K1EL Systems WKUSB Rev C Product Brief – 2/16/22

Thank you for purchasing a WKUSB keyer. Please download product documentation from the URL listed below. The most important document is the WKUSB Rev C User Guide. We highly recommend that you read the USB Driver section starting on page 3 of the user guide *before* connecting WKUSB to your PC. *Rev C Uses a CH340 USB interface, drivers for this device are listed on the WKUSB webpage*.

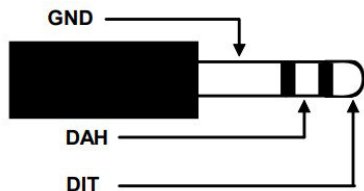## Product Website

https://www.k1elsystems.com/WKUSBX.html

WKUSB Features

- USB Interface with USB Type B connector
- CW Paddle Interface, iambic or single lever support
- Iambic A, B, Ultimatic & "Bug" paddle modes
- USB Type B connection
- Two separate keying outputs each with PTT
- Standalone keyer operation with internal batteries
- Solid state relay keying: +/- 300V max at 200 mA
- Outputs are optically isolated (5000V)
- Internal Sidetone Speaker
- Firmware can be updated over USB
- Four top mounted message pushbuttons

- Utilizes K1EL's latest WK3.1 IC
- CH340 USB Interface IC
- Custom high quality silkscreened metal enclosure
- ESD protection on USB and Paddle inputs
- Adjustable Speed 5-99 WPM
- Adjustable Weighting and dit/dah ratio
- Adjustable Keying Compensation
- Adjustable PTT lead in and tail delays
- Inexpensive cabling options
- Low power standby in standalone mode
- Enclosure Size: 4.0" W by 3.0" D by 1.75" H

WKUSB contains no internal adjustments or configurable jumpers, Please do not tamper with or modify the internal circuitry of WKUSB as this will void the unit's warranty and may result in an unsafe operating condition.

There are six connectors on the rear panel. USB, PADDLE, and four RCA output ports: KEY1, PTT1, KEY2, PTT2. The Paddle connector is an 1/8" stereo jack which accepts a paddleset input as shown on the left. The paddle type can either be an iambic or single lever, a bug is not acceptable. The paddle inputs are activated when switched to ground (GND). A straight key can be used but it's best to wire it directly across a key output and operate in parallel with WKUSB keying.

The USB connector is designed to mate with a Type A to B cable, these are the type most commonly used with printers. The interface is directly compatible with USB 1.0 and USB 2.0 interfaces or USB 3.0 interfaces that support backwards compatibility to version 2.0. **As already stated, do not plug WKUSB into your PC until you have referred to page 3 in the WKUSB User Guide:** https://www.k1elsystems.com/files/WKUSB_Manual_v1.3.pdf

Two of the RCA outputs are Keying outputs and two are PTT outputs. Very few installations will require PTT. If you are using a keying cable you purchased from us, please ignore the color coding of the plugs. In most cases all you need to do is plug the White RCA plug into the KEY1 output and leave the PTT output unconnected. The tip of the cable's 1/8" connector is the keying line which can be plugged into a radio's key input. We include a 1/8 to 1/4" adapter with the cable kit in the event the radio has a 1/4" input. Be sure to disable the radio's internal keyer and run it in straight key mode and leave the connector's ring unconnected. All four RCA outputs are isolated from WKUSB ground and other internal signals by optically coupled solid state relays. Their outputs can switch voltages up to +/- 300 V at 150 mA.

Warranty Information

WKUSB is fully warranted to the original purchaser against defects in materials and workmanship for one year after purchase. This warranty does not cover damage caused by accident, improper care, or lightning damage. Please contact us before returning your WKmini for repair and we will issue an RMA. Please submit questions by e-mail to k1el.kitsinfo@gmail.com.

Product Liability

While every effort has been made to insure that WKUSB is safe and documentation is clear and accurate, it is still possible to cause equipment damage or incur personal injury if WKUSB is not used as intended, is connected incorrectly, safety guidelines outlined in the User Guide are not followed, or WKUSB is modified in any way. K1EL cannot be held responsible for damages in these or other similar events.