

CRKits.COM CS-xxV SSB Transceiver Kit: Quick Guide Rev. A-March 15, 2020

Thank you for choosing my kit. I am available for consultation by email rongxh@gmail.com and in the group <https://groups.io/g/crkits>

This quick guide is a supplement to the KN-Q7A kit full manual as CS-xxV series is very similar. Please use together with the latest CS-xxV part list. For CS-80V and CS-15V, please also refer to the supplementary manual to avoid confusion on PCB markings. CS-xxV documents download:

<https://groups.io/g/crkits/files/CS-xxV%20Documents>

KN-Q7A manual download:

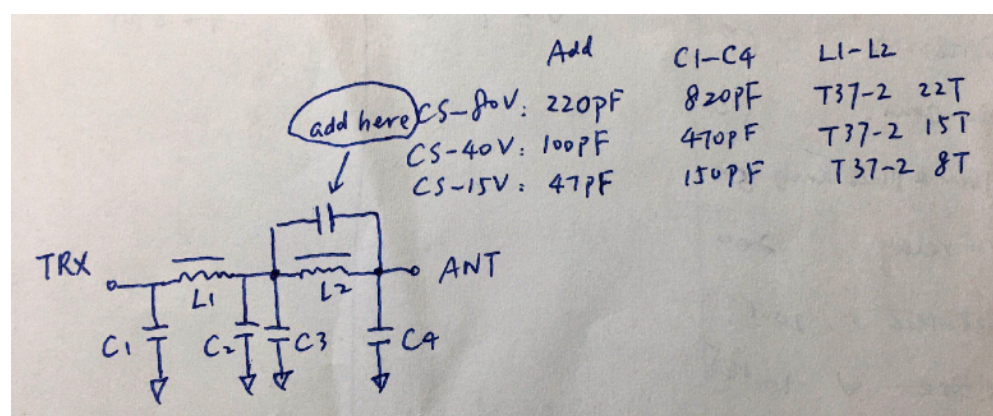
<https://groups.io/g/crkits/files/KN-Q7A%20Documents>

The CS-xxV crystal configuration list, where xx is the meter band:

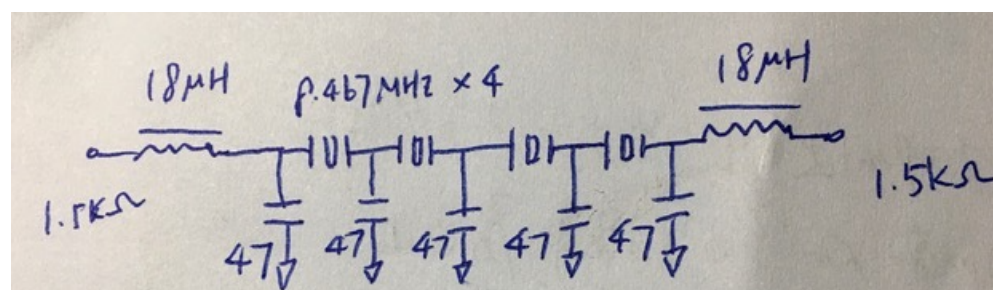
Configuration	Coverage (reference)	IF Crystal	VXO Crystals	VXO Coil
CS-40V	7.040-7.070 7.070-7.100 7.100-7.130	8.4672 MHz	15.540 MHz 15.570 MHz 15.600 MHz	DIY 7-7, remove built-in tubular capacitor
CS-40V (USA)	7.145-7.165 7.190-7.220 7.270-7.300	8.192 MHz	15.360 MHz x 2 15.418 MHz 15.500 MHz	DIY 7-7, remove built-in tubular capacitor
CS-15V	21.250-21.268	8.4672 MHz	12.800 MHz x 2	DIY 7-7, remove built-in tubular capacitor
CS-80V	3.550-3.570 3.650-3.670 3.800-3.820	8.4672 MHz	12.040 MHz 12.140 MHz 12.288 MHz	DIY 7-3.8, remove built-in tubular capacitor

The change list from the KN-Q7A V2.2 PCB:

- **Optional power switch:** You can add a power switch on the rear panel near DC IN jack. You will need to drill a 6mm diameter hole by yourself. The best position is the DC IN marking circle. For board connection, just cut the pin of 1N5820 and connect the switch in series. Note: Modify at your own risk.
- **LPF capacitor:** The capacitor in parallel with a coil is removed to make a regular LPF instead of an ellipse filter. You can add back on the soldering side of the PCB.



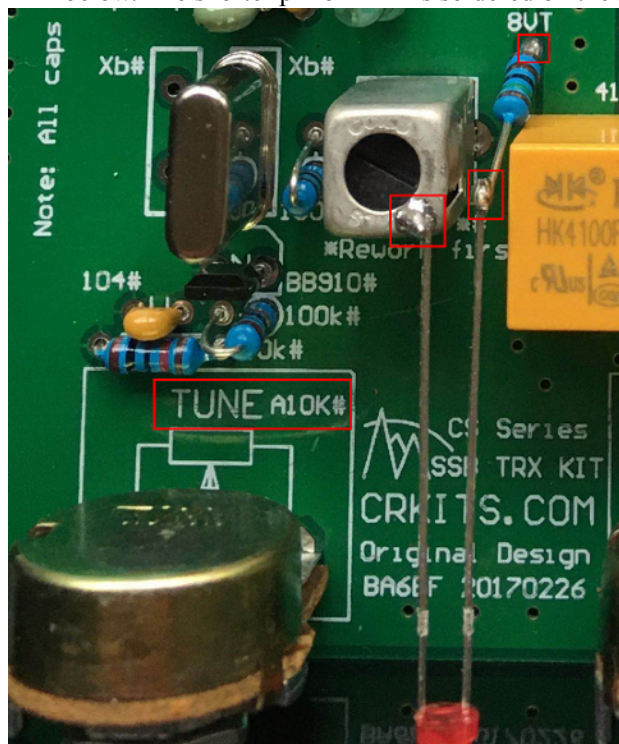
- **Crystal filter:** 6-crystal filter is changed to 4-crystal and 2 fixed inductors are added to match impedance better, see photo below



- **MC1350P chip:** It is obsolete and replaced by a small module of one BF998 dual gate FET and two 100 ohm chip resistors, see photo below. If you have MC1350P in stock, it is recommended that you use MC1350P instead. Note the white dot for Pin 1, and wider pad for wider pin on BF998 (Source pin). The replacement module will cause IF GAIN potentiometer control reversed. That is to say, you turn counterclockwise to get higher volume. The max gain is also reduced, however, the volume is still big enough for a speaker microphone if you have a full size antenna.



- **A10K potentiometer for TUNE:** B10K is the replacement, use 3.3k in place of 10k# to get better tuning linearity (still 10k in the photo), see photo below
- **TX indicator:** One red LED and one 1.5k resistor is supplied to add TX indicator, see photo below. The shorter pin of LED is soldered on the shielding can (which is grounded).



- **Transformer T3:** 2 pcs FT37-43 toroids are stacked to allow more power output
- **Enameled wire:** Two colors are supplied to make the bifilar windings easier. Use the golden wire for LPF coils, as the golden wire is longer