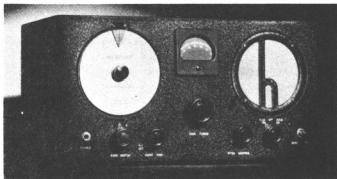


**OPERATING INSTRUCTIONS**  
**SKY BUDDY**  
**Model S-19**



**the hallicrafters inc.**  
**2611 INDIANA AVENUE**  
**CHICAGO**

**04083819**

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 LAQ 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.

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

THE HALLIDAY, INC., RESERVE THE RIGHT TO MAKE CHANGES IN DESIGN OR TO ADD IMPROVEMENTS TO INSTRUMENTS MANUFACTURED BY THEM, WITHOUT INCURRING ANY OBLIGATION TO INSTALL THE SAME IN ANY INSTRUMENT PREVIOUSLY PURCHASED.

RESISTORS

| No. | OHMS      | WATTAGE        | PARTS No. | No. |
|-----|-----------|----------------|-----------|-----|
| R1  | 200       | 1/3            | 20-015    | C1  |
| 2   | 50,000    | "              | 20-084    | 2   |
| 3   | 15,000    | 1              | 20-067    | 3   |
| 4   | 300       | 1/3            | 20-021    | 4   |
| 5   | 3,000     | "              | 20-048    | 5   |
| 6   | 300       | "              | 20-021    | 6   |
| 7   | 250,000   | "              | 20-099    | 7   |
| 8   | 1,000,000 | "              | 20-108    | 8   |
| 9   | 500,000   | VOLUME CONTROL | 25-031    | 9   |
| 10  | 25,000    | 1              | 20-073    | 10  |
| 11  | 250,000   | 1/3            | 20-099    | 11  |
| 12  | 500,000   | "              | 20-084    | 12  |
| 13  | 500       | 1              | 20-025    | 13  |
| 14  | 10,000    | 1              | 20-061    | 14  |

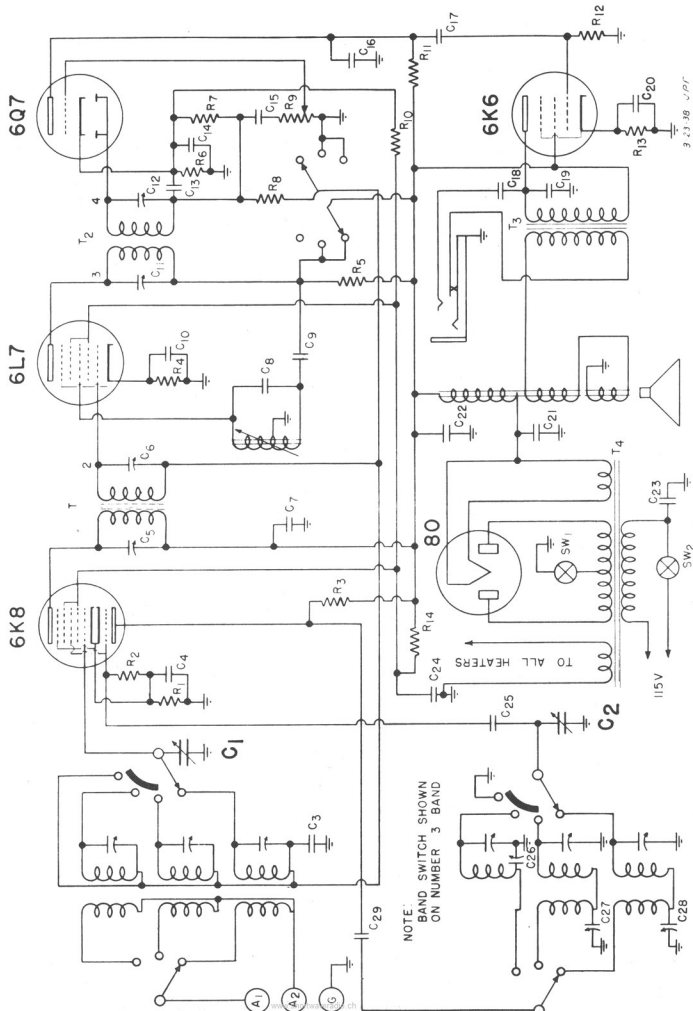
CONDENSERS

| No. | CAPACITY         | TYPE              | VOLTAGE | PARTS No. |
|-----|------------------|-------------------|---------|-----------|
| C1  | 408 MMFD         | MAIN TUNING       |         | 48-021    |
| 2   | .05 MFD          | "                 | 200     | 41-004    |
| 3   | .1               | "                 | 200     | 41-006    |
| 4   | TUNING CONDENSER | MOUNTED IN IF CAN | "       | "         |
| 5   | "                | "                 | "       | "         |
| 6   | .25 MFD          | "                 | 400     | 41-009    |
| 7   | 1,500 MMFB       | MICA              | 400     | 40-022    |
| 8   | .01 MFD          | "                 | 400     | 41-001    |
| 9   | .05              | "                 | 200     | 41-004    |
| 10  | TUNING CONDENSER | MOUNTED IN IF CAN | "       | "         |
| 11  | "                | "                 | "       | "         |
| 12  | 250 MMFD         | MICA              | 200     | 40-007    |
| 13  | .1 MFD           | "                 | 200     | 41-006    |
| 14  | .02              | "                 | 200     | 41-002    |
| 15  | .0005            | "                 | 400     | 40-009    |
| 16  | .02              | "                 | 600     | 41-003    |
| 17  | .01              | "                 | 600     | 45-002    |
| 18  | .01              | "                 | 600     | 45-002    |
| 19  | .01              | "                 | 25      | 45-002    |
| 20  | 10               | "                 | 450     | 42-021    |
| 21  | 8                | "                 | 450     |           |
| 22  | .01              | "                 | 400     | 41-001    |
| 23  | .1               | "                 | 400     | 41-007    |
| 24  | .0001            | "                 | 400     | 40-007    |
| 25  | 430 MMFD         | "                 | TRIMMER | 40-025    |
| 26  | 1,300            | "                 | "       | 44-024    |
| 27  | 2,100            | "                 | "       | 44-025    |
| 28  | .002 MFD         | "                 | "       | 40-013    |

SWITCHES

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

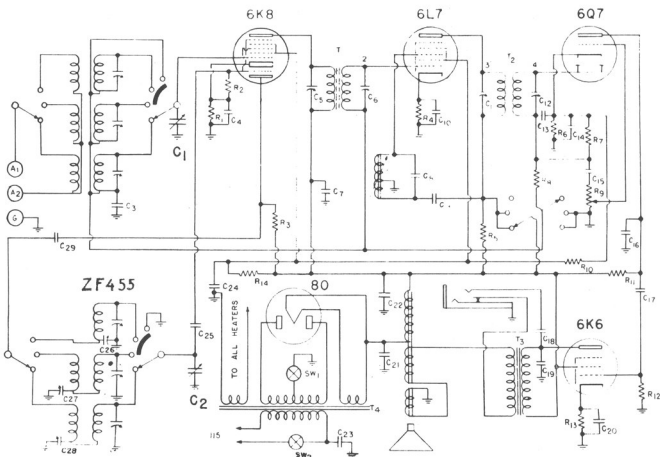
# SCHEMATIC DIAGRAM — SKY BUDDY — MODEL S-19



**the hallicrafters inc.**  
**2611 INDIANA AVENUE**  
**CHICAGO**

# HALLICRAFTERS

# S19



## RESISTORS

| No. | OHMS      | WATTAGE        | PARTS No. |
|-----|-----------|----------------|-----------|
| R1  | 200       | 1/3            | 20-015    |
| 2   | 50,000    | "              | 20-084    |
| 3   | 15,000    | 1              | 20-067    |
| 4   | 300       | 1/3            | 20-021    |
| 5   | 3,000     | "              | 20-048    |
| 6   | 300       | "              | 20-021    |
| 7   | 250,000   | "              | 20-099    |
| 8   | 1,000,000 | "              | 20-108    |
| 9   | 500,000   | VOLUME CONTROL | 25-031    |
| 10  | 25,000    | 1              | 20-073    |
| 11  | 250,000   | 1/3            | 20-099    |
| 12  | 500,000   | "              | 20-084    |
| 13  | 500       | 1              | 20-025    |
| 14  | 10,000    | 1              | 20-061    |

## SWITCHES

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

## CONDENSERS

| No. | CAPACITY                           | TYPE    | VOLTAGE | PARTS No. |
|-----|------------------------------------|---------|---------|-----------|
| C1  | 408 MMFD                           | MAIN    |         | 49-021    |
| 2   | "                                  | TUNING  |         |           |
| 3   | .05 MFD                            |         | 200     | 41-004    |
| 4   | .1                                 | "       | 200     | 41-006    |
| 5   | TUNING CONDENSER MOUNTED IN IF CAN |         |         |           |
| 6   | "                                  | "       | "       | "         |
| 7   | .25 MFD                            |         | 400     | 41-009    |
| 8   | 1,500 MMFD                         | MICA    |         | 40-022    |
| 9   | .01 MFD                            |         | 400     | 41-001    |
| 10  | .05                                | "       | 200     | 41-004    |
| 11  | TUNING CONDENSER MOUNTED IN IF CAN |         |         |           |
| 12  | "                                  | "       | "       | "         |
| 13  | 250 MMFD                           | MICA    |         | 40-007    |
| 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    |