

TRADE NAME		RME, Model VHF-152A						
MANUFACTURER		Radio Mfg. Engineers, Inc., 300-306 1st Ave., Peoria, Illinois						
TYPE SET		AC Operated Frequency Converter with Output Frequency of 7MC (Nominal)						
TUBES (FOUR)		Types 6AK5 RF Amp., 6J6 Converter, VR150 Voltage Regulator, 5Y3GT Rectifier						
POWER SUPPLY		110-120 Volts AC		RATING		.38 Amp. @ 117 Volts AC		
TUNING RANGE—SHORT WAVE		27.0-29.8MC, 49.5-54.2MC, 143.8-148.2MC						
ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT								
To set pointer turn tuning cap. fully closed and set pointer to last reference mark at low freq. end of dial.								
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS	
1	.01MFD	High side to Pin 5 (grid) of 6J6. Low side to chassis.	6.95MC	27.0-29.8MC	Tuning cap. fully open.	Across voice coil of associated rec.	A1	Adjust for maximum output
2	300Ω carbon resistor	High side to either 2 meter ant. terminal. Low side to other terminal.	148MC	144-148	148MC	Across voice coil of associated rec.	A2	Adjust for maximum output. Tune signal gen. to 161.9MC. If signal is not heard retune signal gen. to 148MC and open A2 to next peak. Adjust for maximum output and re-check for image.
3	300Ω carbon resistor	High side to either 2 meter ant. terminal. Low side to other terminal.	144MC	144-148	144MC	Across voice coil of associated rec.	A3	Adjust for maximum output. Repeat steps 2&3 until no further improvement can be made.
4	300Ω carbon resistor	High side to either 2 meter ant. terminal. Low side to other terminal.	148MC	144-148	Tune for maximum output.	Across voice coil of associated rec.	A4, A5	Rock tuning cap. and adjust A4&A5 for maximum output.
5	300Ω carbon resistor	High side to either 6 meter ant. terminal. Low side to other terminal.	54MC	50-54MC	54MC	Across voice coil of associated rec.	A6	Adjust for maximum output. Tune signal gen. to 67.9MC. If signal is not heard, returned signal gen. to 54MC and open A6 to next peak. Adjust for maximum output and re-check for image.
6	300Ω carbon resistor	High side to either 6 meter ant. terminal. Low side to other terminal.	50MC	50-54MC	50MC	Across voice coil of associated rec.	A7	Adjust for maximum output. Repeat steps 5 & 6 until no further improvement can be made.
7	300Ω carbon resistor	High side to either 6 meter ant. terminal. Low side to other terminal.	54MC	50-54MC	Tune for maximum output.	Across voice coil of associated rec.	A8, A9	Rock tuning cap. and adjust A8 & A9 for maximum output.
8	300Ω carbon resistor	High side to either 10 meter ant. terminal. Low side to other terminal.	29.7MC	27-29.7MC	29.7MC	Across voice coil of associated rec.	A10	Adjust for maximum output. Tune signal gen. to 43.6MC. If signal is not heard, retune signal gen. to 29.7MC and open A10 to next peak. Adjust for maximum output and re-check for image.
9	300Ω carbon resistor	High side to either 10 meter ant. terminal. Low side to other terminal.	27MC	27-29.7MC	27MC	Across voice coil of associated rec.	A11	Adjust for maximum output. Repeat steps 8 & 9 until no further improvement can be made.
10	300Ω carbon resistor	High side to either 10 meter ant. terminal. Low side to other terminal.	29.7MC	27-29.7MC	Tune for maximum output.	Across voice coil of associated rec.	A12, A13	Rock tuning cap. and adjust A12 & A13 for maximum output.

RME
MODEL VHF-152A

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HOWARD W. SAMS & CO., INC. • 2924 East Washington Street • Indianapolis 7, Indiana

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PARTS LIST AND DESCRIPTIONS

RME MODEL
VHF-152A

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA			INSTALLATION NOTES
		RME PART No.	STANDARD REPLACEMENT	BMA BASE TYPE	
1	RF Amp.	6AK5	6AK5	7BP	
2	Converter	6U6	6U6	7BF	
3	Voltage Reg.	VR150	VR150	4AJ	
4	Rectifier	5Y3GT	5Y3GT	5T	

CAPACITORS

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

ITEM No.	RATING	REPLACEMENT DATA					IDENTIFICATION CODES AND INSTALLATION NOTES
		RME PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	SOLAR PART No.	SPRAGUE PART No.	
5A	10 CAP. 450 VOLT	AF22J		UF1145	DY-2X10-450	EL-210	Filter
B	10 450						▲ Filter
6	10 101 600	684-01		DT681	ST-6-01	TC-11	Osc. Feedback - Cer. Note 1
7	25 500						Osc. Coupling - Cer.
8	1 5 500						Osc. Grid Cap. - Cer. Note 1
9	25 500						Fixed Trimmer - Cer. Note 1
10	25 500						Conv. Cathode Bypass
11	1000 500	1467-001		1WSD1	MW.5-21	LFM-21	Fixed Trimmer - 10% Cer.
12	25 500	1469-000025		SRSQ25	MOS.5-425	MS-425	RF Coupling
13	100 500	1469-0001		SRS71	MOS.5-31	MS-31	Conv. Grid Cap. - Cer. Note 1
14	25 500						Fixed Padder - 5% Cer. Note 1
15	300 500						Filament Bypass
16	1000 500	1467-001		1WSD1	MW.5-21	LFM-21	RF Screen Bypass
17	1000 500	1467-001		1WSD1	MW.5-21	LFM-21	RF Cathode Bypass - Note 2
18	1000 500	1467-001		1WSD1	MW.5-21	LFM-21	RF Cathode Bypass - Note 2
19	1000 500	1467-001		1WSD1	MW.5-21	LFM-21	Fixed Padder - 5% Cer.
20	15 300						Osc. Feedback - Cer.
21	5 300	1469-000005		SRSV5	MOS.5-55	MS-55	Fixed Padder - Cer.
22	1000 500	1467-001		1WSD1	MW.5-21	LFM-21	Osc. Decoupling

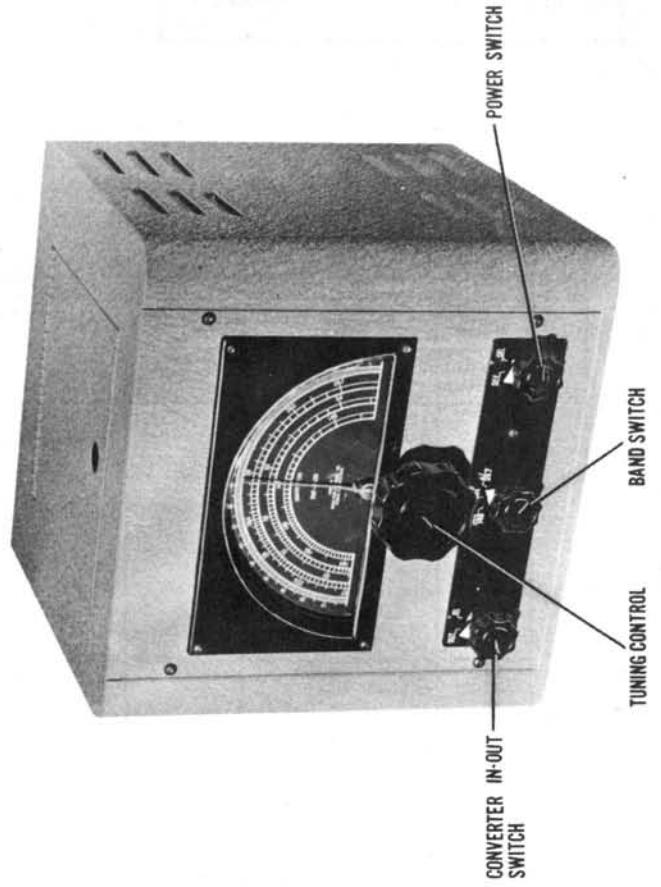
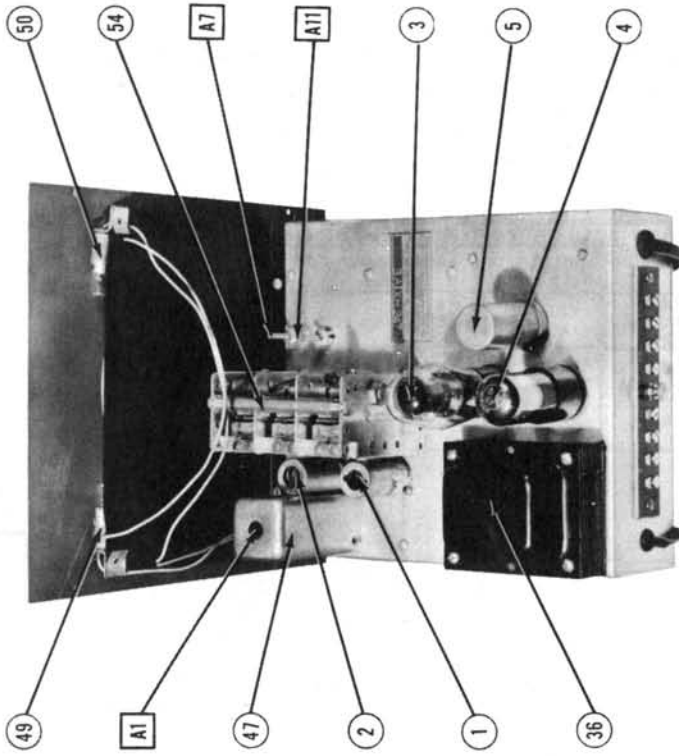
Note 1. Negative temperature coefficient.

Note 2. Some models use only a single 1000 MMFD Cap. as RF Conv. Bypass.

RESISTORS

ITEM No.	RATING	REPLACEMENT DATA			IDENTIFICATION CODES
		RME PART No.	IRC PART No.	SPRAGUE PART No.	
24	180				
25	110KΩ				Br.-Gray-Blk. Parasitic Suppressor
26	220Ω				Br.-Br.-Yl. RF Grid
27	15KΩ				Red-Red-Br. RF Cathode
28	18KΩ				Br.-Grn.-Or. RF Screen
29	100KΩ				Br.-Gray-Or. RF Plate Load
30	100KΩ				Br.-Blk.-Yl. Converter Grid
31	500				Grn.-Blue-Blk. Converter Cathode
32	1000Ω				Br.-Blk.-Red Converter Cathode
33	18Ω				Br.-Gray-Br. Parasitic Suppressor
34	4700Ω				Yl.-Yl.-Red Oscillator Grid
35	18KΩ				Br.-Gray-Or. Oscillator Plate
36	3500Ω				AB-3500 Voltage Dropping

CHASSIS—TOP VIEW

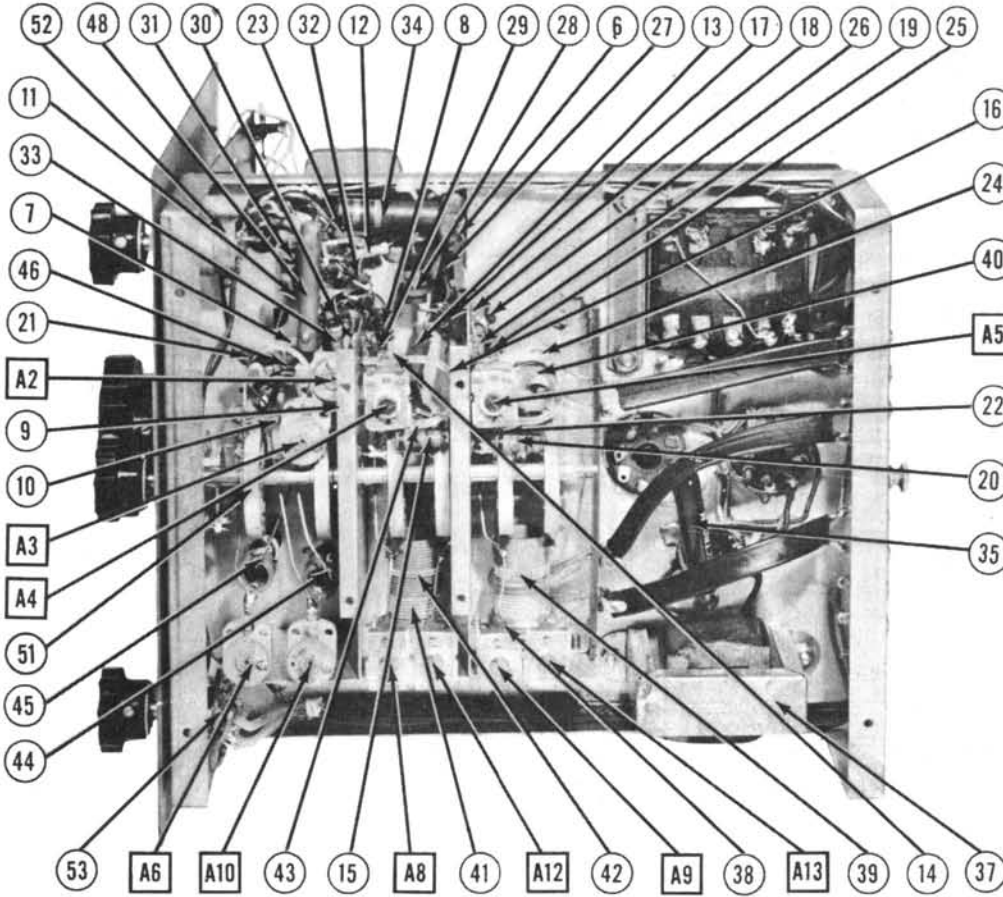


TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA		
	PRI.	SEC. 1	SEC. 2	RME PART No.	STANCOR PART No.	THORDARSON PART No.
36	117VAC @ .35A	620VCT @ 2.0A	5.2VAC @ 1.0A		P-947 †	T22R04

† Add series resistor to reduce plate voltage.

CHASSIS—BOTTOM VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

FILTER CHOKE

ITEM NO.	RATINGS		REPLACEMENT DATA			INSTALLATION NOTES
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	INDUCTANCE (10 ³ CURRENT)	RVE PART NO.	THORDARSON PART NO.	
37	.05A	565Ω	20 Henries	C-1003	T20053	C-29877

R F COILS

ITEM No.	USE	DC RES.		REPLACEMENT DATA	
		PRI.	SEC.	RVE PART No.	MEISSNER PART No.
38	Ant. Coils				
39	10 Meter	0Ω	0Ω		
40	6 Meter	0Ω	0Ω		
41	2 Meter	0Ω	0Ω		
42	RF Coils				
43	10 Meter	0Ω	0Ω		
44	6 Meter	0Ω	0Ω		
45	2 Meter	0Ω	0Ω		
46	Osc. Coils				
47	10 Meter	0Ω	0Ω		
48	6 Meter	0Ω	0Ω		
49	2 Meter	0Ω	0Ω		
50	IF Coil				
51	Osc. Plate				
52	Choke				

DIAL LIGHT

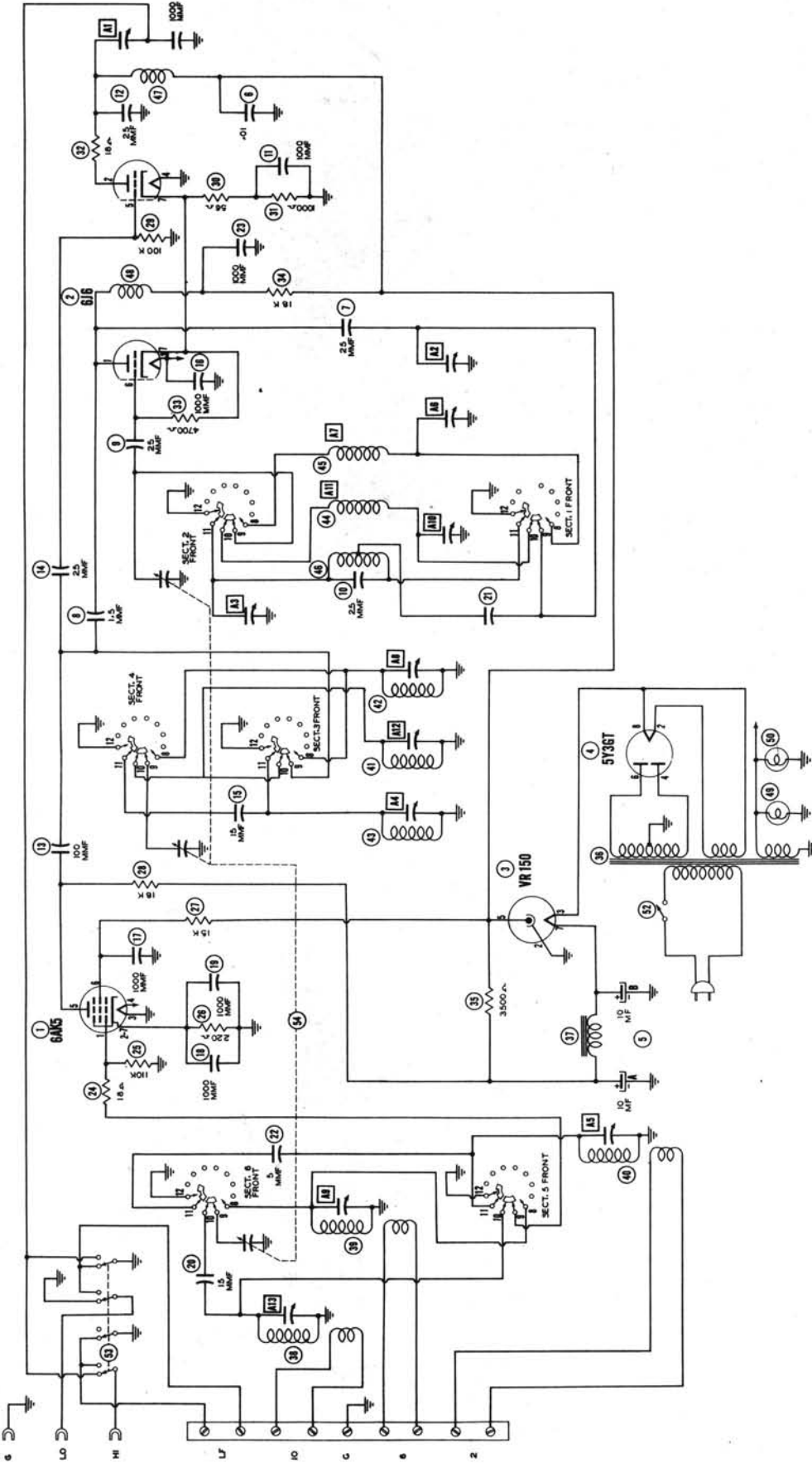
ITEM No.	BASE TYPE	VOLTS	AMPS.	BEAD COLOR	REPLACEMENT DATA		INSTALLATION NOTES
					RVE PART No.		
49	Bayonet	6-8V	0.15A	Brown			Type #47
50	Bayonet	6-8V	0.15A	Brown			Type #47

MISCELLANEOUS

ITEM No.	PART NAME	RVE PART No.	NOTES
51	Switch		Band
52	Switch		AC on-off
53	Switch		Antenna Change-over
54	3 Gang Var. Cap.		

EXTERNAL CONNECTIONS

The output cable should be connected to the antenna terminal of the receiver. The cable has two shielded leads and a ground lead each ending in a terminal lug. On receivers which have provision for doublet operation, such as the RFE-45 and the RFE-54, the blue coded lead must be connected to the antenna terminal farthest from the ground terminal. This is the hot side of the converter output. The red lead, or low side, must be connected to the antenna terminal nearest to the ground terminal. The ground braid should be connected to the receiver ground. On receivers not equipped for doublet operation, the blue lead should be connected to the antenna terminal and the red and ground (shield) leads should be connected to the receiver ground. This lead is coded white. Unless the above instructions are followed, the changeover switch will not operate properly.



VOLTAGE AND RESISTANCE READINGS TAKEN WITH THE BANDSWITCH ON 10 HETER BAND.

RESISTANCE READINGS

Test Point	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
1 6AK5	1100K	2200	00	- .12	4000K	4000K	2200	-
2 6A6	4000K	4000K	.12	00	1000K	5.70K	1.20K	-
3 VR-150	INF.	00	4000K	INF.	4000K	INF.	4000K	INF.
4 5Y36T	INF.	4000K	INF.	210K	INF.	105K	INF.	4000K

VOLTAGE READINGS

Test Point	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
1 6AK5	OV.	27VDC	OV.	6.6VAC	136VDC	115VDC	27VDC	-
2 6A6	65VDC	150VDC	6.6VAC	OV.	OV.	-8.4VDC	6.6VDC	-
3 VR-150	OV.	OV.	385VDC	OV.	1.0VDC	OV.	385VDC	OV.
4 5Y36T	OV.	385VDC	OV.	310VAC	OV.	310VAC	OV.	385VDC

RESISTANCE READINGS IN THE 8+ CIRCUITS MAY VARY WIDELY ACCORDING TO THE CONDITION OF THE FILTER CAPACITORS THE COOPERATION OF THE MANUFACTURER OF THIS EQUIPMENT MAKES IT POSSIBLE TO BRING YOU THIS SERVICE

A PHOTOFAC STANDARD NOTATION SCHEMATIC
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- 1 - DC Voltage measurements are at 20,000 ohms per volt; AC
- 2 - Voltages measured at 1000 ohms per volt.
- 3 - Socket connections are shown as bottom views.
- 4 - Measured values are from socket pin to common negative.
- 5 - Line voltage maintained at 117 volts for voltage readings.
- 6 - Nominal tolerance on component values makes possible a variation of ± 15% in voltage and resistance readings.