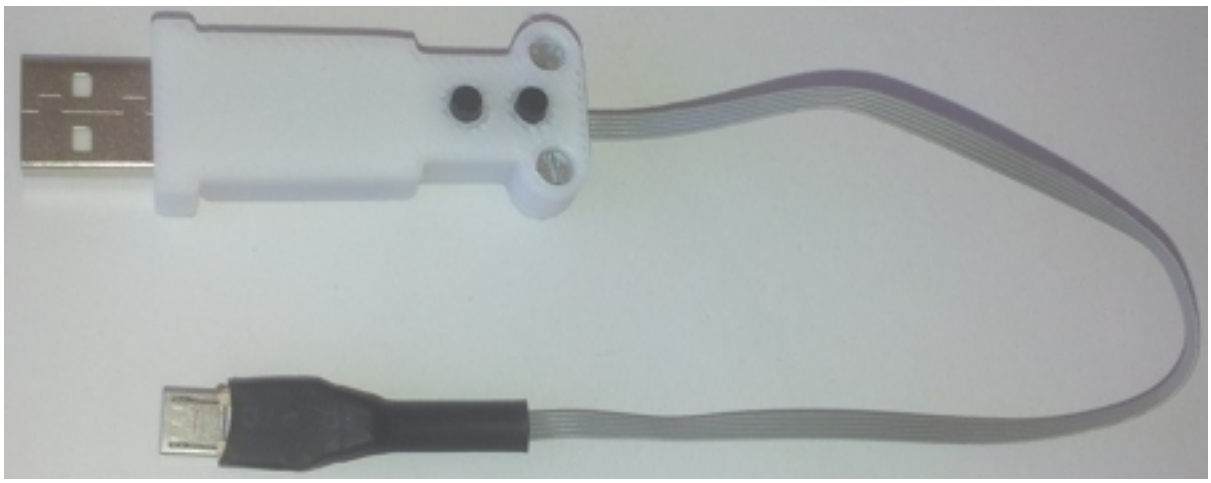
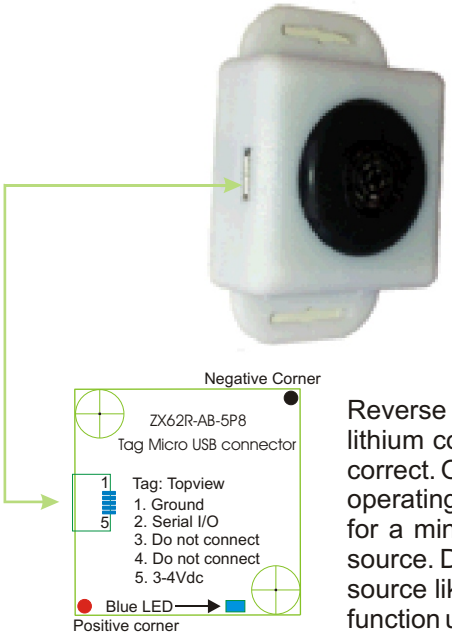
The Serial Cable

The serial cable below, can be used to communicate with the hx19t through wire. It is a USB to TTL serial converter, connecting to the serial pin wired through the micro USB id pin (2). The serial connection can be used to configure the hx19t or to monitor position of the tag and other tags on the hx19 RF network. Two buttons are provided, the button on the left will wake the tag from any sleep state including the off state. If the button on the right is held down while the tag is powered up, the default parameters will be loaded into work registers on startup. For more information read about the tag's serial pin in the manual, and see the Visual Basic 6 source code for the serial cable programming interface.





Be aware that the micro USB to USB cable is reversed.

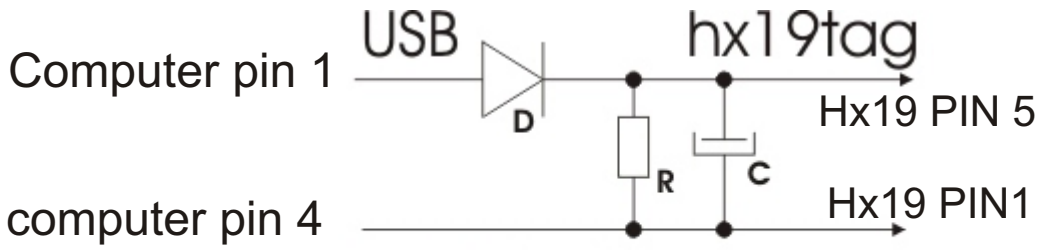
Commercially available micro USB which you may cut, according to standard should have a red, white, green and black colored wires. Note that when connected to the hx19t the black is positive and the

Starting the Hx19T-USB

Reverse polarization should be avoided, so for safety use a weak 3V source, a 3v lithium coin type battery like the Br2032 or Cr2032 to verify that the polarization is correct. On startup the LED should flash 3 times, that indicates all is well and the tag is operating. If this doesn't happen, you may have to remove the power source, and wait for a minute to allow the tag capacitors to drain, and then reconnect your power source. Do this until the blue LED blinks 3 times. For best performance use 3.7V hard source like lithium Ion rechargeable or a good regulated power supply. The Tag will function using soft source like 2032 lithium

The micro USB connectors can develop problems, these connectors can wear out like any connectors. In this case the user can open the blue box and feed the tag with power through the bottom right and top left corners. Battery holders can be mounted on the back and soldered to the corner pads.

If it is desirable to directly feed the hx19 tag with power from a computer USB port use the following diagram for the connection



R Resistor 400 to 4000
C Capacitor 20 to 500 uF
D Diode plain silicon diode (no Schottky)

Since the micro USB is reversed, the #2 pin the serial I/O cannot be accessed through commercially available cable because this 5th pin is not included.