Mounting Electronics

By Ryan Greth

Mounting the electronic components into a racecar sounds easy and in most cases will not require a college degree but some forethought into the matter will pay off a few months down the road.

The first step is to locate a convenient, easily accessible place to mount the ECU, Power Commander, Starter Relay and Voltage Regulator. Most cars are equipped with an electronics panel of some design. If your car is without an electronics panel, they require only a small piece of aluminum sheet metal securely mounted to the chassis. Make sure that the wiring harness will comfortably reach to the electronics panel. This is the best place to mount the electronics.

Lay the wiring harness into the car and connect the connectors to the engine and fuel injection or carburetors. Then use large, gentle bends of the harness to reach to the electronics panel. Try not to bend the harness sharply or route it over or under any other components which may eventually rub through the wires. Pay attention to the routing of the wires into their corresponding connectors on the engine and injection so that the wires do not become tangled among each other. Properly placed cable ties (zip-ties) will help to keep it looking clean. Remember that if you need to work on these items, it will be much easier to work with if things are tied up neatly. The wiring harness is subjected to large amounts of vibration while circling a racetrack so securing it correctly will eliminate reliability problems related to the harness.

Many teams use the conventional cable ties (zip-ties) to secure the ECU, Power Commander, Starter Relay and Voltage Regulator. I have found recently that a very strong type of Velcro is available and works very well for mounting the electronics in our racecars. This allows for very quick removal of components while diagnosing problems, changing components and washing the car. This type of Velcro is available through Hyper Racing in 1" widths and whatever length you require. It bonds to itself and does not require a male and female strip for every application. Also, it can be resealed up to 500 times before its strength is compromised.

Following these steps will ensure a neat looking and easy to work on electronic setup for your racecar



