



GM TECHNICAL ASSISTANCE CENTER (TAC)

Dealer Tips and New Information Newsletter

FEBRUARY 16, 2023

"Provide advanced technical repair guidance, resulting in a superior customer experience."

The following are key TAC Tips as well as information from recent TAC cases to help resolve some known concerns or identify normal conditions on various GM models.

GENERAL

1) FYI: New ASE Test

There is a new ASE Test for **Advanced Driver Assistance Systems** now available – ADAS Specialist Certification test (L4). Thanks to FSE Ryan Matt.

2) Intermittent Concerns

Bulletin #01-00-89-010N has been updated from Comeback Prevention Information and Using Customer Concern Verification Sheets (CCVS) to **Guide to Help Reduce Repeat Visits for the Same Customer Concern**.

3) Field Product Reports

If any unusual conditions are noticed on a vehicle, please submit a Field Product Report using **Bulletin #02-00-89-002T** Information for Dealers/Technicians on When and How to Submit a Field Product Report (FPR) (U.S. Dealers Only).

Note: This is especially important for new issues not seen previously.

4) Service Information (SI) Feedback

For any issues with Service Information, please submit feedback using the feedback button

"  " on the page with an error. This helps us all get better results from our searches.

5) Noise Concerns

For any noise concerns where a TAC case is needed, refer to **#PIP5358A** Vehicle Noise Diagnosis and TAC Requests for Assistance with Noise-Related Complaints. Also, produce a video or sound file to share.

NOTE: Review the file and ensure that it will play back an audio file that can be heard from the PC speakers. The PicoScope will pick up normal noises and make them clearly audible. Make sure the noise that is being diagnosed is on the file. If the noise is not there, move the sensor and record another file until the source area is found.

6) Attaching GDS2 Session Logs and PicoScope Files

#PIP5632F Procedure for Attaching GDS2 Session Logs to Technical Assistance Cases Using Dealer Case Management (DCM) (U.S. Dealers Only) can also be used to enter pictures and sound files or videos into the case when requested by TAC.

ENGINE

1) Bulletin #21-NA-023 : Engine Compartment Tick or Rattle Noise

We are finding that this bulletin is not being used and the purge valve is still being replaced for this issue. Please refer to this bulletin for this tick or rattle noise concern.

2) AFIT Usage Guide

The AFIT Usage Guide, which shows how to use the AFIT and which cables and modules are used for each application, is available on the GM Special Service Tools website and TechLink.

Note: the AFIT tool does not work on 2020 – 2023 model year Corvettes (6.2L LT2 or 5.5L LT6). Please use the injector balance test in GDS / TLC for this vehicle per SI.

To access the AFIT Usage Guide on the GM Special Service Tools website, go to:

- GM GlobalConnect and select App Center > Special Tools and Software Updates
- Click the app to go to the GM Special Service Tools website – gmtoolsandequipment.com – and select Software Downloads.
- Find the AFIT Tester and select the AFIT Vehicle Application Chart to download the Excel file.

CH-47976
Active Fuel Injection Tester (AFIT)



Software Link
[AFIT \(Active Fuel Injector Tester\)](#)
[Software Update V18.00 January 2023](#)

Support Document(s)
[AFIT Update Instructions](#)
[AFIT DMU Instructions Guide Rev B](#)
[AFIT Diesel Diagnostics Reference Guide](#)
[AFIT Quick Reference Guide Rev A](#)
[AFIT User Guide Rev A](#)
[AFIT SIDI Diagnostic Guide](#)
[AFIT Vehicle Application Chart-1996-2023-SWV18](#)

To access the AFIT Usage Guide on TechLink, go to:

- Service Information and select the GM TechLink link.
- On TechLink, select Tool Job Aids at the top of the page.
- Select the AFIT Vehicle Application Chart to download the Excel file.



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Tool Job Aids

- AFIT Vehicle Application Chart
- J-38125 Terminal Repair Kit Update Procedure
- Tips for Warranty Reprogramming Events

3) AFIT USB Cable

In some cases, the AFIT may not update properly to the latest version. If the software is not updated, the AFIT may not crank the vehicle when instructed to do so on some models. If there is an update concern, verify you are using USB cable CH-47976-3A. This cable did not come with the AFIT tool and must be purchased separately (see note below).

Note: The original USB-to-Serial Communication Cable (CH-47976-3) provided with the AFIT kit is not Windows 10 compatible. To purchase an approved cable, go to gmtoolsandequipment.com and order USB cable CH-47976-3A.

4) #PIP5900: Diagnostic Tips for Seized Engine or Engine Noise

This PI has been released for diagnosis of L87 engine bearing failure.

5) **Bulletin #22-NA-168: Diagnostic Tip for Checking Exhaust System for Leaks, Malfunction Indicator Lamp (MIL) Illuminated - DTC P2C7A and/or P0421 Set**

When testing for leaks per this bulletin, the leak at the norma band clamp needs to be repaired in order to test the rest of the system, further forward. The leak will not cause DTC P2C7A, P0421, P20EE, P14D9 or P11D5 to set. It needs to be addressed, as air pressure, like water, will find the easiest path, and will not show a leak further upstream on the exhaust.

6) **Engine Oil Lubrication Description**

We have seen numerous cases where OCV diagnosis and control has been attempted on engines that do not have oil control solenoids.

Engine Lubrication Description

Engine lubrication is supplied by a variable displacement single-stage (L82, L84) or two-stage (L87) vane-type oil pump assembly. An oil control solenoid valve, controlled by the engine control module (ECM), mounted to the two-stage oil pump provides dual stage functionality. The oil pump is mounted on the front of the engine block and driven directly by the crankshaft sprocket. The pump rotor and vanes rotate and draw oil from the oil pan sump through a pick-up screen and pipe. The oil is pressurized as it passes through the pump and is sent through the engine block lower oil gallery.

TRANSMISSION & DRIVETRAIN

1) **M1L and M1M Line Pressure Testing**

When performing transmission service diagnostic testing and getting a failure where line pressure is checked, many cases indicate that pressure is within specs. Instead of checking the data list and looking at the hard number, look at the line graph as shown below. The line graph shows the variation that is causing the issue, which may not be obvious in other views. We are seeing a lot of transmission replacement recommendations where the codes set are related to the main control valve, but line pressure looks within specifications. This is very important on vehicles setting DTCs P0868, P2853, P2854, P2855, P2856.



2) Lock in Reverse

A lock in reverse concern on vehicles equipped with a 10LXX or 10L1000 transmission may occur after a cold soak only, usually with low miles, and/or after turbine shaft replacement. These conditions may be due to a leaking turbine shaft sealing ring. Valve body assembly replacement has not corrected this concern.

3) #PIP5621C: GM TAC Support on Vehicle Automatic Transmission Concerns That Can Be Duplicated

On all 10-speed transmission concerns, please reference this PI for BQM and engineering assistance. Be sure to bookmark sessions.

Please send bookmarked full trans data on all 10-speed concerns for BQM and engineering per #PIP5621C.

- When working on a vehicle with a 10-speed transmission shudder or bind/tie up concern, review speed sensor data for possible spiking that doesn't last long enough to set a code.
- After any repair on a 10-speed transmission, the Transmission Adaptive Pressure Reset procedure must be performed.

4) Harsh Downshift Concerns on the 10L1000

Follow the t-case alignment bolt torque sequence procedure in SI# 5155327 for harsh downshift concerns on the 10L1000.

5) P18XX Not Plausible DTC

A P18XX Not Plausible DTC set on vehicles equipped with a transmission electronic push-button selector (RPO EPH) that cannot duplicated may be a customer induced concern. If a "soft pull," meaning slow and not fully completed, selection is made, a "Not Plausible" DTC may set.

The condition can be confirmed by making a range selection with the engine running without depressing the brake pedal. After the 8th selection, the "Not Plausible" DTC will set. Brand Quality is researching this concern. The timer does not "time out" with the ignition cycle, and the DTC will set after the 8th selection regardless to how many ignition cycles occurred. A Service Transmission message usually appears on the Driver Information Center when the DTC sets.

6) PIE0735: Engineering Information - Information on Transmission Fluid Seen Under the Vehicle

This PI has been released for 2022 – 2023 Corvettes.

TRUCKS & CROSSOVERS

1) PIT5975: Creak Noise in Rear Over Bumps

This PI is now available in SI for 2023 model year Traverse and Enclave.

ELECTRIC VEHICLES

The following information has been released for the 2023 LYRIQ.

1) Super Cruise and Surround Vision Cameras

Super Cruise and Surround Vision cameras are not currently enabled on LYRIQ. These features will be enabled in a future OTA.

2) #PIC6492: U1962 Setting Current in Image Processing Control Module 1 Processor 2 with no MIL or Service Message

3) #PIC6482: U3000 SYM56 Shown as Current in the VCU (Radio) with No Performance Concerns

4) #PIC6493: Diagnostic Tip - Steering Wheel Contacting Column Covers

5) #PIC6491: Diagnostic Tip - Service Door Latch System Message with No Related DTCs

6) #PIC6474: Outside Door Handle Operation

INFOTAINMENT

1) #PIC6488: Required Sequence of Steps When Programming Replacement Radios

Following this PI sequence to a T when programming a radio is crucial or it will fail.

DCM & TAC CASES

Remember, you can always call TAC to discuss your case if you feel that progress is not being made within the Dealer Case Management (DCM) system.

1) New: The Print button within Dealer Case Management is not functional

The Print Button within Dealer Case Management no longer works and is scheduled to be removed in the near future.

To print within the system, use the browser print function using CTRL P on the page to be printed. Refer to the job aid now on the DCM resource page for this change.

2) Features of the Dealer Case Management System

DCM resolution search is now available to dealers. Please review the PDF file below for more information.



DCM Resolution Search.pdf

3) Opening TAC Cases in DCM

When opening a TAC case, run a VIN search to see if a case exists already on the vehicle for the same concern from your dealer or a recent case from other dealers. This will ensure all case information is on the same case from any dealer. If there is a current case, call TAC to have it opened and updated.

If the case includes several DTCs, submit a session log into the case per the latest version of #PIP5632 to ensure that all codes are included. In addition, on VIP vehicles, include the Network Communication Event Results and Network Communication Status data lists.

4) Closing TAC Cases

When finishing a vehicle with a TAC case, please submit a closing with as much information as possible. This can be done by entering it into the DCM per TAC closing information or by simply calling into TAC and the advisor will submit it for you. By doing so, we can all help each other share as much information as possible to help take care of our customers efficiently. **After September 14, 2022, TAC cases automatically close when the Repair Order of record is closed at the dealership. Send in a closing for anything that is unusual or new.**

Remember: ONE TEAM.

When submitting a case closing, please only submit cases when the vehicle has actually been repaired. If the vehicle is no longer at the dealership or is waiting for parts, the case can be closed unlinked, which becomes unsearchable so that incomplete information is not shared with others.

5) Previous TAC Cases

If you already have a recent TAC case on a vehicle and you find that it is closed, and you would like to update it for the same issue, please call TAC and case can be reopened instead of starting a new case. Reopening the case will help ensure that all relevant information will be in one place for the consultant to best assist with the concern.