

RESISTORS

NO.	OHMS	WATTAGE	NO.	OHMS	WATTAGE
1	30	1/3	18	1,000,000	1/3
2	200	"	19	50,000	"
3	100,000	"	20	100	"
4	10,000	R.F. Gain Control	21	250,000	"
5	500	Variable	22	100,000	"
6	400	1/3	23	250,000	"
7	50,000	"	24	250,000	"
8	200	"	25	500	1
9	15,000	1	26	500,000	1/3
10	30,000	1	27	5,000	1
11	2,000,000	1/3	28	500,000	A.F. Gain Control
12	50,000	"	29	20,000	1
13	500,000	"	30	50,000	1/3
14	300	"	31	20,000	1
15	300	"	32	15,000	1
16	1,000	"	33	150	1/3
17	1,000,000	"	34	5,000	1

ALIGNMENT PROCEDURE

**465 KC, Intermediate-Frequency Alignment.**  
 Have the controls set as follows:  
 AF and RF gain controls for maximum volume.  
 Remove 6K8 grid cap and connect the hot side of your 465 KC generator to this tube. Connect the ground terminal of the signal generator to the chassis of the receiver. Now feed a 465 KC signal into the receiver and set the pitch control to give a beat note of approximately 1000 cycles. Adjust all I.F. transformer trimmers for maximum gain with the exception of the secondary trimmer on transformer T1. In adjusting this trimmer it will be noted that the output reaches a maximum goes through a dip and then back to maximum again. Wobulate the IF frequency and align to the dip between the two maximum points. A distinct change in the crystal note sounding like an apparent broadening of the crystal action will be noted when the correct adjustment has been reached. Now repeat carefully the other trimmers for maximum gain.

R. F. ALIGNMENT

Re-connect the grid cap to the 6K8 tube. Connect the hot side of the generator to the A<sub>1</sub> antenna terminal on the rear of the chassis. Be sure a jumper is connected to A<sub>2</sub> and G. Leave signal generator ground connected to the chassis of the receiver.

The location of the following trimmers and padders can be determined by referring to the top and bottom chassis views. All pad adjustments are for the low frequency end of each band while the trimmers are for the high frequency ends.

In order to get at the RF trimmers the guarantee card can be removed by placing a knife under the small snap fasteners holding it in place. So that most satisfactory adjustment of the trimmers and padders can be made, it is advisable to "hook" the condenser gang across the signal being delivered by the generator until that particular circuit has been accurately peaked.

"S" METER

When the R.F. gain control is advanced until a switch is heard to operate, a light will appear behind the translucent scale of the meter itself. Only when this light is on will the meter indicate in "S" units. With the R.F. gain control backed off from maximum the meter is still in the circuit but will not indicate carrier level accurately. When so adjusted the meter can be used as a resonance indicator. On the rear apron of the chassis is the "S" meter adjustment screw. To set the "S" meter, disconnect the antenna and have the R.F. Gain Control on full and the selectivity switch in the "I.F. sharp A.V.C. on" position. Now, adjust this knurled knob until the meter reads zero. Reconnecting the antenna and tuning in a station will show its relative carrier intensity.

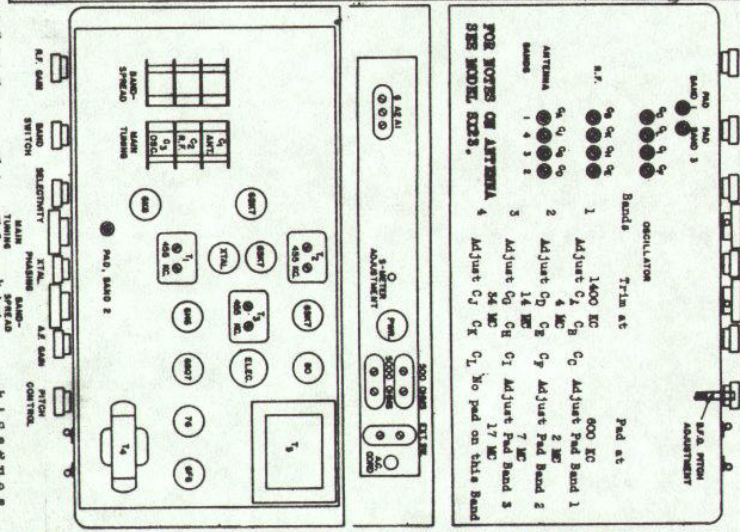
The 500 and 5000 ohm terminals are for connections to a loud speaker or other load of those impedance values. The matching SX23 speaker should be connected to the 5000 ohm strip. When headphones are plugged into the phone jack the 5000 ohm speaker connection is automatically disconnected.

CONDENSERS

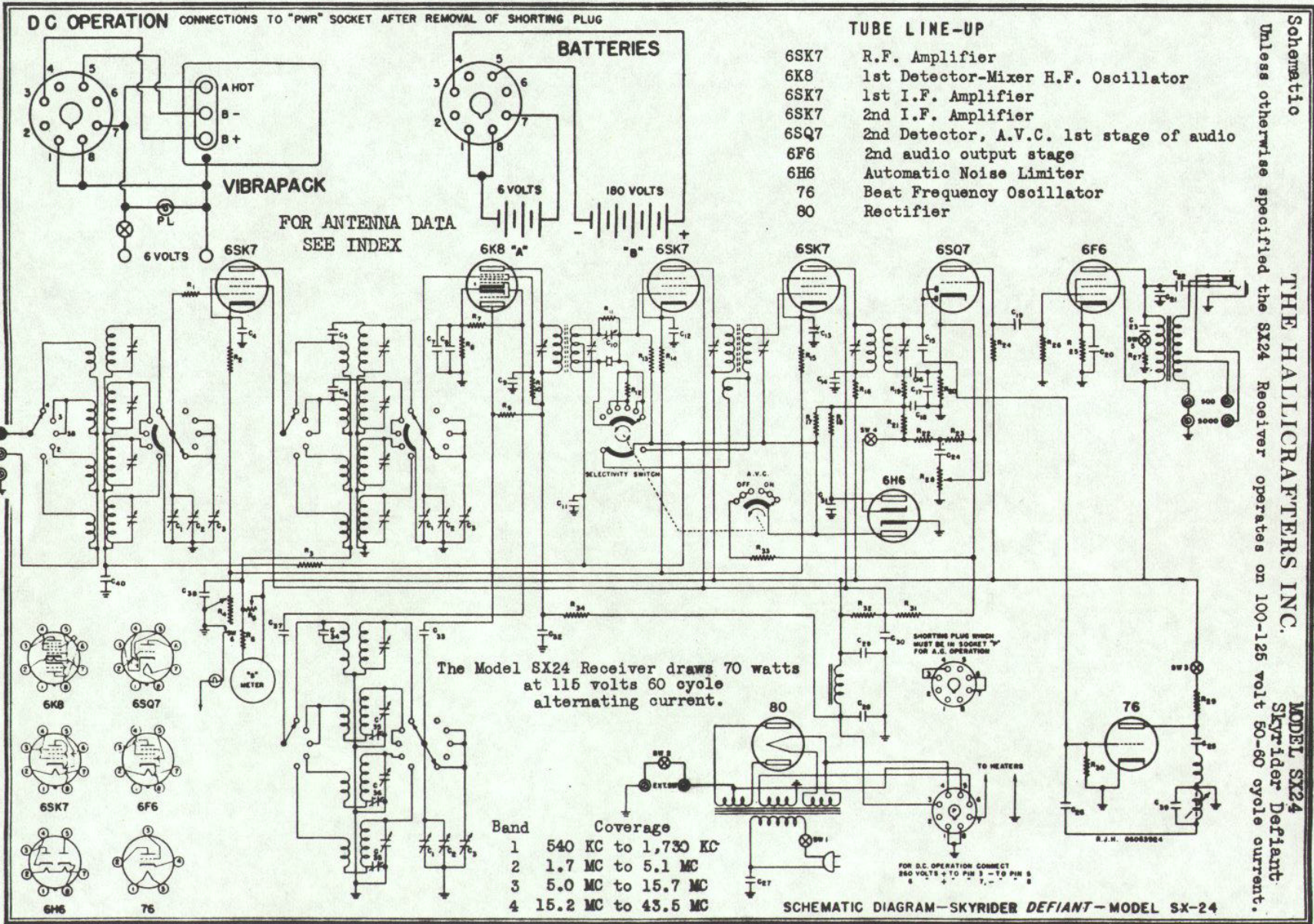
NO.	CAPACITY	VOLTAGE	TYPE	NO.	CAPACITY	VOLTAGE	TYPE
1	.440	mmfd	Per Section	21	.005	mfd	600 Paper
2	4	"	"	22	.01	"	400 "
3	26	"	"	23	.02	"	600 "
4	.05	mfd	200 Paper	24	.02	"	200 "
5	25.	mmfd	Ceramicon	25	.01	"	400 "
6	10.	"	"	26	100.	mmfd	Mica
7	.002	mfd	Mica	27	.01	mfd	600 Paper
8	.05	"	200 Paper	28	30.	"	350 Electrolytic
9	.05	"	400 Paper	29	10.	"	Electrolytic
10	25.	mmfd	Crystal Phasing Air	30	.1	"	400 Paper
11	.02	"	200 Paper	31	.05	"	200 "
12	.05	"	"	32	10.	"	350 "
13	.05	"	"	33	100	mmfd	Mica
14	.02	"	400 Paper	34	105	"	Ceramicon
15	3.	"	Twisted Pair	35	2200	"	Dual Pad
16	100.	"	Mica	36	450	"	"
17	10.	mfd	25 Electrolytic	36	1400	"	"
18	50.	mmfd	Mica	37	.002	mfd	Mica
19	.05	mfd	400 Paper	38	.05	"	400 Paper
20	10.	"	25 Electrolytic	39	.0005	"	Mica
				40	.05	"	200 Paper

- SW1 - AC Switch on AF Gain
- SW2 - Send RC Switch
- SW3 - B.F.O. on & OFF

- SW4 - A.N.L. on & OFF
- SW5 - Hi-Low Tone Switch
- SW6 - S-Meter



Note: The accuracy of the main dial calibration will hold only if the BAND SPREAD condenser is set at minimum capacity, or the position indicated by "0" on the Band Spread dial which has been approached by turning the Band Spread Knob in a clockwise direction, or to the right, as far as it will go.



Schematic  
 Unless otherwise specified the SX24 Receiver operates on 100-125 volt 50-60 cycle current.  
**THE HALLCRAFTERS INC.**  
 MODEL SX24  
 Sky Rider Defiant  
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