

On the Line

Elusive Electrical Challenges

The Condition Could Be a Matter of Where the Vehicle Was When

A brief stop at a fast food restaurant resulted in a no start condition and a No Fob Detected message displayed on the Corvette's dash. A roll-back was summoned and the vehicle started perfectly when arriving at the dealership. Lengthy testing failed to identify a reason for the mentioned symptoms. Two weeks later, parked at the same restaurant and parking spot, the no-start symptom/message was repeated. Better prepared this time, the driver places the fob in a special slot in the glove box, which is in close proximity to an antenna, and the engine starts. The mystery of the No Fob Detected message will be identified later in the article.

NO FOB DETECTED

When the message appears, move the fob around inside the vehicle, as multiple antennas are involved. Many vehicles have a slot to insert the fob in, which is in close proximity to an antenna and will allow the vehicle to start. Some require holding the fob next to the start switch to improve signal strength.

The first consideration should be the condition of the fob battery and the battery in the vehicle. While other conditions can promote the No Fob Detected message, vehicles parked for 2-3 weeks may encounter a low voltage condition due to parasitic current drain. A fob left in close proximity to the vehicle can keep the computers awake, promoting battery drain. The fob should be at least 25 feet away from the parked vehicle or placed in a metal box/tool cabinet if left in the shop. A two volt drop in battery voltage can promote some weird electrical issues that are difficult to diagnose.

Electrical interference from other devices or accessories can promote the same No Fob Detected message. These sources could include: pay at the pump gas stations, charging devices for games and cell phones, GPS devices, radar detectors, etc.

ALDL CONNECTOR DEVICES

For better insurance rates he entertained the offer from the insurance company and installed a monitoring device to track the vehicle usage and how the vehicle was being driven. It was seldom driven and would qualify for a lower rate providing he drove the car sensibly. And he did receive a substantial adjustment in the cost of insurance. However, when he compiled vehicle repair cost due

to some electrical interference challenges resulting from the monitoring device, the adjusted insurance rate was not that good of a deal.

Be aware that accessories, power-up devices, or fleet monitoring/tracking devices that plug into the ALDL connector can influence the vehicle's electronics. Symptoms may include driveability issues with the engine and transmission, erratic or false gauge readings, SES light illumination with stored trouble codes, TPMS light illumination, battery discharge due to the Bus or LAN traffic remaining active, etc.

Troubleshooting conditions resulting from electrical interference via the ALDL connector can be challenging, as the accessory item is often disconnected when the vehicle is taken in for repairs. Be certain to question the vehicle owner, as determining the use of such devices can save a lot of diagnostic time. You may be chasing a condition that has been removed from the vehicle.

TAKING A METHODOLOGICAL APPROACH

Having a thorough discussion with the vehicle owner can save a lot of diagnostic time and unnecessary expense for the vehicle owner. Get all the facts before you attach the diagnostic equipment. When diagnosing electrical problems, always start with the source of energy, which would be the battery. The next step should involve the condition of the battery cable connections and any auxiliary attachment points such as additional ground connections on the engine or frame. Loose or corroded connections can create electrical resistance, which can reduce current to electrical circuits/components causing performance related symptoms and lamp illumination in the instrument cluster.

Troubleshooting today's vehicles requires more than an arsenal of diagnostic equipment. Many perplexing problems are resolved with some basic solutions and good communication. And by the way...the No Fob Detected message that appeared twice on the Corvette dash was due to electrical interference from the restaurant's electronic advertising sign, which displayed their specials. The Corvette owner still frequents the restaurant, but parks a great distance from the sign.



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