

## Modification of TJ2A's VXO

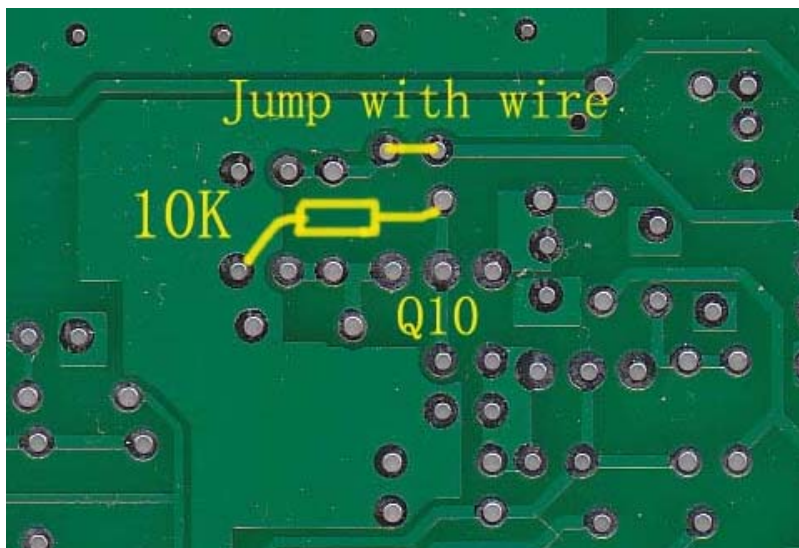
The LPF network of TJ2A's VXO (consisted of C53, L2 and C54) degrades the VXO stability. Two methods are discussed to further improve the VXO performance.

### Method 1:

This is the simplest way to modify.

1. Remove C53, C54 and L2.
2. Jump C55 with a lead or a piece of wire.
3. Use a 220-ohm resistor in the place of L2.
4. Change R36 (22K) to 10K.
5. Add a 10k resistor between the base of Q10 and GND (See photo).
6. Use a cap of 100P – 200P for C1.

Now, the VXO is modified. Enjoy the stability of the VXO.

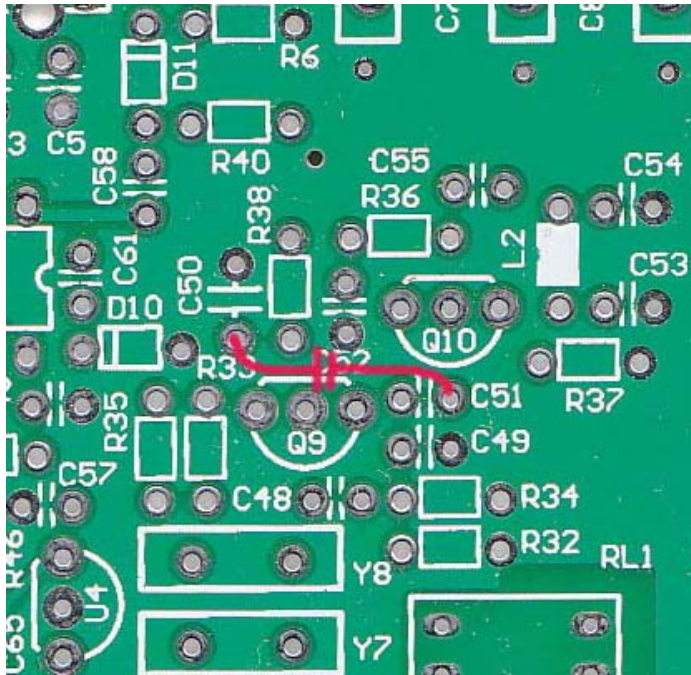


### Method 2:

The performance is better modified with Method 2. But three more components should be removed.

After Steps 1 – 6 introduced in Method 1 are followed, carry out the following steps:

1. Remove C50.
2. Remove C51.
3. Use a 1K ohm resistor to replace R35 (100 ohm).
4. Add a 12P (not very critical, 8P – 18P is fine) between the collector of Q9 and the base of Q10 (See photo below).



Now, the VXO is modified. Enjoy the stability of the VXO.