

ICOM R71A Mods, Tricks & Tips

R71A owners take note! Here are some ideas for your receiver, gathered from various sources:

TRICKING THE R71A TO TUNE BELOW 100 KHZ. This receiver is designed for VLF reception down to about 97 khz. The following steps will confuse the microprocessor sufficiently to permit reception down to 0.0 khz' (A Wavetek 180 sweep-function generator was used to verify that the R71A indeed tunes below 100 khz.)

1. If all 32 memory channels contain frequencies, use the FUNC and CLEAR buttons to clear a memory channel.

2. Place VFO-M switch into the M (memory) position.

3. Using all the manual dexterity you can muster, rock the Main Tuning knob back and forth, while simultaneously rocking the MEMORY-CH rotary control to switch between a memory channel with a frequency in it and a clear memory channel. Continue rocking both the controls until a frequency of 0.000.0 appears on the digital display.

4. Depress the WRITE button. This stores the 0.000 KHz frequency in a memory channel. You can now rotate the Main Tuning knob clockwise to tune up from 0.000 KHz to the frequency you want. Be careful! If you rotate the Main Tuning knob counterclockwise, the radio will immediately revert to 29.999 KHz.

5. To tune below 100 KHz in the future, just recall the 0.000 KHz frequency from the memory channel and use the tuning knob to tune upward.

RESUME SCAN FUNCTION. For the "Resume Scan" function to operate as described on pg. 13-14 of the R71A Manual, the "Scan Stop" function switch (fig. 7-3, pg. 20) must be in the "timer on" position. As shipped from the factory, this switch is in the wrong position.

CW MODE. If either the FL-32 or FL-63 CW filter is installed in the R71A, the filter switch (fig. 7-1, pg. 19 of manual) MUST be slid to the left (ON) position or the new filter will not operate. This caveat was not included in the owner's manual.

THREE VFOs. The R71A actually has three VFOs. The 3rd one is the memory mode; any frequency may be changed simply by rotating the tuning dial. The memorized frequency will not be lost.

FOUR TUNING SPEEDS. There are actually four tuning speeds on the R71A, depending upon the position of the tuning speed (TS) switch and the rotational rate of the Main Tuning knob. Curiously, with the TS switch activated, the incremental tuning speed is greater when the dial is turned slowly than when it is turned fast! With the TS switch in, tuning rate is 2 KHz per revolution in 1-KHz steps when turned slowly, but 1 KHz per revolution when turned fast. With the TS switch out, tuning speed is 2 KHz per revolution (slow) in 10 Hertz increments, and (fast) it is 1 KHz per revolution in 50 Hertz steps.

IMPROVED MW SENSITIVITY. This mod will allow the preamp to operate at the broadcast band, while shutting off automatically below 500 KHz. Gain is about 1-5 db. To make the modification, remove the top screws and top of the cabinet. Locate the RF unit on the right side and find the two BA618 bandpass filter ICs. Locate diode D23 about an inch to the left and cut the upper lead. Bend it out of the way, making sure it doesn't touch any other component.

MORE MW & LW IMPROVEMENTS. Remove attenuation circuit consisting of R11, R12, R13 and C78 on the RF board, and connect L53 directly with L52-D10. Add a 1 mH choke between the LBA input and the chassis to drain off static charges. L59 should also be changed to 1 mH to increase VLF sensitivity.

AUDIO RESPONSE. To reduce bass response & hiss (for better voice clarity), connect a 250uF capacitor in parallel to C73 on the MAIN board, which increases tone control range. Connect a 47uF electrolytic near J5 between SP3 and chassis to reduce hiss (watch polarity!). Reduce C131 to 47uF and put an electrolytic capacitor between 1uF and 4.7uF in parallel to the phones jack. Values depend on the impedance and personal preference. If the REMOTE switch is not used for its intended purpose, a 330mH choke, connected between C125 and R164 on the one side and the Remote switch on the other side, may be switched to ground, thus forming a high pass filter. The REMOTE switch now acts as a "SPEECH-MUSIC" selector.

AM SELECTIVITY. Whoever is prepared to do without the LOCK function can utilize this SPDT switch for a bandwidth selection in the 3rd IF irrespective of the mode selected, by switching the connections (D39)-R91 and (D36)-R88. This permits the cascading of two quartz filters (2nd & 3rd IF) in AM. This is great for DXing, and gives a WIDE bandwidth for SSB. Access to the LOCK switch is not easy, however, and requires quite careful work.