DTC P0615

Diagnostic Instructions

- Perform the Diagnostic System Check - Vehicle prior to using this diagnostic procedure.
- Review Strategy Based Diagnosis for an overview of the diagnostic approach.
- Diagnostic Procedure Instructions provides an overview of each diagnostic category.

DTC Descriptor

DTC P0615: Starter Relay Control Circuit

Diagnostic Fault Information

Circuit	Short to Ground	Open/High Resistance	Short to Voltage	Signal Performance
Control	P0615	P0615	P0615	--
Ground	--	P0615	--	--

Circuit/System Description

When the ignition switch is placed in the START position, a discrete signal is supplied to the body control module (BCM) notifying it that the ignition is in the START position. The BCM then sends a message to the engine control module (ECM) that crank has been requested. The ECM then verifies that the clutch pedal is depressed or the transmission is in Park/Neutral. If it is, the ECM then supplies 12 V to the control circuit of the STRTR relay. When this occurs, battery voltage is supplied through the switch of the STRTR relay to the starter solenoid.

Conditions for Running the DTC

- The Ignition is in the START position.
- The system voltage is between 9.5-18 V.

Conditions for Setting the DTC

The ECM detects improper voltage on the control circuit of the STRTR relay.

Action Taken When the DTC Sets

DTC P0615 is a C type DTC.

Conditions for Clearing the DTC

DTC P0615 is a C type DTC.

Reference Information

Schematic Reference

Starting and Charging Schematics

Connector End View Reference

Component Connector End Views

Description and Operation

Starting System Description and Operation

Electrical Information Reference

- Circuit Testing
- Connector Repairs
- Testing for Intermittent Conditions and Poor Connections
- Wiring Repairs

DTC Type Reference

Powertrain Diagnostic Trouble Code (DTC) Type Definitions

Scan Tool Reference

Control Module References for scan tool information

Circuit/System Verification

Ignition ON, theft deterrent or automatic transmission DTCs are set that would cause the ECM not to enable engine starting.

Circuit/System Testing

1. Ignition OFF, disconnect the STRTR relay.
2. Ignition OFF and scan tool disconnected, open and close the driver door, and wait 1 minute. Test for less than 5 Ω between the relay ground circuit terminal 85 and ground.
   - If greater than the specified range, test the ground circuit for an open/high resistance.
3. Ignition OFF, connect a test lamp between the control circuit terminal 86 and the ground circuit terminal 85.
4. With the transmission range selector in park or neutral, cycle the ignition between the OFF and CRANK position. The test lamp should turn ON and OFF when changing between the commanded states.
   - If the test lamp is always ON, test the control circuit for short to voltage. If the circuit tests normal, replace the ECM.
   - If the test lamp is always OFF, test the control circuit for a short to ground or an

open/high resistance. If the circuit tests normal, replace the ECM.

5. If all circuits tests normal, replace the STRTR relay.

Repair Instructions

Perform the Diagnostic Repair Verification after completing the diagnostic procedure.

- Relay Replacement
- Control Module References for ECM replacement, setup, and programming