

# Plasma Setup

## Electronic Connections Installation

Using the color coded diagram connect the electronic components in the following manner.

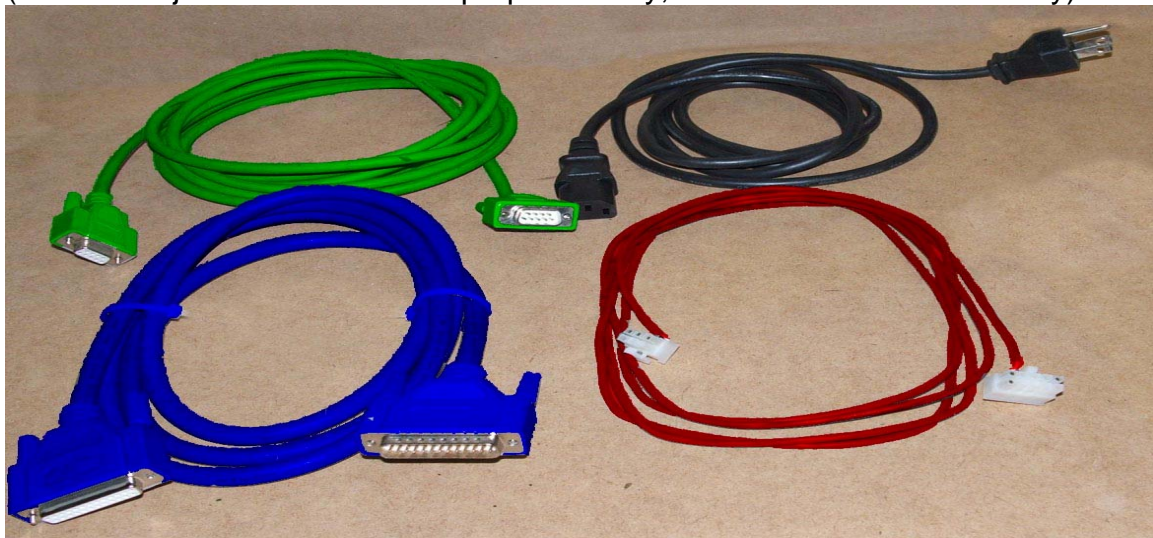
**Green:** RS 232, DB9 from serial port on your Computer to Signal Generator.

**Red:** The 6-pin Molex connector is installed to the back of the Plasma Interface box, which is then connected to the Signal Generator using the 10-pin connector.

**Blue:** The DB25 pin Parallel Port Cable is connected from the 25-pin port on the back of the Signal Generator to the 25-pin port on the Driver Box.



Below are the corresponding cables for the electronics connections listed above. The Black cable supplies power to the Driver Box from a 110 volt connection. (Colors are just for visualization purposes only, actual cable colors will vary)



The Plasma interface is connected to the start circuit of your plasma cutter in the following manner.



You can use 20 gauge or thicker wire to connect the Plasma Interface to the start switch. Typically this circuit can be accessed through a pigtail that is located on the main torch cable (Hypertherm Powermax 600, 900, and 1100 & Thermal Dynamics Cutmaster 51, 81, 101, and 151) Cut of the pig tail and find the two wires that start the torch when connected (generally black and white).

Some machine torches include a manual trigger which can be utilized for the connection to the Plasma Interface. If included with the plasma cutter disassemble the trigger handle and disconnect the two wires from the switch these two wires will attach to the screw terminals on the plasma interface. The other end will connect to the pigtail on the main torch cable

Cutmaster Start Switch Connection



Cutmaster Manual Trigger Assembly



## Optional Arc Voltage Height Control Installation

Using the color coded diagram Connect the following electronics

**Cyan** 20 gauge insulated wire from Plasma Interface to Start Input on the AVHC

**Orange** Manual trigger assembly or 20 gauge insulated wire From Start Output to the start switch connection on the plasma cutter

**Purple** 9 pin amphenol connector on the AVHC to 15 pin serial port on the lifter station

**Yellow** 4 pin amphenol connector on the AVHC to the Modified serial port on the lifter station

**Green** 4 pin amphenol connector on the AVHC to two bare wires attached to the voltage leads inside the Plasma Cutter. (varies for each plasma cutter)



Amphenol cables for the AVHC. The four pin connector has two separate cables, the yellow has the modified serial port and the green has the two bare wires (Colors are just for visualization purposes only actual cable colors will vary)



This diagram shows the integration of all the electronic parts including the AVHC and the plasma cutter. The Torch is held in position by the height control lifter station. If you are not connecting the AVHC you can ignore the purple yellow and green cables, and run the cable from the Plasma Interface (Cyan) directly to the plasma start (orange)

