

PARTS LIST AND DESCRIPTIONS (Continued)

CAPACITORS (cont)

ITEM No.	RATING		TONFUNK PART No.	REPLACEMENT DATA		NOTES
	CAP.	VOLT		CENTRALAB PART No.	CORNELL DUBILIER PART No.	
C55	.047	500		P888N-047	DF-603	
C56	.1	125		P288N-1	CUB2P1	6TM-847
C57	.047	125		P288N-047	DF-104	2TM-P1
C58	10000			SI 10000	DF-603	2TM-847
C59	1000			SI 1000	DF-103	2GA-SI
C60	10000			SI 10000	D6-102	5GA-D1
C61	220			SI 220	L76D1	5GA-SI
C62	470			BPD-00047	L76T22	5GA-T22
C63	4700			SI 4700	DD-471	5GA-T47
C64	4700			SI 4700	D6-472	5GA-D47
C65	.022	500		P888N-022	L76D47	5GA-D47
C66	470			BPD-00047	L76D47	5GA-D47
C67	4700			SI 4700	DD-471	5GA-T47
C68	.01	500		P888N-01	CUB6S1	5GA-D47
C69	.01	500		SI 4700	L76D47	5GA-SI
C70	4700				L76D47	5GA-D47

① Some versions may use 80mmf in this application.  
② Some versions may use 47mmf in this application.

CONTROLS

ITEM No.	RATING		TONFUNK PART No.	REPLACEMENT DATA		INSTALLATION NOTES
	RESIST-ANCE	WATTS		CENTRALAB PART No.	IRC PART No.	
R1	1.3meg					Volume, Tap @ 300K & 500K
R2	8meg					Treble
R3	2500Ω					Bias

RESISTORS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING		TONFUNK PART No.	NOTES	ITEM No.	RATING		TONFUNK PART No.	NOTES
	OHMS	WATT				OHMS	WATT		
R5	22K				R27	10meg			
R6	10K	2			R28	470Ω			
R7	15K				R29	22K			
R8	330Ω				R30	240K			
R9	15K				R31	22K			
R10	15K				R32	2.2meg			
R11	51K	1			R33	100K			
R12	330Ω				R34	470K			
R13	47K				R35	2200Ω			
R14	100Ω				R36	240K			
R15	33K				R37	2.4Ω			
R16	2.2meg	1			R38	22K			
R17	15K				R39	470K			
R18	2.2meg				R40	2200Ω			
R19	51K				R41	4700Ω			
R20	330Ω				R42	1000Ω			
R21	100Ω				R43	10K			
R22	100Ω				R44	220K			
R23	22K				R45	180Ω			
R24	33K				R46	2.2meg			
R25	220K				R47	470K			
R26	100K								

Note 1. Some versions may use 47K in this application.  
Note 2. Some versions may use 180Ω in this application.  
Note 3. Some versions may use 220K in this application.

COILS (RF-IF)

ITEM No.	RATING		TONFUNK PART No.	NOTES	ITEM No.	RATING		TONFUNK PART No.	NOTES
	OHMS	WATT				OHMS	WATT		
L1	FM Antenna Coil								
L2	FM Antenna Trans.								
L3	FM Antenna								
L4	FM RF Coil								
L5	FM Osc. Coil								
L6	RF Choke								
L7	IF Trap Coil								

PARTS LIST AND DESCRIPTIONS (Continued)

COILS (cont)

ITEM No.	USE	TONFUNK PART No.	REPLACEMENT DATA				NOTES
			Meissner PART No.	Miller PART No.	Rom PART No.	Thorderson PART No.	
L8	AM Antenna Trans.						
L9	Loop Stick						
L10	AM Osc. Coil						
L11	AM Osc. Coil						
L12	IF Trap Coil						
L13	1st FM IF						
L14	2nd FM IF and FM Radio Det. and 2nd AM IF Assem.						

TRANSFORMER (POWER)

ITEM No.	RATING	TONFUNK PART No.	REPLACEMENT DATA				NOTES
			Holderson PART No.	Merit PART No.	Rom PART No.	Thorderson PART No.	
T1	240V @ .47A	BVN18B					

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE	TONFUNK PART No.	REPLACEMENT DATA				NOTES
			Holderson PART No.	Merit PART No.	Rom PART No.	Thorderson PART No.	
T2	17K 6-8Ω	A123					

SPEAKER

ITEM No.	TYPE	FIELD V. C. IMP.	REPLACEMENT DATA		NOTES
			TONFUNK PART No.	QUAM PART No.	
SP1	8" X 8"	PM 6-8Ω	P1521		
SP2	3"	Electrostatic	LSH75K		
SP3	3"	Electrostatic	LSH75K		
SP4	3"	Electrostatic	LSH75K		

SELENIUM RECTIFIER

ITEM No.	RATING	CURRENT (Measured)	TONFUNK PART No.	REPLACEMENT DATA		NOTES
				FEDERAL PART No.	SARKES INTERNATIONAL PART No.	
M1	.068A		B280C75	80-9150	①	Two required.

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA		NOTES
			TONFUNK PART No.	BUSS PART No.	
M2	.7A 250V				

MISCELLANEOUS

ITEM No.	PART NAME	TONFUNK PART No.	NOTES
M3	Dial Lamp		
M4	Dial Lamp		
M5	Tuning Cap.		
M6	Tuning Cap.		
M7	Switch		
M8	Switch		
M9	Switch		

WIRING DATA

General-use Unshielded Hook-up Wire ..... Use BELDEN No. 8530 (Solid) Available in Ten Colors  
Power Cord ..... Use BELDEN No. 1785-B (6 Ft. Length)  
1723-K (7½ Ft. Length)

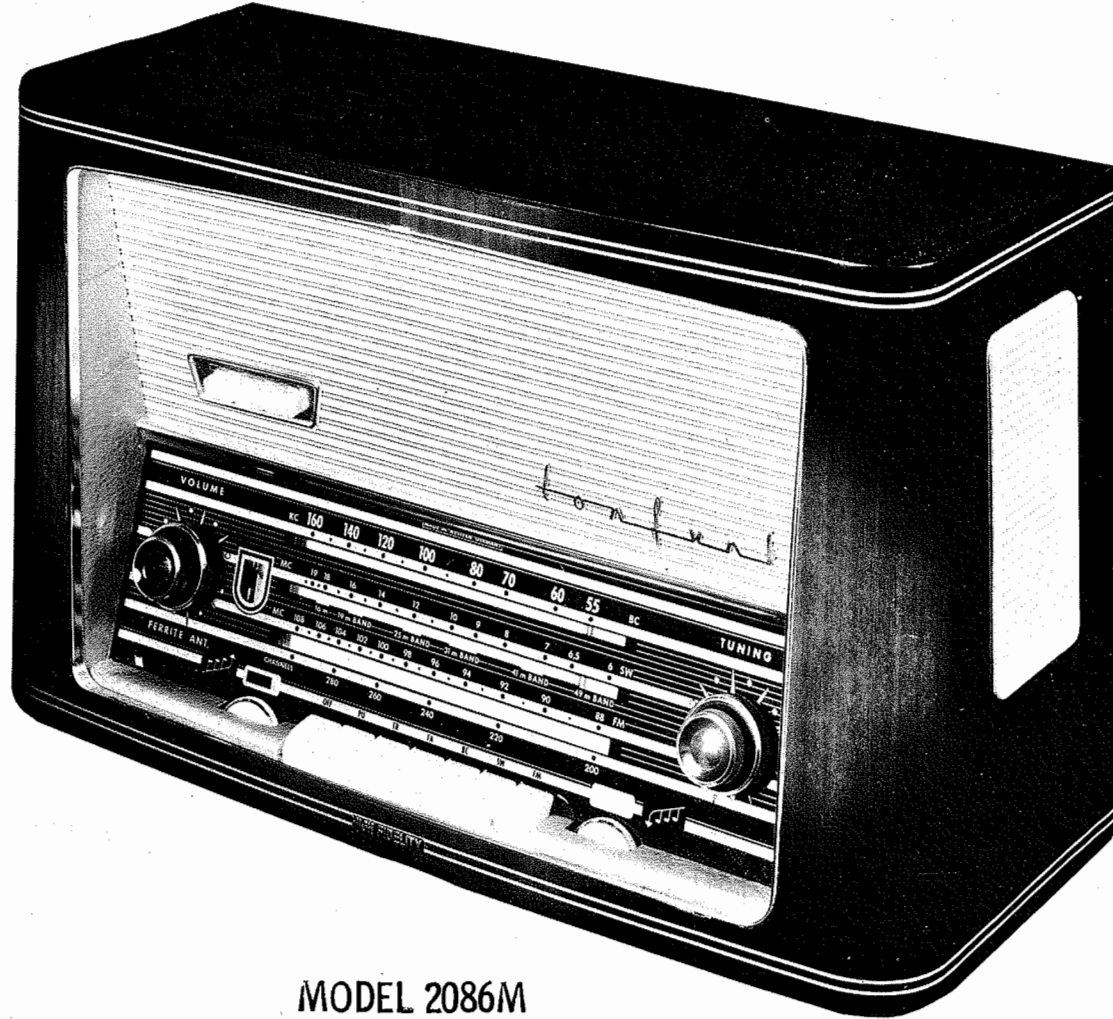
FOLDER 14  
SET 415

PHOTOFACT\* Folder



TONFUNK MODELS  
W2006M, 2086M

TONFUNK MODELS  
W2006M, 2086M



MODEL 2086M

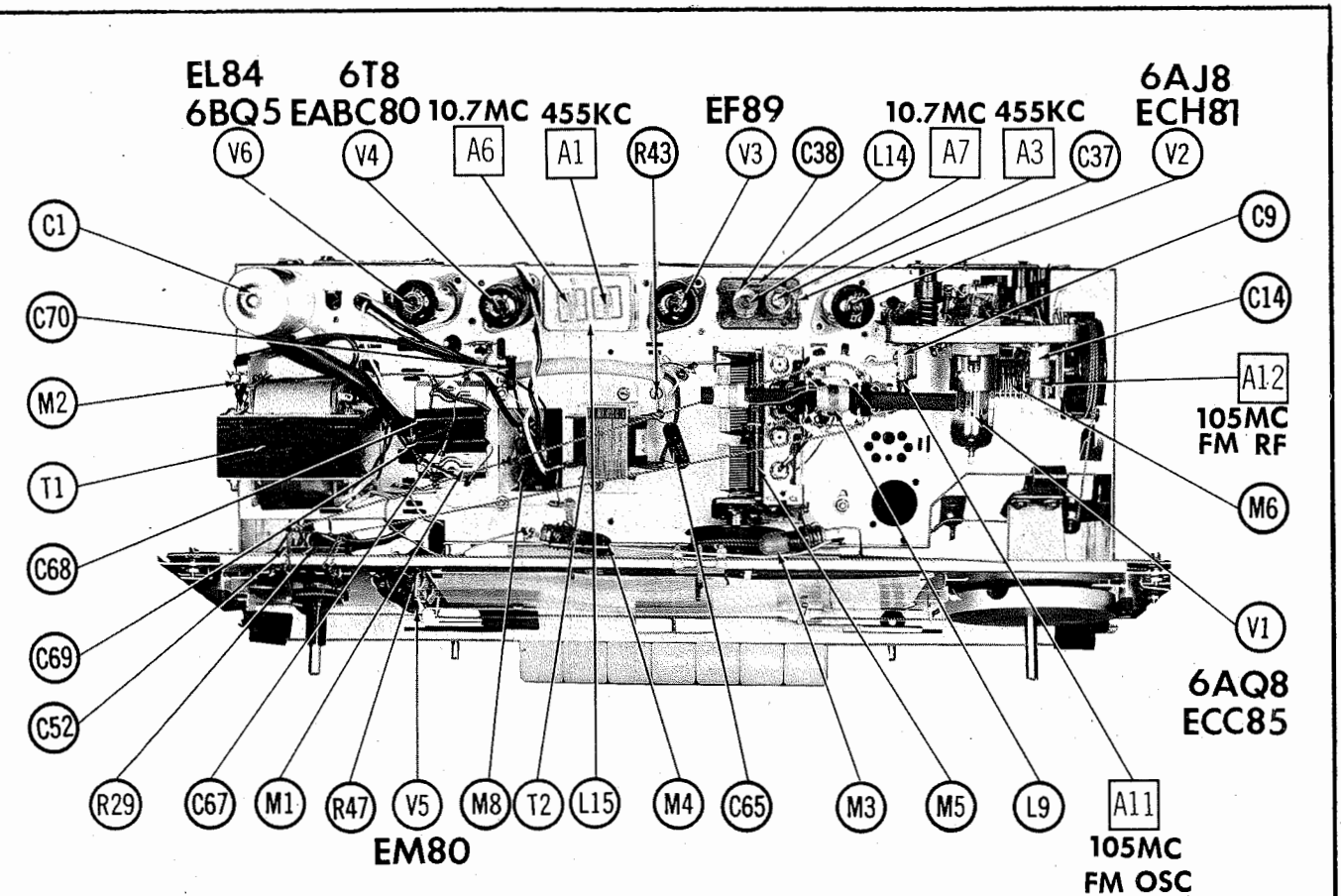
TRADE NAME	Tonfunk Models W2006M, 2086M		
SUPPLIER	Videola-Erie Corp., 75 Front Street, Brooklyn 1, N. Y.		
TYPE SET	AC Operated FM-BC-SW Receiver		
TUBES (Six)	Types 6AQ8/ECC85 FM RF Amp.-FM Conv., 6AJ8/ECH81 1st FM IF Amp.-AM Mixer-AM Osc., EF89 2nd FM-AM IF Amp., 6T8/EABC80 Ratio Det.-AM Det.-AVC-AF Amp., 6BR5/EM80 Tuning Indicator, 6BQ5/EL84 Output		
POWER SUPPLY	110-120 Volts AC - 60 Cycles	RATING	.47 Amp. @ 117 Volts AC (49 Watts)
TUNING RANGE—BROADCAST	520 - 1635KC	SHORT WAVE	6 - 19.5MC
FREQ. MOD.	88 - 108MC		

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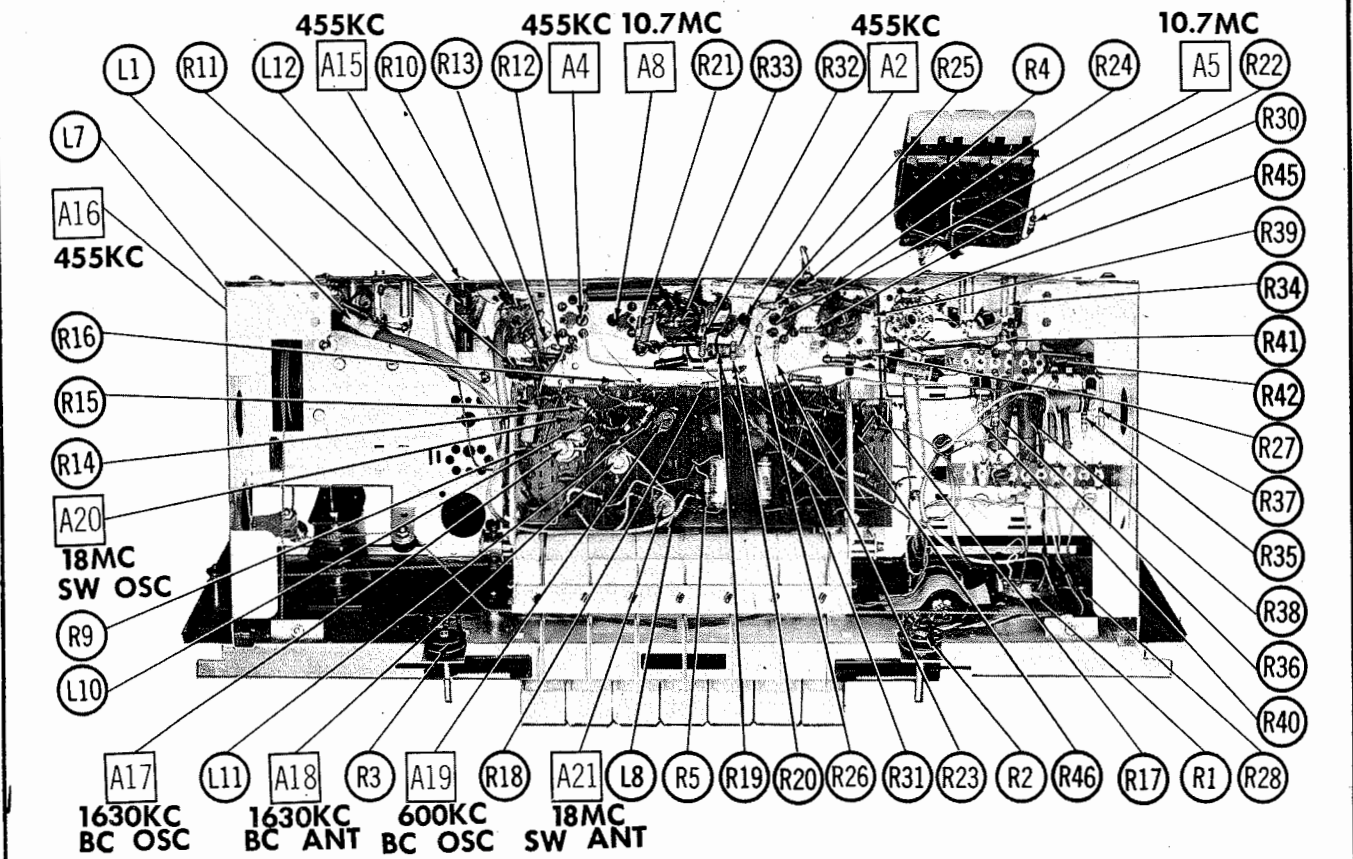
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TONFUNK MODELS  
W2006M, 2086M



CHASSIS TOP VIEW



CHASSIS BOTTOM VIEW - ALIGN, INDUCTOR & RESISTOR IDENT

PARTS LIST AND DESCRIPTIONS  
TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE
V1	FM RF Amp. - FM Conv.	6AQ8/ECC85
V2	1st FM IF Amp. -	6BQ5/EAB80
V3	AM Mixer - AM Osc.	6AJ8/ECH81
V4	2nd FM-1st AM IF Amp.	EF89

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	TONFUNK PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	REPLACEMENT DATA	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	50		PM4-200	BBRQ0174	TC40	CDB-Q-422	D-180	R2462 *
C2	385		PHS50V4	BBR4-150	TC2501	TD-4-150	MT-1504	TYA-1402
C3	80		PHS15V100	BBR100-15		TD-100-15	MTB-1310	TYA-1180

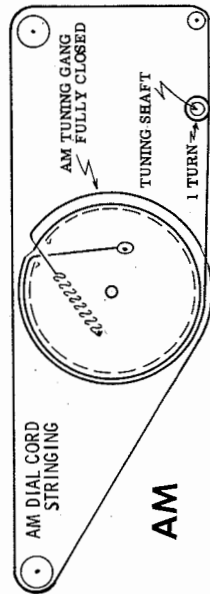
\* Non Catalog Item

FIXED CAPACITORS

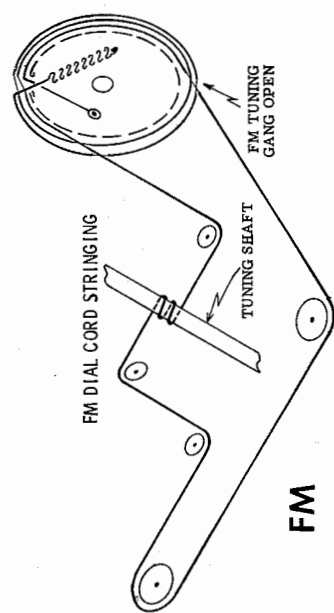
Capacity values given in the rating column are in mfd. for Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING	TONFUNK PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	REPLACEMENT DATA	SPRAGUE PART No.	NOTES
C4	33		SI 33	D6-330	LT6Q33	UC-5433	
C5	33		SI 33	D6-330	LT6Q33	UC-5433	
C6	16		SI 15	D6-150	LT6Q15	UC-5415	
C7	470		SI 470	D6-471	LT6T47	UC-5347	
C8	5		SI 5	D6-050	LT6V5	ZT-555	
C9	3-10		SI 30	D6-471	BYA10T47	UC-5347	
C10	30		BPD-00047	D6-471	BYA10T47	UC-5347	
C11	470		SI 25	D6-250	LT6Q25	UC-5425	
C12	25		SI 10	D6-100	LT6Q10	UC-5410	
C13	5-25		SI 12	D6-120	LT6Q12	UC-5412	
C14	10		SI 12	D6-120	LT6Q12	UC-5412	
C15	10		SI 12	D6-120	LT6Q12	UC-5412	
C16	10		SI 12	D6-120	LT6Q12	UC-5412	
C17	12		SI 12	D6-120	LT6Q12	UC-5412	
C18	10		SI 12	D6-120	LT6Q12	UC-5412	
C19	80		SI 4700	D6-472	LT6D47	UC-5247	
C20	4700		SI 10	D6-100	LT6Q10	UC-5410	
C21	10		SI 4700	D6-472	LT6D47	UC-5247	
C22	4700		SI 4700	D6-472	LT6D47	UC-5247	
C23	1000		1464-005				
C24	5000		SI 33	D6-330	LT6Q33	UC-5433	
C25	3-30		SI 33	D6-330	LT6Q33	UC-5433	
C26	33		SI 100	D6-100	LT6Q10	UC-5410	
C27	100		1466-00001				
C28	330		SI 330	D6-331	LT6T33	UC-5333	
C29	300		SI 100	D6-101	LT6T1	UC-531	
C30	3-30		SI 5000	D6-502	LT6D5	UC-525	
C31	5000		BPD-00047	D6-471	BYA10T47	UC-5347	
C32	470		BPD-00047	D6-471	BYA10T47	UC-5347	
C33	4700		SI 4700	D6-472	LT6D47	UC-5247	
C34	4700		SI 4700	D6-472	LT6D47	UC-5247	
C35	2200		SI 2200	D6-223	LT6D22	UC-5222	
C36	250		1468-00025				
C37	250		SI 4700	D6-472	LT6D47	UC-5247	
C38	4700		SI 4700	D6-472	LT6D47	UC-5247	
C39	4700		SI 4700	D6-472	LT6D47	UC-5247	
C40	4700		SI 4700	D6-472	LT6D47	UC-5247	
C41	4700		SI 4700	D6-472	LT6D47	UC-5247	
C42	4700		SI 20000	DD-203	LT6S2	UC-5247	
C43	22000		SI 100	D6-101	LT6T1	UC-531	
C44	1000		SI 100	D6-101	LT6T1	UC-531	
C45	1000		SI 100	D6-101	LT6T1	UC-531	
C46	470		SI 470	D6-471	BYA10T47	UC-5347	
C47	470		SI 470	D6-471	BYA10T47	UC-5347	
C48	0.47		P388N-047	DF-503	CUB503	UC-531	
C49	100		SI 100	DD-203	LT6S2	UC-5247	
C50	22000		SI 20000	DD-203	LT6S2	UC-5247	
C51	100		SI 100	D6-101	LT6T1	UC-531	
C52	4700		SI 4700	D6-472	LT6D47	UC-5247	
C53	0.22		P488N-022	DD-203	CUB4822	UC-5247	
C54	100		SI 100	D6-101	LT6T1	GEM-4122	

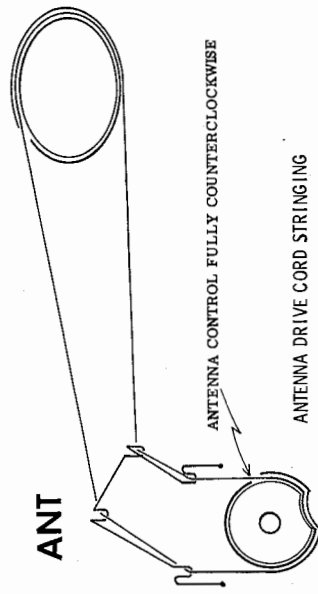
DRIVE CORD STRINGING



AM



FM



ANT

# ALIGNMENT INSTRUCTIONS

## ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading. Use an insulated alignment screwdriver for adjusting.

### AM IF ALIGNMENT

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1. 0.01mf	High side to pin 2 (grid) of 6AJ8/ECH81 (V2). Low side to chassis.	455KC (400% Mod)	BC	Tuning gang fully open	Across voice coil	A1, A2, A3, A4	Adjust for maximum output.

### FM IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM

Connect two matched 100K (±1%) resistors in series from point  $\diamond$  to B-. The junction of these two resistors is alignment point  $\diamond$  as shown on the schematic.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
2. 200mmf	High side to pin 2 (grid) of EF89 (V3). Low side to chassis.	10.7MC (Unmod)	FM	Point of non-interference	DC probe to point $\diamond$ . Common to chassis.	A5	Adjust for maximum deflection.
3. "	"	"	"	"	DC probe to point $\diamond$ . Common to point $\diamond$ .	A6	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.
4. "	High side to pin 2 (grid) of 6AQ8/ECC85 (V1). Low side to chassis.	"	"	"	DC probe to point $\diamond$ . Common to chassis.	A7, A8, A9, A10	Adjust for maximum deflection.

### FM IF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE

Use frequency modulated signal with 60% modulation and 450KC sweep. Use 120% sawtooth voltage in scope for horizontal deflection.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT SCOPE	ADJUST	REMARKS
2. 200mmf	High side to pin 2 (grid) of EF89 (V3). Low side to chassis.	10.7MC	FM	Point of non-interference	Vert. Amp. to point $\diamond$ . Low side to chassis.	A5	Disconnect stabilizing capacitor C2. Adjust for curve of maximum amplitude and symmetry similar to Fig. 1.
3. "	"	"	"	"	Vert. Amp. to point $\diamond$ . Low side to chassis.	A6	Reconnect stabilizing Capacitor C2. Adjust so that 10.7MC occurs at center of crossover lines similar to Fig. 2. SLIGHTLY retouch A5 for maximum amplitude and straightness of crossover lines.
4. "	High side to pin 2 (grid) of 6AQ8/ECC85 (V1). Low side to chassis.	"	"	"	Vert. Amp. to point $\diamond$ . Low side to point $\diamond$ .	A7, A8, A9, A10	Disconnect stabilizing Capacitor C2. Adjust for curve of maximum amplitude and symmetry similar to Fig. 1. Reconnect Capacitor C2.

### FM RF ALIGNMENT

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
5. 270Ω Carbon Resistor	Across FM Antenna terminals.	105MC	FM	105MC	DC probe to point $\diamond$ . Common to chassis.	A11, A12	Adjust for maximum deflection.
6. "	"	90MC	"	90MC	"	A13, A14	Adjust for maximum deflection. Repeat steps 5 and 6 until no further improvement can be obtained.

### AM RF ALIGNMENT

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
7. "	Loop	455KC (400% Mod)	BC, FA	Tuning gang fully open	Across voice coil	A15, A16	Fashion loop of several turns of wire and radiate signal into antenna. Adjust for MINIMUM reading.
8. "	"	1630KC	"	"	"	A17, A18	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
9. "	"	600KC	"	600KC signal	"	A19	"
10. "	"	18MC	SW	18MC	"	A20, A21	"

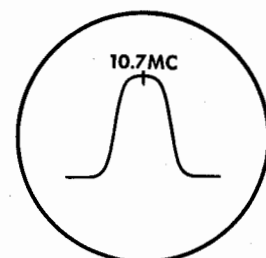


FIG. 1

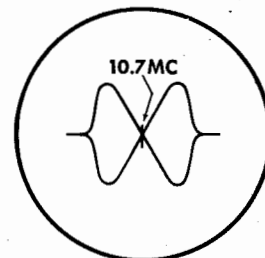
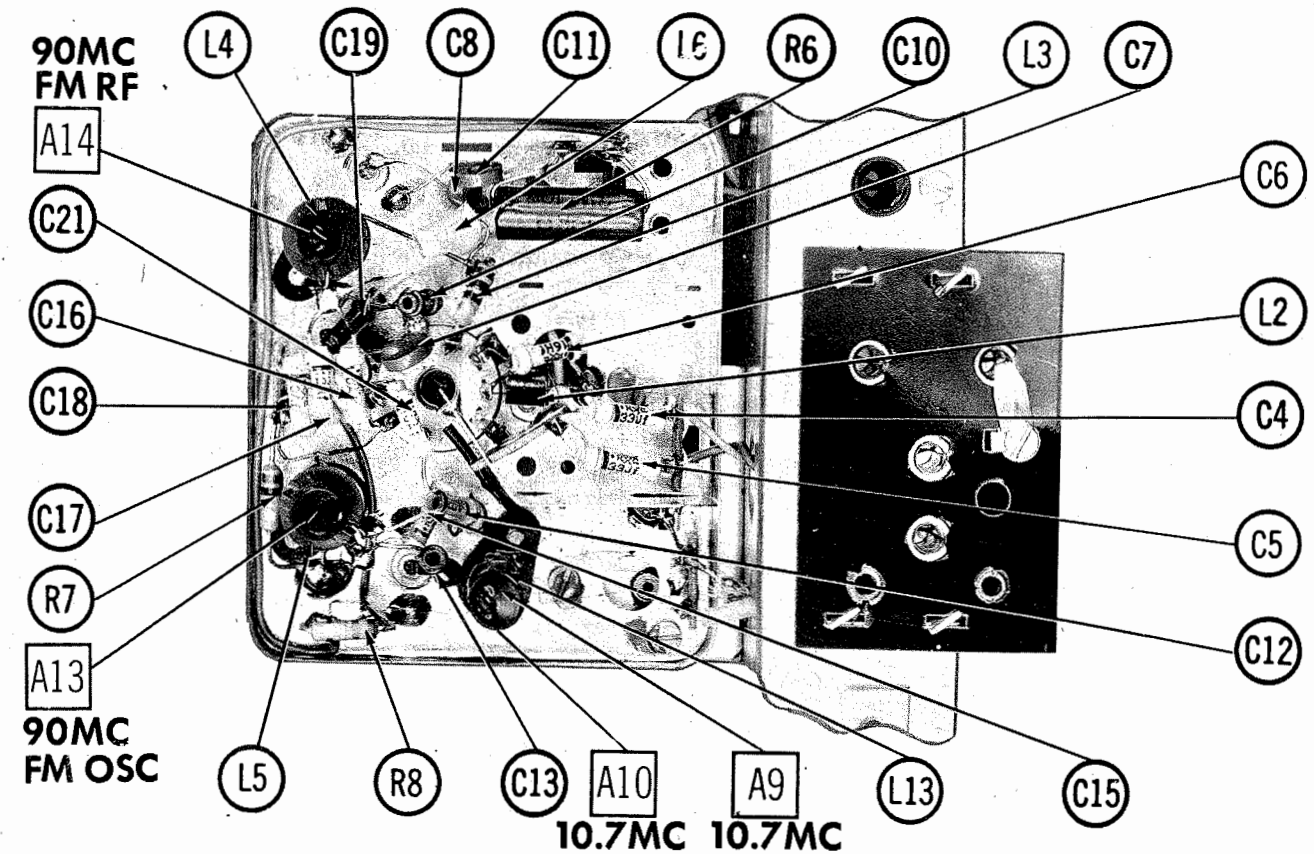
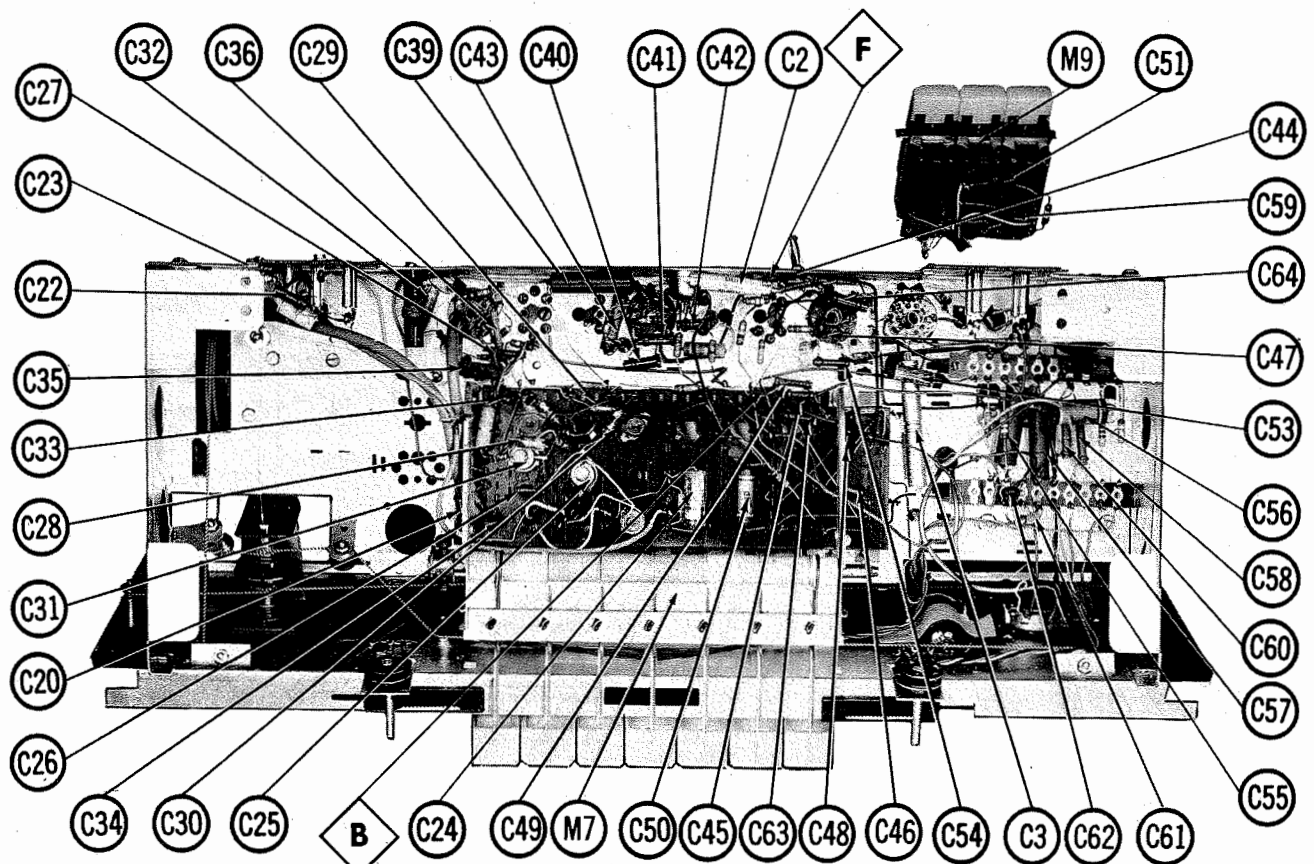


FIG. 2

TONFUNK MODELS  
W2006M, 2086M

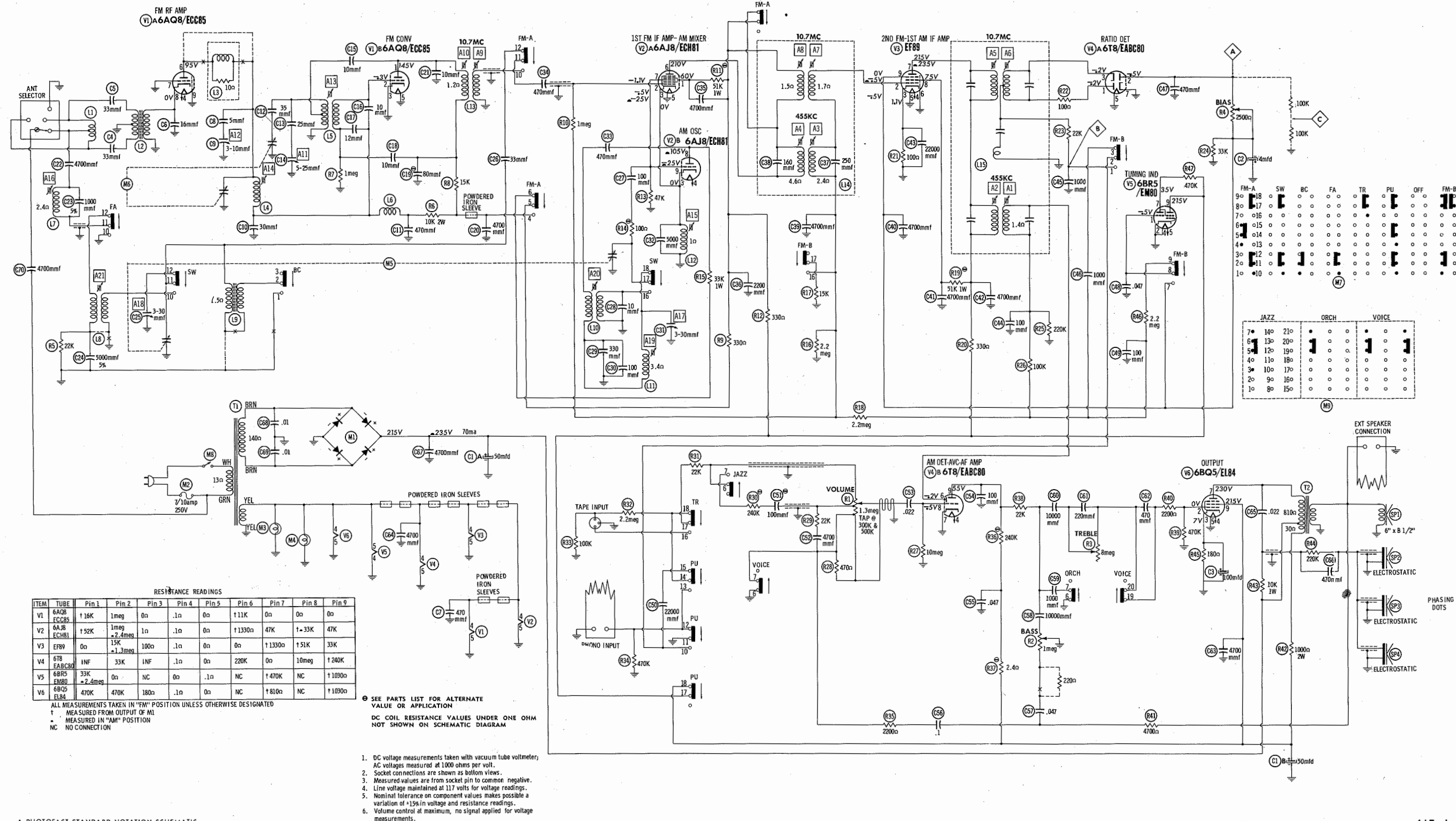


FM RF SUB CHASSIS



CHASSIS BOTTOM VIEW-CAPACITOR IDENTIFICATION





A PHOTOFAC STANDARD NOTATION SCHEMATIC  
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