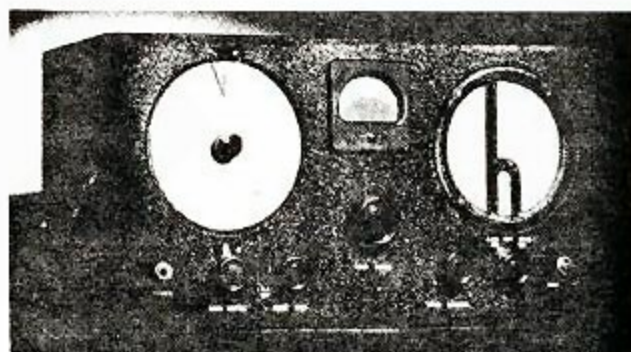


**OPERATING INSTRUCTIONS  
SKY BUDDY  
Model S-19**



**the hallicrafters inc.  
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CHICAGO**

THE SKY-BUDDY RECEIVER IS A 5 TUBE 3 BAND SUPERHETERODYNE COVERING THE FOLLOWING FREQUENCIES:

BANDS	COVERAGE
1	540 KC to 1,800 KC
2	1.70 MC to 5.75 MC
3	5.62 MC to 18.40 MC

SEPARATE COILS ARE USED TO COVER EACH BAND. INDUCTIVE COUPLING TO THE ANTENNA PERMITS THE MAXIMUM TRANSFER OF SIGNAL ENERGY FROM EACH SEPARATE PRIMARY TO THE PARTICULAR SECONDARY COIL IN THE CIRCUIT. THE UNUSED COILS ARE SHORTED. THE CALIBRATION ON THE MAIN DIAL IS IN KILOCYCLES ON BAND #1 AND IN MEGACYCLES ON BANDS #2 AND #3.

OF PARTICULAR IMPORTANCE IS THE NEW DIAL MECHANISM. THIS FEATURE GIVES IMPROVED MECHANICAL BANDSPREAD SO THAT ALL STATIONS ARE MORE EASILY TUNED-IN. THE BAND-SPREAD DIAL WILL PROVE HELPFUL PARTICULARLY WHEN COVERING THE AMATEUR FREQUENCIES.

THE NEW SKY-BUDDY IS EQUIPPED WITH A SEND-RECEIVE SWITCH. THROUGH THE USE OF THIS SWITCH THE RECEIVER CAN BE MADE TEMPORARILY INOPERATIVE FOR STAND-BY PERIODS SHOULD THE OPERATOR BE USING THE RECEIVER IN CONJUNCTION WITH A TRANSMITTER.

ANTENNA: - ON THE BACK OF THE CHASSIS WILL BE FOUND THE ANTENNA, DOUBLET AND GROUND TERMINAL STRIP. A CONVENTIONAL SINGLE WIRE ANTENNA SHOULD BE CONNECTED TO A1 AND THE JUMPER BETWEEN A2 AND G LEFT CONNECTED. FOR AN ANTENNA OF THIS TYPE WE RECOMMEND SIZE #14 WIRE APPROXIMATELY 75 FEET LONG. IF A DOUBLET ANTENNA IS USED THE JUMPER BETWEEN A2 AND G SHOULD BE REMOVED. THE TWO WIRES OF THE DOUBLET LEAD-IN SHOULD THEN BE CONNECTED TO A1 AND A2. A GROUND CAN BE CONNECTED TO THE TERMINAL MARKED "G" WITH EITHER TYPE OF ANTENNA. IT IS SUGGESTED THAT A GROUND BE LEFT OFF THE RECEIVER ONLY IF IN SO DOING THE PERFORMANCE OF THE RECEIVER IS IMPROVED. THERE ARE SO MANY TYPES OF ANTENNAE WE SUGGEST TO THE USER WHO WISHES TO EXPERIMENT WITH DIFFERENT AERIALS THAT HE FAMILIARIZE HIMSELF WITH THE "ANTENNA" SECTION OF THE A.R.R.L. HANDBOOK.

OPERATION: - UNLESS OTHERWISE SPECIFIED THE RECEIVER IS DESIGNED TO OPERATE ON 110-120 VOLTS, 60 CYCLE ALTERNATING CURRENT. PLUG THE POWER CORD INTO THE SOCKET AND TURN THE CONTROL MARKED "AUDIO GAIN" TO THE RIGHT. THIS WILL OPERATE A SWITCH WHICH WILL CONNECT THE RECEIVER TO THE POWER LINE. AFTER THE REQUIRED FEW MOMENTS HAVE PASSED FOR THE TUBES TO REACH OPERATING TEMPERATURE, THE UNIT CAN THEN BE PLACED IN OPERATION. THE "BANDS" SWITCH SHOULD BE SET ON BAND #1, OR STANDARD BROADCAST, WHEN THE RECEIVER IS FIRST USED. AFTER THE OPERATOR HAS FAMILIARIZED HIMSELF WITH THE OPERATION OF THE RECEIVER ON THAT RANGE, THE TWO HIGHER - FREQUENCY BANDS MAY BE TUNED.

THE A.V.C. - BEAT OSCILLATOR CONTROL IS OPERATED AS FOLLOWS:  
 WITH THE KNOB TURNED TO THE LEFT THE AUTOMATIC VOLUME CONTROL IS "ON" AND THE BEAT FREQUENCY OSCILLATOR IS "OFF". TURNING THE KNOB TO THE CENTER POSITION DISCONNECTS BOTH THE A.V.C. AND THE B.F.O. WITH THE KNOB TURNED TO THE RIGHT THE A.V.C. WILL BE DISCONNECTED AUTOMATICALLY AND THE B.F.O. TURNED "ON". IT IS NOT POSSIBLE TO USE A.V.C. WITH THE BEAT OSCILLATOR "ON". THIS WILL BE A HELPFUL FEATURE IN RECEIVING CODE SIGNALS, WHERE MAXIMUM SENSITIVITY IS DESIRED, BY REMOVING THE LAB INTRODUCED BY THE A.V.C. ACTION. WHEN TUNING FOR WEAK STATIONS THEY CAN BE MORE EASILY LOCATED BY HAVING THE B.F.O. "ON". ONCE THE WHISTLE OF THE STATION'S CARRIER IS HEARD THE B.F.O. MUST BE TURNED "OFF" OR THE WHISTLE WILL INTERFERE WITH THE MUSIC OR SPEECH BEING RECEIVED. FOR CONTINUOUS WAVE CODE RECEPTION, NATURALLY, THE BEAT OSCILLATOR MUST BE LEFT ON SO THAT A BEAT NOTE WILL RESULT. ~~THE KNOB MARKED "PITCH CONTROL" WILL ALLOW YOU TO VARY THE FREQUENCY OF THE BEAT NOTE TO ONE THAT WILL BE MOST PLEASING TO YOU.~~  
*Knob marked "Control" varies IF Amplifier gain.*

THE S-19 MODEL SKY-BUDDY HAS A HEADPHONE JACK MOUNTED ON THE PANEL. ANY TYPE OF HEADPHONES CAN BE USED WITH THE RECEIVER BECAUSE NO DIRECT CURRENT FLOWS IN THE HEADPHONE CIRCUIT. WHEN THE PHONE PLUG IS INSERTED IN THE HEADPHONE JACK THE LOUD-SPEAKER IS AUTOMATICALLY DISCONNECTED.

THE TUBE LINE-UP OF THE SKY-BUDDY RECEIVER IS AS FOLLOWS:

6K8	1ST DETECTOR - MIXER
6L7	I. F. AMPLIFIER - BEAT OSCILLATOR
6Q7	2ND DETECTOR, A.V.C., 1ST STAGE OF AUDIO
6K6	AUDIO OUTPUT STAGE
80	RECTIFIER

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RESISTORS				CONDENSERS				
No.	OHMS	WATTAGE	PARTS No.	No.	CAPACITY	TYPE	VOLTAGE	PARTS No.
1	200	1/3	20-015	C1	408 MMFD	MAIN		48-021
2	50,000	"	20-084	2	"	TUNING		
3	15,000	1	20-067	3	.05 MFD		200	41-004
4	300	1/3	20-021	4	.1		200	41-006
5	3,000	"	20-048	5	TUNING CONDENSER		MOUNTED IN IF CAN	"
6	300	"	20-021	6	"	"	"	"
7	250,000	"	20-099	7	.25 MFD		400	41-009
8	1,000,000	"	20-108	8	1,500 MMFD	MICA		40-022
9	500,000	VOLUME CONTROL	25-031	9	.01 MFD		400	41-001
10	25,000	1	20-073	10	.05		200	41-004
11	250,000	1/3	20-099	11	TUNING CONDENSER		MOUNTED IN IF CAN	"
12	500,000	"	20-084	12	"	"	"	"
13	500	1	20-025	13	250 MMFD	MICA		40-007
14	10,000	1	20-061	14	.1 MFD		200	41-006
				15	.02	"	200	41-002
				16	.0005	"		40-009
				17	.02		400	41-003
				18	.01		600	45-002
				19	.01		600	45-002
				20	10		25	
				21	8		450	42-021
				22	8		450	
				23	.01		400	41-001
				24	.1		400	41-007
				25	.0001	"		40-007
				26	430 MMFD		TRIMMER	40-025
				27	1,300	"	"	44-024
				28	2,100	"	"	44-025
				29	.002 MFD	"	"	40-013

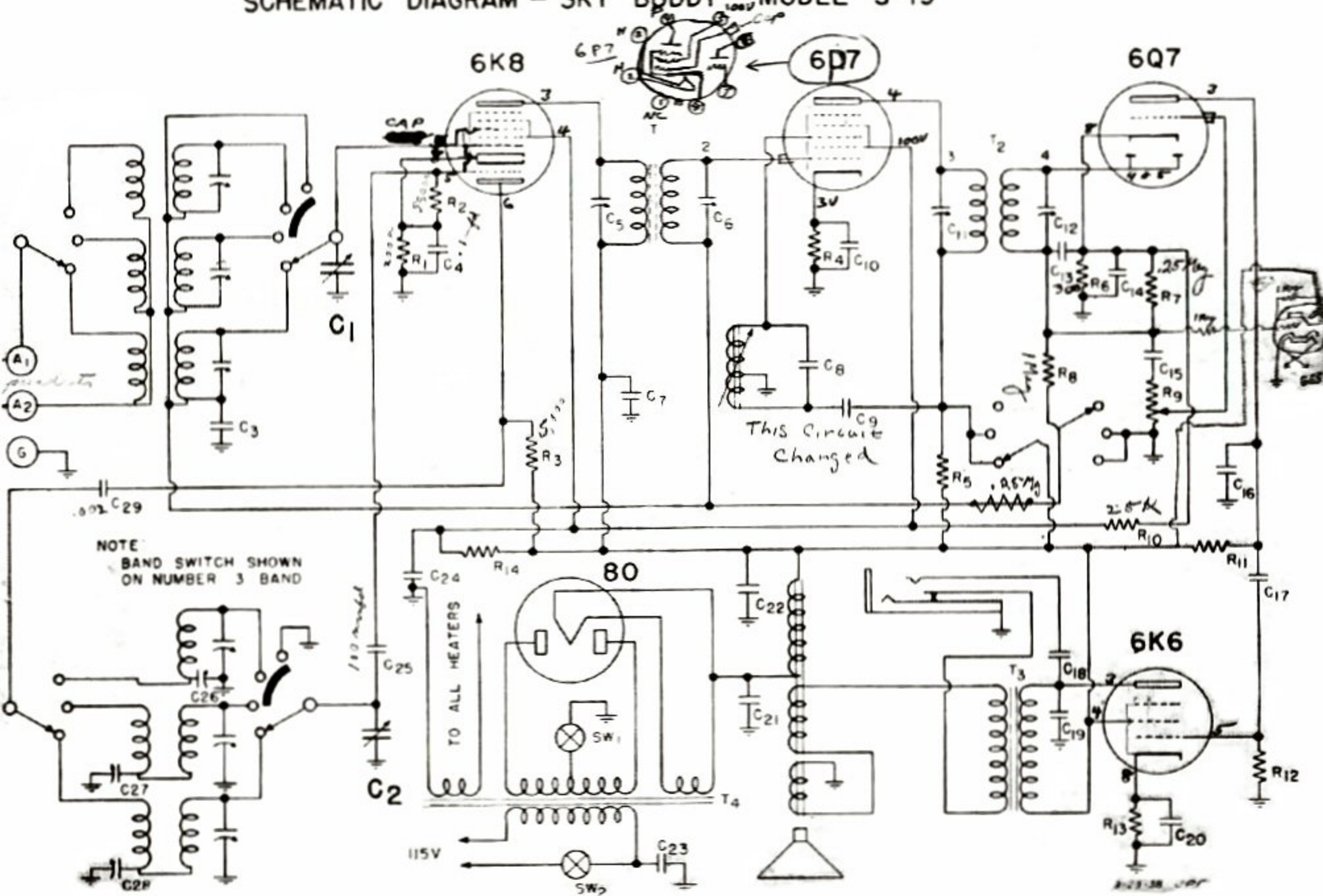
SWITCHES	
SEND - RECEIVE	SPST
AC ON - OFF (ON AF GAIN)	
SW	
1	
2	

SWITCHES

SW	SEND - RECEIVE SPST
1	AC ON - OFF (ON AF GAIN)
2	



SCHEMATIC DIAGRAM - SKY BUDDY MODEL S-19



# SCHEMATIC DIAGRAM - SKY BUDDY - MODEL S-19

