

RESISTANCE READINGS

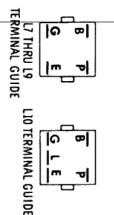
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	6B8S8	11800Ω	2.5meg	0Ω	.3Ω	0Ω	13900Ω	0Ω	220Ω	0Ω
V2	6AB4	11800Ω	0Ω	.3Ω	0Ω	NC	1.0	820Ω	0Ω	0Ω
V3	12AT7	15600Ω	270K	560Ω	.3Ω	.3Ω	16400Ω	10K	0Ω	0Ω
V4	6AU6	.1Ω	0Ω	0Ω	.3Ω	11800Ω	11800Ω	150Ω	0Ω	0Ω
V5	6AU6	.8Ω	0Ω	0Ω	.3Ω	11800Ω	11800Ω	150Ω	0Ω	0Ω
V6	6AU6	100K	0Ω	0Ω	.3Ω	17900Ω	17900Ω	0Ω	0Ω	0Ω
V7	6AU6	200K	100K	0Ω	.3Ω	0Ω	0Ω	100K	0Ω	0Ω

† MEASURED FROM OUTPUT OF W1.    ■ MEASURED IN "AFC" POSITION.

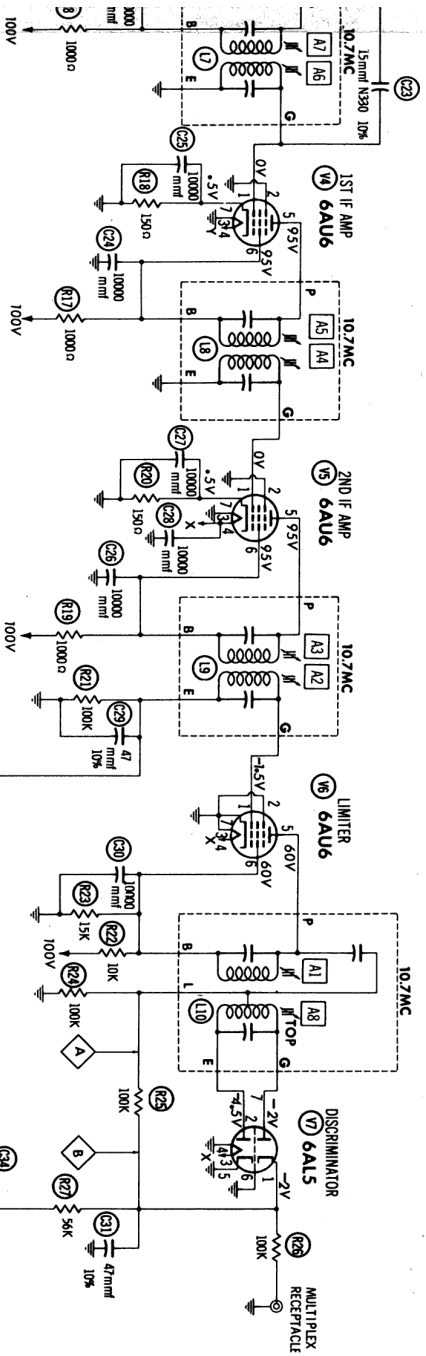
1. DC voltage measurements taken with vacuum tube voltmeter.
2. AC voltages measured with 1000 ohm per volt voltmeter.
3. Socket connections are shown as bottom views.
4. Measured values are from socket pin to common ground.
5. Line voltage maintained at 117 volts for voltage readings. Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance readings.

● SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

NUMBERS ASSIGNED TO COILS, SWITCHES, PLUGS, SOCKETS, AND TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT NECESSARILY BE FOUND ON THE UNIT.



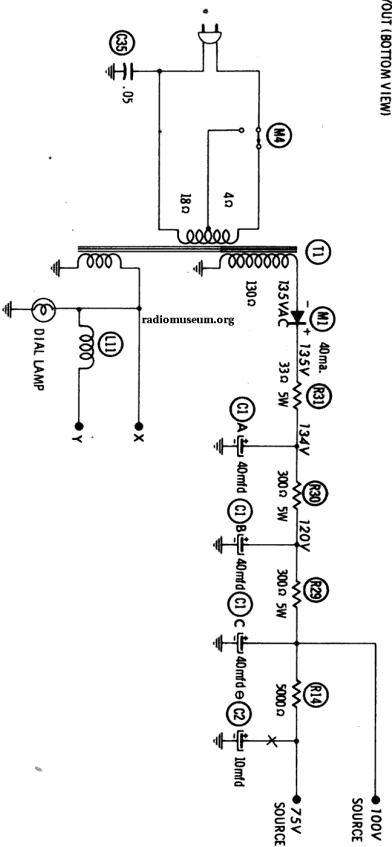
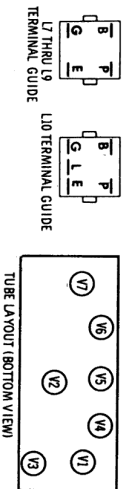
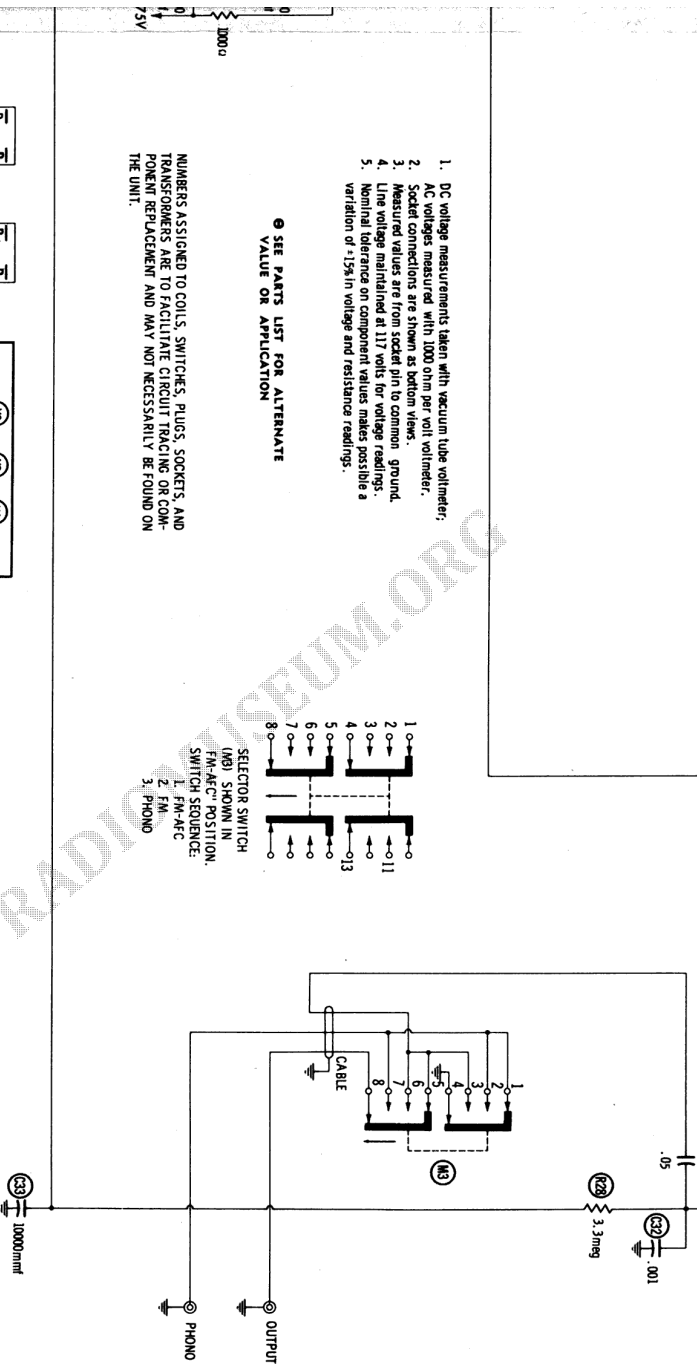
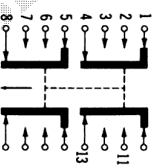
TUBE LAYOUT (BOTTOM VIEW)



1. DC voltage measurements taken with vacuum tube voltmeter;
2. AC voltages measured with 1000 ohm per volt voltmeter;
3. Measured values are from socket pin to common ground;
4. Line voltage maintained at 117 volts for voltage readings;
5. Nominal tolerance on component values makes possible a variation of  $\pm 15\%$  in voltage and resistance readings.

SEE PARTS LIST FOR ALTERNATE VALUE ON APPLICATION

NUMBERS ASSIGNED TO COILS, SWITCHES, PLUGS, SOCKETS, AND TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT NECESSARILY BE FOUND ON THE UNIT.

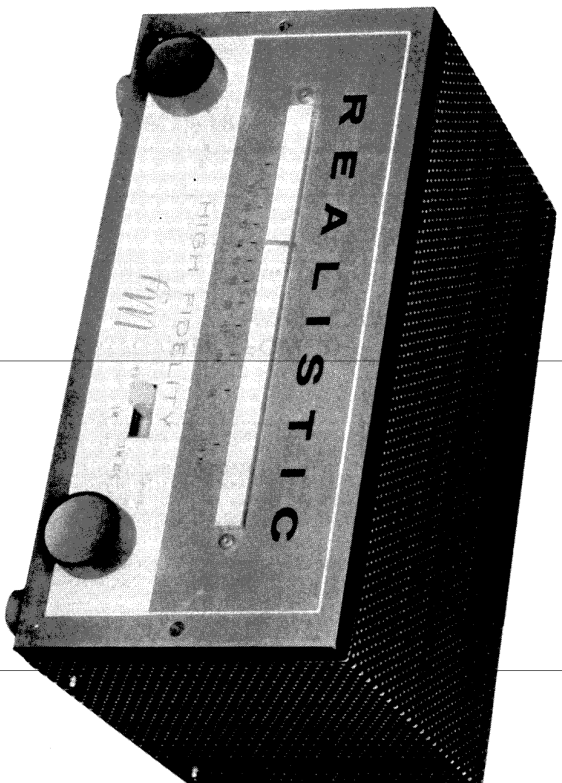


REALISTIC  
MODEL T-III

SET 499

PHOTOFACT® Folder

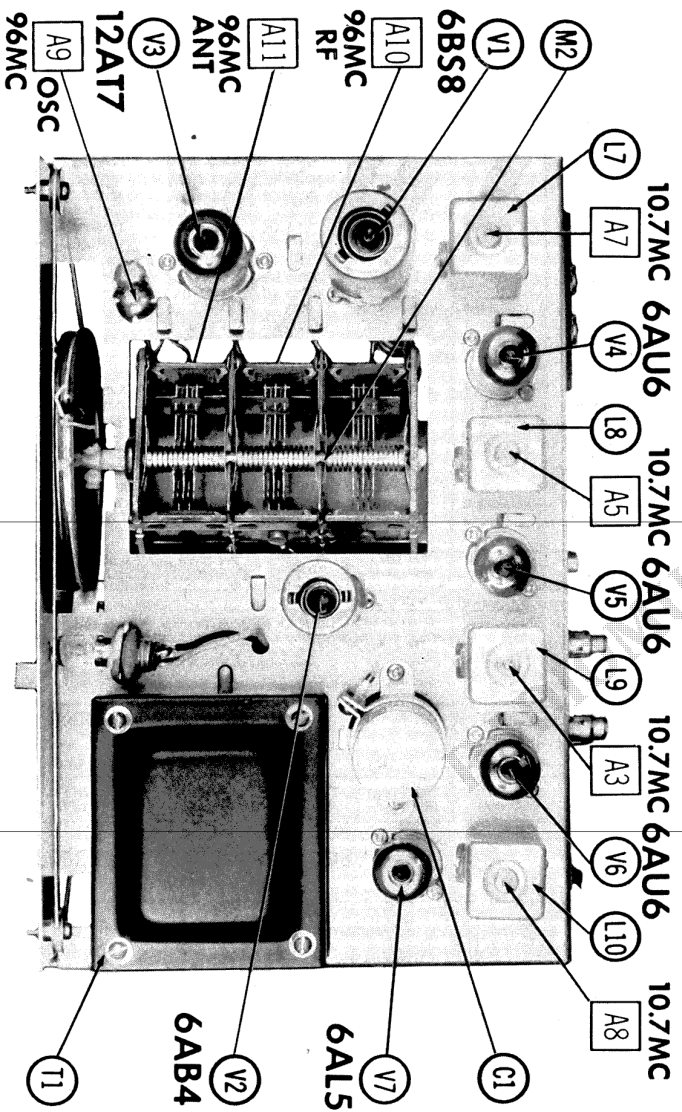
REALISTIC  
MODEL T-III



**REALISTIC  
MODEL T-III**

TRADE NAME	Realistic Model T-III
SUPPLIER	Radio Shack Corp., 730 Commonwealth Ave., Boston 17, Mass
TYPE SET	AC Operated 7 Tube FM Tuner
POWER SUPPLY	110-120 Volts AC, 60 Cycles
TUNING RANGE—FM	88 — 108MC
RATING	25 Watts, .24 Amp. @117 Volts AC

**REALISTIC  
MODEL T-III**



**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

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DATE 9-60

SET 499

FOLDER 12

SET 499 FOLDER 12



# ALIGNMENT INSTRUCTIONS

## ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Use only enough generator output to provide a usable indication.

Use only enough sweep generator output to provide a usable pattern on scope.  
Suggested Alignment Tools: A1 thru A8, ... GENERAL CEMENT #8721, 8722

WALSCO #2519  
 A9, ... GENERAL CEMENT #8607, 9291, 9294  
 WALSCO #2520, 2522, 2523, 2524, 2534, 2537  
 A10, ALL, ... GENERAL CEMENT #5004, 5009, 8195, 8274, 8275, 8607,  
 8728, 8987, 8988, 8989, 9291  
 WALSCO #2515, 2520, 2522, 2523, 2531, 2532, 2534, 2537, 2538

### IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM—SELECTOR IN FM POSITION

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
1. Across antenna terminals.	10.7MC (Unmod.)	Point of non-interference.	DC probe thru lineg to point $\diamond$ . Common to chassis.	A1, A2, A3, A4, A5, A6, A7	Adjust for maximum deflection.
2. "	"	"	DC probe to point $\diamond$ . Common to chassis.	A8	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.

### IF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE—SELECTOR IN FM POSITION

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

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT SCOPE	ADJUST	REMARKS
1. Across antenna terminals.	10.7MC (450KC Swp)	Point of non-interference.	Vert. Amp. thru 27K to point $\diamond$ . Low side to chassis.	A1, A2, A3, A4, A5, A6, A7	Adjust for maximum gain and symmetry of response similar to Fig. 1 with markers as shown.
2. "	"	"	Vert. Amp. to point $\diamond$ . Low side to chassis.	A8	Adjust to place marker at the center of crossover lines similar to Fig. 2. SLIGHTLY retouch A1 for maximum amplitude and straightness of crossover lines.

### RF ALIGNMENT—SELECTOR IN FM POSITION

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
3. Across antenna terminals with 270 $\mu$ in high side.	96MC (Unmod.)	96MC	DC probe thru lineg to point $\diamond$ . Common to chassis.	A9, A10, A11	Adjust for maximum gain.

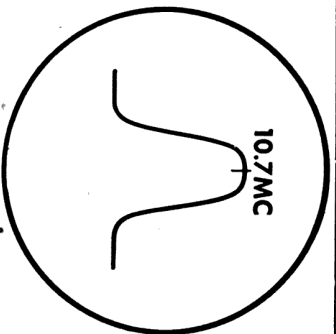


FIG. 1

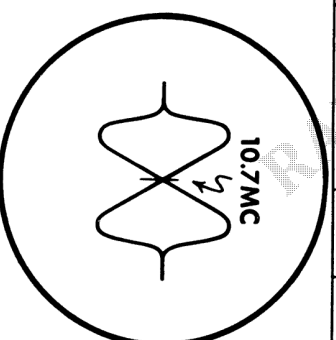
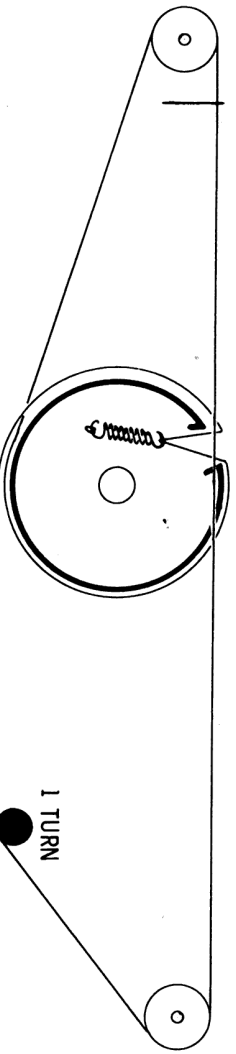


FIG. 2

## DIAL CORD STRINGING

TUNING GANG FULLY CLOSED



FRONT VIEW

TUNING SHAFT

## PARTS LIST AND DESCRIPTIONS

### WIRING DATA

General-use Unshielded Hook-up Wire .....	Use BELDEN No. 8530 (Solid) Available in Ten Colors 8524 (Stranded) Available in Ten Colors
Power Cord .....	Use BELDEN No. 1765-B (6 Ft. Length) 1725-K (7½ Ft. Length)

### TUBES

CBS			GENERAL ELECTRIC			RAYTHEON			SYLVANIA		
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V1	RF Amplifier	6BS8	V5	2nd IF Amplifier	6AU6	V6	2nd IF Amplifier	6AU6	V7	Discriminator	6AL5
V2	Mixer	6AB4									
V3	Osc.-AFC	12AT7									
V4	1st IF Amplifier	6AU6									

### ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA							NOTES
	CAP.	VOLT.	REALISTIC PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.		
C1A	40	150		AFH3-10	C0090	FP311.5	TMT-9	TVL-3440		
B	40	150								
C	40	150								
C2	10	150		PRS1410	BBR10-150	TC42	TD-10-150	TVA-1406	Note 1	

Note 1. Not used in some versions.

**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	REMARKS	REPLACEMENT DATA						
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.	
C3	1000		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10	
C4	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C5	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C6	1000		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10	
C7	1000		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10	
C8	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C9	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C10	10 +1mmf		NPD-SI 10	TCZ-10	C10Q1C	CNO-410		10TCC-Q10	
C11	1000		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10	
C12	2 +.25mmf	(1) †	NPD-SI 2.0	TCZ-2R2	C10V2C	CCTO-2R2	CNO-522	10TCC-V22	
C13	3-9			829-10					
C14	15 N330 10%							10TCS-Q15	
C15	100 10%	(10) †	DI-100	D6-101	LI0T1	CCD-101	GP310	10TS-T10	
C16	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C17	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C18	1000		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10	
C19	5000		BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50	
C20	15 N330 10%			TCA-15				10TCS-Q15	
C21	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C22	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C23	15 N330 10%			TCA-15				10TCS-Q15	
C24	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C25	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C26	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C27	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C28	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C29	47 10%			D6-470	LI0Q47	CCD-470	GP447	10TS-Q47	
C30	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C31	47 10%			D6-470	LI0Q47	CCD-470	GP447	10TS-Q47	
C32	.001 400V		P488N-001	D6-102	CUB8D1	8DP-1-102	GEM-821	6TM-D10	
C33	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C34	.05 400V		P488N-05	DD-503	CUB4S5	4DP-3-503	GEM-415	4TM-S5	
C35	.05 400V		P488N-05	DD-503	CUB4S5	4DP-3-503	GEM-415	4TM-S5	

\* Not normally in distributor's stock. Available thru distributor on order to manufacturer.  
† Alternate Value.

### RESISTORS

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

ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS
R1	10K		R12	100Ω		R23	15K	
R2	2meg		R13	270K		R24	100K	
R3	470K		R14	5000Ω		R25	100K	
R4	2meg		R15	560Ω		R26	100K	
R5	1000Ω		R16	75K		R27	56K	
R6	3300Ω		R17	1000Ω		R28	3.3meg	
R7	220Ω		R18	150Ω		R29	300Ω 5W	
R8	1000Ω		R19	1000Ω		R30	300Ω 5W	
R9	820Ω		R20	150Ω		R31	33Ω 5W	
R10	10K		R21	100K				
R11	1000Ω		R22	10K				

### COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA						NOTES
		REALISTIC PART No.	Gramer PART No.	Meissner PART No.	Merit PART No.	Miller PART No.	Ram PART No.	
L1	Ant. Coil							
L2	RF Choke		19-1000	19-1000	BC-561	4602		1uh
L3	RF Choke		19-1000	19-1000	BC-561	4602		1uh
L4	FM RF Coil							
L5	FM Osc. Coil							
L6	RF Choke		19-1000	19-1000	BC-561	4602		1uh
L7	1st IF Trans.		16-3472	16-3472	FM-251	1451		
L8	2nd IF Trans.		16-3472	16-3472	FM-251	1451		
L9	3rd IF Trans.		16-3472	16-3472	FM-251	1451		
L10	Discriminator				FM-250	1452		
L11	Fl. Choke		19-1000	19-1000	BC-561	4602		1.1uh

### TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA						
	PRI.	SEC. 1	SEC. 2	REALISTIC PART No.	Hallderson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.
T1	117V @ 24A Tap @ 110V Not Used	135V @ .040A	6.3V @ 2.6A							

### RECTIFIERS

ITEM No.	RATING	REPLACEMENT DATA					NOTES
	CURRENT (Measured)	REALISTIC PART No.	INTERNATIONAL PART No.	ITT PART No.	SARKIS TARZIAN PART No.	SYLVANIA PART No.	
M1	.040A	*					* Selenium Type

### MISCELLANEOUS

ITEM No.	PART NAME	REALISTIC PART No.	NOTES
M2	Tuning Cap.		3 Gang
M3	Switch		Function (3 Position, Slide Type)
M4	Switch		Power Off-On