



Service Bulletin

Bulletin No.: 21-NA-049

Date: February, 2024

INFORMATION

Subject: Diagnostic Aid – PicoScope Information and Setup for Transmission Related Concerns

Brand:	Model:	Model Year:		VIN:		Engine:	Transmission:
		from	to	from	to		
Chevrolet	Corvette	2020	2024	—	—	All	All

Involved Region or Country	North America, Europe, Middle East, Japan, Australia/New Zealand
Information	This document provides information related to the CH-51450 PicoScope NV tool, set up, recording, and sound file submission to the GM Technical Assistance Center (TAC) for noise type concerns within the transmission.

Information

Note: Ensure you are using a PicoScope purchased through the GM dealer tool network. PicoScopes purchased outside of the GM dealer tool network have different software, which will corrupt the file.

Note: For additional training and information on PicoScope, visit the Center of Learning and search for course PicoScope Noise, Vibration, and Harshness Diagnostics Overview and Oscilloscope Diagnostic Kit Description and Operation within SI.

If you need to download or update the PicoScope, follow the steps below:

1. Log into GM GlobalConnect.
2. Click on the "Departments" drop down menu and select "Service."
3. Under "Applications" on the service page, select "Special Tools and Software updates."
4. You will now be re-directed to www.gmtoolsandequipment.com (do not access this site directly as it requires the use of GlobalConnect to allow downloads).
5. Click the link under "Software Downloads" for the latest PicoScope software version and a new page will open.
6. Click the setup links and follow instructions to update the tool.

Important: Service agents must comply with all International, Federal, State, Provincial, and/or Local laws applicable to the activities it performs under this bulletin, including but not limited to handling, deploying, preparing, classifying, packaging, marking, labeling, and shipping dangerous goods. In the event of a conflict between the procedures set forth in this bulletin and the laws that apply to your dealership, you must follow those applicable laws.

Service Procedure



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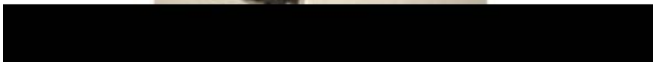
1. Place the PicoScope sensor on the bolt head shown in the image above. This is located on the right side of the transmission, near the transmission cooler. This bolt is used to secure a bracket for the wire harness. The sensor cable can be run into the passenger compartment with the engine compartment closed.

Note: Ensure to keep the cable routed away from the exhaust.

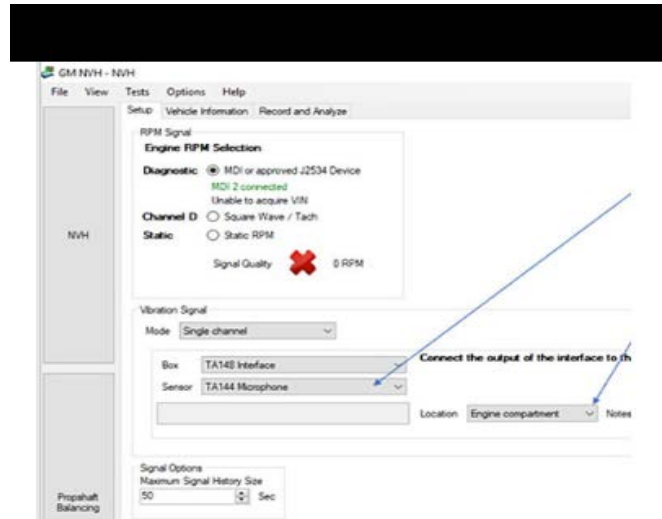


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2. Open the most current version of GM NVH.



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3. After completing the wizard, go back into the setup tab under Vibration Signal and select Single Channel. Select TA148 Interface in the “Box” dropdown and TA144 Microphone for the “Sensor” Drop down. Select the Location as Engine Compartment. Set the Diff Ratio to 3.55. **Failure to change location to engine compartment will result in you being asked to correct that setting and resend the data.**

Note: If using 3 axis, use center channel only and set up as single axis.

4. Drive the vehicle to verify condition and record a Pico data file of the concern.
 - ⇒ If diagnosing an acceleration or deceleration related concern, please hold the acceleration steady for 3-5 seconds After book marking while recording or allow a 3-5 second deceleration while recording. Tipping in and out of the throttle shows that it is load related but does not help isolate the source.
 - ⇒ If diagnosing a steady speed condition, please try and hold the steady speed for at least 5 seconds during the recording as it also allows for better isolation on our end when reviewing the files.



6. The next box allows you to save the vehicle information as well as customer information and notes in the Notes box. This could be sensor location, sensor direction and even road surface name, etc. Click Ok when you are done adding information.
7. If PICO scope data shows readings under 85 decibels, vehicle noise is deemed as a normal characteristic.
8. Create an e-mail to TACSNAPSHOT@gm.com in the U.S. and TACSNAPSHOTCANADA@gm.com in Canada and in the subject line Put Vibration, your BAC, and last 8 of the VIN.

Note: For Middle East, Japan, or other countries, contact your local TAC for submission instructions.

Parts Information

No parts are required for this repair.



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5. While the reviewed file is on the screen, click File Save. It should be formatted as .pddata



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Version	5
Modified	<p>Released March 04, 2021</p> <p>Revised July 29, 2022 – Added the 2022 and 2023 Model Years, Transmission RPO M1M, Europe to the Involved Region or Country section and step 7.</p> <p>Revised June 06, 2023 – Changed Transmission RPO to All, added Australia/New Zealand to Involved Region or Country section and added an Important statement under Information section.</p> <p>Revised November 17, 2023 – Added the 2024 Model Year.</p> <p>Revised January 31, 2024 – Added Information to the Service Procedure under Step 3 and Step 4.</p>

GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your GM dealer for information on whether your vehicle may benefit from the information.



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