

CLARIFIER SOLUTION CONTINUED:

3. Connect YELLOW wire to cathode (banded end) of CD48 (located by relay) to pick up 13.8 V.
4. Connect the GREEN wire from the kit to the end of R139 not connected to the transistor. This provides ground on transmit to switch the relay.
5. Solder a BLACK wire to ground on the kit and solder other end to radio ground.

ADJUSTMENT:

Measure voltage at the BLUE wire in receive mode. Key the mike and adjust the VOLTAGE ADJUST for this same voltage. If no accurate voltmeter is available, hook up your frequency counter to the VCO and adjust the VOLTAGE ADJUST for the same frequency RX and TX.

NOTE: If USB and LSB do not come on center together check the 7.8025 crystal frequency. I have found the adjustment CRITICAL.

HOW TO MEASURE FREQUENCY ON YOUR SCOPE

The period of a waveform is the time that it takes for 1 cycle to occur. It is inversely proportional to the frequency $f=1/P$. Inject the signal to be measured into the vertical input. Adjust the TIME/CM control to display several cycles. The graticule on our scope is 10 CM across. The TIME/CM setting must be multiplied by 10. Now we divide to find the frequency in cycles per second.

$$\frac{\text{COUNTED CYCLES}}{\text{TIME/CM} \times 10} = \text{CPS}$$

XAMPLE: We counted 11 cycles with TIME/CM on 1 Ms setting.
1 Ms = .001 Second 10 Ms = .01 Second

$$\frac{11}{1 \text{ Ms} \times 10} = \frac{11}{10 \text{ Ms}} = \frac{11}{.010} = 1100 \text{ cycles}$$