

**SMT Designs Standard Color Code for Electronic Bays and Interconnects**  
**Revision 1.0 June, 30, 2018**

**Switches - Single Throw- Off/On (SPST)**

Color	Purpose	Connector Pin
Green	Positive Battery Power In	Common
Green	Positive Switched Power Out	Normally Open

**Switches - Double Throw – ON/Off/On (SPDT)**

Color	Purpose	Connector Pin
Green	Positive Battery Power In	Common
Red	Positive Switched Power Out	Normally Open
White	Positive Switched Power Out	Normally Closed

**Socket Sled Connector (female)**

Color	Purpose	Connector Pin
Red	Positive Power - Altimeter	1
White	Positive Power – Pyro Battery <sup>1</sup>	2
Black	Negative Power - Ground	3
Gray	Status/IO 1 <sup>2</sup>	4
Violet	Status/IO 2 <sup>2</sup>	5
Yellow	Apogee +	6
Orange	Apogee -	7
Blue	Main +	8
Brown	Main -	9

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**Pin End Plate Connector (male) - Single & Dual Deploy**

Color	Purpose	Connector Pin
Red	Positive Power - Altimeter	1
White	Positive Power – Pyro Battery <sup>1</sup>	2
Black	Negative Power - Ground	3
Gray	Status/IO 1 <sup>2</sup>	4
Violet	Status/IO 2 <sup>2</sup>	5
Yellow	Apogee +	6
Orange	Apogee -	7
Blue	Main +	8
Brown	Main -	9

**Pin End Plate Connector (male) - Redundant Dual Deploy – L3 - Primary Altimeter**

Color	Purpose	Connector Pin
Red	Positive Power - Altimeter	1
White	Positive Power – Pyro Battery <sup>1</sup>	2
Black	Negative Power - Ground	3
Gray	Status/IO 1 <sup>2</sup>	4
Violet	Status/IO 2 <sup>2</sup>	5
Yellow	Apogee +	6
Yellow	Apogee -	7
Blue	Main +	8
Blue	Main -	9

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**Pin End Plate Connector (male) - Redundant Dual Deploy – L3 - Secondary Altimeter**

Color	Purpose	Connector Pin
Red	Positive Power - Altimeter	1
White	Positive Power – Pyro Battery <sup>1</sup>	2
Black	Negative Power - Ground	3
Gray	Status/IO 1 <sup>2</sup>	4
Violet	Status/IO 2 <sup>2</sup>	5
Orange	Apogee +	6
Orange	Apogee -	7
Brown	Main +	8
Brown	Main -	9

**Status/IO Connection Recommendations – Serial Port**

Color	Purpose	Connector Pin
Gray	Serial Data Out <sup>3</sup>	4
Violet	Serial Data In <sup>3</sup>	5

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- 1 Not all altimeters support a separate battery for the main and apogee deployment connections. If support is not available, SMT Designs recommends connecting pin 2 on the end plate connector to positive power, so that any SMT Designs sled will work in the bay you are designing.
  - 2 Status/IO are two lines that can be used in a couple of different ways. My initial use was to have a centrally located LED that would either be added to or replace a LED on an altimeter due to my hearing. A quite different (but very valid) use is to have the two connections be a serial link to the altimeter on the sled as more and more manufacturers add telemetry connections to their altimeters. Look at my connection recommendations above.
  - 3 Please check with your manufacturer for details on how to use their serial connections. The serial data lines are usually direct digital lines and are typically based on a 3.3 volt or 5 volt microprocessor power supply. They should be referenced to negative power (ground).