GENERAL ELECTRIC

SERVICE INFORMATION

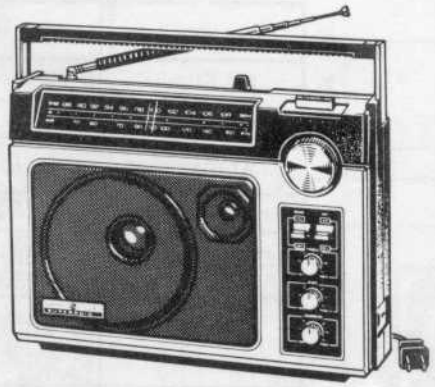
MODEL
7-2885A/B/C
FM/AM
PORTABLE RADIO

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	SENSITIVITY (Average)	AM - Better than 65uv/M for 20db quieting FM - Better than 8 uv for 30db quieting
BATTERIES	6 "D" Size		
TUNING RANGE	AM - 530 - 1630KHz FM - 87.5 - 109MHz	POWER OUTPUT @ 10% DISTORTION (Average)	900MW
INTERMEDIATE FREQUENCIES	AM - 455 KHz FM - 10.7 MHz	MINIMUM VOLUME HUM (Average)	1.1MV
SPEAKER IMPEDANCE	8 ohms - Woofer 140 ohms -Tweeter	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		C1L	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		C1J, C1K	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	C1G, 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

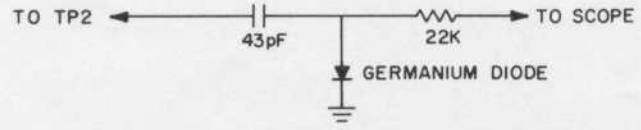
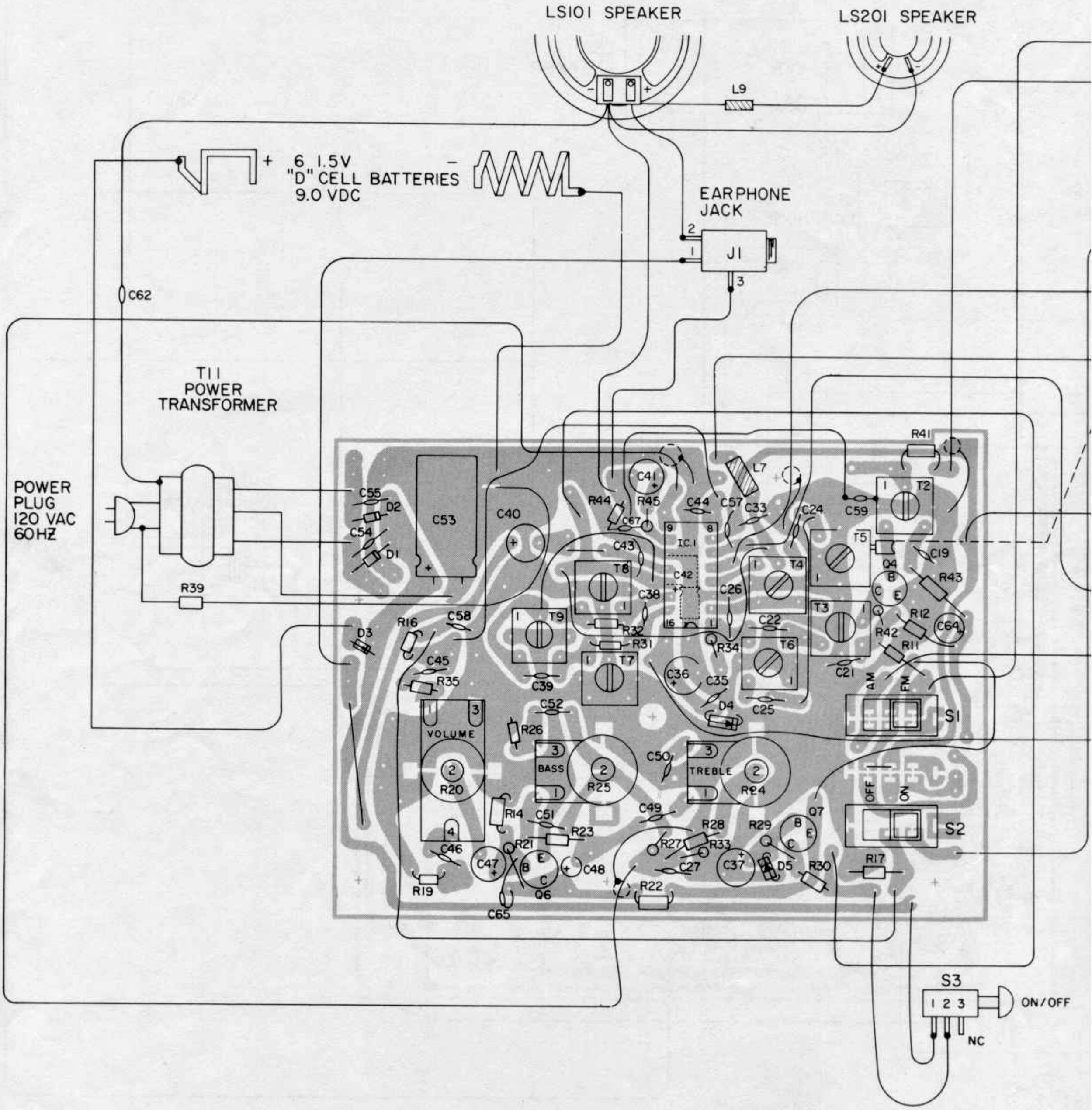
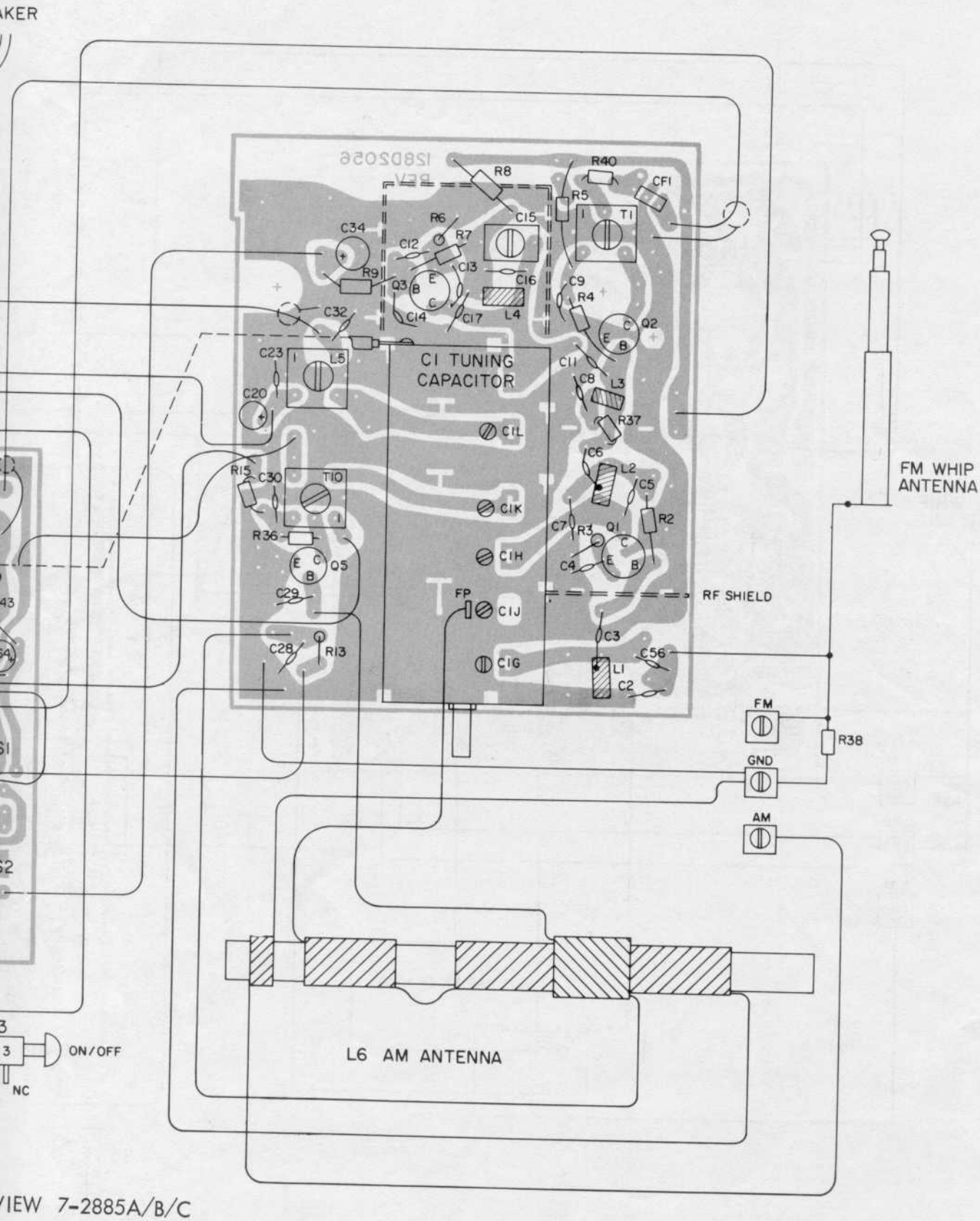


FIGURE 2

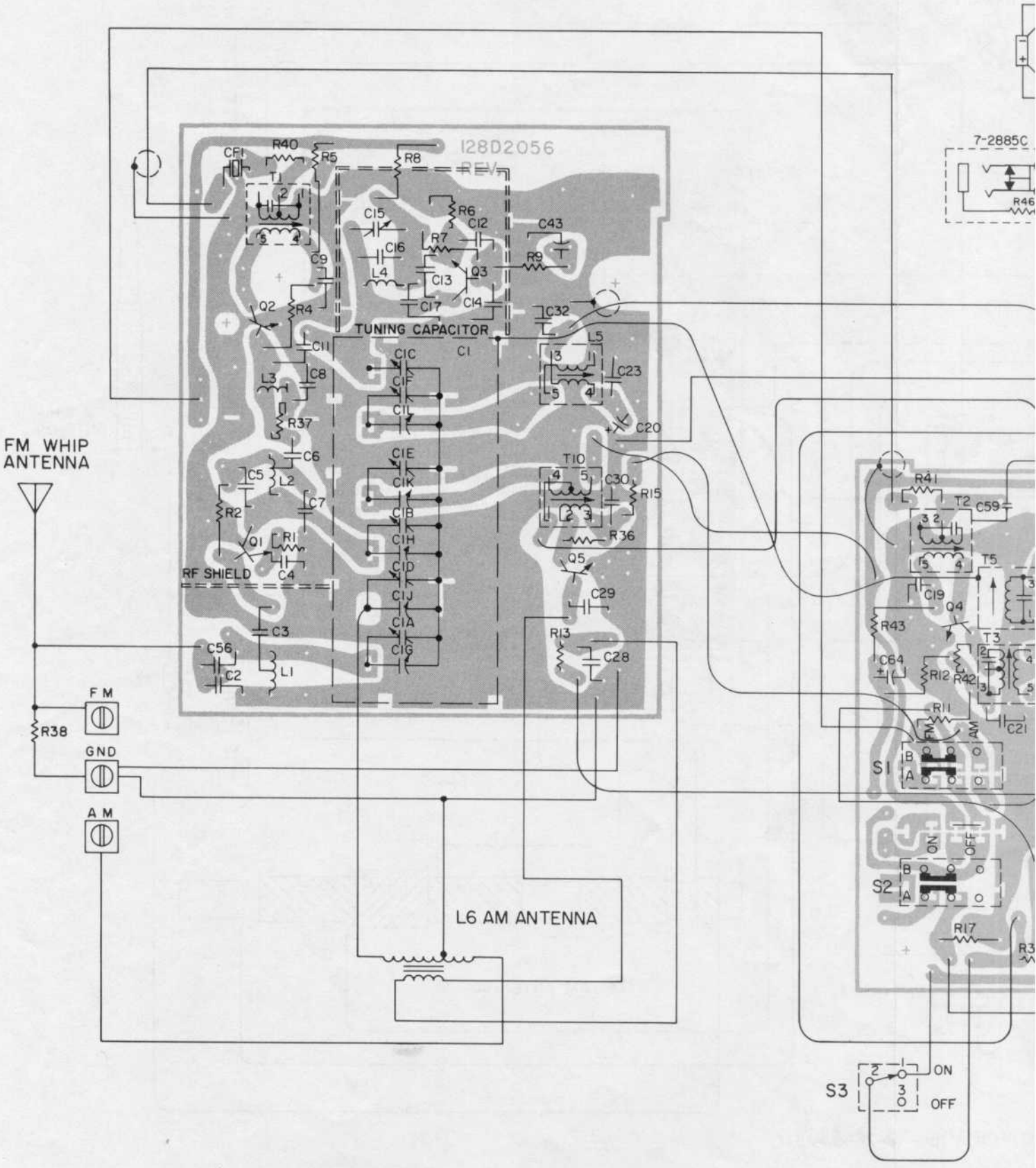
GENERAL ELECTRIC



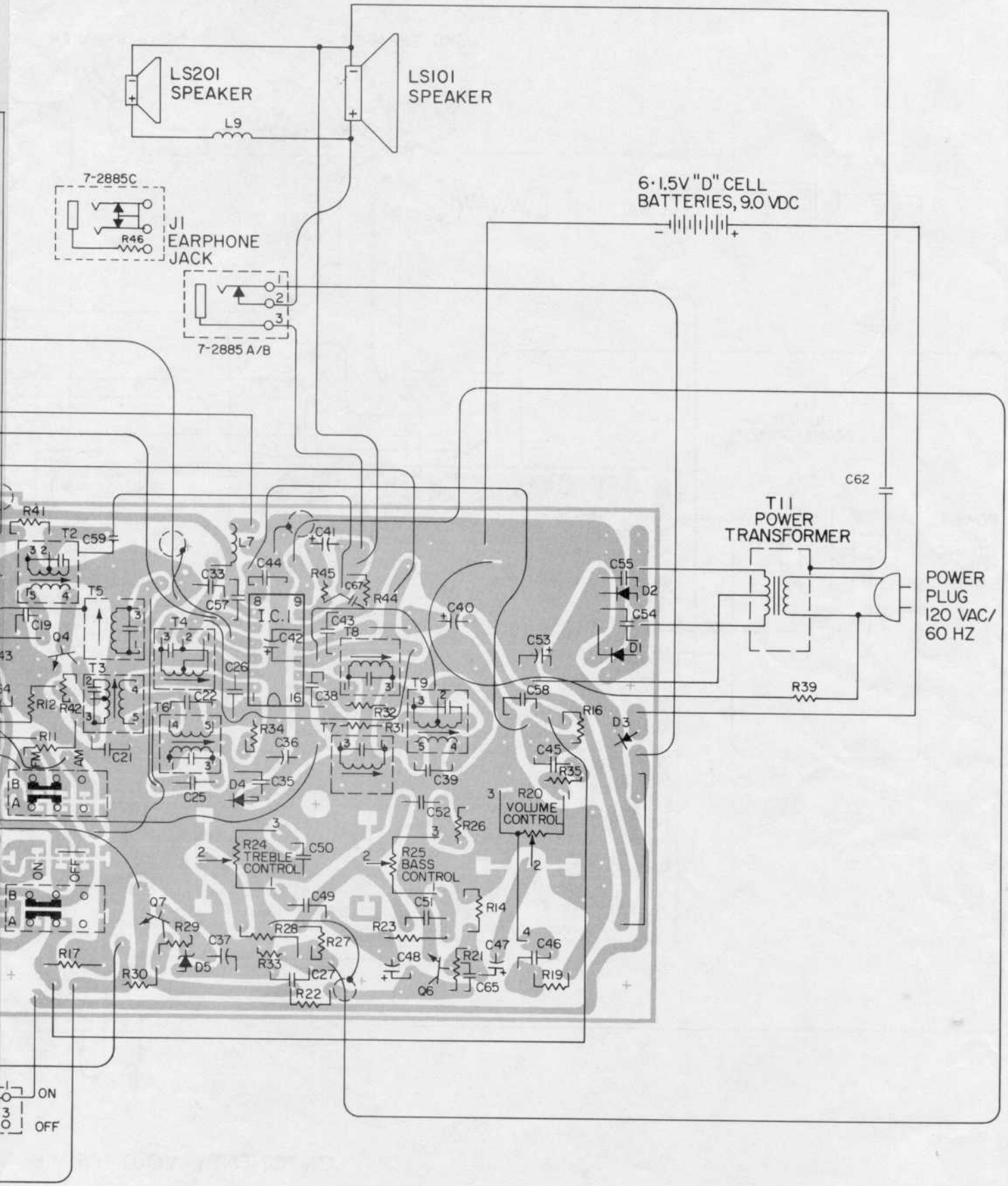
COMPONENT LAYOUT TOP VIEW 7-2885A



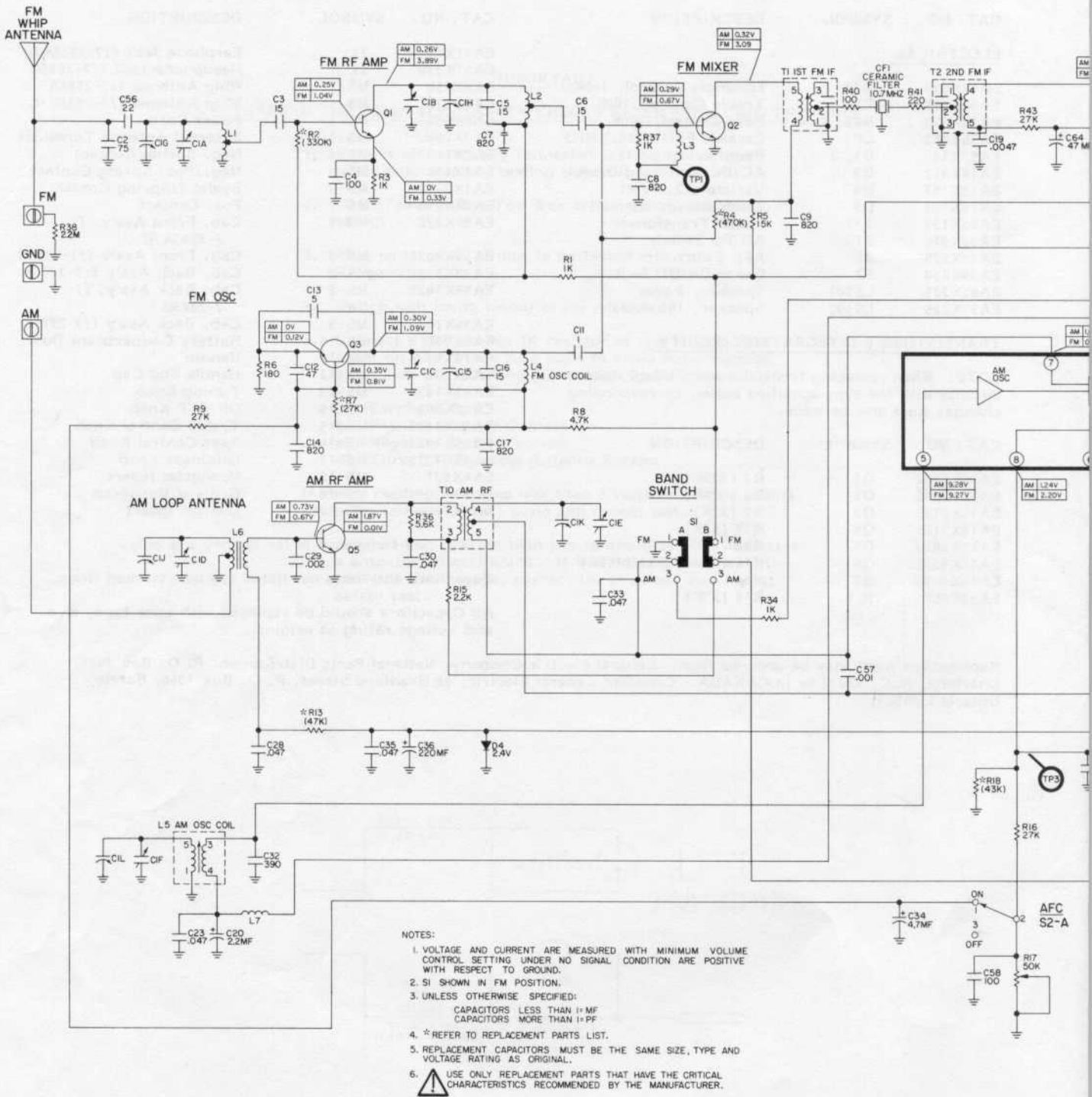
VIEW 7-2885A/B/C



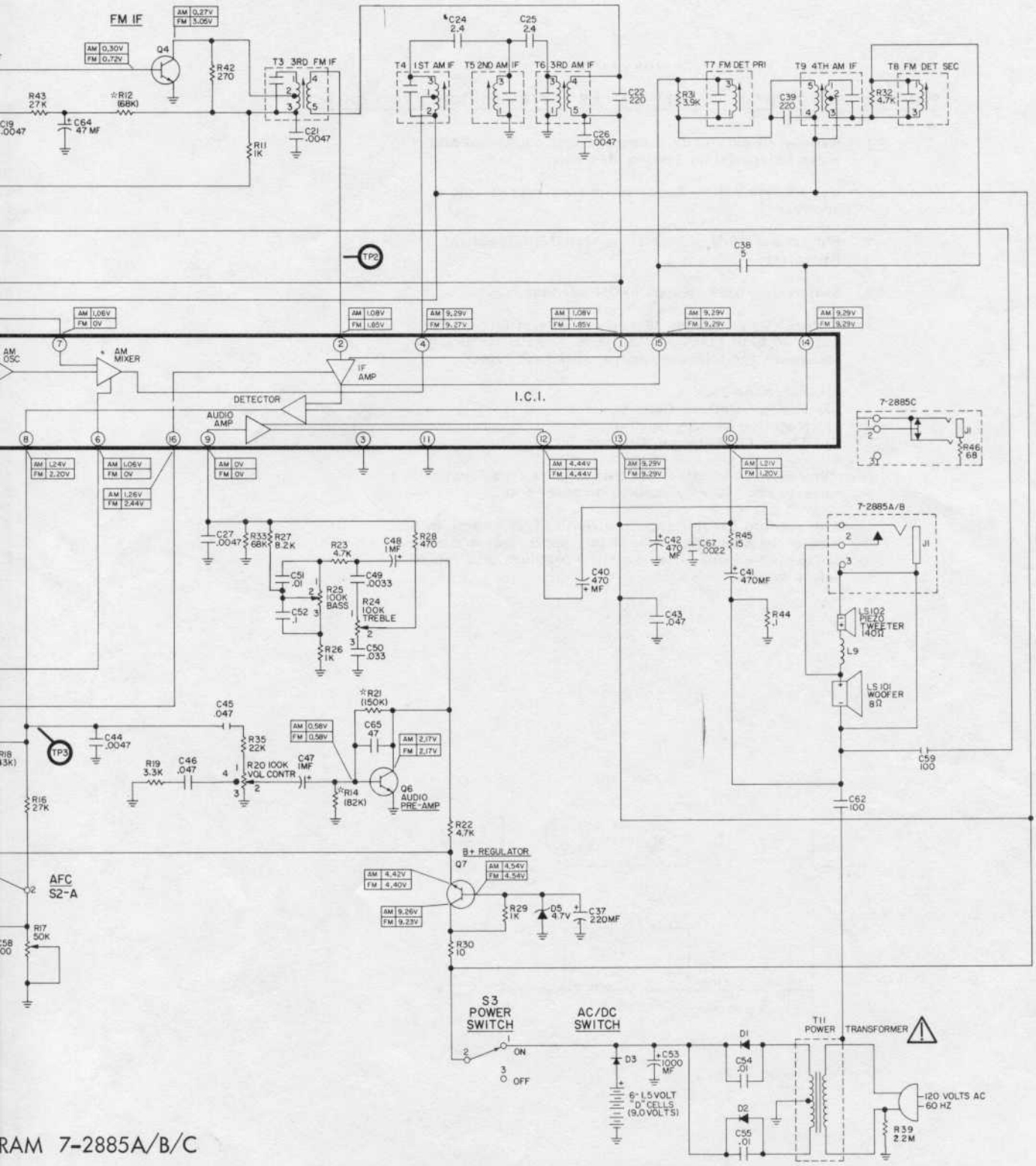
WIRING DIAGRAM BOTTOM VIEW 7-



TOM VIEW 7-2885A/B/C



SCHEMATIC DIAGRAM 7-2



RAM 7-2885A/B/C

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.

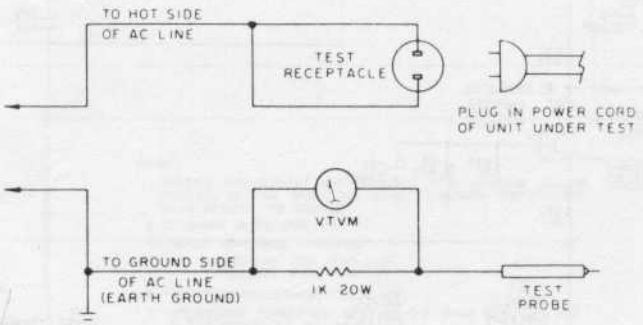
4. Switch unit being tested to ON position.

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 7-2885A/B/C

ELECTRICAL

CAT. NO.	SYMBOL	DESCRIPTION
EA49X649	R20	Loudness Control, 100K
EA49X518	R24	Treble Control, 100K
EA49X518	R25	Bass Control, 100K
EA36X483	CF1	Ceramic Filter, 10.7 MHz
EA57X14	D1, 2	Rectifier
EA16X492	D3	AC/DC Switching Diode
EA16X193	D4	Varistor, 2.4 Volt
EA16X144	D5	Zener Diode, 4.7 Volt
EA88X129	T11	Power Transformer
EA39X579	S1	AM/FM Switch
EA39X579	S2	AFC Switch
EA39X254	S3	Power On/Off Switch
EA95X225	LS101	Speaker, 8 ohm
EA95X226	LS102	Speaker, 140 ohm

TRANSISTORS & INTEGRATED CIRCUITS

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

CAT. NO.	SYMBOL	DESCRIPTION
EA15X7242	Q1	R2 (330K)
EA15X7245	Q2	R4 (470K)
EA15X7136	Q3	R7 (27K)
EA15X7174	Q4	R12 (68K)
EA15X2023	Q5	R13 (47K)
EA15X4335	Q6	R14 (82K), R21 (150K)
EA15X4336	Q7	None
EA33X8546	IC1	R18 (43K)

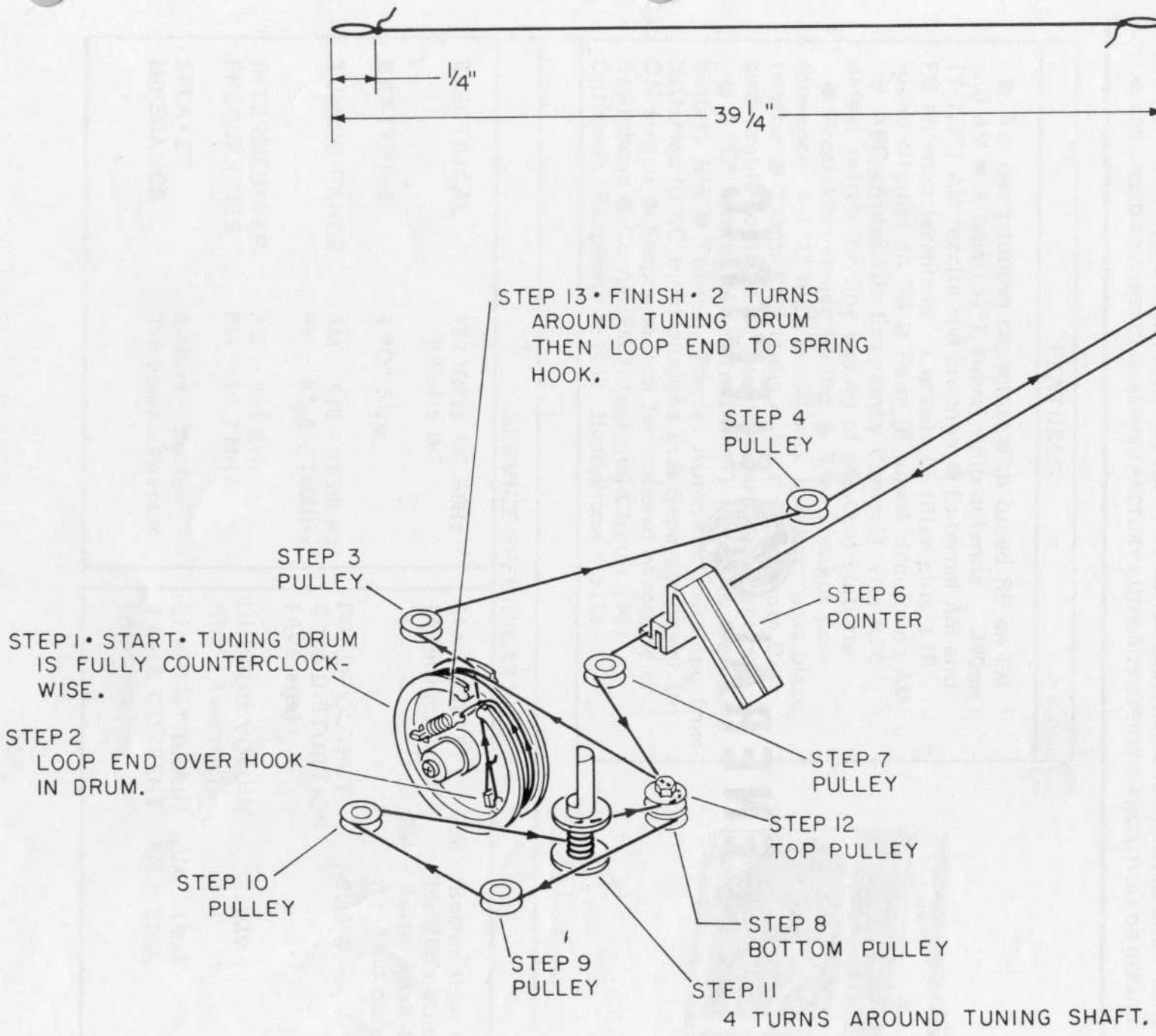
CAT. NO.	SYMBOL	DESCRIPTION
EA41X42	J1	Earphone Jack f/7-2885A/B
EA41X336	J1	Headphone Jack f/7-2885C
EA82X50	MS-1	Whip Antenna f/7-2885A
EA82X107	MS-1	Whip Antenna f/7-2885B/C
EA66X56	MS-2	Power Cord
EA3X264	MS-3	External Antenna Terminals
EA2X1495	MS-4	Neg. Spring Contact
EA2X196	MS-5	Neg./Pos. Spring Contact
EA1X777	MS-6	Eyelet f/Spring Contact
EA2X1496	MS-7	Pos. Contact
EA98X976	MS-8	Cab. Front Ass'y. f/ 7-2885A/B
EA98X1029	MS-8	Cab. Front Ass'y f/7-2885C
EA98X977	MS-9	Cab. Back Ass'y f/7-2885A
EA98X1028	MS-9	Cab. Back Ass'y. f/ 7-2885B
EA98X1030	MS-9	Cab. Back Ass'y f/7-2885C
EA9X700	MS-10	Battery Compartment Door
EA78X92	MS-11	Handle
EA4X798	MS-12	Handle End Cap
EA43X1634	MS-13	Tuning Knob
EA43X960	MS-14	ON/OFF Knob
EA43X1373	MS-15	Treble Control Knob
EA43X1373	MS-16	Bass Control Knob
EA43X1373	MS-17	Loudness Knob
EA4X921	MS-18	Monogram Insert
EA89X301	MS-19	Grille w/Monogram
EA4X799	MS-20	Control Insert

NOTE: MS Reference is for factory use only.

Capacitors and items not listed are non-stocked items.

All Capacitors should be replaced with same type, size and Voltage rating as original.

Replacement parts may be ordered from: General Electric Company, National Parts Distribution, P. O. Box 7025, Charlotte, N.C. 28217 or in CANADA - Canadian General Electric, 80 Bradford Street, P. O. Box 1060, Barrie, Ontario L4M5E1.



DIAL CORD STRINGING 7-2885 A/B/C