

## SIMPLE FREQUENCY CALIBRATION FOR THE ICOM R75

This is a simple way to calibrate your R75 to be exactly right on frequency. When I received my R75, it was about 25 Hz or so off. Probably not much to worry about for most people, but it was very noticable when listening to broadcast stations playing music in SSB mode.

\*\*\* Caveat \*\*\*

If you are unsure of poking around inside your radio, find an electronics tech to do it for you.

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Tools needed: Philips screwdriver, plastic tuning tool.

Turn the receiver on and leave on for at least one hour. Unscrew the six screws on the top & sides of the cabinet, being careful not to drop any screws into the receiver while powered on. Remove the top portion. With an antenna attached, tune to WWV. Press and hold the TS key until it displays the 1 Hz decimal. Make sure that WWV is tuned right on frequency, so that all zeros are displayed to the right of the decimal point. Find L2 in the PLL circuitry. The PLL board will be the one on the right as you look down into the radio from the front. L2 will be inside a metal "fence" or open box, next to a crystal. While listening to WWV, listen to the audio tones being sent in both AM and USB. This will give you an idea of how much of a frequency difference there is. Tune to USB. Using the plastic tuning tool, carefully & slowly turn L2 until you hear the tones rise or fall. Try to match the sound by switching back & forth from USB & LSB until both tones sound exactly the same. You will only need to turn L2 very slightly. When the receiver is properly aligned, there should be no difference in the tones when switching between USB, LSB, and AM. Once WWV's tones sound the same in USB, LSB, and AM, then put the cover back on and you're good to go.

If you are unable to receive WWV, you can get the same results by tuning to a station playing music. Just make sure the signal sounds the same in USB, LSB, and AM. Some tuning may be required since the station may not be exactly on frequency. WWV is the best to use since they are a frequency standard, meaning their frequency is guaranteed to be exactly on frequency within a very narrow tolerance, well within what we need. I'm not sure, but time stations in other countries will probably have a similar frequency tolerance.

This method won't give you as good a calibration as using a frequency counter & signal generator, but it should work well enough to allow you to listen to music in SSB without having to tune up & down to find the right frequency.

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