

ALIGNMENT INSTRUCTIONS

Maintain line voltage at rated value. Allow a 15 minute warmup for receiver and equipment.  
Use only enough generator output to obtain a suitable indication.  
Suggested Alignment Tools: GENERAL CEMENT WALSCO  
A1 thru A4, A6, A8 thru A15, A17 .#8282, 8606, 9302 ..... #2543, 2544, 2588  
A5, A7, A18, A19, A20.....#8290, 8868, 9087 ..... #2525, 2528, 2587  
A16 .....#9296, 9297, 9304 ..... #2510, 2546, 2547

AM ALIGNMENT - SELECTOR IN AM POSITION

Fashion loop of several turns of wire and connect generator across loop.

GENERATOR FREQUENCY	DIAL SETTING	INDICATOR	ADJUST	REMARKS
1. 455KC (Unmod.)	Tuning gang fully open.	DC probe of VTVM to point A; common to ground.	A1, A2, A3, A4	Adjust for maximum.
2. 1620KC	Tune to signal	"	A5	"
3. 600KC	"	"	A6	Rock tuning gang and adjust for maximum. Repeat steps 2 and 3.
4. 1400KC	"	"	A7	Adjust for maximum.

FM ALIGNMENT USING AM SIGNAL GENERATOR - SELECTOR IN FM POSITION

High side to ungrounded shield over FM converter tube, low side to ground; OR across FM antenna terminals with 120Ω carbon resistor in series with each lead.

GENERATOR FREQUENCY	DIAL SETTING	INDICATOR	ADJUST	REMARKS
5. 10.7MC (Unmod.)	Point of non-interference.	DC probe of VTVM to point B; common to ground.	A8 thru A14	Adjust for maximum.
6. "	"	DC probe to point C; common to ground.	A15	Adjust for zero reading. A positive or negative reading will be obtained on either side of the correct setting.
7. 90MC (Unmod.)	90MC	DC probe of VTVM to point D; common to ground.	A16, A17, A18	Adjust for maximum.
8. 108MC	108MC	"	A19, A20, A21	"

FM IF ALIGNMENT USING FM SIGNAL GENERATOR - SELECTOR IN FM POSITION

High side to ungrounded shield over FM converter, low side to ground.  
Use 60% frequency modulated signal with 450KC sweep. Use 120% sawtooth voltage in scope for horizontal deflection.

GENERATOR FREQUENCY	DIAL SETTING	INDICATOR	ADJUST	REMARKS
5. 10.7MC (450KC Swp.)	Point of non-interference.	Vert. amp. of scope to point E; low side to ground.	A8, A9, A10, A11, A12, A13, A14	Disconnect stabilizing capacitor C3. Adjust for maximum gain and symmetry of response similar to Fig. 1 with marker as shown. Reconnect C3.
6. "	"	Vert. amp. to point F; low side to ground.	A15	Adjust to place marker at center of crossover lines similar to Fig. 2. SLIGHTLY retouch A8 for maximum amplitude and straightness of crossover lines.

FM STEREO MULTIPLEX ALIGNMENT USING FM STEREO SIGNAL GENERATOR (±.0001% ACCURACY)

High side to Point G, low side to ground.  
Suggested Alignment Tools:

GENERATOR FREQUENCY	INDICATOR	ADJUST	REMARKS
9. 19KC	Vert. Amp. of scope thru 47K to point G, low side to ground.	A22	Adjust for maximum.
10. "	Vert. Amp. thru 47K to point H, low side to ground.	A23	Adjust for maximum. Set scope to lock in 2 cycles of 19KC waveform.
11. "	Vert. Amp. thru 47K to point I, low side to ground.	A24, A25	Adjust for maximum 4-cycle waveform.

To align multiplex section using an air signal, first make sure FM section is properly aligned. Tune in a strong FM stereo signal. Follow steps 9 thru 11 above.

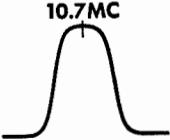


FIG. 1

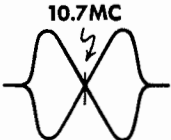


FIG. 2

SET 666 FOLDER 1-A

ADMIRAL  
AM-FM CHASSIS 9M1

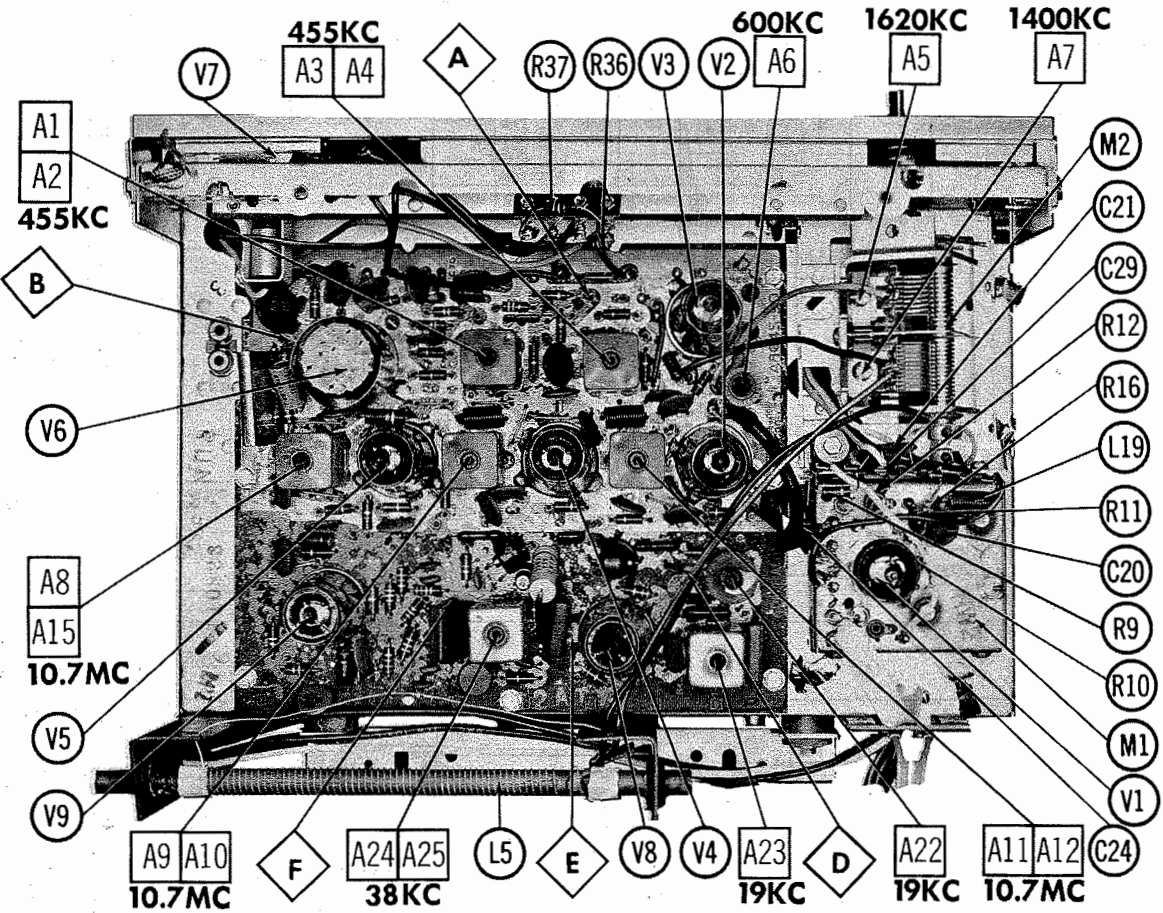
PHOTOFACT® Folder

with CIRCUITRACE™

ADMIRAL  
AM-FM CHASSIS 9M1

IMPORTANT FILING NOTICE

This PHOTOFACT Folder covers equipment used with the TV chassis covered in PHOTOFACT SET 666 FOLDER 1. File this Folder with the TV Folder in the yellow filing jacket provided.



ADMIRAL  
AM-FM CHASSIS 9M1

TRADE NAME	Admiral Chassis 9M1	Run 10 thru 12
MANUFACTURER	Admiral Corp. National Service Div., 903 Morrissey Drive, P.O. Box 845, Bloomington, Illinois	
TYPE SET	AM-FM Tuner with Multiplex	
TUBES	Nine	
POWER SUPPLY	110-120 Volts AC, 60 Cycles	RATING 140 Watts, 1.3 Amp. @ 117 Volts AC
TUNING RANGE	AM: 540 - 1645 KC (IF 455KC)	FM: 88 - 108MC (IF 10.7MC)

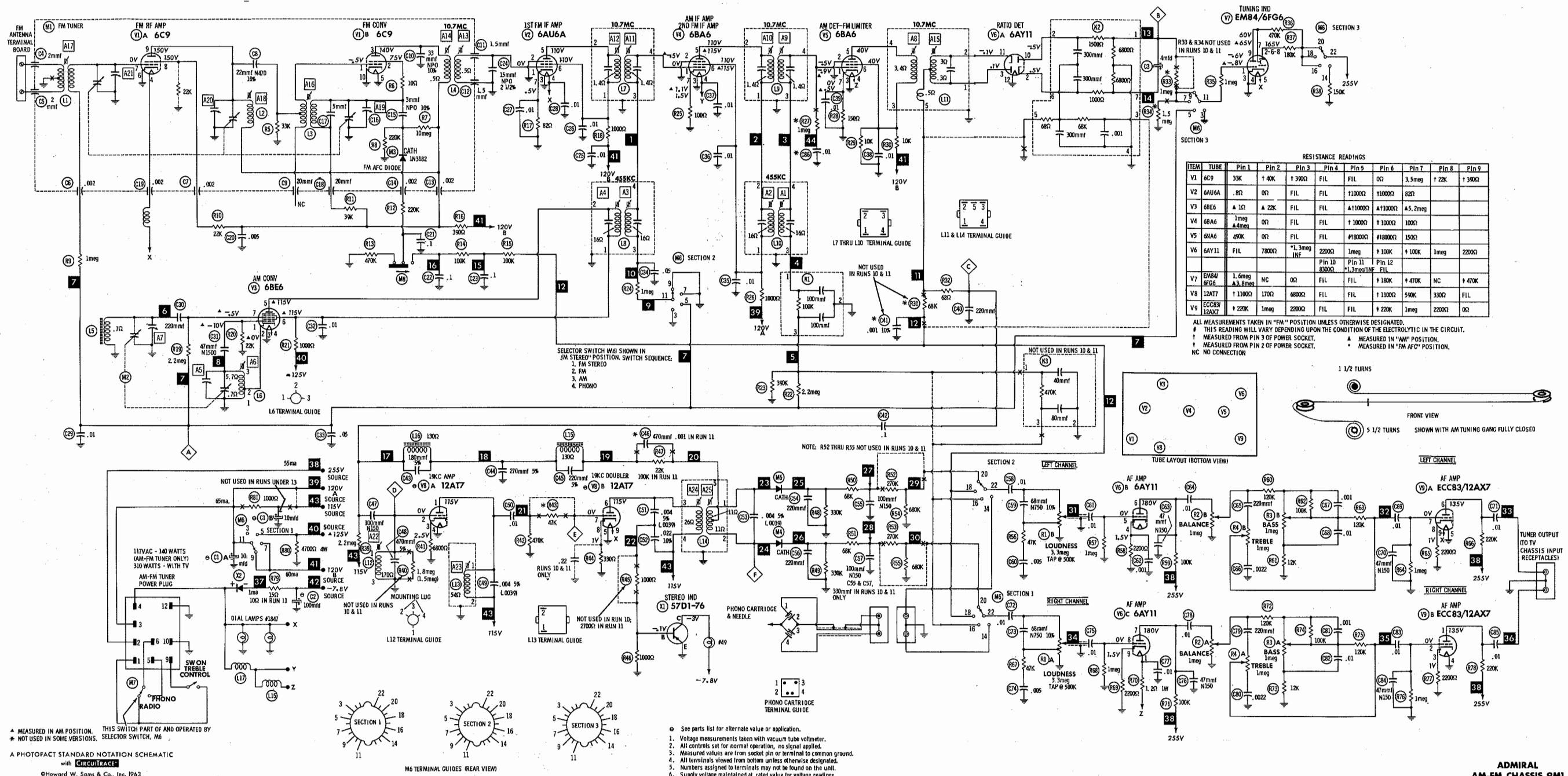
HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana

The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed.  
MA316

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DATE 11-63 SET 666 FOLDER 1-A

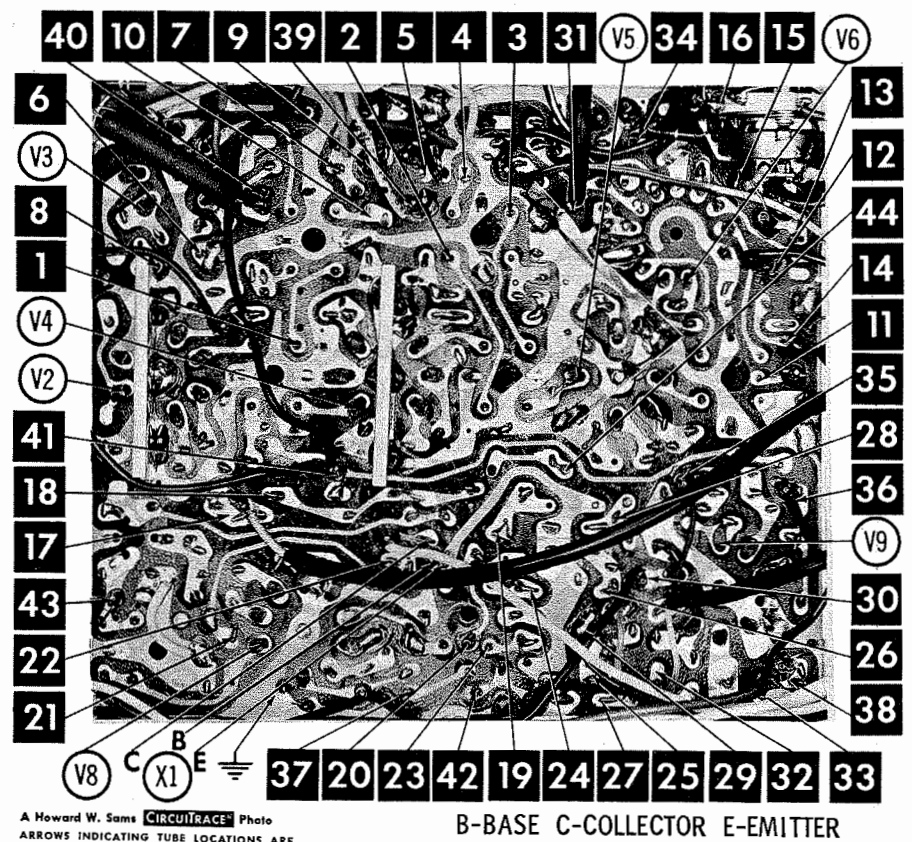
SET 666 FOLDER 1-A



ADMIRAL  
AM-FM CHASSIS 9M1

FOLDER 1-A





**PRINTED BOARD**

## PARTS LIST AND DESCRIPTION

Replacement parts shown may be superseded by the availability of newly introduced replacements.  
Have your local distributor check Sams COUNTER FACTS for the most up-to-date replacement.

## TUBES

ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V1	FM RF Amp. - FM Conv.	6C9	V8	Ratio Det. - AF Amp.	6AY11
V2	1st FM IF Amp.	6AU6A	V9	Tuning Indicator	6FG6/EM84
V3	AM Converter	6BE6		19KC Input Amp. -	
V4	AM IF Amp. -			19KC Doubler	12AT7
V5	2nd FM IF Amp.	6BA6		AF Amp.	ECC83/12AX7
	AM Det. - FM Limiter	6BA6			

## TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA	NOTES
			DELCO PART No.	
			GENERAL ELECTRIC PART No.	
			RCA PART No.	
X1	57D1-76	Stereo Indicator	D825	PNP

## POWER RECTIFIERS

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS	SARKES TARZIAN PART No.
			MALLORY PART No.	
			RCA PART No.	
X2	1 MA	93B27-2	A50 or D50	F1 or 10H

## ELECTROLYTIC CAPACITORS

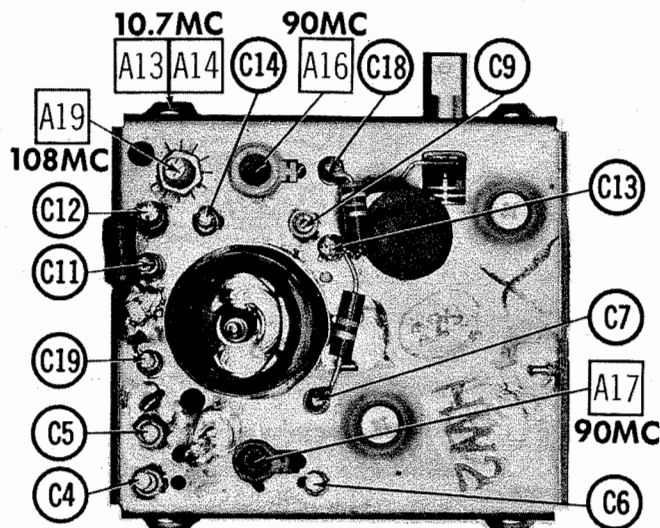
ITEM No.	RATING	REPLACEMENT DATA
		ADMIRAL PART No.
		AEROVOX PART No.
		CORNELL DUBILIER PART No.
		GENERAL ELECTRIC PART No.
		GENERAL INSTRUMENT PART No.
		MALLORY PART No.
		SPRAGUE PART No.
C1A	10 350	67D4-57-705
C2	10 350	①
C3	100 15	87C47-1
	4 50	87B4-54 ②

① Run 10 through Run 12 uses a single unit (10mfd @ 350V), Part #67D4-38 in this application.  
② Alternate Part #67D4-54.

## FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA
			AEROVOX PART No.
			CENTRALAB PART No.
			CORNELL DUBILIER PART No.
			ELMENCOPART No.
			MALLORY PART No.
			SPRAGUE PART No.
C4	2mmf		
C5	2mmf		
C6	.002		
C7	.002		
C8	22 N470 10%		
C9	20 NPO 10%		
C10	33 NPO 10%		
C11	1.5mmf		
C12	1.5mmf		
C13	.002		
C14	.002		
C15	3mmf NPO 10%		
C16			
C17	5		
C18	.002		
C19	.002		
C20	.005		
C21	.1 50V		
C22	.1 50V		
C23	.1 50V		
C24	15 NPO 2½%		

## FM RF SUBCHASSIS



## FIXED CAPACITORS (cont)

ITEM No.	RATING	REMARKS	REPLACEMENT DATA
			AEROVOX PART No.
			CENTRALAB PART No.
			CORNELL DUBILIER PART No.
			ELMENCOPART No.
			MALLORY PART No.
			SPRAGUE PART No.
C25	.01		
C26	.01		
C27	.01		
C28	.01		
C29	.01		
C30	.220		
C31	.47		
C32	.01		
C33	.05 50V		
C34	.05 50V		
C35	.01		
C36	.01		
C37	.01		
C38	.01		
C39	.01		
C40	.220		
C41	.001		
C42	.1 50V		
C43	.180		
C44	.270		
C45	.220		
C46	.470		
C47	.100		
C48	.470		
C49	.004		
C50	.01		
C51	.004		
C52	.022 100V		
C53	.004		
C54	.220		
C55	.100		
C56	.220		
C57	.100		
C58	.01		
C59	.68		
C60	.005		
C61	.01		
C62	.001		
C63	.47		
C64	.01		
C65	.220		
C66	.0022		
C67	.001		
C68	.01		
C69	.01		
C70	.01		
C71	.01		
C72	.01		
C73	.68		
C74	.005		
C75	.01		
C76	.47		
C77	.01		
C78	.01		
C79	.220		
C80	.0022		
C81	.001		
C82	.01		
C83	.01		
C84	.47		
C85	.01		
C86	.01		

Note 1. Not used in some versions.  
\* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

† Alternate Value

## CONTROLS

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

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA
			ADMIRAL PART No.
			CENTRALAB PART No.
			CLAROSTAT PART No.
			CTS-IRC PART No.
			MALLORY PART No.
R1A	Loudness - Right	3.3meg	75D46-34
B	Loudness - Left	500K Tap	75D46-42
R2A	Balance - Right	3.3meg	75D46-37
B	Balance - Left	500K Tap	75D46-38
R3A	Bass - Right	1meg	
B	Bass - Left	1meg	
R4A	Treble - Right	1meg	
B	Treble - Left, Switch	1meg	

\* "SNAPTROL"

① Do not use Tap #2 for Tie Point.

† Use extra mounting nut as spacer.

## RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA
		IRC PART No.
		WORKMAN PART No.
		REMARKS
R80	4700Ω 4W	4G-4700

## COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA
		ADMIRAL PART No.
		MERIT PART No.
		MILLER PART No.
		STANCOR PART No.
		WORKMAN PART No.
		NOTES
L1	FM Ant. Matching	
L2	FM RF	
L3	FM Osc.	
L4	1st FM IF	
L5	Loopstick	
L6	AM Osc.	
L7	2nd FM IF	
L8	1st AM IF	
L9	3rd FM IF	
L10	2nd AM IF	
L11	Ratio Detector	
L12	19KC Input	
L13	19KC Interstage	
L14	38KC Output	
L15	67KC Trap	
L16	67KC Trap	
L17	File Choke (.74uh)	
L18	File Choke (.74uh)	
L19	File Choke (.74uh)	

## COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	ADMIRAL PART No.	REPLACEMENT DATA
K1	Diode RF Filter	100K, 100mmf, 100mmf	83A3-2	Aerovox PA-855 Centralab PC-326 Sprague D-4
K2	Ratio Detector	68Ω, 1000Ω, 1500Ω, 6800Ω, 8800Ω, 68K, 300mmf, 300mmf, 300mmf, .001mfd	63D6-25	Aerovox PA-894 Centralab PC-342 Sprague C-12
K3	Diode RF Filter	470K, 40mmf, 80mmf	63D6-26	

## MISCELLANEOUS

ITEM No.	PART NAME	ADMIRAL PART No.	NOTES
M1	FM Tuner	53D4-2	Complete
M2	Tuning Gang	68C91-1	
M3	Diode	1N3182	FM AFC
M4	Diode	93B27-3	RC Detector
M5	Diode	93B27-3	LC Detector
M6	Switch	77B134-1	Function
M7	Switch	77C1-51	Radio-Phono (DPDT)
M8	Printed Board	14E330-1	AFC

## WIRING DATA

General-use Unshielded Hook-up Wire ..... Use BELDEN No. 8530 (Solid) Available in 12 Colors  
8524 (Stranded) Available in 12 Colors  
Power Cord ..... Use BELDEN No. 17106 (Plastic) or 17126 (Rubber) - 6 Ft.  
17109 (Plastic) or 17129 (Rubber) - 9 Ft.  
Power Cord (Interlock Type) ..... Use BELDEN No. 8874 (Rubber) or 8895 (Plastic)