Auxiliary Offset Crystals

The PCS-3000 has provision for three non-standard offsets. The rig comes to you already provided with Offset X = -1.305 MHz (Air Force MARS) and Offset Y = -4.250 MHz (CAP). These offsets are tunable by means of variable inductors adjacent to the crystals, to allow a variation of up to ±15 kHz. This allows coverage of, for example, both the old and new Air Force MARS splits.

The crystals are located on the main board (the large PC board on top of the main unit) near the right front. As supplied, the Offset X crystal is 40.9983 MHz, the Offset Y crystal is 39.6166 MHz, and the Offset Z socket is empty. To determine the frequency of the crystal you need for a particular offset, use the formula

\[
\text{Crystal Frequency (MHz)} = 41.0333 + \frac{\text{Desired Offset (MHz)}}{3}
\]

For example, if the desired transmit frequency is 146.000 MHz and the desired receiving frequency is 147.000 MHz, the offset is -1.000 MHz, so you'll need a crystal of 41.0333 + (-1.000/3) = 41.0333 - 0.3333 = 40.7000 MHz.

We don't stock offset crystals, but you can order them from any reputable manufacturer. Specify parallel resonant, 20 pF, HC-18U holder.

PL Tone Adjustment

On the main board, locate the blue potentiometer VR412 near the back. This is the PL frequency control. Near it is a vertically mounted potentiometer VR411. This adjusts the PL tone level.

Microcomputer Initialization

If the microcomputer appears to malfunction, it may only require re-initialization. See page 12. This, along with a quick recharge of the memory battery (also described on page 12), may save you unnecessary inconvenience.

Channel Lock Switch

If the keyboard is completely disabled, check the Channel Lock switch on the side of the microphone before you panic. If this switch is set to the lock position, the keyboard will not function (see page 13).

Instruction Manual

Please read your instruction manual very carefully. The PCS-3000 is a very sophisticated radio. We want you to enjoy it as much as possible!