

Technical Trivia

Stepping Up



So what's the big deal about Steps?

Here's the deal - Between now and the end of 2012, you have to convert your existing VHF or UHF radio from wide band (25 kHz) to narrow band (12.5 kHz). So far, so good. Most of us understand the basic requirement. The problem is that there is so much more that we DON't understand, like *Channel Steps* for instance!

Without getting too technical, let us just say this. Any VHF or UHF 2-Way Radio produced after the year 2000 should be narrow band capable. In essence, this means the radio can operate on 25 kHz or 12.5 kHz channels, but not ALL 12.5 kHz channels. That's where this "step" thing comes in.

Most radios built since the 1990's, and some going back to the 70's use PC programming which essentially changed the way we tune a radio to a particular frequency. The old wide band technology radios were designed to allow selection of a desired frequency through a series of "steps", typically 5 kHz. In other words, to program a radio for 155.475 MHz, the brains of the radio translated keyboard commands into the correct number of steps to create the desired frequency.

These 5 kHz steps work on MOST, but not all narrow band frequencies. For example, 155.475 is the National Law Enforcement interoperable channel. This frequency will have to be narrow banded before the end of 2012. After narrow banding, this frequency will change to 155.7525 MHz. This requires 2.5 kHz steps. The closest an 5 kHz step radio can get is 155.7500 MHz, which is 2.5 kHz off. The only channels that work smoothly in 5 kHz radios are VTAC1 (151.1375 MHz) and VTAC3 (158.7375 MHz).

You will know that you have a problem if you try to program a narrow band frequency and it rounds off to another number, you know that your radio is not capable of accepting 2.5 kHz steps.

You can verify if your existing radio is capable of 2.5 kHz steps by going on line and reviewing the specifications. If it only does 5 and 12.5 kHz steps, you will need to get another radio. Among the more popular models that don't do 2.5 kHz steps, The Bendix-King EPH series, HYT Model TC-518, the Motorola CP185 and our own Dual Band portable are included. We should point out that these radios can be programmed to some narrow band channels, but not all. For more information, give us a call at 205.202.1269.

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