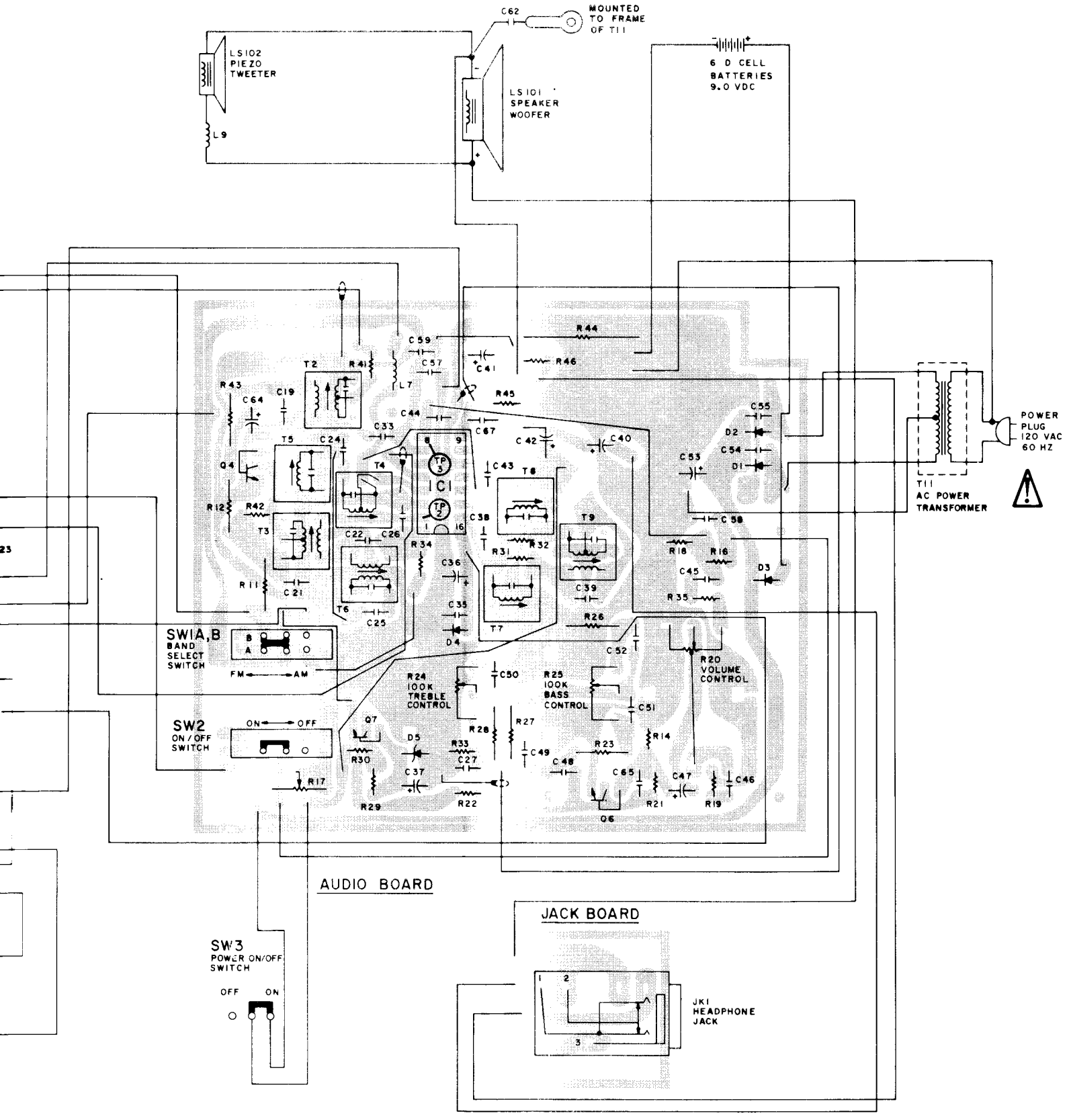
SCHEMATIC DIAGRAM 7-2885F



NOTES:
1. UNLESS OTHERWISE SPECIFIED:
   CAPACITORS LESS THAN 1= MF
   CAPACITORS MORE THAN 1= PF
   RESISTORS ARE IN OHMS
   K= 1,000
   M= 1,000,000
2. * REFER TO REPLACEMENT PARTS LIST
3. VOLTAGES ARE POSITIVE WITH RESPECT TO GROUND UNDER NO SIGNAL CONDITIONS AND VOLUME CONTROL MINIMUM
4. S1 BAND SWITCH SHOWN IN FM POSITION
5. S2 AFC SWITCH SHOWN IN ON POSITION



WIRING DIAGRAM BOTTOM VIEW 7-2885F



WIRING DIAGRAM BOTTOM VIEW 7-2885F

IMPORTANT

PERFORM THE FOLLOWING SAFETY CHECKS AFTER SERVICING THIS UNIT:

1. Remove all externally connected test equipment and wires before safety testing this unit.

2. Use RT6440 Safety Test Box or construct circuit as shown.

3. Plug power cord of unit to be tested into Test Receptacle.

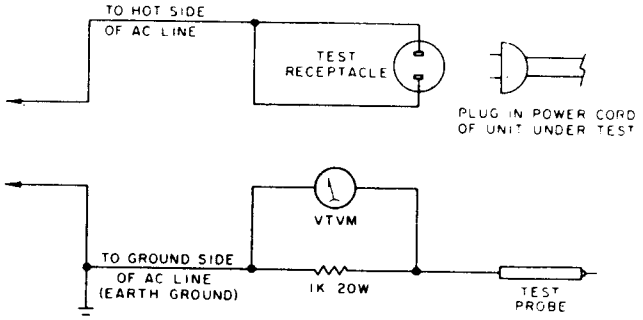
4. Switch unit being tested to ON position.

5. Connect VTVM across 1K resistor in test circuit. Set meter on high (140V AC) scale to avoid meter damage and touch the following points with Test Probe.

   a) Earphone Jack
   b) Positive Battery Contact
   c) Negative Battery Spring
   d) Three (3) External Antenna Screws

If meter reading indicates less than 3 volts on all test points, set meter to low (3V AC) scale and repeat test.

6. Any reading greater than two tenths (.2) volt, indicates a potential shock hazard. If this occurs, determine the cause of the leakage, correct the problem, and repeat safety test.



REPLACEMENT PARTS LIST MODEL 7-2885F

CAT.NO.	REF.NO.	DESCRIPTION	CAT.NO.	REF.NO.	DESCRIPTION
EA95X227	LS101	Woofer Speaker	EA39X254	S3	Power Switch
EA95X226	LS102	Tweeter Speaker	EA9X700	MS1	Battery Door
EA49X881	R20	Volume Control	EA78X92	MS2	Handle
EA49X882	R24	Bass/Treb. Control	EA4X798	MS3	End Cap Handle
EA57X14	D1,2	Diode	EA98X1029	MS4	Cabinet Front Asm.
EA16X492	D3	Diode	EA43X1634	MS5	Tuning Knob
EA16X193	D4	Diode	EA43X960	MS6	On/Off Knob
EA16X144	D5	Diode	EA43X1373	MS7	Vol.,Bass.,Treb., Knob
EA33X8546	IC1	I.C.	EA4X799	MS8	Monogram Insert
EA15X2024	Q1,2,5	Transistor	EA89X301	MS9	Grille
EA15X596	Q3	Transistor	EA4X799	MS10	Control Insert
EA15X7174	Q4	Transistor	⚠-EA66X56	MS11	Power Cord
EA15X1150	Q6,7	Transistor	EA82X107	MS12	Whip Antenna
EA39X579	S1,2	Switch	EA98X1406	MS13	Cabinet Back Asm.

NOTE: When replacing transistors and integrated circuits with the type specified below, corresponding changes must also be made.

NOTE: "MS" reference is for factory use only.

Parts not listed are non-stocked items.

Parts marked with ⚠ are important for maintaining the safety of the set. Be sure to replace these with only specified ones for maintaining the safety and performance of the unit.

All capacitors should be replaced with same type, size and voltage rating as original.

Replacement Parts may be ordered from: General Electric CEBO Parts Dist. Center, 13900 West 101st. Street, Lenexa Kansas 66215 or in CANADA - Canadian General Electric, Audio Product Service, 1420 Dupont St., Toronto, Ontario M6H2B2.

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