



MODEL S8A Voltage, Parts Alignment

HALLICRAFTERS, INC.

The tuning range of this receiver is as follows:

- Band No. 1 - Domestic & Foreign S.F. Broadcast...
Band No. 2 - Medium 150 to 30 Meter Band...
Each of the above bands are in megacycles, kilocycles and meters.

OPERATION OF THE RECEIVER

The receiver comes to you in a completely tested condition, with all tubes in their respective sockets, so all that is necessary to plug the A.C. cord into a receptacle and the receiver is ready for operation.

All controls are mounted conveniently on the front panel and identified by their individual markers. The controls mounted on the front panel from right to left are as follows:

STAND-BY SWITCH

This switch is used to make the receiver inoperative when transmitting and cuts out the plate voltage on the plates of the RF and IF amplifier tubes.

POWER SWITCH AND TONE CONTROL

The power switch is combined with the tone control and operates in a clockwise rotation - that is maximum bass is at extreme right. This control also can be used conveniently to reduce atmospheric interference by reducing the audio frequency range of the receiver. It consisted of a tapered variable resistor, connected from the variable arm to ground with a fixed condenser connected from the wiper to ground.

BAND CHANGE SWITCH

This switch is located directly under the tuning control. It allows any one of the three ranges to be covered by the variable condenser and acts as a master for the band marking on the main tuning dial, which are shown at the left center of the dial - for instance if the 40 meter or 7000 mc range is desired, the number on the dial shows this to be band No. 1 - then turn the band switch until the pointer is on No. 1.

VOLUME CONTROL

The volume control on this receiver differs somewhat from that on the ordinary broadcast receiver in that it controls the sensitivity of the set, but it does control the audio output of the set.

SENSITIVITY CONTROL

The sensitivity control is a special adjustment which controls the sensitivity of the set.

You will find in receiving a straight CW or carrier frequency, which is transmitting when using radio transmitters and need only be used by those operating transmitting tubes. This can be eliminated on these signals will have a tendency to run together. This can be eliminated on these signals will have a tendency to run together. This can be eliminated on these signals will have a tendency to run together.

To properly align this receiver proceed as follows:- With the lowest signal from the best oscillator connected to the grid of the 6AT tube and set at 485 Mc, adjust the I.F. trimmer mounted in the top of the I.F. transformer core, to a maximum signal. Then adjust the alignment screw on the I.F. transformer core, to a maximum signal. Then adjust the alignment screw on the I.F. transformer core, to a maximum signal.

Connect the output of the generator into the antenna and grid terminal with a 400 ohm resistor in series with the antenna lead. Set the oscillator frequency at 15 megacycles and adjust the oscillator trimmer mounted in the coil shield under the antenna. Then adjust the antenna trimmer to maximum signal, then shift the dial off the frequency and align the antenna trimmer to maximum noise level. This completes the alignment for this point.

Next, tune the receiver to 8000 kc and adjust the low frequency pad, which is the one nearest the end switch band.

Follow this procedure for the other ranges, except that in range 3 use a .0001 microfarad capacitor in series with the antenna lead. The same procedure for No. 2 range, 4000 and 1800 mc, and for No. 3 range 1800 and 600 mc is followed when the receiver is completely aligned. Never align the No. 3 and No. 2 band first, for when the No. 1 band is aligned the other two will be out.

TUBE VOLTAGES

Table with columns: Tube, Plate, Screen, Out-Grid, and other electrical specifications for various tubes like 6AV, 6X4, 6X5, etc.

Heat all bands - check antenna leads - tubes - voltages I.P. alignment

One Band - Check Switch Volume - Leads to Ollis - Ollis for Continuity.

Two - Check for Filament Grounded

Defective Tubes

Proper Polarization of AC Plug

Set Band - Check Tubes - Ollis - I. F. transformers for voltages and grounds on all circuits.

Weak Audio - Check A.V.C. circuit .005 tube - speaker, output trans. and Phono Jack.

Overload - Check A.V.C. tube end circuits - Grids return circuits for grids - alignment.

What service of a highly technical nature is required, get in touch with a competent service man.

To put this receiver into operation on the broadcast range, turn your wave change switch, located under the main tuning control, until the indicator points to this is at the extreme left, next turn your sensitivity to a maximum - your volume up approximately half way and your A.V.C. switch to the "on" position and from any in your location. Turn the control knob until the indicator shows the number on the dial scale, which is shown on the log.

The dial scale is marked directly in kc and meter station legs are also marked in Mc, so this is comparatively simple. Turn with their action, such as by varying the A.V.C. control on and off and you will notice with extreme volume that the set sensitivity control, but the volume control is in the audio circuit only and the A.V.C. controls in this condition will still be varied.

This receiver is equipped with mechanical band spread, which is a dual ratio planetary drive mounted on the main tuning control. This is a dual ratio planetary drive mounted on the main tuning control. This is a dual ratio planetary drive mounted on the main tuning control.

approximately 85 to 1, which makes it possible by the use of this very high ratio drive to obtain the wide range of frequencies and also to separate stations or signals very close together. The wide range of frequencies and also to separate stations or signals very close together. The wide range of frequencies and also to separate stations or signals very close together.

allows a very good ratio between the main tuning control and the band spread control near the minimum portion of the tuning condenser.

Table listing tube values, ratings, and part numbers for various tubes like 6AV, 6X4, 6X5, etc.

Table listing condenser values, ratings, and part numbers for various capacitors.

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