A 9.155 oscillator is used in the JST-100 and in the JST-125 for the HF compressor and the PBT circuit. Mixing and filtering is on 8.7 MHz. You see the 455 kHz difference? After many years it can become a little off-frequency and the SSB modulation sounds unnatural.

It is easily corrected, but ONLY if you have a counter available with an oven stabiliser and exactly on frequency or a frequency standard with PLL for your counter system. If not available aligning is useless and NOT advised!

Most basic SSB alignment for the JST-100

Module = CAE-137

9.155000 measured on TP4, or a wire leg from R26 or R9 (56 ohm)

Be sure the PBT pot is working OK and doesn't need contact lubrication. Put potmeter in mid position click. First align the Rx pot = RV22nd pot RV1 alignment only in Tx mode.

That's all.

Now your frequency ref unit is operational, you can also check the main reference oscillators.

CGD-76

10.000000 MHz on TP8, or 50.000000 on TP9 or TP10. With lower resolution also possible with 1 MHz or 5 MHz signals. Adjust with CV1.

CGA-95

You could also check the 70.000000 MHz signal on TP7. If you can reach it, see JST-125 for an extension cable. Board should be in place and warmed up. Adjust with CV1.

Most basic SSB alignment for the JST-125

The basic diagram with the PBT and compressor circuits is removed from the main diagram, but you can be sure it is 99% the same as in the JST-100. Component numbering is sometimes different.

Module = CAE-213A

The 56 ohm R9-leg behind RV3 is the most ideal point to connect the probe. I added a short piece (2 cm) of teflon coaxial wire. Ground the shield. The standard 9.155 TP4 point is behind the 8.7 MHz filter. You can't connect a probe without an extension board.

Same story as for the JST-100:

Be sure the PBT pot is working OK and doesn't need contact lubrication. Put potmeter in mid position click. First align the Rx pot = RV22nd pot RV1 alignment only in Tx mode.

That's all.

The ref oscillators:

CGD-118A

10.000000 MHz on TP8, or 50.000000 on TP9 or TP10 With lower resolution also possible with 1 MHz or 5 MHz signals. TP8 is easy reachable. Adjust with CV1.

CGA-95A

You could also check the 70.000000 MHz signal on TP7. It is almost unreachable, because it's at the bottom. From underneath from P17-2 looks easier. I added 5 cm teflon coax wire to the top. Adjust with CV1.

For the JST-135 I have the following info:

20.000000 MHz ref oscillator on Ref DDS CGK-81A:

Use TP7 for the probe, align the trim cap CV1.

The TP7 teflon extension cable looks like this: (grounded at both ends)

