

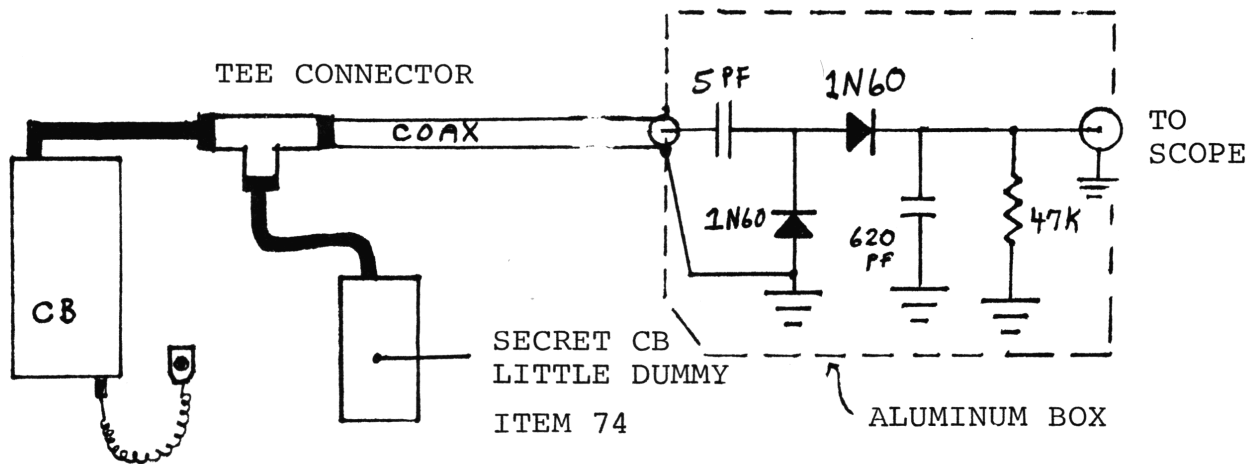
CHECKING MODULATION

Low priced meter-type modulation indicators lack accuracy. Also, they cannot tell you if parasitics are present in the signal.

The best way to measure modulation and evaluate the quality of the transmitted signal is by using a 30MHz Scope. I use a Tektronix type 545A. The RF output of some sets get quite nasty when not properly aligned. (I just finished a realignment on a Midland 2001 that a trucker tried to tune up himself. Signal had a bad parasitic and even the V.C.O. had been misadjusted, causing lower 8 channels to receive on one channel!)

If you have a scope, but it is not good up to 30MHz, you can bypass the vertical amplifier (and its limitation) and go directly to the vertical deflection plates. See Volume 7, page 73.

If a high frequency scope is not available, you can build a detector for use with any DC scope.



The above detector was built into a small aluminum mini box with an S0239 on one end and a cable to the scope on the other end.

Here is how to use this detector with your scope.

1. Adjust position control with no RF present to position the trace on the first line near the bottom of screen. This is the reference line.
2. Now key up transceiver with no modulation and adjust gain so trace is in center of screen.
3. Now modulate the transceiver. At 100% modulation you will get a level shift twice that in step 2.