

# **Component Procedures: Antitheft and Alarm Systems**

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# Component Procedures: Antitheft and Alarm Systems

## Components (itype\_392)

### SENTRY KEY IMMOBILIZER SYSTEM

(  
SKIS  
)

The SKIS is an immobilizer system designed to prevent unauthorized vehicle operation. The system consists of a Sentry Key

Immobilizer Module

(SKIM)

and ignition key(s) called Sentry Key(s) which are equipped with a transponder chip. The SKIM communicates over the Chrysler Collision Detection

(CCD)

data bus network to the Powertrain Control Module

(PCM)

, instrument cluster and/or the DRB scan tool.

When the ignition is turned to the RUN/START position, the SKIM produces a

Radio

Frequency

(RF)

via an

antenna

which is located around the ignition lock cylinder. The RF powers up the transponder chip inside the Smart Key. The transponder chip then emits a coded signal that is received by the SKIM antenna. If this coded signal is valid, the SKIM sends a "VALID KEY" message to the PCM. If the first transponder signal is not valid, the SKIM will attempt four more times to receive a correct transponder signal. If a valid signal is not received, the SKIM stores a diagnostic trouble code and sends an "INVALID KEY" message to the PCM. Then the PCM will allow the engine to start for approximately

two seconds

and stall.

The SKIS includes two valid Smart Keys from the factory. If the customer wishes, additional uncoded Smart Key blanks are available. These blank keys must be cut to match a valid key, but the engine will not start unless the transponder chip inside the blank key is programmed to that particular vehicle.

The Sentry Key Immobilizer System

(SKIS)

can be programmed to recognize a total of eight keys. For programming the Smart Key Transponder, refer to Maintenance and Service Information.

The SKIM also sends messages to the instrument cluster over the CCD bus to control the indicator lamp. The SKIM sends a message to the instrument cluster to turn the lamp on for about

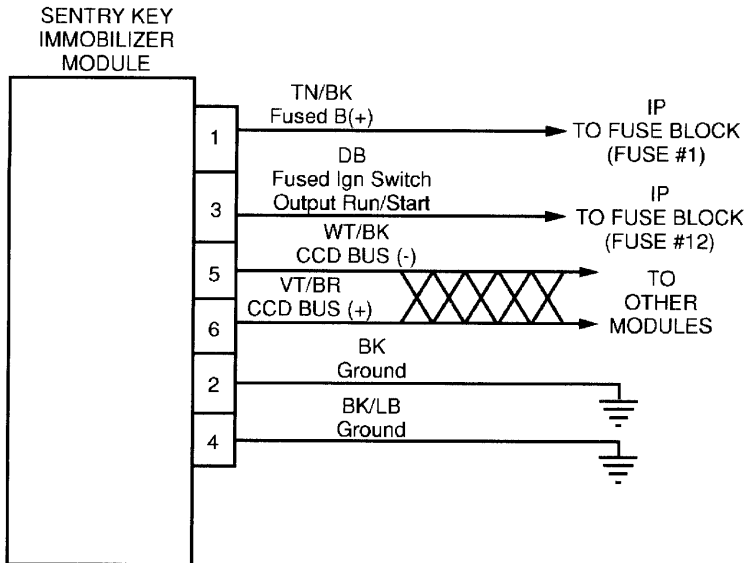
three seconds

when the ignition is turned to the Run/Start position as a bulb test. If the indicator lamp comes on and stays on after the bulb test, it indicates that the SKIM has detected a system malfunction and/or that the SKIS has become inoperative. If an invalid key is detected in the ignition key cylinder with the ignition switch in the Run/Start position, or when the SKIM has entered its customer key programming mode, the SKIM Will flash the SKIS indicator lamp ON and OFF.

### SENTRY KEY IMMOBILIZER CODES

Typically, modules have Diagnostic Trouble Codes that are referred to as either active or stored. In the case of the Sentry Key Immobilizer Module, however, all codes are stored codes. The two various types of stored codes in the SKIM can be considered to be either current or pre-existing codes. If more than one code exists, diagnostic priority should be given to the current code(s). A current code indicates a malfunction that is CURRENT at the time of vehicle service. A pre-existing code indicates the malfunction is not currently present. If a malfunction is not detected after 80 ignition cycles, the code will automatically be erased.

## System Schematic (Article 2078175)



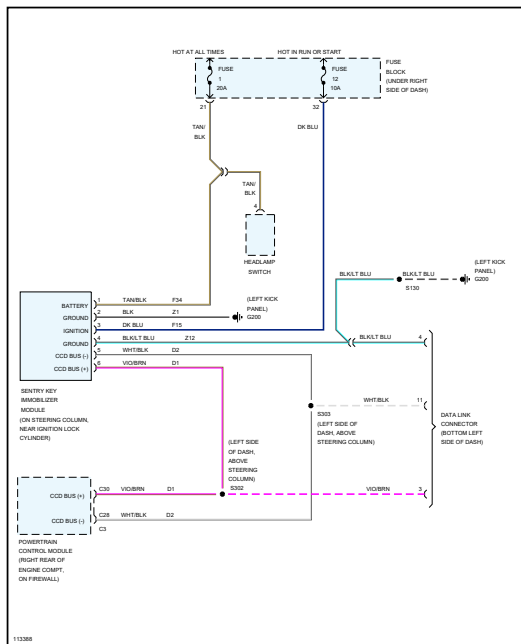
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## Anti-Theft (Article 11459)

Anti-Theft

Interactive Color (Non OE) diagrams for model years 2001 and older use a universal ground location diagram. Click here for the diagram.

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## Technician Safety Information (itype\_15)

WARNING: ON VEHICLES EQUIPPED WITH AIRBAGS, REFER TO RESTRAINT SYSTEMS / AIRBAG SYSTEMS BEFORE ATTEMPTING A STEERING WHEEL, STEERING COLUMN, OR INSTRUMENT PANEL COMPONENT DIAGNOSIS OR SERVICE. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT AND POSSIBLE PERSONAL INJURY

## All Technical Service Bulletins (itype\_100)

Tsbs

- Antitheft System - Vehicle Stall/No Start (08-14-99, 1999/05/21)

## **Customer Interest Bulletins (itype\_109)**

Tsbs

- Antitheft System - Vehicle Stall/No Start (08-14-99, 1999/05/21)

## **System Testing (Article 2072357)**

Non Standards

- Smart Key Immobilizer System (2072358)

## **Starting problems (itype\_171)**

Tsbs

- Antitheft System - Vehicle Stall/No Start (08-14-99, 1999/05/21)