

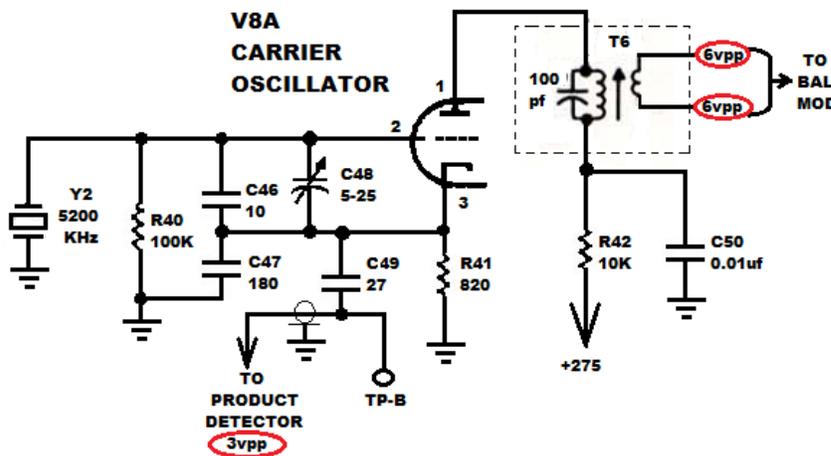
# SR-160/500

## IMPROPER DRIVE DUE TO CARRIER OSC FAULT

The SR-160 should deliver 100 to 125 watts in the center of each band. Likewise, the SR-500 should deliver 250 to 300 watts. You should see saturation between 1 o'clock and 3 o'clock on the CARRIER CONTROL. If saturation occurs between zero and 10 o'clock you have too much drive, [CASE 1](#). If saturation does not occur or falls between 4 o'clock and max, then see [CASE 2](#).

If these conditions are not being met one of the first things to check is the drive from the carrier osc. The following tests are performed with the CARRIER control at minimum to reduce stress on the driver and finals. These tests are identical for the SR-160 and the SR-500.

The signal levels circled in red below are absolute minimum. They are to be -0.0 and +10%.



**Case 1; Test signal at TP-B, peak to peak voltage too high.** This case will cause birdies in the receiver and spurs in the transmitter. This is the simplest fault to cure. While monitoring TP-B adjust T6. You will note when you rotate the slug in one direction from peak the voltage drops off rapidly. In the other direction it drops more slowly. Adjust T6 in the direction of the slow drop off for a reading of 3.1vpp. Check the output of T6, the signal there should be between 6 and 6.6vpp. Arbitration may be required in some cases. The 6 to 6.6 vpp to the balanced modulator is the most critical.

**Case 2; Test signal at TP-B, peak to peak voltage too low.** This case can be more difficult. First try several 12AT7's and select for highest signal level. Next check the values of R40 and R42. These two resistors need to be dead on. The last resort is R41. This resistor can be increased to 910 ohm or 1k ohm. This resistor is buried deep at the base of V8. C49 needs to be disconnected from TP-B and the Y2 needs to be removed to get to R41. One needs exceptional skills with hand tools and have access to good desoldering tools before attempting to replace R41.

If the above conditions are proper and you still have drive problems go to [REPAIR MANUALS | WDOGOF](#) click on **SR-160/500 Repair Manual** and conduct tests in section 11-3-2.