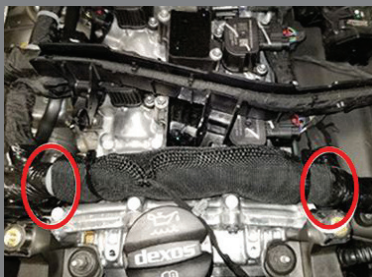


Installing Techline Connect



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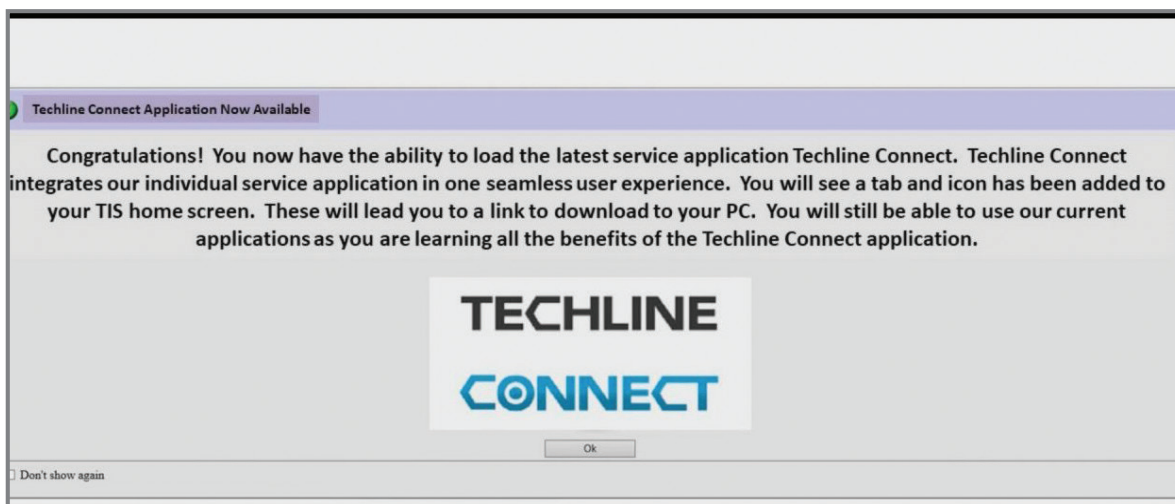
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Installing Techline Connect



Techline Connect — GM's latest tool that brings together diagnostic information and vehicle data in one easy-to-use application — is currently being rolled out by state to GM dealerships (U.S.). The rollout to dealerships in Canada will begin later in 2019.

When the application is available in your dealership, a dialog box will appear when launching TIS2Web.

To ensure a smooth installation as well as to be ready to use the system right away, keep the following guidelines in mind.

OPERATING SYSTEM RECOMMENDATIONS

Computer system recommendations for dealerships to ensure proper performance of the application include:

- Display: 15-inch high definition (HD) display
- Hard Drive: 500+ GB
- System Memory (RAM): 8GB
- Processor: Intel Core i7 5th Gen
- Operating System: Windows 10 Professional, 64 bit

Check the latest version of the GM Dealer Infrastructure Guidelines (DIG) for all required specifications.

INSTALLATION

Most dealerships will need approximately 30 minutes to complete the full Techline Connect installation. The dealership's system administrator should be available to assist with any network security restrictions or settings.

Techline Connect will install components to the local personal computer (PC), including Java and the application.

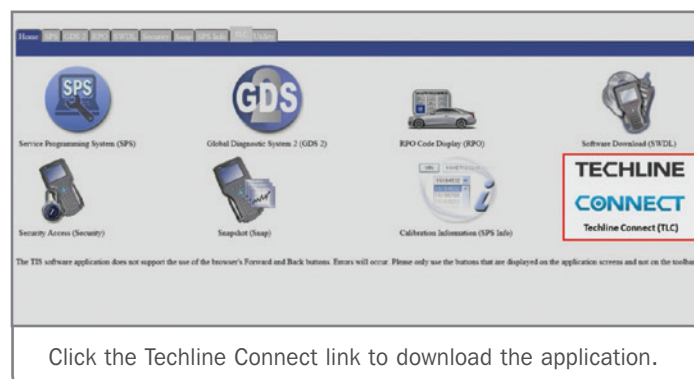
A Techline Connect User Guide also is included in the application download. It includes installation instructions and an overview of the application.

GETTING STARTED

Techline Connect can be installed on a new PC as well as one that already uses TIS2Web and GDS 2.

To get started:

1. Log in to the TIS2Web main page using your GlobalConnect ID and password. Select the Techline Connect icon.



CONTINUED ON PAGE 3

-
- TECHLINE CONNECT**
- ☒ Checking Lease...
☒ Checking for Software Updates...
☐ Downloading Updates... (4 Active Downloads)
- | Item | Progress | Percentage |
|-----------------------------|------------------------|------------|
| MDI | <div><div></div></div> | 29% |
| Service Programming 2 | <div><div></div></div> | 89% |
| Techline Connect Core | <div><div></div></div> | 44% |
| Techline Connect Downloa... | <div><div></div></div> | 37% |
- Techline Connect installation

- All applications will need to be set up to allow third party downloads in order for the latest updates to be downloaded and installed to keep all applications up to date.

LAUNCHING TECHLINE CONNECT

To launch the app:

3. With the MDI/VCI connected to the vehicle, select MDI from the MDI Explorer when prompted.

When a connection is established, Techline Connect will automatically connect to the vehicle and retrieve the VIN. The VIN and connection status are shown at the top of the dashboard. In addition, Investigate Vehicle History (IVH) information, Field Actions and Warranty History for the vehicle are automatically displayed.

[illegible]

SUPPORT

Select the Support menu on the dashboard for a number of resources, including Feedback, SPS Info, Software Download, Techline Print, Help and other functions. For example, Tech2Win can be installed from Software Download and will function separately from Techline Connect.

A link to the Techline Connect User Guide as well as a short training video also are provided at the beginning of the application download process. Be sure to review both resources before using the application.

If you have any questions on Techline Connect, contact the Techline Customer Support Center (TCSC) at 1-800-828-6860 (English) or 1-800-503-3222 (French).

▶ Thanks to Mike Waszczenko

Exhaust Leak Conditions

Several exhaust leak conditions, including a rattle or exhaust noise, or catalytic converter failure on Bank 1 may occur on some 2018-2019 Enclave and Traverse models equipped with the 3.6L V6 engine (RPO LFY). Several of the following lean fuel and exhaust DTCs also may be set: P0171, P0174, P0420, P0430, P2096, P2097, P2098, or P2099.



Possible broken exhaust flex pipe bracket

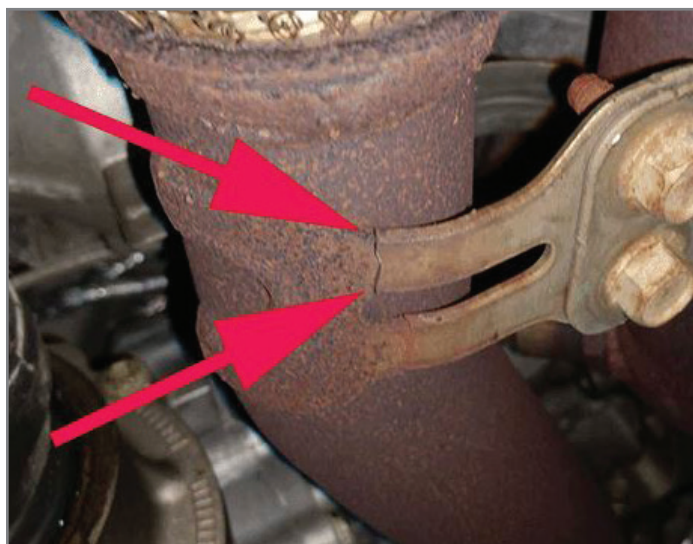
The exhaust conditions may be caused by a broken or poor weld with lack of penetration on the Bank 2 exhaust flex pipe bracket. If a broken Bank 2 bracket is found, also check for any damage to the right catalytic converter and pipes.

To correct the exhaust conditions, replace the Bank 2 exhaust flex pipe from the Bank 2 converter to the mid-exhaust assembly. Be sure to clear any DTCs that have set and retest the vehicle until the conditions for the codes have run and passed.

► Thanks to Aron Wilson



Possible broken exhaust flex pipe bracket



Possible broken exhaust flex pipe bracket

Low Oil Pressure on 2.0L and 2.5L 4-Cylinder Engines

Some 2013-2019 ATS, Impala, Malibu; 2014-2019 Regal, CTS; 2015-2019 Envision, LaCrosse, Colorado, Acadia, Canyon; 2016-2019 CT6, Camaro; 2017-2019 Traverse, Terrain; 2019 Blazer and Equinox models equipped with the 2.0L 4-cylinder engine (RPO LTG) or 2.5L 4-cylinder engine (RPO LCV, LKW, LHN) may have an illuminated Check Engine lamp and DTCs P06DE (Engine Oil Pressure Control Solenoid Valve Stuck On) and P0521 (Engine Oil Pressure Sensor Performance) set in the ECM as history codes.

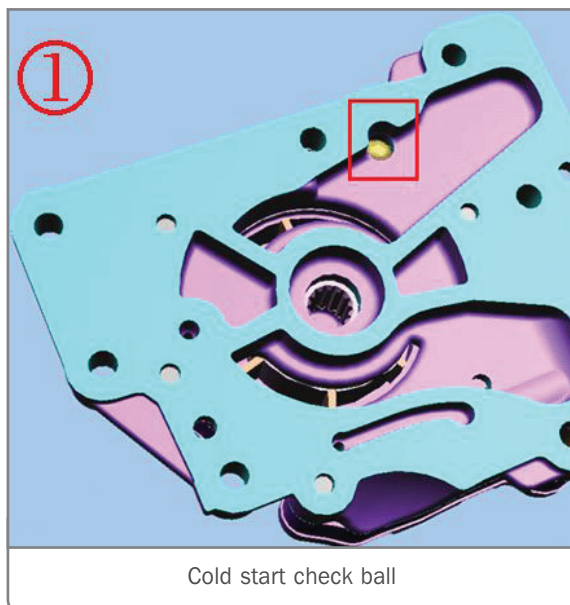
Follow the diagnostics for DTC P06DE in the appropriate Service Information. If the diagnostics indicate to inspect the oil pump or if the engine oil pressure is very low or below specification, look for any foreign material near the cold start check ball in the oil pump.

The check ball should be fully seated against the seat in the pump. Any foreign material may be very small.

If any foreign material is found between the cold start check ball and the seat, remove the material and reinstall the engine oil pump. Road test the vehicle to verify proper operation.

If no foreign material is found between the cold start check ball and the seat, replace the balancer assembly, which includes the oil pump assembly.

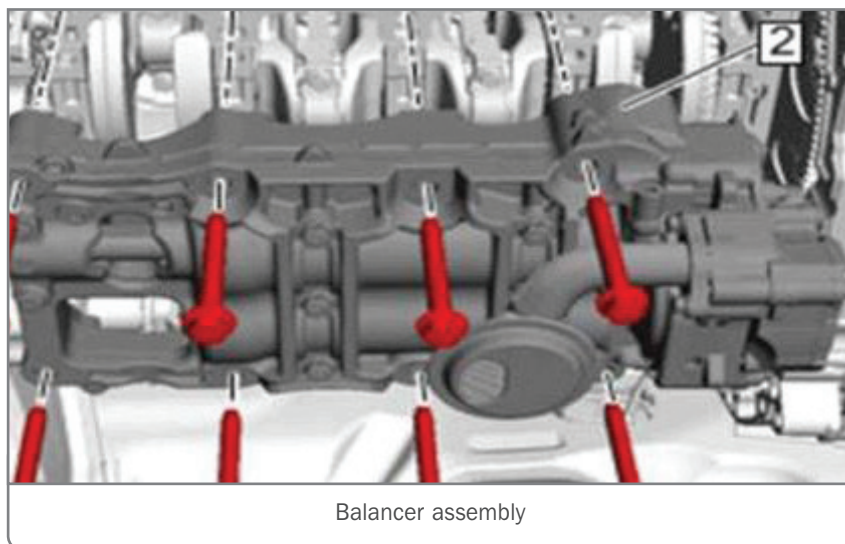
► Thanks to David Rutkowski



Cold start check ball



Any foreign material may be very small.



Balancer assembly

Engine Harness Contact

WITH UNDERHOOD COMPONENTS

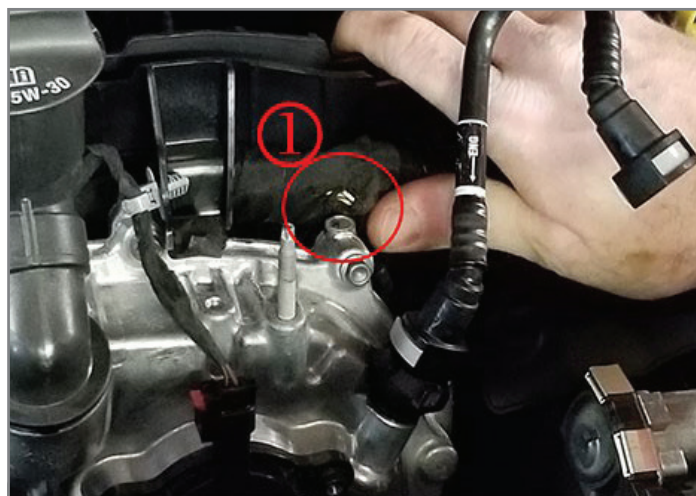
There may be several engine performance conditions on some 2019 Silverado 1500 and Sierra 1500 models equipped with the 2.7L 4-cylinder engine (RPO L3B), including no start, no crank, engine runs rough, reduced engine power, erratic speedometer operation, blown fuses, and a combination of DTCs set. These conditions may be the result of the engine harness coming in contact with several underhood components.

If these conditions are present, there are several areas to check where the engine harness crosses over the top of the camshaft carrier cover.

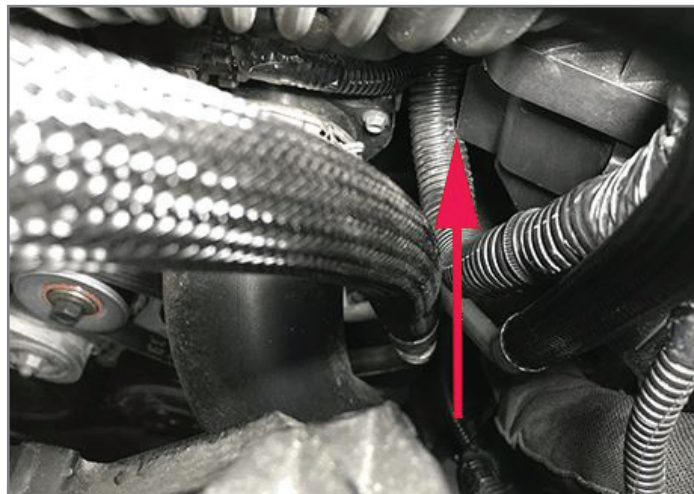


Harness over the top of the camshaft carrier cover

Inspect for engine wiring harness damage near each edge of the camshaft carrier cover.



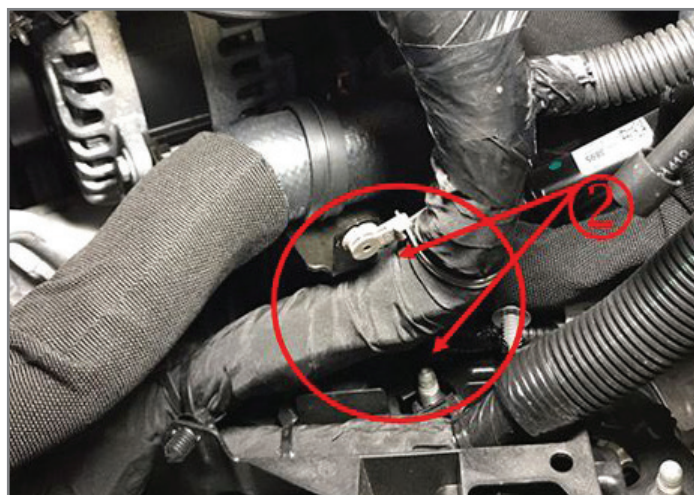
Possible wiring damage near the camshaft carrier cover



Engine harness at the lower air cleaner housing

Check the engine harness at the lower air cleaner housing.

Also check the engine harness at the inlet radiator hose bracket and left front coil spring stud. Under normal conditions, the engine will rock back and forth in its mounts, which may result in harness contact with the hose bracket. The contact will not be evident during inspection with the engine off. If this contact is found, it may be necessary to disconnect several engine harness connections to reposition the harness further inspection.



Harness at the inlet radiator hose bracket and left front coil spring stud

CONTINUED ON PAGE 7

Upper B-Pillar Rattle Sound

A slight rattle sound may be heard near the B-pillar on the driver's or passenger's side of some 2019-2020 XT4 models. The sound may be due to a design variance that may allow too much clearance between the center pillar upper trim panel and the seat belt retractor D-ring and seat belt. Verify if the sound is found at one or both B-pillars.



Remove the center pillar upper trim panel.

To eliminate the sound, remove the center pillar upper trim panel on the affected side of the vehicle and add Kent Automotive BRS Tape or equivalent to the panel.

Apply tape at four locations on the trim panel as shown. The panel may need more than one piece of tape applied per location to help alleviate the clearance issue.

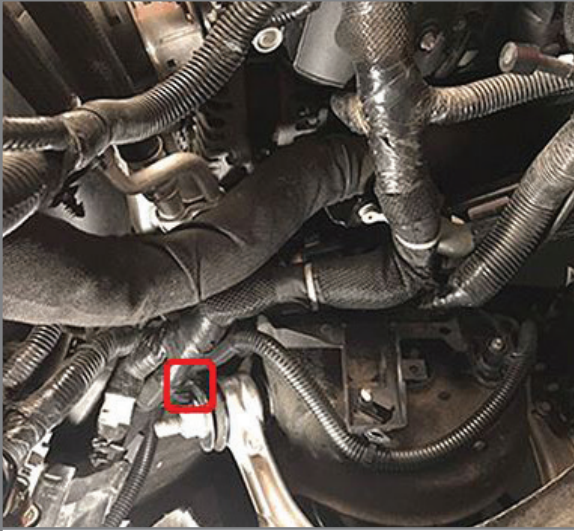
Reinstall the center pillar upper trim panel. Perform the same repair on the opposite side B-pillar if necessary. After reassembly, test drive the vehicle to verify that the rattle sound has been eliminated.

Refer to Bulletin #19-NA-222 for additional information and part numbers.

► Thanks to Calvin Kohring



Apply tape at four locations on the trim panel.



Harness at the left front upper control arm bushing

In addition, inspect the engine harness at the left front upper control arm bushing.

If engine wiring harness contact is isolated during inspection, use a seam ripper type tool to carefully inspect for internal wiring damage. If found, repair the damaged wiring following the wire to wire repair procedures in the appropriate Service Information.

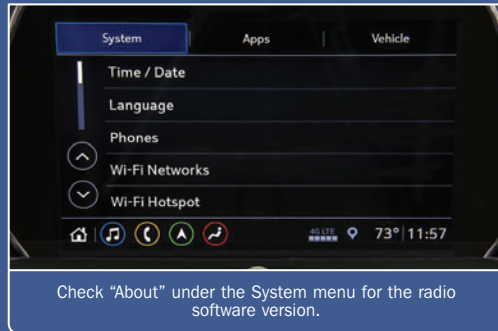
Once repaired, protect the engine wiring harness at all points identified using Woven Polyester (PET) Electrical/Anti-Abrasive Tape.

Refer to the latest version of #PIT5677 for additional information.

► Thanks to Raymond Haglund

Incorrect Infotainment Screen Pop-up Messages

A "Climate Off" pop-up message may display on the infotainment screen even though the HVAC system is fully functional on some 2019 CT6, XT4, Blazer, Camaro, Colorado, Equinox, Malibu, Silverado 1500, Volt, Canyon, Sierra 1500, and Terrain models



equipped with infotainment system RPOs IOS, IOT, or IOU. Any changes made to the HVAC system will make the pop-up message to clear. When changing HVAC settings, an HVAC pop-up message also may be displayed that does not match the selected setting, such as fan speed.

These incorrect HVAC messages may be caused by software anomalies between the HVAC and radio that result in pop-up messages with incorrect or inaccurate HVAC information. Reprogram the K56 Serial Data Gateway Module and/or the A11 Radio, depending on the affected vehicle as well as the radio software version.

Determine the current radio software version by selecting Home > Settings > System tab > About > Build Number on the infotainment screen.:

RADIO REPROGRAMMING

2019 Camaro, Colorado, Equinox, Volt, Canyon and Terrain models only need to have the radio reprogrammed.

If the radio software version/Build Number is less than V805, reprogram the radio. If the radio software version/Build Number is V805 or greater, no further action is required.

SERIAL DATA GATEWAY MODULE AND RADIO REPROGRAMMING

2019 CT6, XT4, Blazer, Malibu, Silverado and Sierra models require reprogramming of both the Serial Data Gateway Module and the radio.

If the radio software version/Build Number is less than V805, reprogram the radio followed by programming of the Serial Data Gateway Module.

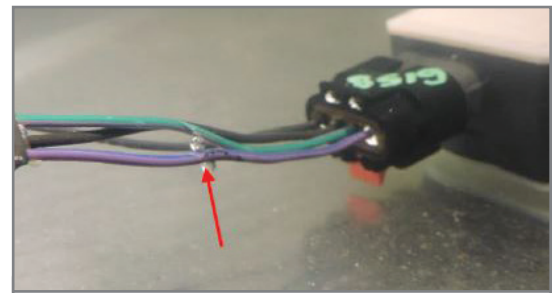
If the radio software version/Build Number is V805 or greater, reprogram only the Serial Data Gateway Module.

For additional information, refer to Bulletin #19-NA-189.

► Thanks to Jeremy Richardson

Water Intrusion in Active Grille Air Shutter Connectors

Some 2018-2019 Enclave and Traverse models may have DTC U1345 (Engine Control Module LIN Bus 1) set along with an illuminated Check Engine lamp.



Connector at the Active Grille Air Shutter

If these conditions are found, there may be a water intrusion issue at the upper or lower connectors of the Active Grille Air Shutter.



Possible wiring damage

Inspect the Active Grille Air Shutter harnesses for any cuts or nicks near the connectors. If no damage is found, refer to the appropriate Service Information to continue diagnosis. If there is damage to the wiring, replace the forward lamp wiring harness connector.

Refer to Bulletin #19-NA-215 for additional information and part numbers.

► Thanks to Zach Gillett

Fuel Injector Driver DTCs

Diagnostic Tip

If fuel injector driver DTCs are found on some 2019 Silverado 4500 MD, 5500 MD, 6500 MD models equipped with the 6.6L Duramax diesel engine (RPO L5D), it may be due to switching the transfer case into 4WD and driving the vehicle without locking the front hubs.



Locking front hubs

The following injection timing DTCs may be set: P01CB, P01CC, P01CD, P01CE, P01CF, P01D0, P01D1, P01D2, P01D3, P01D4, P01D5, P01D6, P01D7, P01D8, P01D9, and P01DA. The ECM adjusts the injection timing for each fuel injector based on the changes in the rotational speed of the crankshaft. The DTCs will set if the fuel injection quantity or timing are out of range.



Electronic transfer case knob

If there is more than one Small Quantity Adjustment (SQA) DTC set, or any combination of codes set, ask the customer if there was a chance that the vehicle was driven with the four-wheel drive transfer case knob in the 4WD position, but the front hubs were not locked.

If the transfer case knob (located near the exterior lamps knob on the left side of the instrument panel) is placed in 4WD and the vehicle is driven without locking the front hubs, these codes may set. If the vehicle has been driven under these circumstances, clear the DTCs and advise the customer of proper 4WD operation.

► Thanks to Richard Renshaw

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