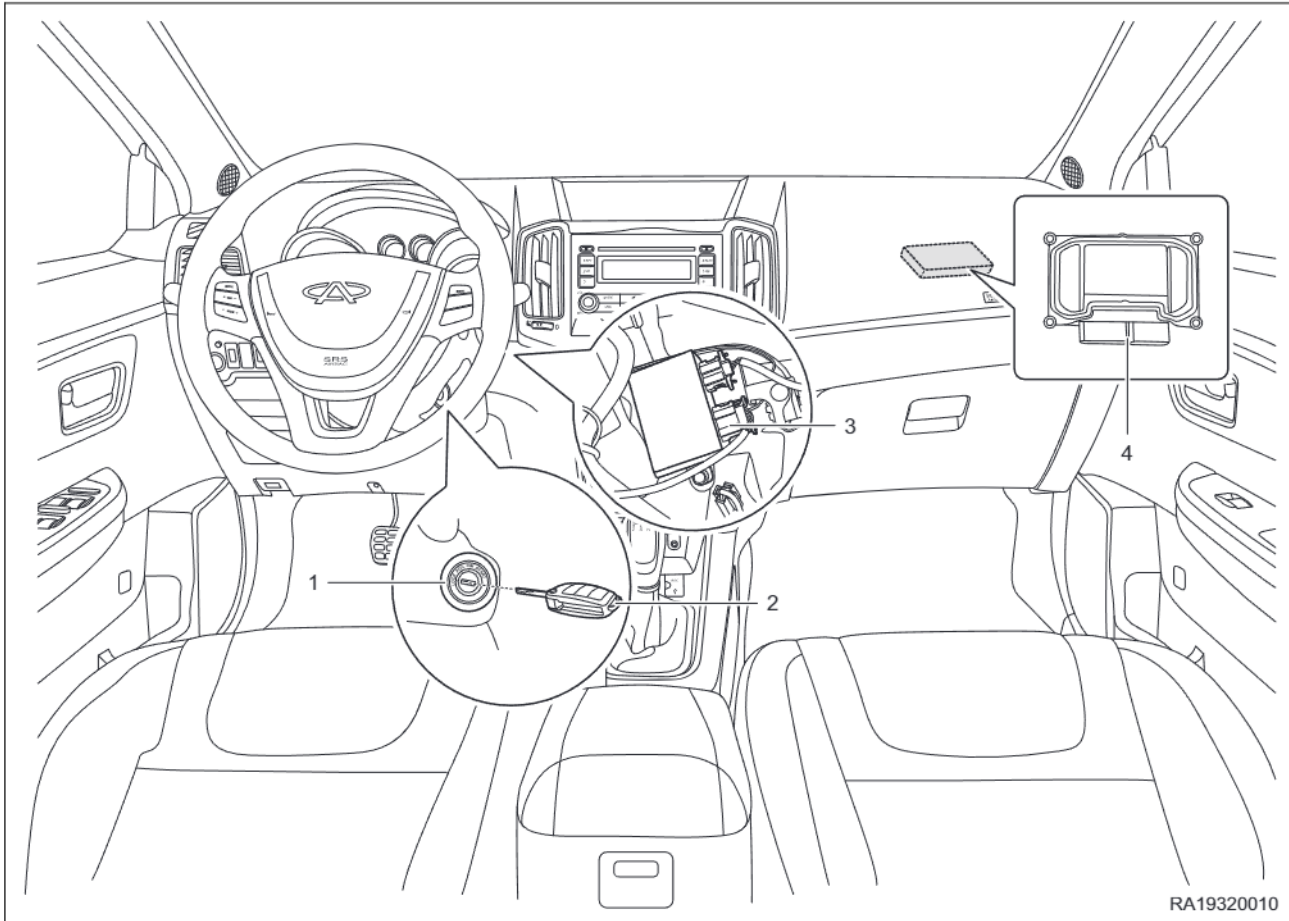

ENGINE IMMOBILIZER

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GENERAL INFORMATION

Description



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1 - Ignition Switch (Built-in Immobilizer Coil)	2 - Ignition Key (Built-in Transponder)
3 - Immobilizer Control Module	4 - Engine Control Module (ECM)

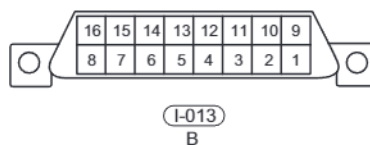
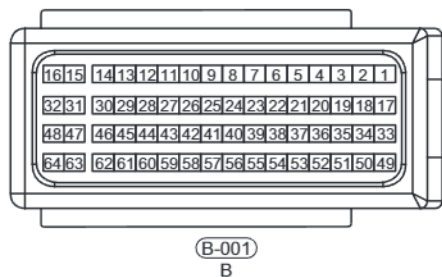
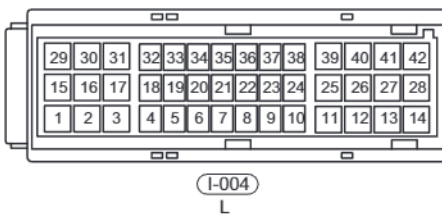
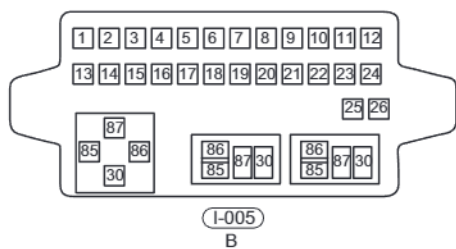
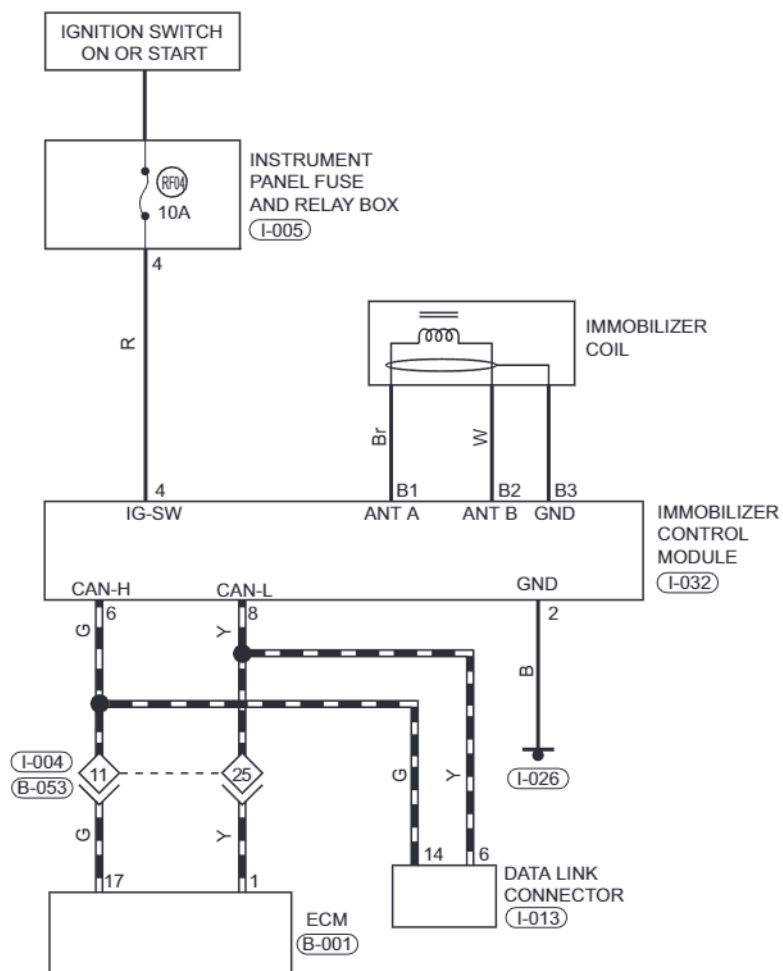
The vehicle is equipped with engine immobilizer system. The anti-theft features of vehicle have improved due to the integration technology of ignition key identification and engine start-up. When the engine is started with unprogrammed ignition key, the engine immobilizer sends the detected signal to the engine control module and the engine control module outputs the prohibit starting command, thus effectively reduces the possibility of being stolen.

Operation

When the ignition key is inserted into the ignition switch, the immobilizer coil can detect the data information of the ignition key, and sends the data information to the immobilizer control module. The immobilizer control module communicates with the engine control module (ECM) via CAN BUS system, realizing codes verification and mutual certification. The battery and ignition switch supply power to the immobilizer control module continuously, allowing the immobilizer to save the trigger memory that has been generated and the malfunctioning content.

Circuit Diagram

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EA19320010

Immobilizer Control Module Terminal List

No.	Definition	Description
1	-	-
2	GND	Ground
3	-	-
4	IG-SW	Ignition Switch Power Supply
5	-	-
6	CAN-L	CAN-L
7	-	-
8	CAN-H	CAN-H
B1	ANT A	Coil (ANT A)
B2	ANT B	Coil (ANT B)
B3	GND	Coil (GND)

32

DIAGNOSIS & TESTING

Problem Symptoms Table

HINT:

Use the table below to help determine the cause of problem symptoms. Check each suspected area in sequence. Repair or replace the faulty components, or adjust them as necessary.

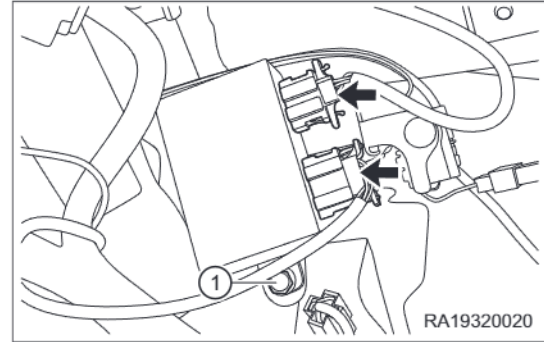
Symptoms	Possible Cause	See page
32 Immobilizer system causes the engine cannot start or immobilizer system has failed	Ignition key (transponder)	-
	Immobilizer coil	-
	Wire harness or connector	-
	Immobilizer control module	32-7
	Electronic fuel injection system	-
	ECM	06-209

ON-VEHICLE SERVICE

Immobilizer Control Module

Removal

1. Turn off all the electrical devices and ignition switch.
2. Disconnect the negative battery cable.
3. Remove the left lower instrument panel protector assembly ([See page 43-16](#)).
4. Disconnect the connectors (arrow) and remove the fixing bolt (1) of immobilizer control module with a wrench.



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Installation

Installation is in the reverse order of removal.

CAUTION

- Install the connectors in place.
- Tighten the fixing bolt in place.

