Microwave Frequency Management Kit

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Many VHF and microwave transverters have a problem with frequency accuracy. While some drift noticeably, all crystals age and change frequency slowly. And using the trimmer capacitor to get exactly on frequency usually makes the problem worse – adjusting for maximum output usually makes the crystal more stable. Let the crystal oscillate at its natural frequency and it will be happy.

But the digital readout on your transverter won't read exactly, and you might have to turn the dial! Is this a problem? No, it is an advantage – if no one knows exactly what frequency they are on, stations spread out a bit instead of piling up on the calling frequency, and you can find more than one by turning the big knob.

How do I keep track of the frequency? One way is to use a **Frequency Management Indicator**, on which I keep track of the calling frequency and can also keep track of frequencies on which other stations are operating. The Frequency Management Indicator may be attached to the top of the radio, as shown in Figure 1, or in another convenient location.

The frequency is entered using the **Frequency Recording Device** in Figure 2 to copy the digits on the radio dial as well as any accompanying notes. If the radio drifts or stations move, the **Frequency Management Indicator** may be updated by using the **Rapid Refresh Device**.



Figure 1 - Frequency Management Indicator in action



Figure 2 - Frequency Recording Devices - permanent and correctable versions

A special notation is used for those transverters using high-side LO injection, so that frequency readout is reversed. This is shown in Figure 3.



Figure 3 - Frequency Management Indicator with High-side LO option

The **Frequency Management Indicator** has been in use for several years, resulting in several first-place finishes in the section and region in VHF and 10 GHz & Up contests. Without it, contacts in rare grid squares might have been missed.

Most skilled VHF and microwave operators should be able to homebrew a Frequency Management kit. If not, Down East Microwave is now offering them in a choice of colors; ask for catalog number STUPID-1, only $59.95.

A larger version which can record calls and grids, and may even be able to transcribe CW, is still under development.