

Easiest 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. Once the battery touches the holder contacts, with the positive side facing away from the holder, a blue LED inside the box should flash 3 times. After startup the tag goes into idle mode, in this mode a typical lithium battery should drive the transmitter for over a month. The Blue LED flashes every action cycle at 4-8 second intervals; by default ultrasound and rfid is emitted during the blue flash. If an hx19ms is in range with the hx19access program running, the ID of the tag should appear in the text window every 4-8 seconds.



## Set up an external power source or external charging for internal battery



The image on the right shows the lid that conceals the microMach connector. Of course it is easy just to remove the bottom and push out the lid. Otherwise use a screwdriver like shown in the image on the right and pry the wedge up. It will help if the screwdriver is twisted 10 degrees while prying up the wedge. Once the wedge is up use the screwdriver to push the lid out.



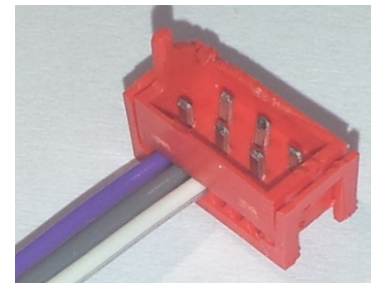
The plug on the right, matches the socket inside the tag on the left. Pin 1 next to the notched edge is connected to the blue ribbon connector. The ribbon cable has a 1.27mm pitch (AWG28).

### Pin Configuration

1. Ground (Negative Reference) (blue)
2. Default Parameters (Gray) (see manual)
3. Power Input 3-4.5 Vdc (white)
4. Serial I/O Com pin (see manual)
5. Wake up (see manual)
6. Do not connect or use

The microMatch plug can only go in one way.

**Inverse polarization can harm the device, and do not apply higher than 4.8Vdc to any pin**



In case external cable is not used, a lid can conceal the socket opening. To fix the lid in place so it doesn't fall out, the wedge shown in the illustration on the right needs to be pushed down until it is flush with the back cover.

Parts numbers are available from

[www.farnell.com](http://www.farnell.com)

*Ribbon cable (example): part no 1207415*

*MicroMatch plug: part no 149068*

[www.mouser.com](http://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

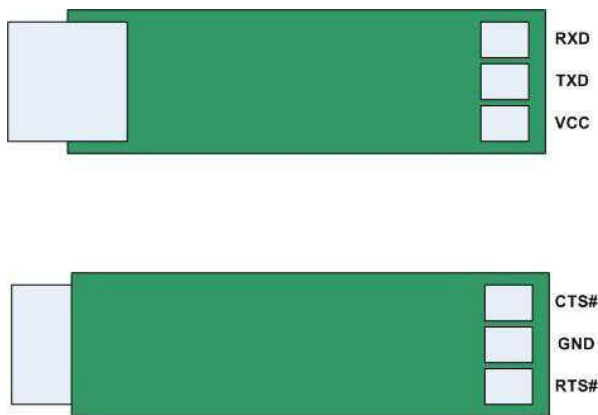
The following connection diagram shows how the transmitter can be wired for private communication using the serial I/O pin. This pin is fourth from the ground wire on the ribbon cable pressed into the micromatch plug. TTL232R devices can be selectively wired to provide either 3.2V or 5V output.

Please use hx19comPin.exe program rather than the hx19access to read and write to the tag. Make sure the TTL232R is assigned the same port number as is specified in the port.txt file that must reside in the hx19comPin.exe directory.

## TTL-RS232R\_PCB

Mouser part number: 895-TTL-232R-3V3-PCB or 895-TTL-232R-5V

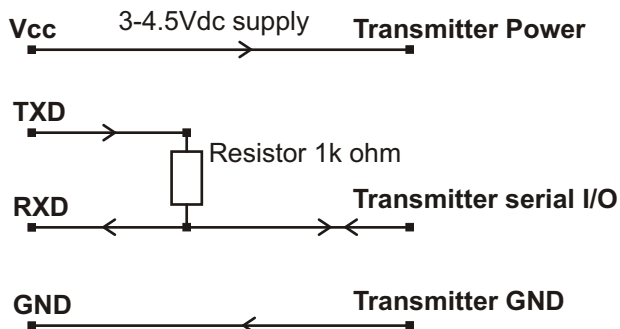
Farnell part number: 1740366



TTL232R PCB PADS



### TTL-232R-3V3 to Hx19t connection diagram



### TTL-232R-5V to Hx19t connection diagram

