

# WinKeyer 3 Serial R02 QUICK START GUIDE

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Thank you for purchasing a WK3Serial kit from K1EL. The first thing to do is to assemble your WK3 Serial kit which is very easy now that we sell it 95% assembled. Download and print out the assembly document from the k1el website:

[https://www.k1elsystems.com/files/WK3serial\\_R02\\_assy.pdf](https://www.k1elsystems.com/files/WK3serial_R02_assy.pdf)

The assembly document will guide you through assembly and check out of your WK3 serial Serial. Please read it all the way through BEFORE you start. The assembly guide will instruct you how to do basic checks to make sure it is working properly. Once that is complete the next step is to connect it to your rig and start using it.

Since WK3 Serial connects to a standard RS232 serial port on your PC, no special driver is required.

Once it is running, another app to experiment with is WK3demo:

<https://www.k1elsystems.com/WK3demo.html>

This is a more extensive application that easier to use that WKtest. It is no substitute for a full blown logging application but it can be used to further test out WK3 Serial's capabilities.

For those who are interested in the inner workings of the WK3 IC read through the WK3 IC Datasheet. It is aimed mostly at software developers and discusses register settings and serial commands. There is also a brief Theory of Operations that is interesting to read.

<https://www.k1elsystems.com/WK3IC.html>

There are some references to the WKUSB kit and also coverage of standalone mode which do not apply to the serial kit.

## **WKUSB vs. WK3 Serial**

One obvious question is what are the differences between the WKUSB and WK3 Serial? Mainly, WKUSB is a set up to be both a standalone keyer and a PC controlled keyer. Since it is self contained with batteries and push button controls WKUSB is ready to be used with any transceiver. WK3 Serial is intended to be used in conjunction with a PC only. Since WK3 Serial needs to get its power from the PC serial port, it can't be used in standalone mode. Also it does not have a sidetone speaker or pushbuttons so there is no way to control it except by PC control.

## **Connecting WinKeyer3 Serial to your station**

Minimally all you need to do is connect a serial cable from WK3 Serial a Serial COM port on your PC and connect the key output to the keying input on your rig. Since WK3 Serial performs the keying function it drives your rig in the same manner as a straight key. In other words there are only two leads, ground and key control. You will need to purchase or make up a keying cable.

You can connect one end of the cable directly to the WK3 Serial PC board or you may want to use some sort of intermediate connector. The other end will mate to your rig's key input. Usually this is a ¼ inch phone plug. A two wire cable is all that is required to key a typical transceiver. Make sure you disable the internal keyer in your rig (if it has one) and set it up for straight key mode. If you are trying to key an older tube based transmitter you will have to use a high voltage keying adapter, see the assembly guide for more info.

If you decide to use keying paddles with WK3 Serial, they will connect to the L, R, and G pads on the PCB. You will most likely want to use a mating connector to match whatever is on your set of paddles.

You can use WKtest to make sure that WK3 Serial is keying your rig properly. If you run into problems, make sure you have selected the correct key output port. This is done in Output Config area of WKtest the dialog box. WK3 Serial can be jumpered to operate in two key port mode or single port mode with PTT.

95% of all installations will use the KEY output only. The PTT output is intended for installations that require control of antenna relays or linear amplifiers. PTT is asserted before KEY and is held asserted for the entire transmit interval. The delays are adjustable, look at lead in and tail delays settings.

There are several other small applications on the K1EL Website that you might find useful. Most likely you already have a Windows based logging or station control program ready to go. Each application handles WK in a different way but in general there will be a dialog box (or boxes) where you set up the WK3 serial com port and then the operating configuration that suits your needs. The application will store this configuration so that you only have to enter it once. The next time you run WK3 Serial with that application the configuration will be preloaded.

## **Contact Information**

Please post questions on the K1EL Message Board:

<https://groups.io/g/k1elsystems>

You can contact K1EL directly at:

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