

HQ-100A Addenda

Due to the minor changes in the circuit and operation of the HQ-100 series receiver, we have postponed the printing of the HQ-100A manual. We feel this addenda, with the HQ-100 manual, is straight forward as to the receiver's operation. This addenda follows;

The HQ-100A differs from the HQ-100 only in that it incorporates a separate built-in B.F.O. rather than using the Q-multiplier in the self-oscillating state as was previously done. This therefore, allows independent control of both the B.F.O. and Q-multiplier circuits for improved operation on CW and single sideband.

Referring to the manual supplied, fig.5 "Location of Control", the following changes should be realized.

The positions of the function switch (#2) are now, OFF-REC-SEND-BFO. In order to activate the B.F.O. for CW or single sideband reception, this function switch should be placed on B.F.O.

Located between the main and bandsread tuning dial scales (14 and 15) is the new B.F.O. pitch control. With the function switch on B.F.O., as outlined in the above paragraph, this B.F.O. pitch control can be adjusted to produce the desired tone on CW signals, or as a vernier tuning adjustment for single sideband.

The selectivity control #11 has been altered. At the extreme counterclockwise position of this control, the Q-multiplier is turned "off". For normal operation of the receiver on the broadcast band or short wave bands, the Q-multiplier should be in this off position. If interference is experienced from a co-channel signal, the selectivity control should be gradually advanced clockwise. As explained in the manual under the Q-multiplier paragraph on page 7 and also on page 18, this will result in increased selectivity by producing a spike or narrowed bandwidth, adjustable from approximately 5kcs to 100 cycles. The narrowest bandwidth being obtained by adjustment of the Q-multiplier selectivity control to the point just below that which would cause the Q-multiplier to break into oscillation, as evidenced by the receiver's blocking with a resultant loss of volume.

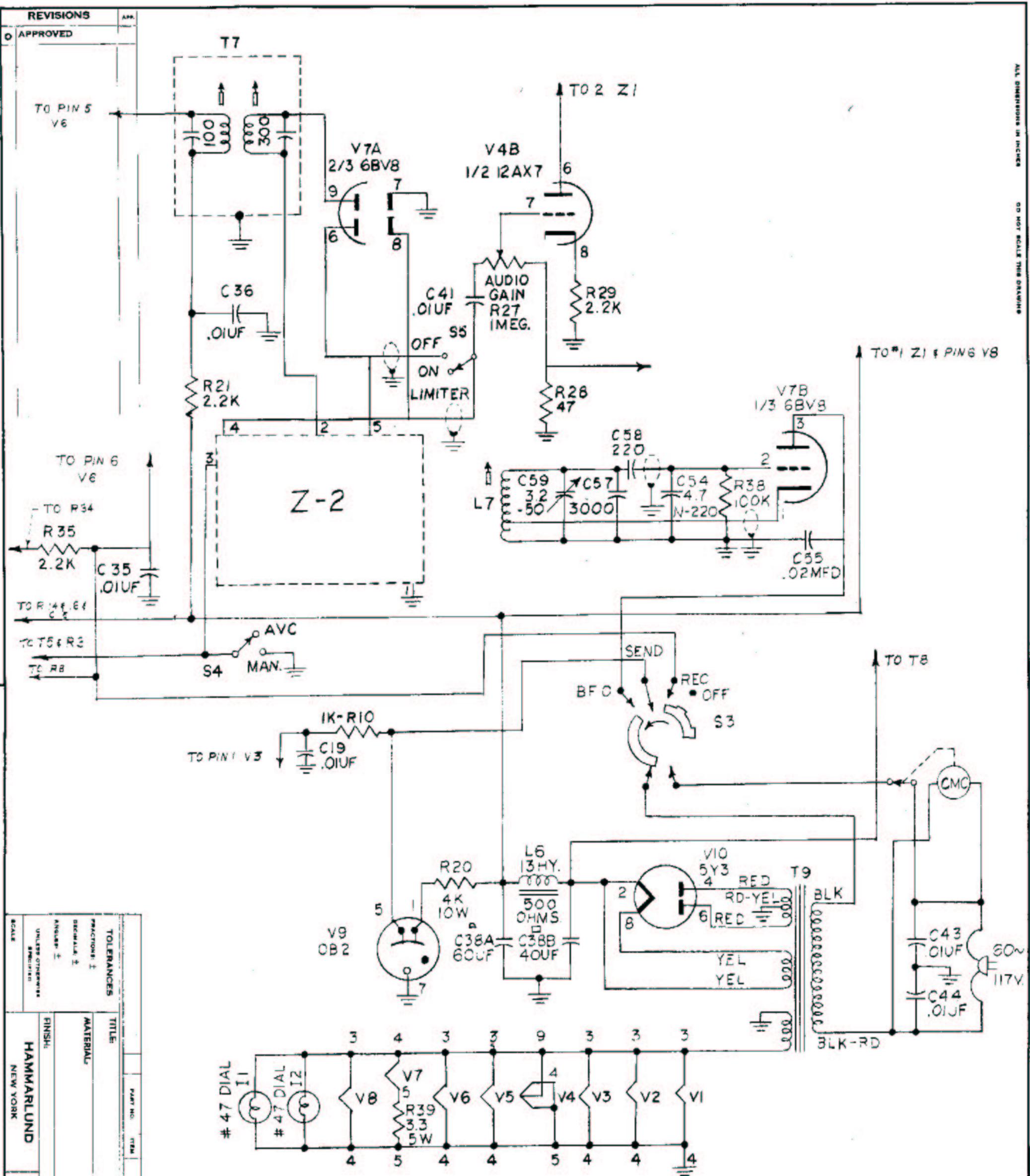
Also wherever applicable, the following change should be noted: V-7, the 6AL5 tube has been replaced with a type 6BV8, dual diode, triode tube. One diode section of which functions as a second detector and AVC, while the other diode section serves as a series self adjusting noise limiter. In the same envelope of V-7, the triode section is utilized as a stable B.F.O.

From this addenda, you may readily understand that the operation of the HQ-100A is fully explained, using both the manual and the addenda. With the included circuit revision from the 6AL5 to the 6BV8, the manual and this addenda give full information for the operation and maintenance of the HQ-100A receiver.

6BV8 (BFO on)

| Pin # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-------------|---|------|-------|-------|-------|------|---|--------|------|
| Voltages | 0 | -8 | 110 | 6.5AC | 1.2AC | -9 | 0 | -9 | -10 |
| Resistances | 0 | 100K | .5meg | 0 | 0 | 120K | 0 | 2.2meg | 190K |

ALL DIMENSIONS IN INCHES DO NOT SCALE THIS DRAWING



| REVISIONS | | APP. |
|-----------|----------|------|
| 0 | APPROVED | |

| TOLERANCES | |
|----------------------------|--|
| FRACTIONS ± | |
| DECIMALS ± | |
| ANGLES ± | |
| UNLESS OTHERWISE SPECIFIED | |

| | |
|--------------|--|
| SCALE | |
| FINISH: | |
| MATERIAL: | |
| TITLE: | |
| PART NO.: | |
| ITEM: | |
| DESCRIPTION: | |
| DATE: | |
| BY: | |
| NO. | |
| APPROVED: | |

NO.