

| Model(s)             | Year                    | Eng. Code               | Trans. Code | VIN Range From | VIN Range To |
|----------------------|-------------------------|-------------------------|-------------|----------------|--------------|
| All except<br>Routan | 2000- <mark>2017</mark> | All Gasoline<br>Engines | All         | All            | All          |

### **Condition**

**01 16 15** October 20, 2016 **2014815** Supersedes Technical Bulletin V011602 dated February 5, 2016 to include additional model year applicability.

#### **Gasoline Quality**

The use of contaminated gasoline, seasonal fuel changes (summer/winter fuel) or gasoline with a low content of deposit control additives may result in one or more of the following conditions:

Excessive accumulation of deposits on intake valves, intake manifold, fuel injectors and combustion chambers.

Engine runs rough after cold start.

Excessive engine cranking time.

Stumbles while driving.

Rough engine idle.

Loss of engine performance.

Poor fuel economy.

Conditions may be severe enough to illuminate the MIL in conjunction with storage in the ECM data memory of DTCs for misfire (example: P0300, P030x) and / or lean fuel system (example: P0171, P0174, P1128, P1130, P1136, P1138).

# **Technical Background**

- 1. Condition may be caused by use of contaminated gasoline.
- 2. Condition may be caused by use of gasoline with a low content of deposit control additives.

### **Production Solution**

No production change required.



## **Service**

#### 1. If use of contaminated gasoline is suspected:

Consider advising the customer to change gasoline source (brand/gas station). Contaminated gasoline may exhibit one or more of the following characteristics:

- May have unique color and odor.
- May contain water.
- · May contain sediments and suspended matter.
- May appear cloudy and (after settling) may show signs of separation.

#### If use of gasoline with a low content of deposit control additives is suspected:

Recommend to the customer the exclusive use of **TOP TIER** Detergent Gasoline. These products provide improved deposit control performance. Current **TOP TIER** Gasoline retailers offering this product in all their octane grades include the following brands:

| 76 Stations                         | MFA                     |  |
|-------------------------------------|-------------------------|--|
| 70 Stations                         | IVIFA                   |  |
| Aloha Petroleum                     | Mobile                  |  |
| Amoco Ultimate with Invigorate      | OAAI                    |  |
| ARCO                                | Ohana Fuels             |  |
| Beacon                              | Petro-Canada            |  |
| BP Regular / Silver with Invigorate | Phillips 66             |  |
| Break Time                          | Puma Energy Caribe, LLC |  |
| Cenex                               | QT                      |  |
| Chevron                             | QuikTrip                |  |
| Chevron Canada                      | Road Ranger             |  |
| CITGO                               | Shamrock                |  |
| Conoco                              | Shell                   |  |
| CO-OP                               | Shell (Puerto Rico)     |  |



| Costco Wholesale                | Sinclair           |  |
|---------------------------------|--------------------|--|
| CountryMark / Plus              | Standard           |  |
| Diamond Shamrock                | SuperAmerica       |  |
| Esso                            | Super Fuels        |  |
| Express Convince Centers        | Tempo              |  |
| Exxon                           | Texaco             |  |
| Hele                            | Tri-Par Quick Stop |  |
| Holiday Stationstores           | Valero             |  |
| Kwik Trip / Kwik Star / Express | -                  |  |
| Mahalo                          | -                  |  |



### For more information on TOP TIER Detergent Gasoline, please see www.toptiergas.com.

For the fast removal of existing carbon deposits from injectors, combustion chambers and intake valves (intake valves apply to MPI engines only) gasoline additive G 001780M3 can be used. Mix additive directly with gasoline in fuel tank following mix ratio described on additive container. (example 20 ml per 10 liters of gasoline, 150 ml per 20 gallons of gasoline).



# **Warranty**

Information only.

# **Required Parts and Tools**

No Special Parts required.

No Special Tools required.

### **Additional Information**

All part and service references provided in this Technical Bulletin are subject to change and/or removal. Always check with your Parts Dept. and Repair Manuals for the latest information.

| Document Control Revision Table |                |                |                                  |  |  |  |  |
|---------------------------------|----------------|----------------|----------------------------------|--|--|--|--|
| Instance Number                 | Published Date | Version Number | Reason For Update                |  |  |  |  |
| 2014815/11                      | 10/20/16       | V011615        | Update model year applicability. |  |  |  |  |
| 2014815/1                       | 4/27/07        | V010739        | Original publication.            |  |  |  |  |