Passive Arming: Vehicles with Key Transponder Module (KTM)

Engine cranking and starting are controlled by the ignition switch, ECM, BPM, P / N signal, key transponder module, ignition key reader exciter in the ignition switch, ignition key transponder and the gear selector not-in-park switch.

Cranking and starting are accomplished in the following manner:
Ignition key switched from the OFF position
• KTM receives a signal from the ignition switch position I as the key is turned
• KTM energizes the reader / exciter, which causes the key transponder to broadcast its security code
• If the key transponder code matches the programmed KTM code, the KTM outputs an OK TO START signal to the ECM via a serial data link
• ECM receives OK TO START signal and transmission P / N signal (hard wired from transmission), and enables fuelling and ignition
• ECM outputs a SECURITY ACKNOWLEDGE signal to the BPM via a serial data link
• BPM receives a park signal from the gear selector not-in-park switch and enables cranking if the security system has been disarmed
Ignition switch to position III (CRANK)
• Ignition position III crank signal is received by the BPM
• BPM grounds starter relay coil to energized starter motor
• ECM receives starter relay coil signal and sets engine starting values

Should a similar, but not identical, CM from one vehicle be installed in a second vehicle, this may result in various malfunctions in the second vehicle. Since the CM may then 'learn' information from the second vehicle, incorrect data would then be transferred back to the first vehicle when the CM is transferred back to its original location. This is particularly applicable in the case of the Engine Control Module (ECM).

Ignition Key Transponder Programming Using WDS

If the KTM is replaced, all keys must be programmed at the same time. No more than 5 keys can be programmed to any one vehicle. If only the ECM is replaced, key transponder programming is not necessary.