## *RPM Monitoring Wiring*

Clifford security systems monitor RPM which is REQUIRED for the operation of the anti-carjacking electronics as well as the RPM-dependent AutoLock feature. After powering up the system, you must perform the Mandatory RPM Programming noted in that product's section.

Some newer vehicles do not have a conventional coil marked (+) and (—). In these instances, you will need to locate the tach wire:

1. Try to locate the distributor cap which all spark plug wires run in to. There should be the same number of plug wires as the number of cylinders. If there is an extra plug wire, the vehicle has a separate coil.

2. Follow the extra plug wire to the coil module, which will have two or more wires.
   a. If there are only two wires: one is the ignition, the ***other*** wire is the negative coil wire.
   b. If there are more than two wires, only an oscilloscope will be 100% accurate in locating the tach wire, but a digital voltmeter will often suffice. Set the meter to read AC voltage, connect the negative leade of the meter to earth and probe the wire with the positive lead. The wire that has the highest AC voltage while the engine is running is usually the tach wire.

3. If the vehicle does not have a separate coil, look for the tach wire in a plug coming out of the distributor. If no distributor can be found, the vehicle may have multiple coils. Each coil usually has an ignition and a negative coil wire. Clifford systems will learn a single or multiple coil system.

4. If no coil or distributor can be found or reached use #60-226 RPM Monitoring Module II on the alternator.

5. On almost all fuel injected vehicles, you can connect to the negative side of any fuel injector. Most fuel injectors are screwed directly into the engine and typically have two wires. One is ignition and usually has a colour common to all fuel injectors, the other is the negative side and can be tested as described in step 2b above.

## *Installation Options*

**1. Installation Option 1 — Negative Coil**
Connect the BLACK/GRAY wire to the negative terminal of the ignition coil, normally marked (—).

**2. Installation Option 2 — Fuel Injector Wire**
   a. Locate the injector wire. On many engines with electronic fuel injection, there are two wires going to each injector: a fuel-injector wire and a common ignition wire. The common ignition wire is usually the same color at each injector (and may also be the same color as the ignition line in the steering column). The injector wire is the other wire.
   b. Connect the BLACK/GRAY wire to one of the injector wires at one of the injectors.

**3. Installation Option 3 — Tachometer Terminal** (Not all cars have a tachometer terminal — mostly older GM models have a tachometer terminal)
   a. Locate the tachometer terminal on the distributor cap (this may be marked as "tach").
   b. Connect the BLACK/GRAY wire to the tachometer terminal.

**4. Installation Option 4 — Optional Alternator Sensor (#60-226)**
Follow the instructions provided in the RPM Monitoring Module II kit.

**5. Installation Option 5 — Optional RPM Monitoring Module (#60-521)**
   a. Locate the coil wire that connects to the distributor.
   b. Attach the RPM Monitoring Module to the coil wire.
   c. Connect the RED, BLACK and WHITE wires on the RPM Monitoring Module to the RED, BLACK and GRAY/BLACK wires of the alarm or remote starter.