FAQ

1. My TJ2A works very well in LSB mode. Why does its sensitivity become lower in USB and CW mode?

This is caused by the BFO leakage via VC2 which is very close to RL1. The slight BFO leakage is picked up by Q9 and amplified, affecting the mixer and AGC function. This problem is completely solved by setting up a screen between VC2 and RL1. Please refer to the Instruction for the detailed screen information.

2. The VXO warming-up time is much longer than 5 minutes. Is there any way to improve this?

The VXO load affects the stability of the VXO. Change C1 (821) to a much smaller value reduces the load. Besides, 20P can be used for C51 to further reduce the load. If you are an advanced DIYER, solder a 10k ohm resistor between the base of Q10 and the ground. You can use C53 or C54 ground pad for the ground point. Then replace R36 (22K) with a 10K ohm resistor.

3. Is there any simple method to improve AGC range?

Use a cap of 470P (OK ranging from 100P – 470P) for C19. Use a cap of 4.3P for C38. Now AGC range is greatly improved.

4. In CW mode, why does MIC not work?

This is not a fault. MIC is disabled by Q3 to prevent MIC from picking up noises.

5. In SSB mode, there is power output without talking to MIC when PTT is pressed. How to solve this problem?

This is caused by much gain in the driver stage (Q17). Reduce R62 to a smaller value, say 470, to solve the problem. If the problem is still not solved, use 330 ohm. However, a 10K ohm resistor is suggested to be soldered across CN1 to enhance the stability.

6. Why does the tone change in CW mode when I shake TJ2A?

The AF GAIN cord is run above RL1, Y7 and Y8, which are the frequency sensitive components. Run the cord along the PCB edge.

7. My TJ2A output is less than 4 W. How to increase the power output to 4 W?

This may be caused by 2 reasons:

1) R62 is too small, resulting in a lower gain. Increase R62 to 1K.
2) LO injection level is too low. Increase C61 (0.5P) to 1P – 4.3P.

8. In 20m, power output is lower. How to increase the power output?

LO injection level is too low. Increase C61 (0.5P) to 1P – 4.3P.

9. It is difficult to set the full-charge control VR1, because the voltage reading is changing across the simulated battery (1000uF capacitor).

The 1000 uF capacitor is charged to a higher level at the beginning. You have to wait until the voltage drops to the pre-set value. Please connect a 1k ohm resistor across the 1000 uF capacitor to help discharge. Now you'll have a more accurate reading.

10. Center-negative power supply is not available in the local electronics shops. What is available is center-positive. What shall I do?

The simplest way is to cut the output cord, and re-connect it to get a center-negative power supply. Don't forget to wrap the connection with tape. The more complicated way is to open the power supply closure. Find the output cord pads. Exchange the connection with a solder iron.