




RS-232 to TTL Converter Cables

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	<p>Description: Designed for easy conversion of a RS-232 signals from a computer to TTL signals in order to interface a computer to a microcontroller or similar electronic devices</p> <p>Features:</p> <ul style="list-style-type: none"> • 72-inch in length • Variable TTL Connector options • Male and Female DB9 options available • Operating Voltage: 3V – 5.5V
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Legal

Accurate content is of the utmost importance to the authors of this document. If you find an error or see an item that needs more clarification report it to info@SDRobots.com

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TTL Connector Pin-Out and Color Scheme

- The standard TTL to RS232 cable is wired with a DB9 connector. The gender of the DB9 will be noted in the individual item number's description.
 - On the female (plug) DB9 connector:
 - Pin 2 is PC Receive data
 - Pin 3 is PC Transmit data
 - Pin 5 is ground
 - On the male (pins) DB9 connector:
 - Pin 3 is Receive Data
 - Pin 2 is Transmit data
- The data signal is transmitted from the desired TTL level to RS232 levels within the electronics embedded in the DB9 connector. The RS-232 signal can not be held high. It must be serial data from 1200 baud to 115,000 baud.
- The data is inverted when going through the level change. This is the nature of all level changing devices and is easily remedied by ensuring baud settings on either the TTL or PC side are set to be inverted. Most applications already take this into account, since most data gets inverted by level changers.
- **The power must be supplied to the cable from the TTL side.** The expected input voltage ranges are 4.5V to 5.5V for MCU-016-xxx and 3V to 5.5V for MCU-026-000 items.

TTL Color code:

- BLACK Tx (TTL Output, PC Input)
- GREEN Rx (TTL Input, PC Output)
- RED Vcc (+5V)
- YELLOW Ground
- ORANGE RTS (Request to Send)
- BROWN CTS (Clear to Send)

TTL Connector Descriptions

- Type 1
 - Four Pin Friction Lock that carries power and signals. The Type 1 connector does not support handshaking
- Type 2
 - Two 2-Pin connectors. One connector is power and the other is data. The Type 2 connectors do not support handshaking.
- Type 3
 - One Four Pin Friction Lock for data and power. One 2-Pin Connector for handshaking.

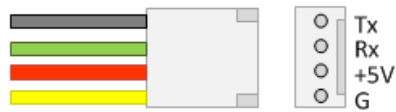


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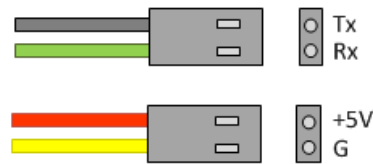
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Pin-Out Diagrams of TTL and RS232 Connectors

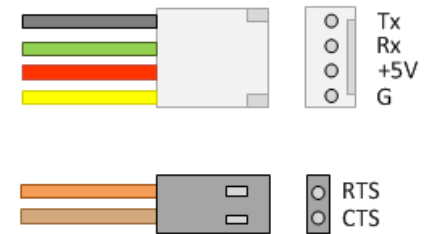
Type I



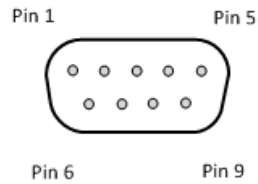
Type II



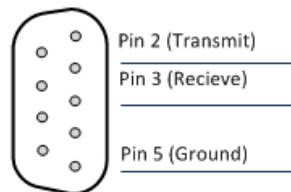
Type III



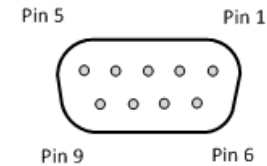
RS-232 Pinout



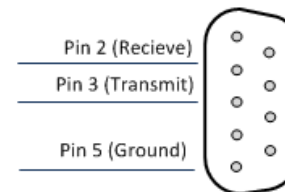
DB9 Male (Pins)



Pin 1: Data Carrier Detect (DCD)
Pin 2/3: Received Data (RxD)
Pin 3/2: Transmit Data (TxD)
Pin 4: Data Terminal Ready (DTR)
Pin 5: Ground (Gnd)
Pin 6: Data Set Ready (DSR)
Pin 7: Request to Send (RTS)
Pin 8: Clear to Send (CTS)
Pin 9: Ring Indicator (RI)



DB9 Female (Plug)





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Schematic for Standard Female RS232 to TTL Cable

