

HT-32 VFO ALIGNMENT

KEY POINT: It is futile to attempt alignment of the VFO if there are any drift or temperature compensation faults with in the VFO.

Goal VFO frequencies.

With the tuning dial set to these points, and a frequency counter monitoring the input of V8: we should measure the following.

DIAL @ 3.5; MEASURE 5.500MHz.

DIAL @ 3.6; MEASURE 5.400MHz.

DIAL @ 3.7; MEASURE 5.300MHz.

DIAL @ 3.750; MEASURE 5.250MHz.

DIAL @ 3.8; MEASURE 5.200MHz.

DIAL @ 3.9; MEASURE 5.100MHz.

DIAL @ 4.0; MEASURE 5.000MHZ

Procedure.

First, pull V7. You will be monitoring the injection frequency from the VFO to the third mixer V8 (pin 1). BUT, you need to have all the covers in place. There are special tube extenders that give access to the pins. Or you could remove the tube shield from V8 and wrap a pickup coil around the tube.

While monitoring the VFO signal frequency at V8, the primary alignment points will be:

DIAL @ 3.550, target frequency 5.450MHz

And.

DIAL @ 3.950, target frequency 5.050MHz

WITH ALL COVERS IN PLACE: Open the top cover and install monitoring probe for V8. Turn on rig and allow at least 30 minutes.

A, Preliminary adjustment.

- 1, Set the dial to 3.750 note the error of the VFO frequency (should be 5.250MHz).
- 2, Correct $\frac{1}{2}$ the error with L1 and the rest of the error with C3.

B, Tracking alignment

- 1, Set the dial to 3.450 adjust C3 for 5.450MHz.
- 2, Set the dial to 3.950 adjust L1 for 5.050MHz.

You may have to go back and forth, over or under correcting at one end or the other several times to get it to fall in. This may be tedious if you are a first-timer. Hang in there it will fall into place.