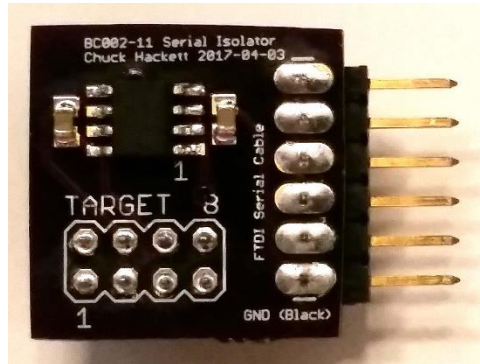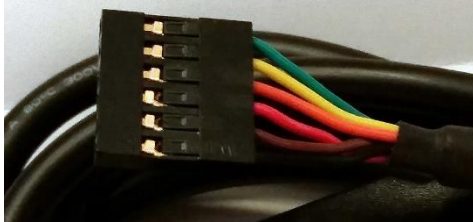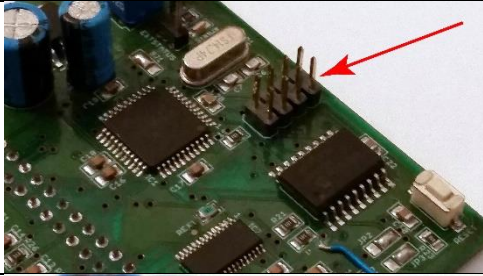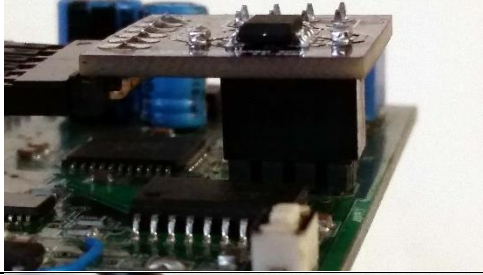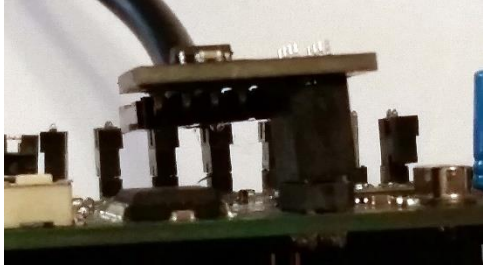# BC002-11 Serial Isolator User Guide

The BC002-11 is used along with a USB-To-Serial cable to connect SCOMM (the System Monitor program running on a PC/Laptop) to a BC002 controller to configure, control, and monitor the signal system.

The same cable setup is used to download new firmware into the controller (new firmware is released periodically for bug fixes and new features).

The BC002-11 Serial Isolator protects the BC002 controller and PC/Laptop from power supply issues such as ground faults, etc. It also provides a surge protection barrier between the PC/Laptop (typically plugged into a standard outlet) and the signal system which may be running on an isolated supply through the BC002-06 Cable Interface Board (recommended).

	The BC002-11 is placed on the end of the FTDI TTL-232R-5V USB-To-Serial cable. *If another cable is used it must be 5v TTL compatible and have the same pin assignments.* (See FTDI cable documentation at http://www.ftdichip.com).
	Note that one end of the connector has a black wire (hard to see here due to lighting but it's on the near end of the connector). This is the GND (ground) terminal.

	This GND (black wire) end of the USB-To-Serial cable connector must be aligned with the BC002-11 terminal marked "GND (Black)".
	The BC002-11 is placed on the diagnostics port of the controller. ***Warning: the connector is not keyed and does not have a 'hood' to guide it.*** Be sure that the BC002-11 is placed on the diagnostics port such that the USB-To-Serial cable is oriented down towards the 40-pin connector (i.e.: over the controller) not off the upper edge of the controller card.
	Be sure that all eight pins engage into the connector and none are sticking out either side or end of the BC002-11 connector.

The BC002-11 can be installed or removed from the controller while power is applied but in rare circumstances the BC002-11 might be damaged if the data terminals connect prior to the power terminals. To avoid this, try to have the cable end of the BC002-11 lower (closer to the controller card) than the other end when inserting the BC002-11. This will ensure that the power pins connect first.