



Service Bulletin

PRELIMINARY INFORMATION

Subject: Advanced Diagnostics — Proactive Alert

Models: 2016 Cadillac Escalade, Escalade ESV Equipped with RPO — L86
2015-2016 Chevrolet Equinox Equipped with RPO — LFX
2016 Chevrolet Corvette Equipped with RPO — LT1 or LT4
2016 Chevrolet Silverado LD Equipped with RPO — LV3, L83, L86 or L8B
2016 Chevrolet Suburban, Tahoe Equipped with RPO — L83
2015-2016 GMC Terrain Equipped with RPO — LFX
2016 GMC Sierra LD Equipped with RPO — LV3, L83, L86 or L8B
2016 GMC Yukon, Yukon XL Equipped with RPO — L83
Vehicles Enrolled in OnStar® Vehicle Diagnostics — United States and Canada Only
Excluding Fleet Vehicles
Excluding Vehicles Equipped with Bi-Fuel, LPG or CNG
Excluding Vehicles Equipped with Auxiliary Battery RPO — K4B or Dual Battery RPO — K4D

Attention: Advanced Diagnostics — Proactive Alert was developed using Genuine GM Parts. Due to the wide variation and the availability of non-GM components, it is possible that using non-GM components may set false Proactive Alert Service Messages. To maintain proper system performance, always use ACDelco™ or Genuine GM Parts.

This PI has been revised to update the Service Message Identifier Descriptions. Please discard PI1250C.

OnStar® Diagnostic Alerts Feature

Advanced Diagnostics - Proactive Alerts are only one of the OnStar® Services that are available on many models. Recently OnStar® launched a new service called Diagnostic Alerts and has made them available on many vehicles. Diagnostic Alerts are driven by **on** vehicle information, such as Diagnostic Trouble Codes (DTCs) with an illuminated Malfunction Indicator Lamp (MIL), Tire Pressure Monitor (TPM) conditions such as low tire and flat tire, bulb outage detection, GM Oil Life System messages, etc. Customers may also select to receive these Diagnostic Alerts real time via email and Short Message Service (SMS) **text**. Follow normal Service Information procedures for OnStar® Diagnostic Alerts.

Advanced Diagnostics — Proactive Alert

System Overview

Customers that purchase any of the vehicles identified above and are enrolled in OnStar® Vehicle Diagnostics, will be able to enroll in Advanced Diagnostics — Proactive Alert. Proactive Alert monitors the Engine Cranking system and the Fuel Delivery system and if either one of these monitored systems triggers certain performance issues, specific Customer and Dealer Communication are sent. The communication process is now the same for both 2015-2016 Model Year vehicles.

Important: It is important to understand that some Advanced Diagnostics - Proactive Alert Service Messages may be generated without any apparent symptoms being noticed by the Customer.

Monitored Systems

The Engine Cranking system and the Fuel Delivery system components that are monitored are explained as follows:

- **Engine Cranking System:** Consisting of the Battery and Starter and their performance.
- **Fuel Delivery System:** Consisting of the Fuel Tank Fuel Pump Module and the Fuel Pressure Sensor, located in the fuel pipe/fuel feed pipe and their performance.

Service Message Identifier

Currently, there are nine different repair actions covered under Proactive Alert. Each individual repair is distinguished by its own Service Message Identifier. They are constructed by using the involved service manual section, to create a three letter acronym that is combined with three numerals for a total length of 6 characters. For example: 12 volt battery is covered under the "Starting and Charging" section, resulting in SAC for the first three positions with three numerals for the last three positions. The first "Starting and Charging" Service Message Identifier is called out as SAC001.

Important: Proactive Alert Service Messages are not stored On-Vehicle and cannot be retrieved from the vehicle using a scan tool. Although some other on board system DTCs may also be set, the Service Technician must use the Service Message Identifier when diagnosing. Refer to the Section titled: Service Message Identifiers and Diagnostic Procedures

Warranty

Due to the unique nature of the Advanced Diagnostics — Proactive Alert system, special Bulletin Only Labor Operations have been set up to be used in conjunction with the repair of the identified Service Messages. The Service Personnel and Warranty Administration Personnel must use these Bulletin Only Labor Operations for any repair related to these Service Messages. Refer to the applicable Bulletin Only Labor Operation identified in the last Step of each Service Message Identifier and also in the Section titled: Warranty Information, at the end of this Bulletin.

Notice: All parts replaced under this program will be requested back by the Warranty Parts Center (WPC). Ensure that all components are appropriately marked and tracked for return.

Communication Process for Customer and Dealer for Model Year 2015-2016 Vehicles

When an Advanced Diagnostics - Proactive Alert Service Message is **triggered**, a Proactive Alert Service Message is **generated** and it will play through the vehicle's audio system and display in the vehicle radio **one time** shortly after the vehicle is started. The message can be dismissed by pressing **OK**. In addition, a text message (if selected by the Customer in the OnStar® account settings) and email will be sent to the customer using the phone number and email address provided when they opted into the service.

An email will also be sent to the selected Preferred Service Provider, which was also identified by the customer, when they opted into the service. The Customer Experience Manager will be the recipient at GM Dealers.

Notice: If the Customer has not identified a Preferred Service Provider, then CAC/CCC will contact them and help set up a service appointment. If the issues are still detected as "active" then a Follow Up Communication consisting of a reminder text and an email will be sent at an interval of 7 and 14 days after the initial alert.

Method to Obtain the Details of an Unclear Proactive Alert Service Message

To obtain the details of a Proactive Alert Service Message, perform one of the following actions: Ask the customer for a copy of the email they received or if the customer has a paid OnStar® plan, press the blue OnStar® button in the subject vehicle. The OnStar® advisor will be able to provide the Proactive Alert Service Message information.

Service Message Identifiers and Diagnostic Procedures

Proactive Alert Starting & Charging Service Message Identifier SAC001

1. This Service Message **DOES NOT** require any diagnosis.
2. Replace the battery. **DO NOT use the EL-50313 Midtronics GR8 Battery Tester/Charger.** Refer to Battery Replacement in SI.
3. No other action is required as the Service Message will automatically clear once the battery is replaced and the vehicle is operated over a number of ignition cycles. Other on board DTCs may have set if the vehicle experienced a low voltage condition.

Use the scan tool to clear **ALL** DTCs prior to releasing the vehicle to the Customer.

Notice: The battery warranty code is not required when using this Bulletin Only Labor Operation.

4. Submit the correct Bulletin Only Labor Operation for this repair: **4080568***.

Proactive Alert Starting & Charging Service Message Identifier SAC002

Notice: The Service Technician **MUST** complete every Step of this diagnostic.

1. Verify the battery cable connections are clean and tight. Refer to Battery Inspection/Test in SI.
2. Ignition **OFF**, measure the battery voltage at the battery terminals. The voltage should be between 12.0–15.0 V
 - ⇒ If not within the specified range, refer to Battery Charging in SI.
 - ⇒ If within the specified range, Go to Step 3, for Corvette Go to Step 4.

Positive Cable	Test Value
Equinox & Terrain	.5 V
Corvette	.5 V
Full Size Truck	.9 V

Notice: For Corvette testing, Go to Step 4.

3. Test for less than the specified value between the positive battery cable at the battery and the positive battery cable at the M64 starter motor as the ignition is placed in the **CRANK/START** position. Refer to Measuring Voltage Drop in SI.
 - ⇒ If greater than the specified value, replace the positive battery cable. Refer to Battery Positive Cable Replacement in SI.
 - ⇒ If less than the specified value, Go to Step 6.
4. Test for less than 0.5 V between terminal A X6 at the X50D Fuse Block – Battery and terminal A X6 at the X50A Fuse Block – Underhood as the ignition is placed in the **CRANK/START** position. Refer to Measuring Voltage Drop in SI.
 - ⇒ If greater than the specified value, replace the positive battery cable. Refer to Battery Positive Cable Replacement in SI.
 - ⇒ If less than the specified value, Go to Step 5.
5. Test for less than 0.5 V between terminal A X6 at the X50A Fuse Block – Underhood and terminal A X2 at the M64 Starter Motor as the ignition is placed in the **CRANK/START** position. Refer to Measuring Voltage Drop in SI.
 - ⇒ If greater than the specified value, replace the starter solenoid cable. Refer to Starter Solenoid Cable Replacement in SI.
 - ⇒ If less than the specified value, Go to Step 6.
6. Test for less than 0.5 V between the negative battery cable and the M64 starter motor case as the ignition switch is placed in the **CRANK/START** position. Refer to Measuring Voltage Drop in SI.
 - ⇒ If greater than the specified value, replace the negative battery cable. Refer to Battery Negative Cable Replacement in SI.
 - ⇒ If less than the specified value, replace the battery. **DO NOT use the EL-50313 Midtronics GR8 Battery Tester/Charger.** Refer to Battery Replacement in SI.
7. No other action is required as the Service Message will automatically clear once the battery is serviced properly and the vehicle is operated over a number of ignition cycles. Other on board DTCs may have set if the vehicle experienced a low voltage condition.
Use the scan tool to clear **ALL** DTCs prior to releasing the vehicle to the Customer.

Notice: The battery warranty code is not required when using this Bulletin Only Labor Operation.

8. Submit the correct Bulletin Only Labor Operation for this repair: **4080578***.

Proactive Alert Starting & Charging Service Message Identifier SAC003

Notice: Normal operation of the vehicle **MAY** have recharged the battery.

1. Follow the instructions in SI for Battery Inspection/Test and Battery Charging using the EL-50313 Midtronics GR8 Battery Tester/Charger.
2. Perform the Battery Electrical Drain/Parasitic Load Test in order to verify the cause of the low battery, such as aftermarket equipment, Customer driving habits, etc. Refer to SI.
3. No other action is required as the Service Message will automatically clear once the battery is charged properly and the vehicle is operated over a number of ignition cycles. Other on board DTCs may have set if the vehicle experienced a low voltage condition.
Use the scan tool to clear **ALL** DTCs prior to releasing the vehicle to the Customer.
4. Submit the correct Bulletin Only Labor Operation for this repair: **4080588***.

Proactive Alert Starting & Charging Service Message Identifier SAC004

Notice: The Service Technician **MUST** complete every Step of this diagnostic.

1. Verify the battery cable connections are clean and tight. Refer to Battery Inspection/Test in SI.
2. Turn **OFF** the ignition. Measure the battery voltage at the battery terminals. The voltage should be between 12.0–15.0 V
 - ⇒ If not within the specified range, refer to Battery Charging in SI.
 - ⇒ If within the specified range, Go to Step 3, for Corvette Go to Step 4.

Positive Cable	Test Value
Equinox & Terrain	.5 V
Corvette	.5 V
Full Size Truck	.9 V

Notice: For Corvette testing, Go to Step 4.

3. Test for less than the specified value between the positive battery cable at the battery and the positive battery cable at the M64 starter motor as the ignition is placed in the **CRANK/START** position. Refer to Measuring Voltage Drop in SI.
 - ⇒ If greater than the specified value, replace the positive battery cable. Refer to Battery Positive Cable Replacement in SI.
 - ⇒ If less than the specified value, Go to Step 6.
4. Test for less than 0.5 V between terminal A X6 at the X50D Fuse Block – Battery and terminal A X6 at the X50A Fuse Block – Underhood as the ignition is placed in the **CRANK/START** position.
 - ⇒ If greater than the specified value, replace the positive battery cable. Refer to Battery Positive Cable Replacement in SI.
 - ⇒ If less than the specified value, Go to Step 5.
5. Test for less than 0.5 V between terminal A X6 at the X50A Fuse Block – Underhood and terminal A X2 at the M64 Starter Motor as the ignition is placed in the **CRANK/START** position.
 - ⇒ If greater than the specified value, replace the starter solenoid cable. Refer to Starter Solenoid Cable Replacement in SI.
 - ⇒ If less than the specified value, Go to Step 6.
6. Test for less than 0.5 V between the negative battery cable and the M64 starter motor case as the ignition switch is placed to the **CRANK/START** position. Refer to Measuring Voltage Drop in SI.
 - ⇒ If greater than the specified value, replace the negative battery cable. Refer to Battery Negative Cable Replacement in SI.
 - ⇒ If less than specified value replace the Starter. Refer to Starter Replacement in SI.
7. No other action is required as the Service Message will automatically clear once the starting system is serviced properly and the vehicle is operated over a number of ignition cycles. Other on board DTCs may have set if the vehicle experienced a low voltage condition. Use the scan tool to clear **ALL** DTCs prior to releasing the vehicle to the Customer.
8. Submit the correct Bulletin Only Labor Operation for this repair: **4080598***.

Proactive Alert Starting & Charging Service Message Identifier SAC005

Notice: The Service Technician **MUST** complete every Step of this diagnostic.

1. Verify the battery cable connections are clean and tight. Refer to Battery Inspection/Test in SI.
2. Turn **OFF** the ignition. Measure the battery voltage at the battery terminals. The voltage should be between 12.0–15.0 V.
 - ⇒ If not within the specified range, refer to Battery Charging in SI.
 - ⇒ If within the specified range, Go to Step 3, for Corvette testing Go to Step 4.

Positive Cable	Test Value
Equinox & Terrain	.5 V
Corvette	.5 V
Full Size Truck	.9 V

Notice: For Corvette testing, Go to Step 4.

3. Test for less than the specified value between the positive battery cable at the battery and the positive battery cable at the M64 starter motor as the ignition is placed in the **CRANK/START** position. Refer to Measuring Voltage Drop in SI.
 - ⇒ If greater than the specified value, replace the positive battery cable. Refer to Battery Positive Cable Replacement in SI.
 - ⇒ If less than the specified value, Go to Step 6.
4. Test for less than 0.5 V between terminal A X6 at the X50D Fuse Block – Battery and terminal A X6 at the X50A Fuse Block – Underhood as the ignition is placed in the **CRANK/START** position.
 - ⇒ If greater than the specified value, replace the positive battery cable. Refer to Battery Positive Cable Replacement in SI.
 - ⇒ If less than the specified value, Go to Step 5.

5. Test for less than 0.5 V between terminal A X6 at the X50A Fuse Block – Underhood and terminal A X2 at the M64 Starter Motor as the ignition is placed in the **CRANK/START** position.
 - ⇒ If greater than the specified value, replace the starter solenoid cable. Refer to Starter Solenoid Cable Replacement in SI.
 - ⇒ If less than the specified value, Go to Step 6.
6. Test for less than 0.5 V between the negative battery cable and the M64 starter motor case as the ignition switch is placed to the **CRANK/START** position. Refer to Measuring Voltage Drop in SI.
 - ⇒ If greater than the specified value, replace the negative battery cable. Refer to Battery Negative Cable Replacement in SI.
 - ⇒ If less than specified value, Go to Step 7.
7. Perform a battery inspection/test using the EL-50313 Midtronics GR8 Battery Tester/Charger.
 - ⇒ If the battery fails the test, replace the Battery. Refer to Battery Replacement in SI.
 - ⇒ If the battery passes the test, replace the starter. Refer to Starter Replacement in SI.
8. No other action is required as the Service Message will automatically clear once the battery and/or starting system is serviced properly and the vehicle is operated over a number of ignition cycles. Other on board DTCs may have set if the vehicle experienced a low voltage condition. Use the scan tool to clear **ALL** DTCs prior to releasing the vehicle to the Customer.
9. Submit the correct Bulletin Only Labor Operation for this repair: **4080608***.

Proactive Alert Engine Controls & Fuel Service Message Identifier ECF001

1. Remove the fuel tank (on the Corvette, the left fuel tank). Refer to Fuel Tank Replacement in SI.
2. Replace the Fuel Tank Fuel Pump Module. Refer to Fuel Tank Fuel Pump Module Replacement in SI.
3. Install the fuel tank.
4. No other action is required as the Service Message will automatically clear once the fuel tank fuel pump module is replaced and the vehicle is operated over a number of ignition cycles. Other on board DTCs may have set. Use the scan tool to clear **ALL** DTCs prior to releasing the vehicle to the Customer.
5. Submit the correct Bulletin Only Labor Operation for this repair: **4080618***.

Proactive Alert Engine Controls & Fuel Service Message Identifier ECF002

1. Test the wiring, terminals and connectors of the Body Harness to Fuel Tank Harness (on the Corvette the Rear Chassis Harness to Fuel Tank Primary Harness), and the K111 Fuel Pump Driver Control Module and the ground circuit that it uses for good continuity and for intermittent conditions and poor connections. Refer to Testing for Continuity, Testing for Electrical Intermittents, Testing for Intermittent Conditions and Poor Connections and Ground Distribution Schematics in SI.
 - ⇒ If a condition is found, repair as necessary. Refer to Wiring Repairs, Repairing Connector Terminals and Connector Repairs in SI.
 - ⇒ If a condition is not found, Go to Step 2.
2. Remove the fuel tank (on the Corvette, the left fuel tank). Refer to Fuel Tank Replacement in SI.

Notice: This Step MUST be performed.
3. Test the wiring, terminals and connector running to the fuel tank fuel pump module for good continuity and intermittent conditions and poor connections. Refer to Testing for Continuity, Testing for Electrical Intermittents and Testing for Intermittent Conditions and Poor Connections in SI.
 - ⇒ If a condition is found, repair as necessary. Refer to Wiring Repairs, Repairing Connector Terminals and Connector Repairs in SI. Then, Go to Step 4.
 - ⇒ If a condition is not found, Go to Step 4.
4. Replace the fuel tank fuel pump module. Refer to Fuel Tank Fuel Pump Module Replacement in SI.
5. Install the fuel tank.
6. No other action is required as the Service Message will automatically clear once the fuel system is serviced properly and the vehicle is operated over a number of ignition cycles. Other on board DTCs may have set. Use the scan tool to clear **ALL** DTCs prior to releasing the vehicle to the Customer.
7. Submit the correct Bulletin Only Labor Operation for this repair: **4080628***.

Proactive Alert Engine Controls & Fuel Service Message Identifier ECF003

1. Turn **OFF** the ignition.

Notice: If the engine coolant temperature is above 140°F (60°C), high fuel pressure readings may result due to hot soak fuel boiling. With the engine OFF, the fuel pressure may increase beyond the pressure relief regulator valve's setting point of 100psi (690 kPa) ± 5 percent.
2. Install the CH-37287-1A Fuel Pressure Gauge Adapter and the CH-48027 Digital Fuel Pressure Gauge. Refer to Fuel Pressure Gauge Installation and

Removal in SI.

3. Turn **ON** the ignition, with the engine **OFF**.
4. Command the Fuel Pump Enable **ON** several times, in order to obtain the highest possible fuel pressure.

Fuel Pressure	Test Value
Equinox & Terrain	50-100 psi (345-690 kPa)
Corvette	46-88 psi (320-608 kPa)
Full Size Truck	46-88 psi (320-608 kPa)

5. Verify that the CH-48027 fuel pressure is within the specified range with the fuel pump running.
 - ⇒ If the CH-48027 fuel pressure is within the specified range, Go to Step 6.
 - ⇒ If the CH-48027 fuel pressure is not within the specified range, refer to Fuel System Diagnosis in SI.
6. Verify that the CH-48027 fuel pressure and the Fuel Pressure Sensor parameter agree or are within a range of +/- 5 psi (34 kPa).
 - ⇒ If the CH-48027 fuel pressure and the Fuel Pressure Sensor parameter are not within the specified range, perform the following:
 - 6.1. Inspect the fuel system pipes and hoses for damage, such as kinks or pinches.
 - 6.2. Test the wiring, terminals and connectors of the Body Harness to Fuel Tank Harness (on the Corvette the Rear Chassis Harness to Fuel Tank Primary Harness), the B47 Fuel Pressure Sensor and the K111 Fuel Pump Driver Control Module and the ground circuit that it uses for good continuity and intermittent conditions and poor connections. Refer to Testing for Continuity, Testing for Electrical Intermittents and Testing for Intermittent Conditions and Poor Connections and Ground Distribution Schematics in SI.
 - ⇒ If any fuel system pipes or hoses exhibit damage, repair as necessary.
 - ⇒ If poor continuity or intermittent conditions and poor connections are found, repair as necessary. Refer to Wiring Repairs, Repairing Connector Terminals and Connector Repairs in SI.
 - ⇒ If fuel system pipe or hose damage is not observed and poor continuity and intermittent conditions and poor connections are not found, replace the B47 Fuel Pressure Sensor. Refer to Fuel Pressure Sensor Replacement in SI.
7. No other action is required as the Service Message will automatically clear once the fuel system is serviced properly and the vehicle is operated over a number of ignition cycles. Other on board DTCs may have set.

Use the scan tool to clear **ALL** DTCs prior to releasing the vehicle to the Customer.
8. Submit the correct Bulletin Only Labor Operation for this repair: **4080638***.

Proactive Alert Engine Controls & Fuel Service Message Identifier ECF004

1. Turn **OFF** the ignition.

Notice: If the engine coolant temperature is above 140°F (60°C), high fuel pressure readings may result due to hot soak fuel boiling. With the engine OFF, the fuel pressure may increase beyond the pressure relief regulator valve's setting point of 690 kPa (100 PSI) ± 5 percent.
2. Install the CH-37287-1A Fuel Pressure Gauge Adapter and the CH-48027 Digital Fuel Pressure Gauge. Refer to Fuel Pressure Gauge Installation and Removal in SI.
3. Turn **ON** the ignition, with the engine **OFF**.
4. Command the Fuel Pump Enable **ON** several times, in order to obtain the highest possible fuel pressure.
5. Verify that the CH-48027 fuel pressure and the Fuel Pressure Sensor parameter agree or are within a range of +/- 5 psi (34 kPa). If the CH-48027 fuel pressure and the Fuel Pressure Sensor parameter are not within the specified range, inspect the wiring, terminals and connector of the B47 Fuel Pressure Sensor for poor continuity and intermittent conditions and poor connections. Refer to Testing for Continuity and Testing for Intermittent Conditions and Poor Connections in SI.
 - ⇒ If a condition is found, repair as necessary. Refer to Wiring Repairs, Repairing Connector Terminals and Connector Repairs in SI.
 - ⇒ If a condition is not found, replace the B47 Fuel Pressure Sensor. Refer to Fuel Pressure Sensor Replacement in SI.
6. No other action is required as the Service Message will automatically clear once the fuel pressure sensor system is serviced properly and the vehicle is operated over a number of ignition cycles. Other on board DTCs may have set.

Use the scan tool to clear **ALL** DTCs prior to releasing the vehicle to the Customer.
7. Submit the correct Bulletin Only Labor Operation for this repair: **4080648***.

Warranty Information

For vehicles repaired under warranty, use:

Labor Operation	Description	Labor Time 2015-2016 Equinox, Terrain	Labor Time 2016 Corvette	Labor Time 2016 Escalade, Escalade ESV, Silverado LD, Suburban, Tahoe, Sierra LD, Yukon, Yukon XL
4080568*	Proactive Alert Starting & Charging Service Message Identifier SAC001	0.3 hr	0.4 hr	Escalade, Escalade ESV, Suburban, Tahoe 0.5 hr — Silverado, Sierra 0.4 hr
4080578*	Proactive Alert Starting & Charging Service Message Identifier SAC002	0.3 hr Diagnostic Add Time: 0-.5 hr	Battery Replacement 0.4 hr Diagnostic Add Time: 0-.5 hr OR Battery Cable Positive Replacement 3.3 hrs Diagnostic Add Time: 0-.5 hr OR Starter Solenoid Cable Replacement 1.5 hrs Diagnostic Add Time: 0-.5 hr OR Battery Cable Negative Replacement 0.3 hr Diagnostic Add Time: 0-.5 hr	Escalade, Escalade ESV, Suburban, Tahoe 0.5 hr Diagnostic Add Time: 0-.5 hr — Silverado, Sierra 0.4 hr Diagnostic Add Time: 0-.5 hr
4080588*	Proactive Alert Starting & Charging Service Message Identifier SAC003	0.3 hr Diagnostic Add Time: 0-.5 hr	0.3 hr Diagnostic Add Time: 0-.5 hr	0.3 hr Diagnostic Add Time: 0-.5 hr

4080598*	Proactive Alert Starting & Charging Service Message Identifier SAC004	0.6 hr Diagnostic Add Time: 0-.5 hr	Starter Replacement 0.7 hr Diagnostic Add Time: 0-.5 hr OR Battery Cable Positive Replacement 3.3 hrs Diagnostic Add Time: 0-.5 hr OR Starter Solenoid Cable Replacement 1.5 hrs Diagnostic Add Time: 0-.5 hr OR Battery Cable Negative Replacement 0.3 hr Diagnostic Add Time: 0-.5 hr	Escalade, Escalade ESV, Suburban, Tahoe 0.5 hr Diagnostic Add Time: 0-.5 hr — Silverado, Sierra 0.8 hr Diagnostic Add Time: 0-.5 hr
4080608*	Proactive Alert Starting & Charging Service Message Identifier SAC005	0.6 hr Diagnostic Add Time: 0-.5 hr	Battery Replacement 0.4 hr Diagnostic Add Time: 0-.5 hr OR Starter Replacement 0.7 hr Diagnostic Add Time: 0-.5 hr OR Battery Cable Positive Replacement 3.3 hrs Diagnostic Add Time: 0-.5 hr OR Starter Solenoid Cable Replacement 1.5 hrs Diagnostic Add Time: 0-.5 hr OR Battery Cable Negative Replacement 0.3 hr Diagnostic Add Time: 0-.5 hr	Escalade, Escalade ESV, Suburban, Tahoe 0.5 hr Diagnostic Add Time: 0-.5 hr — Silverado, Sierra 0.8 hr Diagnostic Add Time: 0-.5 hr

4080618*	Proactive Alert Engine Controls & Fuel Service Message Identifier ECF001	FWD 1.7 hrs AWD 2.5 hrs	11.9 hrs	1.8 hrs
4080628*	Proactive Alert Engine Controls & Fuel Service Message Identifier ECF002	FWD 1.7 hrs Diagnostic Add Time: 0-.5 hr AWD 2.5 hrs Diagnostic Add Time: 0-.5 hr	11.9 hrs Diagnostic Add Time: 0-.5 hr	1.8 hrs Diagnostic Add Time: 0-.5 hr
4080638*	Proactive Alert Engine Controls & Fuel Service Message Identifier ECF003	Fuel Tank Fuel Pump Module Replacement FWD 1.7 hrs Diagnostic Add Time: 0-.5 hr AWD 2.5 hrs Diagnostic Add Time: 0-.5 hr OR Fuel Pressure Sensor Replacement 0.3 hr Diagnostic Add Time: 0-.5 hr	Fuel Tank Fuel Pump Module Replacement 11.9 hrs Diagnostic Add Time: 0-.5 hr OR Fuel Pressure Sensor Replacement 1.7 hrs Diagnostic Add Time: 0-.5 hr	Fuel Tank Fuel Pump Module Replacement 1.8 hrs Diagnostic Add Time: 0-.5 hr OR Fuel Pressure Sensor Replacement 0.3 hr Diagnostic Add Time: 0-.5 hr
4080648*	Proactive Alert Engine Controls & Fuel Service Message Identifier ECF004	0.5 hr Diagnostic Add Time: 0-.5 hr	1.7 hrs Diagnostic Add Time: 0-.5 hr	0.3 hr Diagnostic Add Time: 0-.5 hr
*This is a unique Labor Operation for Bulletin use only. It will not be published in the Labor Time Guide.				

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