All hx19 receivers are shipped with a pigtail ribbon cable lead, it is easy enough to connect supply power to the leads (see below), in this case the front lid never needs to be open.

Easy startup is to go and get a Br2032 or Cr2032 lithium coin type battery from your nearest hardware shop and plug it into the holder as shown on the left. The blue LED will flash ones when the device has sufficient power. Receivers are not shipped in battery mode so the receiver will demand more current than necessary or 25mA, this will drain a standard lithium battery down in a few hours. To extend the battery life use hx19access to place the receiver in battery savings mode (see manual). Please note that when in battery mode the device needs to be driven by the sync option in the hx19access program.

Set up an external power source

MicroMatch plug is shown on the right, and the image on the left shows the microMatch plugged into the hx19r receiver. As a rule of thumb the conductor closest to the edge of the microMatch plug is always ground or negative reference. Wrong polarization is not harmful to the device, when power is correctly applied the blue LED flashes ones.
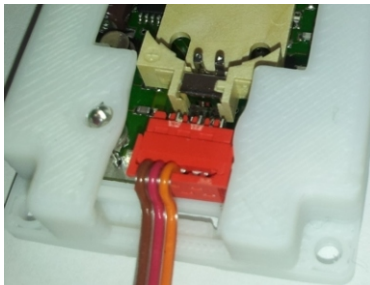
Pin Configuration

6. Ground (Neg. Reference) (brown)
5. Default Parameters (Red) (see manual)
4. Power Input 3-4.5 Vdc (Orange)
3. Serial out Com pin (see manual)
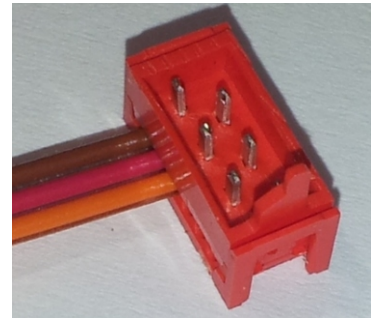2. Do not connect (reserved)
1. Do not connect or use

The microMatch plug can only go in one way.

A micromatch cable can be created with one squeeze using standard pliers as shown below. The cable is placed under the strain-relief and the contacts pressed in.

To remove the battery lid, press on the bottom of the lid by the cable opening as shown on the left, and try to apply 45 degree force upward. In case the lid is being closed use the same method but apply the 45 degree force downward.

Parts numbers are available from

www.farnell.com
Ribbon cable (example): part no 1207415
MicroMatch plug: part no 149068

www.mouser.com
Ribbon cable (example): part no 517-3302/9FT
MicroMatch plug: part no 571-215083-6

**Using the Serial Output pin HX19R version 2.4 and above**

Distance data is available on a serial output wire from the hx19receiver. This feature allows the user to read broadcasted data as it streams directly from the receiver through a wire. The serial output has a TTL format, i.e. inversed RS232 and the baud rate is 250Kbaud. Identification of the receiver and tag, plus the distance from the receiver to tag comes streaming through this port pin (wire). For hx19 devices this wire is typically the fourth from the ground wire on the ribbon cable.

Many devices are available that can utilize TTL serial data, FTDI serial to USB is very common and available device that turns a USB port into a COM port or a serial port. The hx19 devices interface directly to this device.

TTL-RS232R_PCB
Mouser part number: 895-TTL-232R-5V-PCB
Farnell part number: 1740366
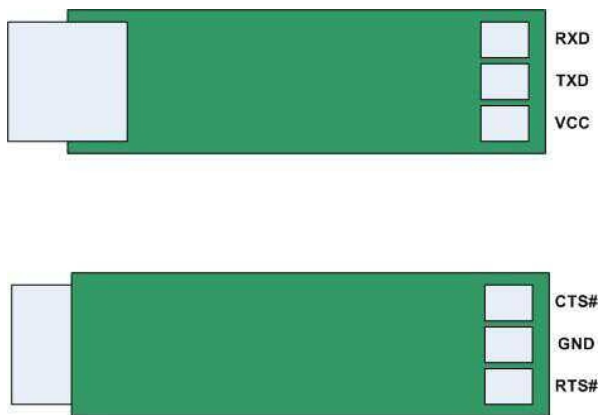
TTL232R PCB PADS

The ground or negative reference on the hx19receiver usually closest to the edge of the micromatch plug connects directly to the GND pad (soldered one). VCC pad is soldered to the third wire counting the ground wire as number one. The fourth wire from the ground is the serial output, and it is soldered directly to the RXD pad.

FTDI devices are very common and available, and will interface many operating systems to COM I/O. Whatever devices used, make sure they are able to read 3.2V signals.

Hx19access is really just a simple terminal program; it can be used to read both data that comes from the hx19ms through RF wireless and data coming through hx19r wire simultaneously. The hx19ms uses FTDI drivers too. E.g. plug the hx19ms into a USB port and set the port to COM5, plug the hx19r wire interface into another USB port and set it to COM3. Then put a hx19access.exe into a directory holding port.txt file containing 5 (port number), and put another hx19access.exe into a separate directory holding port.txt file containing 3 (port number). Then run both hx19access.exe, and both privately wired and wireless network data should be visible.