P0615: STARTER RELAY CIRCUIT

OVERVIEW

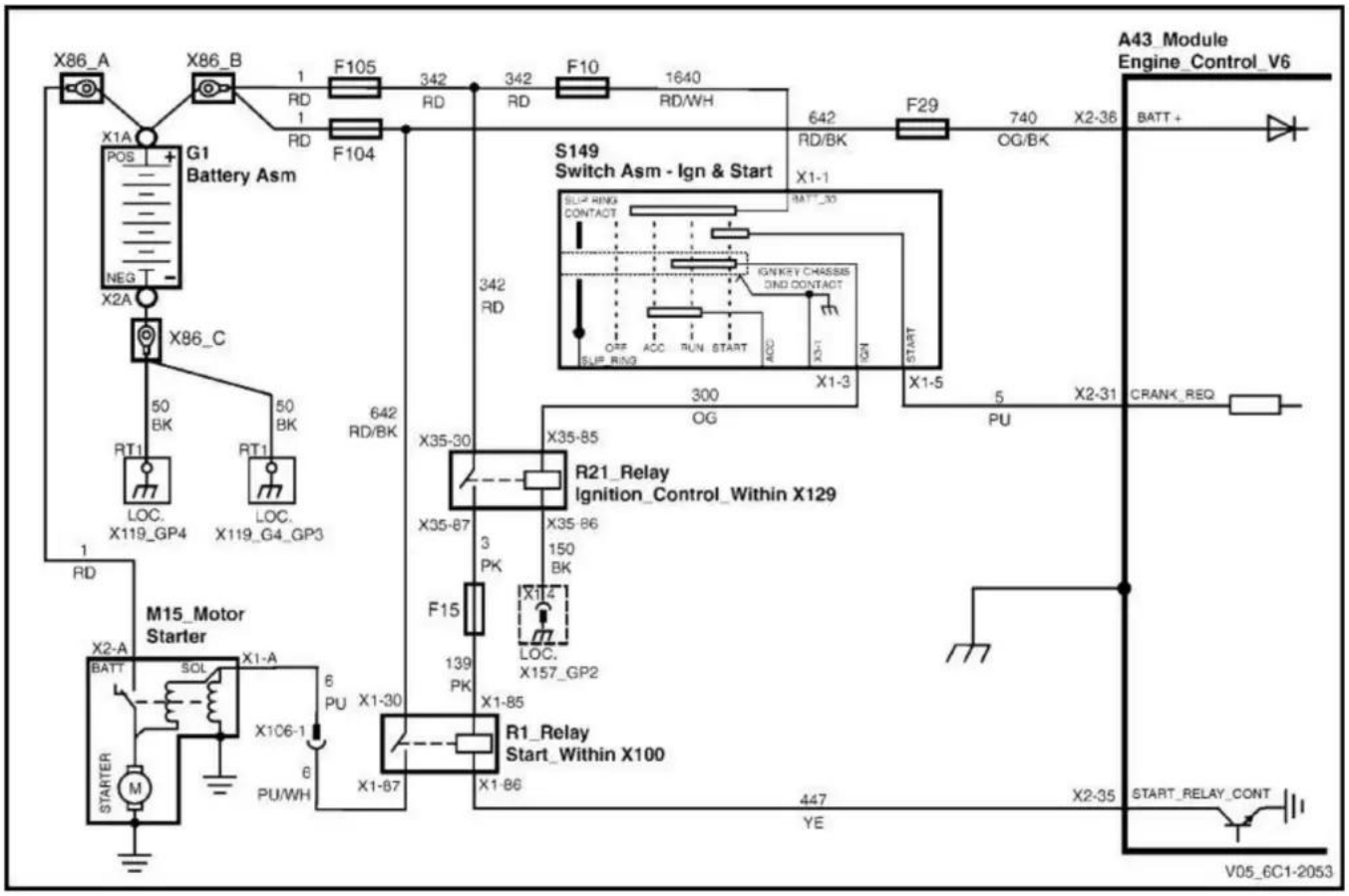
Severity	:	High
DIY Difficulty Level	:	Intermediate
Repair Cost	:	**$50-$150**
Can I Still Drive?	:	No

What Does The P0615 Code Mean?

The P0615 trouble code is associated with the Starter Relay Circuit and in most circumstances the vehicle will not start. When the Powertrain Control Module (PCM) detects a malfunction within the starter relay circuit, also known as the ignition switch circuit. Several codes can be set when the PCM detects improper signals within the starter relay circuit based on the specific malfunction. This most common codes associated with this circuit are P0615, P0616 and P0617.

The purpose of the Starter Relay Circuit is to provide a power source to the starter to crank the engine and start the vehicle. Based on the specific vehicle and the drivetrain configuration several components are involved in this process. This circuit starts at the battery and includes the ignition switch, fuses, starter solenoid, starter relay and various safety devices such as clutch position sensors and neutral safety switches.

Code P0615 is set by the PCM when it detects a general malfunction in the starter relay circuit.



P0615 wiring diagram

What Are The Symptoms Of The P0615 Code?

Symptoms of a P0615 trouble code may include:

- The engine will not start
- Sporadic no-crank occurrences
- Check Engine Light illuminated

What Are The Potential Causes Of The P0615 Code?

Causes for this P0615 code may include:

- Faulty ignition switch
- Defective starter relay
- Faulty starter solenoid
- Blown fuse or fuse-able link (if applicable)
- Corroded or damaged connector
- Corroded or damaged battery cable
- Faulty or damaged wiring

- Faulty PCM
- Defective starter

How Can You Fix The P0615 Code?

The first step in the troubleshooting process for any malfunction is to research the Technical Service Bulletins (TSB's) for the specific vehicle by year, model and power plant. In some circumstances this can save a lot of time in the long run by pointing you in the right direction.

The second step is to consult the specific tech data for the vehicle to see if a fuse is incorporated into the starter relay circuit and see if it is blown if applicable. If the fuse is good you should locate all of the components associated with the starter relay circuit and check for obvious damage. Perform a thorough visual inspection to check the associated wiring for obvious defects such as scraping, rubbing, bare wires, or burn spots.

Next is to check the connectors and connections for security, corrosion and damaged pins. This process must include all wiring connectors and connections to the battery, ignition switch, PCM, starter, starter relay and the starter solenoid.

Advanced Steps

The advanced steps become very vehicle specific and require the appropriate advanced equipment to perform accurately. These procedures require a digital multi meter and the specific technical references for the vehicle. Voltage requirements will very based on the specific year and model of the vehicle.

Voltage Checks

The battery voltage should be appropriately 12 volts and the starter should have battery voltage with the ignition switch in the start position. The presents of voltage with the starter not engaging is an indication of a defective starter or starter solenoid. The lack of voltage indicates a faulty ignition switch or a wiring issue.

If this process identifies the absence of a power source or ground, continuity testing may be required to check the integrity of the wiring, ignition switch and other components. Continuity tests should always be performed with the power removed from the circuit and the normal readings for wiring and connections should be 0 ohms of resistance unless otherwise specified by the technical data. Resistance or no continuity is an indication of faulty wiring that is open or shorted and must be repaired or replaced.

Severity Description

The severity of this code can vary tremendously from just an illuminated check engine light on a

vehicle that starts and runs to an automobile that will not start at all.

Reference Sources

Diagnostic Trouble Code (DTC) Guide for P0615 - Ominitek Advanced Technologies, page 122.