

Anti-Theft

NOTE: The smart junction box (SJB) is also known as the generic electronic module (GEM).

The passive anti-theft system (PATS) consists of the following components:

- Anti-theft indicator (located in the instrument cluster [IC])
- Encoded ignition key(s) (the key contains a transponder)
- PATS transceiver
- PCM

PATS uses radio frequency identification technology to deter a drive-away theft. Passive means that it does not require any activity by the user.

PATS Function

The PATS function is controlled by the PCM. PATS uses the PCM to carry out all of the PATS functions such as receiving the identification code from the PATS key, controlling the starter and fuel injectors enable, and initiates the key interrogation sequence when the ignition key is turned to the ON or START position. All elements of PATS must be functional before the vehicle will start. If any of the components are not working correctly, the vehicle will not start. If the PCM must be replaced for any reason (PATS concerns or driveability concerns), the PATS keys must be programmed into the new PCM. For additional information, refer to [Key Programming Using Diagnostic Equipment](#) in this section.

PATS is active only for a few seconds when the vehicle is starting. It is not a PATS concern if the vehicle stalls after it has been running for a minimum of 3 seconds. PATS will not disable a running vehicle.

PATS is not compatible with aftermarket remote start systems, which allow the vehicle to be started from the exterior of the vehicle. These systems may reduce the security of the vehicle, and also may be the cause of no-start concerns. Remote start systems must be removed from the vehicle before any PATS-related no-start concerns are investigated. If the remote start system is a Power Code® system, make certain it is not the cause of the no-start. Removal of the system may be necessary.

A PATS no-start may involve a vehicle no-start due to either the fuel injectors not operating or the starter not operating (starter relay does not close) or both. Always check for PATS DTCs from the PCM when a no-crank or no-start condition exists. A low state of charge (SOC) in the vehicle battery may cause the PATS to allow starter operation, but prevent the fuel injectors from operating. If the PATS theft light does not prove out (it may be either flashing or glowing steadily) and one (or both) of the previous conditions (fuel injectors and/or starter inoperative) are present, it may be due to a PATS issue. If the theft light proves out, and the vehicle does not start, it is probably not a PATS issue. For additional information, refer to the Powertrain Control/Emissions Diagnosis (PC/ED) manual. If the theft light does not illuminate at all, it may be an instrument cluster (IC) issue. GO to [Symptom Chart](#) in this section for additional diagnostic direction.

PATS will disable the vehicle from starting if there is:

- a damaged PATS key.
- an unprogrammed PATS key.
- a non-encoded key (a conventional key or one that does not have any electronics).
- damaged wiring.
- a damaged transceiver.
- a damaged PCM.

Unlimited Key Mode

PATS contains a feature called unlimited key mode. This feature allows a customer to program more than 8 vehicle keys, if requested. Each vehicle in unlimited key mode is set up with a special, unlimited transponder security key code. This allows all the customer vehicles (or, one vehicle) to share the same mechanically cut keys (more than 8 keys). For an individual customer, any randomly selected security key is acceptable. For additional information, refer to [Spare Key Programming — Unlimited Key Mode](#) in this section.

