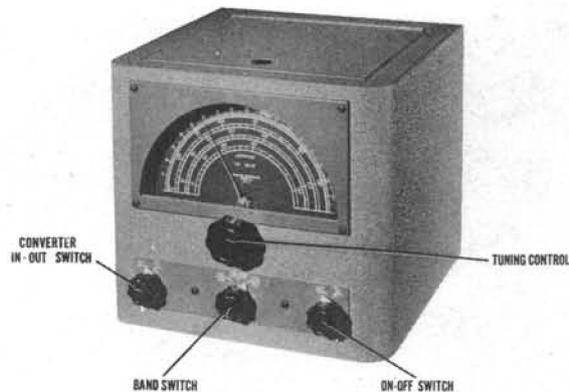


RME
MODEL HF10-20



RME MODEL HF10-20

TRADE NAME	RME, Model HF10-20
MANUFACTURER	Radio Mfg. Engineers, Inc., 300-306 1st Ave., Peoria, Ill.
TYPE SET	AC Operated Frequency Converter with Frequency of 7MC (Nominal) Out.
TUBES (FOUR)	Types, 6BA6 RF Amp., 6J6 Converter, VR150 Voltage Regulator, 5Y3G Rectifier.
POWER SUPPLY	110-120 Volts AC RATING .38 Amp. @ 117 Volts AC
SHORT WAVE	14.0-14.4MC. 21.0-21.5MC. 27.0-29.7MC

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 Direct	High side to center stator of tuning cap. Low side to chassis.	6.95MC	14.0-14.4 (Counter-clock-wise)	Tuning cap. fully open.	Across voice coil of associated receiver.	A1	Adjust for maximum output.
2 300Ω Carbon Res.	High side to either 20 meter antenna terminal. Low side to other terminal.	14.4MC	"	14.4MC	"	A2	Adjust for maximum output. Tune sig. gen. to 28.3MC. If signal is not heard, retune sig. gen. to 14.4 MC and open A2 to next peak. Adjust for maximum output and recheck for image.
3 "	"	14.0MC	"	14.0MC	"	A3	Adjust for maximum output. Repeat Steps 2 & 3 until no further improvement can be made.
4 "	"	14.4MC	"	Tune for maximum output.	"	A4, A5	Rock tuning cap. and adjust A4 & A5 for maximum output.
5 "	High side to either 15 meter ant. terminal. Low side to other terminal.	21.5MC	21.0-21.5MC (center position)	21.5MC	"	A6	Adjust for maximum output. Tune sig. gen. to 35.4MC. If signal is not heard, retune sig. gen. to 21.5 MC and open A6 to next peak. Adjust for maximum output and recheck for image.
6 "	"	21.0MC	"	21.0MC	"	A7	Adjust for maximum output. Repeat Steps 5 & 6 until no further improvement can be made.
7 "	"	21.5MC	"	Tune for maximum output.	"	A8, A9	Rock tuning cap. and adjust A8 & A9 for maximum output.
8 "	High side to either 10 meter ant. terminal. Low side to other terminal.	29.7MC	27-29.7MC (clock-wise)	29.7MC	"	A10	Adjust for maximum output. Tune sig. gen. to 43.6MC. If signal is not heard, retune sig. gen. to 29.7 MC and open A10 to next peak. Adjust for maximum output and recheck for image.
9 "	"	27.0MC	"	27.0MC	"	A11	Adjust for maximum output. Repeat Steps 8 & 9 until no further improvement can be made.
10 "	"	29.7MC	"	Tune for maximum output.	"	A12, A13	Rock tuning cap. and adjust A12 & A13 for maximum output.

RME
MODEL HF10-20

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

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PARTS LIST AND DESCRIPTIONS

RME MODEL
HF10-20

CHASSIS—TOP VIEW

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA		RMA BASE TYPE	INSTALLATION NOTES
		RME PART No.	STANDARD REPLACEMENT		
1	RF Amp.	6BA6	6BA6	7BK	
2	Converter	6J6	6J6	7DF	
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	
	CAP.	VOLT	RME PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	SOLAR PART No.		SPRAGUE PART No.
5A	10	450		AF22J	UP1145	DY-2x10-45	EL210	■ Filter
B	10	450						▲
6	.01	600		684-01	DT6S1	ST-6-01	TC-11	RF Bypass Power Supply
7	.01	600		684-01	DT6S1	ST-6-01	TC-11	Osc. Decoupling
8	.01	600		684-01	DT6S1	ST-6-01	TC-11	RF Screen Bypass
9	.01	600		684-01	DT6S1	ST-6-01	TC-11	RF Cathode
10	25	300						Osc. Feedback-Cer.-Note 1
11	10	300						Fixed Padder - " " "
12	40	300						Fixed Trimmer- " " "
13	30	300						" " " " "
14	25	300						Osc. Grid Cap. " " "
15	1000	500		1467-001	1W5D1	MW.5-21	1FM-21	Conv. Cathode Bypass
16	1.5	300						Osc. Coupling-5%
17	20	300						RF Coupling-See Note 1
18	100	500		1468-31	5W5T1	MO.5-31	1FM-31	RF Coupling
19	15	300					MS415	Fixed Padder-Note 2

Note 1-Negative temperature coefficient.
Note 2-Not used in all models.

RESISTORS

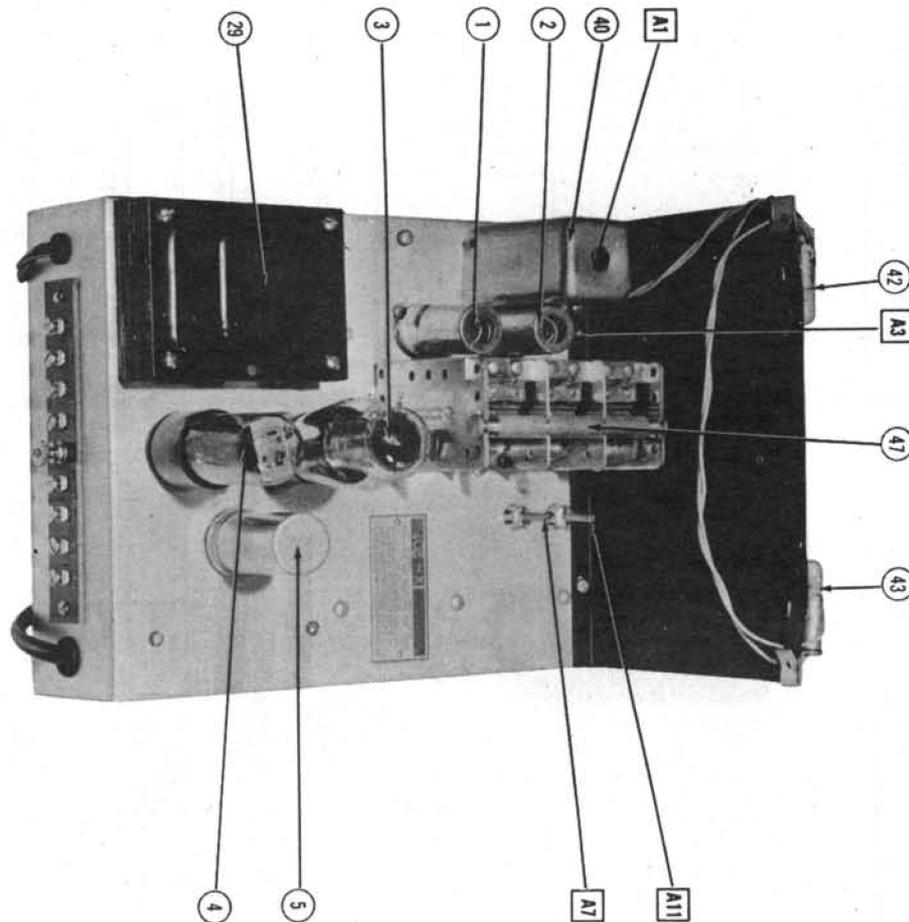
ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES
	RESISTANCE	WATTS	RME PART No.	IRC PART No.	
20	18K Ω	$\frac{1}{2}$			Br.-Gray-Blk. Parasitic Suppressor
21	390 Ω	$\frac{1}{2}$			Or.-White-Br. RF Cathode
22	15K Ω	$\frac{1}{2}$		BTS-15K	Br.-Grn.-Or. RF Screen
23	20K Ω	$\frac{1}{2}$		BTA-22K	Red-Blk.-Or. RF Plate Load
24	47K Ω	$\frac{1}{2}$		BTS-47K	Yl.-V1.-Cr. Converter Grid
25	1000 Ω	$\frac{1}{2}$		BTS-1000	Br.-Blk.-Red Conv. Cathode-See Note
26	4700 Ω	$\frac{1}{2}$		BTS-4700	Yl.-V1.-Red Osc. Grid
27	18K Ω	$\frac{1}{2}$		BT-2-18K	Br.-Gray-Or. Osc. Decoupling
28	3500 Ω	10		AB-3500	Voltage Dropping

Note-Some models use two 2000 Ω $\frac{1}{2}$ W. resistors in parallel in this application.

TRANSFORMER (POWER)

ITEM No.	RATING				REPLACEMENT DATA			
	PRI.	SEC. 1	SEC. 2	SEC. 3	RME PART No.	STANCOR PART No.	THORDARSON PART No.	MERIT PART No.
29	117V AC	820V CT	5.2V AC	6.6V AC		P-847#	T22R04	P-2957#
	@ .38A	@ .05ADQ	@ 2.0A	@ 1.0A				

#Add series resistor to reduce plate voltage.



PARTS LIST AND DESCRIPTIONS (Continued)

FILTER CHOKE

ITEM NO.	RATINGS			REPLACEMENT DATA			INSTALLATION NOTES
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	INDUCTANCE (D CURRENT 1000 V)	RME PART NO.	STANCOR PART NO.	THORDARSON PART NO.	
30	.05 A.	565Ω	20 Henries		C-1003	T2LC53	C-2987

R F COILS

ITEM No.	USE	DC RES.		REPLACEMENT DATA		INSTALLATION NOTES
		PRI.	SEC.	RME	MEISSNER	
				PART No.	PART No.	
31	Ant. Coils					
32	20 Meter	0Ω	.1Ω			
33	15 Meter	0Ω	0Ω			
33	10 Meter	0Ω	0Ω			
	RF Coils					
34	20 Meter		0Ω			
35	15 Meter		0Ω			
36	10 Meter		0Ω			
	Osc. Coils					
37	20 Meter		0Ω			
38	15 Meter		0Ω			
39	10 Meter		0Ω			
40	IF Coil		0Ω			
41	Osc. Plate Choke		42Ω			

DIAL LIGHT

ITEM No.	BASE TYPE	VOLTS	AMPS.	BEAD COLOR	REPLACEMENT DATA		INSTALLATION NOTES
					RME PART No.		
42	Bayonet	6-8	0.15	Brown			Type 47
43	"	"	"	"			"

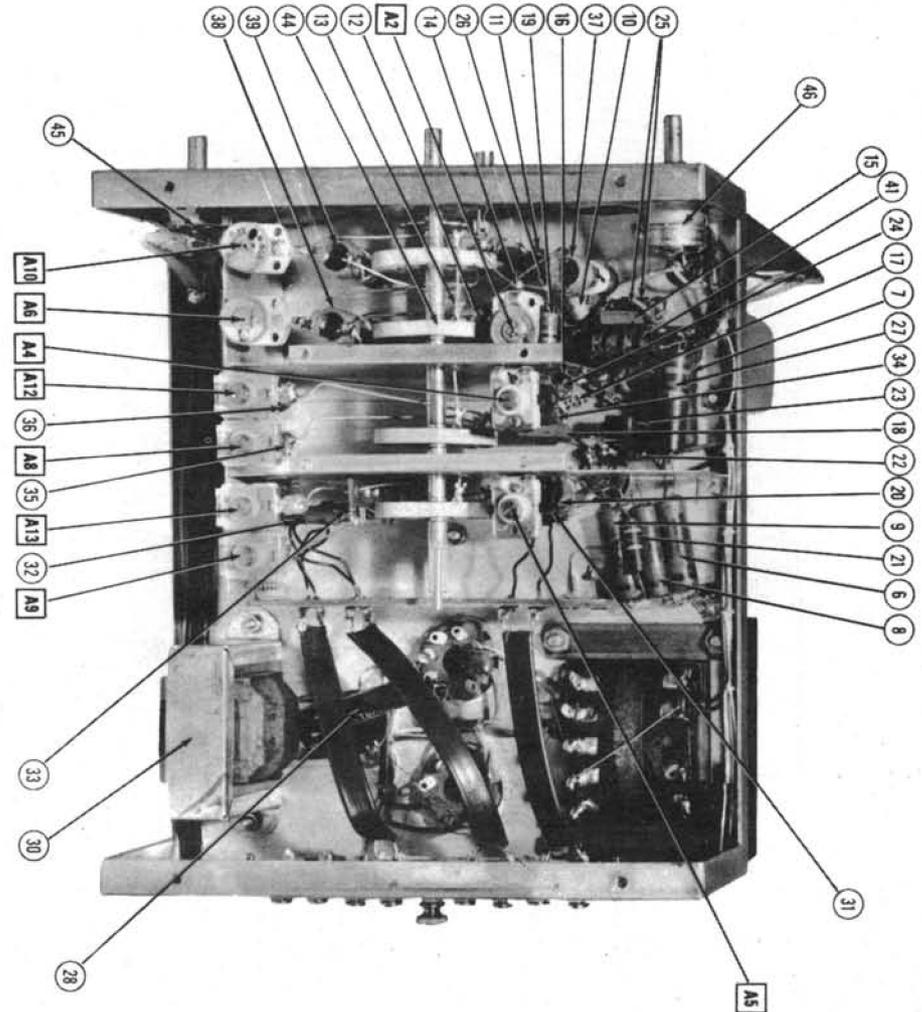
MISCELLANEOUS

ITEM No.	PART NAME	RME PART No.	NOTES
44	Switch		Band
45	"		Changeover
46	"		Power On-Off
47	3 Gang Var. Cap.		Tuning

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 RME-45 and the RME-84 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.

CHASSIS—BOTTOM VIEW



DATE 11/48-#4819-17 SET #48-FOUNDER #17

RME MODEL HP10-20

RME MODEL HP10-20

