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Let's Take a Look – Remote Diagnostics Using Video Calls with Dealerships

When working with the GM Technical Assistance Center (TAC) or a Field Service Engineer (FSE) on a challenging repair, the next best thing to the TAC agent or FSE actually being in the dealership is to have a video call with the technician in order to get a first-hand look at the vehicle's condition. TAC and FSE's now have the capability to hold video calls with technicians while reviewing a case. A video call can substantially aid in diagnosis of a concern and help in determining a root cause.

It's recommended that video calls take place using the Microsoft Teams app. The web or mobile version of the Teams app can put the TAC agent or FSE right in the service bay with the technician when troubleshooting a repair.

TIP: The Teams app has been added to the Software section of the latest GM Dealership Infrastructure Guidelines V2021.2.

DOWNLOADING THE APP

Download and install the Microsoft Teams mobile app to your iPhone from the App store or to your Android device from the Google Play store. Once the installation process is complete, the Install icon should display Open.



JOINING A TEAMS MEETING

Technicians who are invited to meet with a TAC agent or FSE on a video call will receive an email with a Teams meeting invitation. Join the meeting using the Teams app on your mobile phone by selecting the "Click here to join the meeting" link at the bottom of the meeting invitation email message. If the meeting invitation was saved to your calendar, the link to join the meeting may say "Join Microsoft Teams Meeting."



Next, with the Teams app downloaded to your phone, technicians should select the "Join as a guest" link to join the meeting.



Once in the meeting, be sure to select the camera and microphone icons at the bottom of the screen in order to turn on video and audio capabilities. Now, the video feed of the vehicle and components can be seen by the TAC agent or FSE.

The app defaults to the selfie camera view, showing the user. Change to the camera on the back of the phone by selecting the small camera icon in the corner of the selfie view. The back camera view will allow the user to show the TAC agent or FSE specific items by simply pointing at them with the phone's camera.

For more details on using Teams to share video, check out the Microsoft Teams Meeting guide for dealership technicians.

At the same time, the TAC agent or FSE will be able to share any information from their screen, such as GDS2, Service Information or any other screen captures using the features of the Teams app.

VIDEO TIPS

Here's a few things to keep in mind while sharing video on a call.

Lighting – Improve the lighting by turning on all nearby room lights, shop lights, etc. It also helps to have a flashlight available to view darker areas, such as under a seat, etc. Move the phone and flashlight around to get a clear view.

Position – Hold the phone in the landscape position when viewing the vehicle or component to provide a better picture for the TAC agent or FSE.



Turn on the camera and microphone at the start of the meeting.



Zoom – Zoom in on the video by "pinching" the screen, just as you would with a picture on your phone.

Audio – Ear buds are recommended for the best audio clarity during a call.

Sharing – To share PicoScope, GDS2 and Service Information screens, the TAC agent or FSE will ask that you join via your PC to allow for screen sharing, which provides better video quality than on your phone. Access to an external web-cam also can be very useful.

Thanks to Scott Barone

Latest Techline Connect Software Update Released

The May Techline Connect software update release includes a number of changes for the service application. The update should be downloaded automatically when logging in to Techline Connect.

The May release features a new Core installation software download as well as the following changes to the Techline Connect app and the Service Information.



Updates occur automatically when logging in to Techline Connect.

TECHLINE CONNECT UPDATES

- Select the Maximize Screen button for a full-screen view of individual applications.
- Session History is now limited to 10 VINs to improve Techline Connect performance.
- Techline Connect will automatically uninstall all components of the currently installed version before installing a new version.

FSE Technician

RECOGNITION AWARDS

2ND QUARTER 2021

The GM Field Service Engineer (FSE) Technician Recognition Awards (U.S.) celebrate the skill and dedication of dealership technicians who have recently worked with FSE's on challenging repairs. Technicians at GM dealerships are selected for recognition based on their focus on safety, customer satisfaction, personal accountability, training achievements, diagnostic abilities, and the level of repair documentation. Each recognized technician receives a Service Excellence magnetic plaque and an Excellence in Service Award certificate.

2ND QUARTER 2021 TECHNICIAN RECOGNITION AWARDS



Technician: Kurt Ustinowich

Dealership: Dyer Chevrolet Fort Pierce, Fort Pierce, Florida

FSE: Scott Lewiston

Service Excellence: There was a head scratcher of a repair on a 2018 Chevrolet Camaro with the 2.0L LTG engine. The vehicle was setting intermittent DTCs P0171, P050D, P1400, and P1101. The vehicle originally came in with aftermarket intake parts. After the customer reinstalled the factory parts, the vehicle still exhibited the same intermittent random fault codes and condition.

Kurt checked out the GE-52250 PowerSmoke Diagnostic Leak Detector (which was not an Essential Tool at the time) through the GM Loan Tool Program to better test the induction system for leaks with pressurized smoke. He worked with TAC and started diagnosis again from square one with the FSE. He never gave up, even though no leaks were found in the intake system. Eventually, a missing air diffuser near the Mass Airflow Sensor (MAF) was found, which was causing the MAF sensor reading to be skewed and setting the codes.



Technician: Steve Camacho

Dealership: Don Mealey Chevrolet, Clermont, Florida

FSE: Scott Lewiston

Service Excellence: On

top of being a Top Tier Diagnostic & Master Technician, Steve is always on the lookout for product quality concerns. Steve has helped elevate dozens of product quality issues through FSE collaboration and through the Field Product Reporting process. He identifies the problem, fixes the customer's concerns, and then provides great photos and documentation back to GM with details on the quality concerns and corrections that were made. Steve's detailed feedback helps GM raise awareness and work towards building better quality vehicles.



Shop Foreman: Vic Leto

Dealership: Bob Steele Chevrolet, Cocoa, Florida

FSE: Scott Lewiston

Service Excellence: Vic had a technician who was struggling to identify the cause and repair of a 2017 GMC Canyon with an intermittent engine ticking/knocking noise on cold startup. Vic stepped in to help with the testing and worked with the customer to have the vehicle at the dealership for an extended stay. Vic continued testing and driving the vehicle to try to replicate the concern. He also was working diligently with TAC. Ultimately, the case was escalated to the FSE level. We worked together and identified the failure to be an exhaust cam phaser that was not locking after the engine was shut off. We provided a sound bite to Engineering. Vic's relentless efforts helped to get this vehicle repaired correctly and to get a satisfied customer back on the road.



Technician: Tyler Solem

Dealership: AutoNation Chevrolet, Gilbert, Arizona

FSE: Mike Pritulsky

Service Excellence: A TAC

case on a 2020 Malibu with illuminated ABS, ESC and Check Engine lamps along with several DTCs was proving difficult to diagnose. Even with his heavy workload, Tyler professionally performed all testing and repairs that were requested in a timely manner. This was a very difficult case that most techs would have given up on. We eventually found a unique issue for the highspeed LAN enable circuit and resolved the concern. Tyler also accommodates FSEs with a service bay and any needed tools anytime there is a need to work on a vehicle at his dealership. Tyler's helpfulness and cooperative attitude is a great reflection of the GM value of "It's On Me."



Technician: Joshua Olson

Dealership: Greiner Buick-GMC, Victorville, California

FSE: Wade Hanna

Service Excellence: Joshua constantly follows up with in-depth information on every case. He follows instructions and is eager to learn. He is extremely professional and takes great pride in everything he does. Recently, Joshua was responsible for identifying incorrect information and direction given by ParTech about using 6.2L injectors in place of back-ordered 5.3L injectors. Joshua followed up with me to verify that 6.2L injectors could be used in place of the required 5.3L injectors. By his actions, we were able to correct the information provided by ParTech, which could have affected more than just this one vehicle. His actions saved hundreds of warranty dollars and possibly thousands had the incorrect injectors been installed as directed. His diligence and dedication saved warranty costs and a possible vehicle repurchase. Joshua had the courage to ask about something that did not sound correct to him and reached out for advice and assistance when it was needed to make the right repairs.



Technician: Randy Goodison

Dealership: Three-Way Chevrolet-Cadillac, Bakersfield, California

FSE: Jamie Borton

Service Excellence: Randy is extremely customer-centric and tries to make sure that customers are always completely satisfied with the proper repair of their vehicles. He is my go-to tech if I am having issues with a transmission-related concern. He is always helpful, answers my calls, and shares new information that will help fix a transmission issue. If I have a tech at another dealer working on a case, he will go out of his way to make sure that the case or problem gets fixed. He's always willing to help and doesn't mind sharing his knowledge with other technicians.

The first time I met Randy, he was very forthcoming at showing me transmissions he had fixed that had new or ongoing issues. For example, there was an 8-speed transmission in an Escalade with a 1-2 shift flare up, garage shift issue and other shifting issues. Randy noted excessive clearance on the 2-3-4-6-8 clutch assembly and ordered a thick snap-ring to bring the clearance down to 0.059-inches, which cleared up all of the shift concerns. But Randy is not just a transmission tech – it's where the dealership needs him to focus at this time – he often provides assistance on all types of customer concerns.

Thanks to Hank Poelman

Techline Connect, from page 3

- Additional RPO coverage is now included in the RPO data.
- Correct application lock-up when Techline Connect is minimized.
- New J2534 Tool Selection version supports CAN FD and Ethernet.

SERVICE INFORMATION UPDATES

- When using the Browse Only Mode and Search Another Vehicle functions, the Region and Language can be changed without signing out of Techline Connect.
- When viewing a specific vehicle (Browse Current Vehicle), the user can change the Language, but not the Region. This feature is helpful if the data is not found in users' native language by allowing them to easily check the English version.
- When a vehicle is selected at the Techline Connect Dashboard, Service Information will not allow a search for other vehicles. To perform another search, use the Browse Only Mode function.
- When selecting a connector pin link while viewing a schematic, the linked Service Information will highlight the connector pin that was selected on the previous page.
- The VIN decode feature has been improved to allow for more vehicles to be found.

• After clicking a link in a Service Information document to view another document, selecting the Back button will take you back to the page location of the previously viewed document.

APPLICATION UPDATES

The Update Manager that is part of Techline Connect performs all updates needed to keep the applications up to date when logging in to Techline Connect, including GDS 2 and MDI updates as well as large calibration files (if configured in the Profile Preferences). To ensure all updates are downloaded properly, make sure your dealership's IT department correctly configures all of the Techline PC's security settings. Techline Connect needs to be set to "Run as Administrator" in order to ensure that all updates are received. Refer to the Run as Administrator PDF for instructions.

To see if an update has been released and should have been downloaded, check the Messages box at the top of the Techline Connect dashboard. A message will be sent out when an update has been released.

For assistance, contact the Techline Customer Support Center (TCSC) at 1-800-828-6860 (English) or 1-800-503-3222 (French).

Thanks to the Techline Connect team

False Park Assist Alerts

False Park Assist alerts may occur on some 2019-2021 Silverado and Sierra trucks when there is not an object in front and/or behind the vehicle. As a result of the alert, the system may disable itself and a Park Assist Off message may be displayed on the Driver Information Center (DIC). The indicator in the Park Assist switch also will be disabled.



Depending on the way the Park Assist sensor and/or bezel is mounted or painted, the sensor can ground out or pick up normal vehicle vibrations that may be interpreted as an object. If the sensor is properly mounted and isolated from the vehicle, these normal vehicle vibrations would not be picked up the sensor. Since the sensor is working normally, no DTCs will be set.



IDENTIFYING SENSORS

There are several possible items to check if this condition is present and to determine which sensor may need repairs.

Disable History – Using GDS2, go into Module Diagnostic/Park Assist Module/Data Display/Parking Assist Disable History 1-4 and 5-7 Data and view the disable history. If the disable history shows "Trailer or Other Object Attached," it is a good indication there could be an issue with a Park Assist sensor(s) grounding out or getting squeezed and picking up normal vibrations. Don't overlook obvious things, such as a trailer hitch installed or anything else attached to the vehicle.

TIP: If the disable history shows "Manual Disable," it may be due to the customer turning off the system. In an effort to make the Park Assist system operational, a customer may try cycling the Park Assist manual disable switch.

Sensor Location – Ask the customer if the Park Assist display in the DIC has shown where a false alert is being detected. Use this information to help narrow down which sensor(s) should be inspected. For example, if the Park Assist display is falsely indicating an object at the left-front of the vehicle, inspect the left-front Park Assist sensors/bezels.

GDS2 Parameters – On vehicles with front and rear Park Assist that have the Park Assist Off message displayed, use GDS2 to view Module Diagnostic/Park Assist Module/Data Display/Parking Assist System Data and monitor the "Attached Object Detected Front" and "Attached Object Detected Rear" parameters. If one of the parameters is "active" when the Park Assist Off message is displayed, it can help determine if the issue is with the front or rear sensor(s)/bezel(s).

TIP: When the vehicle is shifted into reverse, both the front and rear Park Assist sensors, if equipped, are active. Also, while driving forward, the system determines if anything is attached to either the front or rear of the vehicle.

SENSOR REPAIRS

Once it has been determined which sensor(s) to inspect further, check the Park Assist sensor and bezel for any damage. Look for any stone chips, paint chips or dents as well as any issues with



the silicone ring, including proper ring installation. Repair as necessary. These inspections may require the bumper to be removed.



Inspect the Park Assist sensor bezel for proper mounting in the

bumper hole. If the bezel is not properly mounted, it can lead to a sensor grounding out or the sensor getting squeezed. Check



Bezel locking tab

that all four locking tabs that secure the bezel to the bumper are fully engaged. If a tab is not fully engaged, determine what is preventing the tab from engaging, such as excessive paint or plastic flashing. Do not replace the sensor or bezel unless they are damaged.

If the Park Assist sensors have been painted, check that the tip of the sensor is isolated from the sensor body by the internal decoupling ring. Any paint or clear coat that has run down the side of the sensor's tip into the gap between the body and sensor tip may cause the sensor to ground out.



For additional details on Park Assist sensor diagnosis and repairs, refer to #PIT5836.

Thanks to Jim Will

Testing Setup and Valid Test Codes KEY TO BATTERY WARRANTY CLAIMS



Battery replacements made under warranty require that a number of items be completed properly in the dealership not only to support the warranty claim but to also ensure an accurate diagnosis of a battery's state of health.

An increased focus on ensuring that proper diagnostic and testing procedures are completed in the dealership stems from the following issues:

- Analysis of batteries returned to the Warranty Parts Center show a concerning percentage of batteries that were not defective and should not have been replaced under warranty.
- Decoding of the battery test codes generated by the EL-50313 Midtronics GR8 Battery Tester/Charger and EL-52800 Diagnostic Charge Battery Station (DCBS) show that some tests are not being set up properly.
- Warranty Claims for battery replacement are not always supported by a valid "Replace Battery" (GR8) or "Battery is Bad" (DCBS) test code.

As a result, Warranty Operations is resuming battery claim reviews beginning May 1, 2021. Warranty transactions for battery replacement must be supported as follows to avoid chargeback:

PROPER SETUP OF BATTERY TEST EQUIPMENT

Technicians must select the correct battery type (FLOODED, AGM, AUX12, START/STOP AGM) and CCA rating that matches the battery in the vehicle when setting up the battery test. Selecting the wrong information may result in battery damage or a failed battery result for a good battery. Do not use IVH RPO data for CCA ratings as select vehicles display a metric reading where the battery tester requires the entry of the standard CCA rating. Always pull battery information directly from the battery being tested. If the battery type and CCA cannot be identified through a visual inspection, refer to the Service Information or the TechLink OE Battery Ratings Chart.

• When using the GR8 Tester/Charger, select "Charging" and "Diagnostic" when setting up the test. Enter the correct Battery Type and rated CCA (both from the battery label). Use the Out of Vehicle test (battery disconnected with test equipment connected directly to the posts) for each battery when testing a vehicle with dual batteries.



• When using the DCBS, select "Diagnostic" and "Trolley" when setting up the test. Scan the VIN and verify the battery selection is correct, or manually select the correct Battery Type and rated CCA (both from the battery label).

TIP: The BAC number, job card number (repair order), and VIN associated with the battery test on the GR8 or DCBS must match that of the transaction. It's recommended to verify that this information is properly entered in the GR8 or DCBS when setting up the battery test.

VALID BATTERY TEST CODES

The warranty code generated by the GR8 or DCBS that is displayed on the printed test result slip must be entered in the required "Battery Tester Code" field when submitting a battery replacement transaction.

A valid test code supports warranty replacement and will protect a claim from chargeback. Here are some best practices for your Warranty Administrator to follow when entering the battery test codes:

- Carefully enter the entire code showing on the test result printout (without dashes or spaces). Codes will be either 15 or 20 characters long. The following characters are not used in the Warranty Code: Letters I, O, Y, and Z, and any special characters like &, (,), \$, %, etc.
- Do not enter comments in the Battery Test Code field in place of a valid code – Only the "Special Cases" listed in Bulletin #20-NA-132 are valid reasons for not having a test code. When applicable, enter the reason exactly as directed per the bulletin.
- Do not enter a battery test code from a test printout if the data does not match the information in the transaction. The BAC number, job card number, and VIN on the printout must match that of the transaction.
- Do not enter the same code on more than one claim. Codes are unique to each test and must only be submitted once on the applicable battery replacement transaction.



BATTERY TESTING RESOURCES

For additional information on proper 12V battery testing/charging, refer to the following resources:

- "Battery Inspection/Test" diagnostic information in the applicable Service Information
- "Battery Charging" diagnostic information in the applicable Service Information
- Bulletin #20-NA-132: Warranty Administration Battery Testing and Warranty Replacement Requirements

Any questions about warranty claim submissions should be directed to your Warranty Support Center (WSC) Specialist.

Thanks to Patti Marino

GM ACCESSORY

Cold Air Intake System Requires Calibration



The Chevrolet Performance, GMC and Cadillac Cold Air Intake System (RPO 5W7, RVK) available on 2021 Camaro, Silverado, Tahoe, Suburban, Sierra, Yukon and Escalade models equipped with the 5.3L V8 engine (RPO L84), 6.2L V8 engine (RPO L87) or 6.2L V8 engine (RPO LT1) should only be installed on vehicles that were ordered with the RPO/LPO (dealer installed) option. The Cold Air Intake System requires a calibration from the Techline Customer Support Center (TCSC), which is not available for vehicles without the proper RPO/LPO 5W7 or RVK option.

The Cold Air Intake System is a Limited Production Option (LPO) that can be ordered with the vehicle at the time of purchase. It is not to be installed or sold as an Accessory Catalog Offering (ACO), or over-the-counter accessory, as the calibration is not available for ACO applications. If installed on an incorrect vehicle, the Check Engine MIL may illuminate and DTCs P0172 (Fuel Trim System Rich) and P0175 (Fuel Trim System Rich Bank 2) may set.

CALIBRATIONS FOR GM ACCESSORIES

GM Accessories that require updated calibrations must have the calibrations installed to ensure proper operation of the new accessory components as well as other related vehicle systems, whether it's an air intake system that includes an ECM update, a front grill package that involves front camera operation, or larger wheels and tires that impact the operation of Advanced Driver Assistance Systems on the vehicle. Calibration updates that are

not performed following the installation of an accessory may not only limit system performance, but may also leave the vehicle non-compliant with regional government regulations.

TIP: If programming is attempted before contacting TCSC when installing accessories that require an updated calibration, the Service Programming System (SPS) will not deliver the correct accessory calibration to the vehicle. SPS may display a message advising users that they are attempting to program with the "same calibration" — a warning that the vehicle has not received the required accessory calibration.

INSTALLATION INFORMATION

Installation sheets for GM Accessories can be found in the Accessories Manuals in the Service Information (SI). If the procedures are updated or improvements are made, checking the instructions with each installation will ensure the latest information is being followed.

To locate the instructions, select the year, make and model of the vehicle from the SI dropdown menus. Next, from the Publication page, select the Accessories Manual link.

INSTALLATION QUESTIONS

The following sources are available to help dealerships with any questions on GM Accessories.

Accessory Distributor Installer (U.S.) – Contact your local ADI if your dealership has a question or concern related to Limited Production Option (LPO) parts.

Partech – Questions regarding accessory installation sheets, missing kit components, quality issues, and vehicle compatibility can be directed to Partech at 1-855-GMCARES (1-855-462-2737), select prompt 2.

Techline Customer Support Center – Contact TCSC for programming concerns with GM Accessories.

Technical Assistance Center – Questions about the installation of the accessory or help with diagnosing problems related to the installation should be directed to TAC.

For more information, refer to #PIP5805.

Thanks to David Rutkowski

Engine Overheating Message

Some 2019-2021 XT4, XT5, Blazer, Acadia; 2020-2021 CT4 and CT5 models equipped with the 2.0L 4-cylinder engine (RPO LSY) may have a possible engine overheating condition along with an Engine Over Temperature message on the Driver Information Center (DIC). These conditions may be the result of an inaccurate #1 Engine Coolant Temperature (ECT) sensor.

Using GDS2, confirm the accuracy of the #1 ECT sensor by comparing readings of ECT sensors 2, 3, 4, 5 and 6 to the #1 ECT sensor reading. To check the sensors, allow the engine to cold soak for several hours and then review the six ECT sensor readings (at key on, engine off) using GDS2. Verify the sensors are within a few degrees of each other. The ECT sensor readings can be compared to a like vehicle under similar test conditions with the same engine RPO option.

In addition, the resistance of the #1 ECT sensor can be measured and compared to the latest Tempera-



#1 ECT sensor

ture vs. Resistance chart located in the appropriate Service Information.

Data has shown that a #1 ECT sensor that is reading several degrees colder than ECT sensors 2, 3, 4, 5 and 6 could cause a potential Engine Over Temperature message to display in the DIC as well as the engine coolant temperature to operate at elevated levels.

If the #1 Engine Coolant Temperature sensor is functioning as designed, continue diagnosis according to the Service Information.

For more information, refer to #PIP5804.

Thanks to Robert Halas

TEEH LINK

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Editor: Lisa G. Scott GM Customer Care and Aftersales

Technical Editor: Mark Spencer mspencer@gpstrategies.com Production Manager: Marie Meredith

Creative Design: 5by5 Design LLC dkelly@5by5dzign.com

Write to: TechLink PO Box 500, Troy, MI 48007-0500

GM TechLink on the Web: GM GlobalConnect

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