

Quick Guide to DDS Clock Alignment of TJ5A

If your TJ5A has a 200 Hz tolerance in 10m, please calibrate the DDS clock to solve this problem. The calibration can be carried out easily. Before calibrating DDS, please warm up TJ5A for 20 minutes for more accurate result.

DDS CLOCK CALIBRATION

Open the upper cover of TJ5A by removing the related 8 screws. Keep them in a box so that you can find them when you put the cover back.

You can find the small setup button behind the flexible DDS-to-Main-Board ribbon.

Press SETUP, DDS clock information is displayed:



“99999100” indicates the factory-set DDS clock frequency (This value can be different since the tolerance of every 100MHz clock crystal differs slightly). “100Hz” indicating the calibrating step is 100Hz. Press TUNE knob to select the step. “3.500.000” indicates DDS is working at the lowest band now (The recent TJ5A displays 3.000.000, indicating the lowest band of this model is 3.000.000 MHz). DDS clock is set in the factory which does not require alteration in normal cases. However, if your rig’s frequency is not very accurate at higher bands because of a very different surrounding working condition, you may need to calibrate the DDS clock value.

How to calibrate DDS clock?

Say, if your TJ5A’s frequency is 200 Hz higher, then decrease the clock value by 20 Hz first, i.e., rotate TUNE knob in 10 Hz step counter-clockwise. Press **MEM** button to save this new value. Press SETUP button until you exit the setup. Now, check if you have improved solved or solved the problem. Calibrate 10 Hz each time, until your frequency is accurate.

However, if the frequency veers in the other direction, i.e., the tolerance is even higher than 200 Hz, then you are calibrating the clock in the wrong direction. Please increase the clock in 10 Hz step by turning the TUNE knob clockwise.

Important: It is suggested to take down the DDS clock value on a piece of paper in case you want to go back the factory setting.