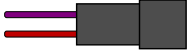
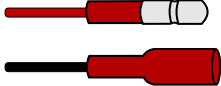
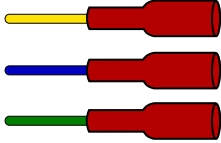
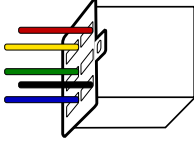
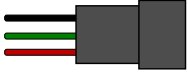
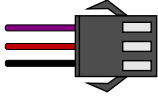
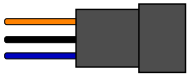

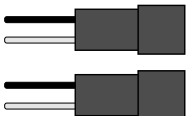

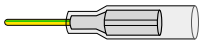



SPD-24250BLDC 24 Volt DC 250 Watt Brushless DC Motor Controller

Operating Voltage: 19 through 30 Volts DC (24 Volt Battery Pack)
 Power: 250 Watts (Compatible with 150-250 Watt Brushless DC Motors)
 Current Limit: 15 Amps (15 Amps Maximum Current Output)
 Low Voltage Protection: 19 Volts (Turns Motor Off When Battery Pack Is Under 19 Volts)
 Works with both Sensored and Sensorless Brushless DC Motors
 Compatible with 120 Degree and 60 Degree Phase Angle Motors

Power Switch Wires		Purple to Power Switch Contact Red to Power Switch Contact	
Input Power Wires		Red Wire to Battery Positive + Black Wire to Battery Negative -	
Motor Phase Wires		Yellow to Yellow Motor Phase U Wire Blue to Blue Motor Phase V Wire Green to Green Motor Phase W Wire	
† Motor Hall Sensor Wires		Red to Red Motor Hall Wire +5V Black to Black Motor Hall Wire GND Yellow to Yellow Motor Hall U Wire Green to Green Motor Hall V Wire Blue to Blue Motor Hall W Wire	
* Throttle Wires		Black Ground Green 1-4 Volt Signal Input Red +5 Volt Output	
* Pedal Assist Sensor Wires		Purple Sensor Signal Input Red +5 Volt Output Black Ground	
† 3 Speed Control Wires		Orange High Speed Black Medium Speed Blue Low Speed	BLK to ORG = High BLK to None = Med BLK to BLU = Low
† Cruise Control Wires		Black to Cruise Control Switch Contact Orange to Cruise Control Switch Contact	
† E-Brake Wires		Black to Brake Switch Contact White to Brake Switch Contact	
† Reverse Wires		Black to Reverse Switch Contact Purple to Reverse Switch Contact	
† Speedometer Wire		Yellow/Green Wire to Speedometer	
** Self Learning Wires		Connect Together for Self Learning Mode Disconnect After Self Learning Is Completed	

† Optional Connections: These wires do not need to be connected for the controller to operate.

* Either the Throttle and or Pedal Assist Sensor needs to be connected for the controller to operate.

** The Self Learning Wires can be connected together to train the controller to operate with the motor that it is attached to and then disconnected after the training has been completed. See page 2.

Controller Programming Directions

The controller requires programming after installation otherwise the motor may not operate normally or the motor's shaft may not rotate in the direction that it needs to.

Programming Directions

- 1.** When the Self Learning Wires are plugged together the motor will automatically spin at a reduced speed so the drive wheel of the vehicle need to be propped in the air so it can spin freely, or the chain or belt needs t be removed if propping the drive wheel in the air is not possible.
- 2.** Turn the vehicle's power switch or key switch on.
- 3.** Plug the Self Learning Wires together. If the motor is spinning in the direction that you want it to then unplug the Self Learning Wires and turn off the vehicle's power switch or key switch. Programming is now complete and the vehicle is ready to use.
- 4.** If the motor spins in the opposite direction that you want it to when the Self Learning Wires are plugged together then unplug the Self Learning Wires, wait 10 seconds, and then plug the Self Learning Wires together again. If the motor is now spinning in the direction that you want it to then unplug the Self Learning Wires and turn off the vehicle's power switch or key switch. Programming is now complete and the vehicle is ready to use.
- 5.** If following the programming directions above does not work then turn the vehicle's power switch or key switch off, wait 10 seconds, and try again.