# Sure Cross® RS-485 to USB Adapter Cable

## Datasheet

*Figure 1. BWA-UCT-900 and MQDMC-401*



- Connects a Sure Cross Gateway, a MultiHop Radio, or an RS-485 sensor to a Windows PC USB port
- **BWA-HW-006** supplies power to one Gateway, one MultiHop Radio operating at 250 mW, or one RS-485 sensor
- **BWA-UCT-900** supplies power for one Gateway or one MultiHop Radio operating at 1 Watt
- Supports baud rates of 9600, 19200, and 38400
- Converts USB to RS-485 (2-wire) with a M12 connector
- Supports Windows XP and Vista
- Download the User Configuration Software, MultiHop Configuration Software, or Sensor Configuration Software free from Banner Engineering's Wireless I/O Products website
- Includes cordset **MQDMC-401** for use with the DX80...C models

Do not use **BWA-HW-006** to connect a Performance Gateway or MultiHop Radio operating in 1 Watt mode. Always configure the Performance and MultiHop models to operate in 250 mW mode before connecting them to your computer to avoid damaging your USB port.

To supply power to 1 Watt radios during configuration, use cable **BWA-UCT-900**.

When plugging this cable into your computer for the first time, give the cable 1 to 2 minutes to check your computer for the proper driver, download the driver, then install it. Plug the cable into your Gateway; the cable should supply enough power to the Gateway to configure it.

For additional information, updated documentation, and a list of accessories, refer to Banner Engineering's website, www.bannerengineering.com.

## Models

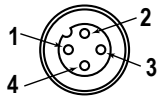
| Model | Adapter | Length |
|---|---|---|
| **BWA-HW-006** | RS-485 to USB | 1 meter |
| **BWA-UCT-900** | RS-485 to USB, with wall plug to power 1 Watt radios during configuration | |

Both cordsets include cordset model **MQDMC-401** for use with the DX80...C models.

## 4-pin M12 Female Connection

Connecting power to the communication pins will cause permanent damage.

*Table 1: 4-pin M12 female connector wiring*

| 4-pin M12 Female Quick Disconnect | Pin | Wire Color | DX80 Wiring | DX80...C Wiring |
|---|---|---|---|---|
|  | 1 | Brown | 10 V DC to 30 V DC | V+ |
| | 2 | White | RS-485 Tx + | Tx |
| | 3 | Blue | DC common (GND) | V– |
| | 4 | Black | RS-485 Rx – | Rx |

## Specifications

**Input Power**

**BWA-HW-006**: 5 V DC from USB port
**BWA-UCT-900**: 5 V DC from USB port; 100 to 240 V AC from the plug-in wall transformer

**Output Power**

**BWA-HW-006**: 10 V DC power output for a single device transmitting at 250 mW or less
**BWA-UCT-900**: 24 V DC power output for a single device transmitting at 1 Watt

**Operating Parameters**

–40 °C to +80 °C (–40 °F to +176 °F)
95% maximum relative humidity (non-condensing)

**USB**

Connector: USB type A plug
Standard: 2.0

**RS-485**

2-wire; 9.6k, 19.2k, or 38.4k; 8 data bits; 1 stop bit; no parity
Connector: M12 connector compatible with Banner Sure Cross Gateways and data radios

**Banner Compatible Devices**

DX80G*, DR9M, DR2M models
**M12FTH3Q** Temperature and Humidity Sensor; **M12FT3Q** Temperature Sensor; **GPS50M** GPS Sensor
**BWA-HW-006** will not power a MultiHop radio in 1 Watt mode. Use **BWA-UCT-900** to supply power to 1 Watt radios. To use **BWA-HW-006** with a MultiHop radio, set the radio to operate at 250 mW.

**Length**

1 meter (This cable can be extended up to 30 meters.)

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