



April 2023, Volume 25, No. 7





New Timing for SAVI Dongle Data Warranty Claim Requirements





New Timing for SAVI Dongle Data Warranty Claim Requirements

The Service Advisor Vehicle Interface (SAVI) service lane scan tool streamlines the vehicle walkaround process for service advisors in GM dealerships (U.S.) and accurately provides a variety of critical vehicle data for warranty claims. To enhance the claims process, SAVI dongle-generated vehicle data documentation will soon be required for all warranty claims.

By automatically populating vehicle data, SAVI helps to speed up the write-up process while reducing the opportunities for error. The data also is shared with GM quality teams to help in addressing any vehicle concerns. Currently, SAVI has been installed in nearly 4,000 GM dealerships.

NEW WARRANTY CLAIM SUBMISSION APPROVAL TIMING

GM has released updating timing on the required SAVI donglegenerated vehicle data documentation for warranty claims.

The updated rollout timing is as follows:

- April 10 April 30: Dealers will be required to have dongle scans on at least 80% of warranty claims by April 30.
- May 1 May 31: Dealers will be required to have dongle scans on at least 90% of warranty claims by May 31.
- Starting June 1: Claims without a scan and without a valid exception will not be paid.

For job cards opened on or after April 10, the Global Warranty Management system will auto-reject claims without an approved dongle service lane scan (GM SAVI, eAdvisor or Tekion). Throughout the rollout, exceptions where a scan could not be performed will be H-routed to the Warranty Support Center (WSC), with an explanation in the comments section as to why a scan was not performed. H-route processing time is dependent on WSC case load.

If a vehicle has a dead battery and cannot be scanned, vehicle diagnosis should begin and the battery charged, if possible. The vehicle will then require a dongle device scan for the repair order write up.



SAVI-dongle collected data is required for warranty claims.

USING SAVI

There are three compatible dongles that are available to quickly access vehicle data during service write up. In addition to the GM SAVI dongle, eAdvisor or Tekion (if using Tekion DMS) dongles can be used in the dealership.

To ensure warranty claims are processed efficiently, dealerships should confirm that all dongles have been configured for each Service Advisor, stable Wi-Fi network connections are in place, and that a process has been established for using the SAVI dongle during the write up and walkaround in the service lane.

At vehicle write-up in the service lane, SAVI wirelessly captures the vehicle's full VIN, odometer, make, model, color, Diagnostic Trouble Codes (DTCs) and multi-point vehicle inspection (MPVI) data when compatible dongles are plugged into a vehicle's OBDII port (or DLC) in the service lane. The SAVI dongle uses Wi-Fi to send the collected data to the cloud, which is then obtained and displayed on the assigned Service Advisor's PC in the SAVI Dashboard and Service Workbench. Vehicle-scanned data normally requires 30-90 seconds before it is available in the SAVI Dashboard. With the vehicle data integrated into the dealership's Dealer Management System/Service Lane Tools, SAVI can help service advisors better address customer concerns while also helping warranty administrators reduce potentially rejected claims caused by inaccurate mileage or missing DTC entries. The scan history also is saved so it can be referenced later if needed after service is completed.

TIP: During initial deployment, each dealership was provided one dongle per Service Advisor. New or additional dongles can be ordered for an additional cost by contacting GM Dealer Equipment or visiting gmdesolutions.com.

DEALERSHIP INTEGRATION

The GM SAVI dongle has been developed to capture data from 2010 and later GM models sold in the U.S. Before using SAVI in the service lane, each dongle must be set up with an assigned service advisor. A service advisor can be assigned to multiple GM SAVI dongles.

To launch the SAVI Dashboard

application, log in to GlobalConnect and select the Service Advisor Vehicle Information Dashboard app in the App Center.

If SAVI is not currently integrated with the dealership's Service Lane Tool (SLT) or Dealer Management System (DMS), the dongle can still be used to scan all vehicle data at write up in the service lane. Scanning will automatically populate vehicle data in the GlobalConnect SAVI Dashboard and Service Workbench, which can be copied into repair orders as needed.

TIPS FOR USING THE SAVI DONGLE

Green LED is flashing on the SAVI dongle – The green flashing LED light indicates the dongle is transferring data to the SAVI Dashboard and Service Workbench. Once the green LED light stops flashing and remains solid, the dongle can be unplugged from the vehicle.



Collected data is displayed in the SAVI Dashboard and Service Workbench





Remove the dongle when the green LED light stops flashing.

April 2023 - Page 3

No LED lights on the SAVI dongle – If there are not any LED lights illuminated on the SAVI dongle when plugged into the vehicle, there may not be any power at the DLC on the vehicle (make sure the vehicle is in the On/Run position before plugging in the dongle), or there may be a malfunction with the SAVI dongle.

Red LED on the SAVI dongle – A red LED light indicates the SAVI dongle was unable to connect to the dealership's Wi-Fi network, unable to connect to the server, or unable to communicate with the vehicle. First, ensure that the vehicle is in the On/Run position before plugging in the SAVI dongle. Often, a second scan attempt by unplugging and reinserting the dongle resolves this issue. Refer to the SAVI Supplemental Instructions for more information about the dongle's various LED indicators.



the provided USB cable.

SAVI dongle is not recognized – If the dongle is note recognized when plugging into the PC via the USB connection, make sure the provided USB cable is being used. The PC may take up to one minute to recognize the dongle. If it is not recognized, try another USB port on the PC.

SAVI-scanned DTCs are different from technician's scan tool – DTCs can change from key cycle to key cycle. The technician's scan tool results should always be prioritized when communicating with a customer.



SAVI device is intermittently failing to scan – In most cases, intermittent failed scans can be attributed to a poor Wi-Fi connection. For complete SAVI wireless network requirements, refer to the SAVI Infrastructure Requirements document on the SAVI Support Page. It may be helpful to move the vehicle to a location that is closer to the dealership's Wi-Fi access point and attempt to rescan the vehicle.

Help with the SAVI dongle – If your GM SAVI dongle is not working properly, contact the Techline Customer Support Center (TCSC) at (888) 337-1010.

MORE INFORMATION AND RESOURCES

Instructional videos, program guides and other information about using SAVI — including SAVI Set Up and Utilizing the SAVI Dongle, SAVI Infrastructure Requirements and SAVI Frequently Asked Questions — can be found in the App Resources section of the GlobalConnect Service Advisor Vehicle Information Dashboard application (SAVI Support Page).

Thanks to the SAVI team

Setting Up Wired and Wireless MDI 2 Connections

There are several possible methods – both wired and wireless – to connect with the MDI 2 (EL-52100). Which is best for you depends on typical use of the tool and the dealership environment.

Although wireless provides a flexible connection for technicians, it's also the least reliable method of connection due to possible interference issues that can be experienced in the shop environment.

USB and ethernet cables are two methods that can be used for a hardwired connection with the MDI 2. Keep in mind that GM only supports the original 10-foot (3 meter) USB cable that comes with the MDI 2 kit. The cable (EL-52100-2) can be purchased separately from GM Dealer Equipment. Aftermarket cables, cables longer than 10 feet, repeater cables or USB hubs are not supported. If a hardwired connection longer than 10 feet is required, GM recommends setting up an ethernet connection instead as it supports lengthy cable runs of several hundred feet or more.

Here's a close look at each option and how to set up each connection.

WIRELESS CONNECTIONS

A wireless connection allows the MDI 2 to be used without a physical connection to the PC. However, users will have a more consistent and reliable experience with hardwired connections. Point-to-Point wireless is recommended over Access Point wireless if a user wishes to use a wireless connection.



MDI 2 with wireless adapter

Point-to-Point Wireless Setup

The Point-to-Point connection establishes a private wireless connection between the MDI 2 and the PC and allows the PC and MDI 2 to be moved outside the range of the shop's wireless network.

A Point-to-Point setup only needs to be performed if the MDI 2 has never been connected to the PC being used. If Point-to-Point configuration is needed, a yellow triangle icon will appear over the MDI 2 in the MDI Manager application.



Configuring/Pairing a Point-to-Point Connection

- 1. Plug a supported wireless 802.11 dongle (EL-52100-4) into the PC.
- 2. Start the MDI Manager software by clicking the MDI Manager icon.
- 3. Plug the USB cable into the PC and the MDI 2.
- Wait for the MDI
 to appear in the Explorer window.
- 5. Unplug the USB cable. The device icon should change from USB to Wireless.



Wireless 802.11 dongle plugged into the PC

6. Click Connect to confirm the wireless connection.

TIP: In the MDI Manager Network Setup tab, the IP Address Configuration applies only to Access Point wireless. It does not apply to Point-to-Point wireless.

Access Point Wireless Setup

An Access Point connection establishes a shared wireless connection between the MDI 2 and PC. The connection is limited to the range of the shop's wireless network.

Configuring an MDI 2 for an Access Point connection is typically done by a network administrator in the dealership. Before modifying the MDI 2 communications interface, contact your



IT Administrator if you are not comfortable performing the procedure, or if you need assistance with any of the following items.

- Does the dealership LAN automatically assign IP addresses? If not, you will need an IP Address and Subnet Mask to assign to your tester.
- Wireless communication access point SSID (network name)
- Required network authentication is WPA2
- Required data encryption is TKIP or WEP (64-bit or 128-bit)
- Wireless security password (encryption key)

Configuring an Access Point connection

- 1. Start the MDI Manager software by clicking the MDI Manager icon.
- 2. Plug the USB cable into the PC and the MDI 2.
- 3. Power on the tester via the self-test adapter or by connecting to the vehicle Data Link Connector.
- 4. Select and connect to the MDI 2 in the MDI Explorer tab of the MDI Manager.
- 5. Select the Network Setup tab. If 12 volts is not detected, the MDI Manager will display the message "External power is required."
- 6. Select the Wireless tab.
- 7. Select the Enable Wireless Interface check box in the Interface Control box to enable the interface. Once the interface is enabled, the IP Address Configuration box and the Apply and Cancel buttons become active.
- 8. Select Obtain an IP Address Automatically if your LAN automatically assigns IP addresses. Otherwise, enter the assigned IP Address and Subnet mask.
- 9. Select Access Point to begin wireless access point configuration.
 - If not within range of the access point, or if the access point is not broadcasting its SSID, select the Enter Network Name [SSID] radio button and type the network name.
 - If within range of the wireless access point, choose the Select from Available Network List radio button. The list will be automatically updated, and the software will search for wireless network signals. The detected networks are displayed in the Network Name box.
- 10. After entering the network name, select Configure.
- 11. Enter the security setting required by your network, and then select Next.
- 12. Select Yes to re-configure your MDI 2 or select No if you want to start over.

- 13. Select OK. MDI 2 Configuration in Process will flash during the update process. MDI 2 Interface Changes Complete will be displayed briefly when the update process is finished.
 - Your MDI Manager will automatically save the last ten wireless configurations that have been used for Access Point communication.
 - Do not unplug the MDI 2 from the PC or remove power from the MDI 2 during the update process; otherwise, the MDI 2 will have to be recovered.
- 14. After the update process is complete, select the Properties tab to verify that the MDI 2 is configured correctly.
- 15. Record or print your settings as they are displayed on the Properties tab for future reference.

The MDI 2 is now configured for use when connected to any PC where MDI Manager software has been installed. Installing the MDI Manager software installs certain utilities that are required for Techline Connect to use the MDI 2. It is not necessary to start the MDI Manager software before using Techline Connect.

WIRED ETHERNET CONNECTION

Configuring an MDI 2 for a wired ethernet connection is typically done by a network administrator in the dealership. Before modifying the MDI 2 communications interface, contact your IT Administrator if you are not comfortable performing the procedure, or if you need assistance with any of the following items.

• Does the dealership LAN automatically assign IP addresses? If not, you will need an IP Address and Subnet Mask to assign to your MDI 2.

Configuring a Wired Ethernet Connection

- 1. Plug the USB cable into the PC and the MDI 2.
- 2. Apply 12 volts to the tester via the self-test adapter or by connecting to the vehicle Data Link Connector.
- 3. Start the MDI Manager software by clicking the MDI Manager icon.
- 4. On the MDI Explorer tab, select the MDI 2 and click the Connect button. A check mark appears over the MDI 2 icon to indicate that the connection has been made.
- 5. Select the Network Setup tab.
- 6. Select the Wired Ethernet tab.
- 7. Select the Enable Wired Ethernet Interface check box in the Interface Control box to enable the interface. Once the interface is enabled, the IP Address Configuration box and the Apply and Cancel buttons become active.

- The MDI Manager software will store the changes made for each interface. You can select the other interface, make additional changes, and then apply all changes to both interfaces at once by clicking the Apply button. Start over at any time selecting Cancel, which discards all changes before they are recorded.
- 8. Select Obtain an IP Address Automatically if your LAN automatically assigns IP addresses. Otherwise, enter the assigned IP Address and Subnet mask.
- 9. Select Apply to reconfigure the MDI Manager. Use the screen at the right to check your communication changes.
- 10. Select Yes to continue or No to go back to the Network Setup tab to make any changes.
- 11. Select OK. MDI 2 Configuration in Process will flash during the update process. MDI 2 interface changes complete will be displayed briefly when the update process is finished.
 - Do not unplug the MDI 2 from the PC or remove power from the MDI 2 during the update process; otherwise, the MDI 2 will have to be recovered.
- 12. After the update process is complete, select the Properties tab to verify that the MDI 2 is configured correctly.
- 13. Record or print your settings as they are displayed on the Properties tab for future reference.

WIRED OR WIRELESS?

1. USB Cable – Recommended for troubleshooting

PROS

- Simple, easy default method of connection to MDI 2.
- Hardwired reliability (USB cable).
- 'Direct to PC' connection permits testing outside boundaries of shop networks (essential for road testing).
- 'Private' connection minimizes interference for higher reliability.

CONS

- Movement is restricted by the USB cable length (10 ft.).
- Cables are susceptible to wear and damage.

2. ETHERNET (LAN)

PROS

- 'Shared' connection permits MDI 2 to be available to multiple PCs across the shop network.
- Hardwired reliability (ethernet cable).
- Greater distance; ethernet cable length can be several hundred feet.



CONS

- Unable to support on road testing.
- Setup is more complex and may require IT assistance.
- Shop network adds complexity; potential for network traffic interference and additional points of failure.
- Complexity makes troubleshooting difficult; TCSC is limited in diagnosis and often requires dealership IT engagement regarding the network.
- Cables are susceptible to wear and damage.

3. ETHERNET (LINK-LOCAL Address)

PROS

- Hardwired reliability (ethernet cable).
- 'Direct to PC' connection permits testing outside boundaries of shop networks (essential for road testing).
- 'Private' connection minimizes interference for high reliability.
- Greater distance; ethernet cable length can be several hundred feet.

CONS

- Secondary network adapter may be required (USB-to-ethernet adapter may be needed).
- Setup is more complex and may require IT assistance.

4. WIRELESS (P2P)

PROS

- Relatively simple and preconfigured for easy set up.
- Wireless convenience for cable-free movement.

- 'Direct to PC' connection permits testing outside boundaries of shop networks (essential for road testing).
- No cables to be concerned about for wear or damage caused by harsh shop environment.

CONS

- Movement and reliability restricted by wireless range.
- Potential to be exposed and affected by Wi-Fi interference.

5. WIRELESS (W-LAN)

PROS

- 'Shared' connection permits MDI 2 to be available to multiple PCs across the shop network.
- Wireless convenience for cable-free movement.
- No cabling to be concerned about for wear or damage caused by harsh shop environment.

CONS

- Unable to support on road testing.
- Setup is more complex and may require IT assistance.
- Workshop network adds complexity; potential for network traffic interference and additional points of failure.
- Complexity makes troubleshooting difficult; TCSC is limited in diagnosis and often requires dealership IT engagement regarding the network.
- Movement and reliability restricted by wireless range.
- Potential to be exposed and affected by Wi-Fi interference.
- Thanks to Chris Henley

MDI 2 Advanced Setup Technical Tips

With the MDI Manager application software, the MDI 2 can be configured to communicate with a PC using several possible networks, such as a USB cable, ethernet cable, Wireless Local Area Network (WLAN), or Point-to-Point wireless.



Connectors on the MDI 2 include:

- **USB Ports** Connects to a single PC running the MDI Manager software and allows configuration of LAN or WLAN settings required by the dealership local network. USB connection must be made directly with the PC port. Do not connect through a USB hub.
- Wireless Adapter Port Allows for a wireless adapter to be inserted to enable the use of a WLAN or Point-to-Point wireless.
- Ethernet Port Enables the use of an ethernet cable.



Depending on the configuration setup for wired or wireless communication, it may be necessary to change some of the settings and options on the MDI 2 or PC.

LAN Switching in BIOS

LAN Switching is a feature in Windows used to define how network interface adapters (ethernet or wireless) are to operate. Disabling this setting in BIOS tells the PC not to disable one network (ethernet or wireless) when another network is detected. Using the internet browser, search your PC Make and Model for the function key to enter BIOS during the PC boot.

Built-In Device Options-	
Embedded WLAN Device Radio Network Interface Controller (LAN) LAN/WLAN Switching	▶Enable Enable Disable Enable
Optical Disk Drive	Enable

LAN/WLAN Switching setting

LAN Switching at Adapter Interface

On some PCs, LAN switching at the wireless adapter may be disabled in Windows. This feature may not be available on all adapters.

eneral A	dvanced	Driver I	Details	Events	Power Management			
The follow the proper on the righ	ving proper ty you war nt.	ties are availated to chang	ailable fo	or this net e left, and	work adapter. Click then select its value			
property:				Va	alue:			
20/40 Co 40MHz Ir 802.11n Antenna AP Comp Bandwid Bluetooth BSS PLC Disable Fragment IBSS 54g IBSS Mo Locally A	existance ntolerant Preamble Diversity atibility Mo th Capabilit Collaboral P Header Joon Wired ation Three (tm) Protect de dministered Power Cor	de y tion shold ction Mode d MAC Add nsumption	ress		nabled	~		

April 2023 – Page 9

MDI Manager Configuration

The MDI Manager application is used only for MDI configuration, firmware updates and enabling functionality. Connection to a device from the MDI Manager does not use SAE J2534.

Device status is shown under the MDI 2 icon and indicates the required step to perform first before connecting to a device.



The MDI 2 can be configured to use USB, ethernet and wireless connections. USB and Point-to-Point wireless modes are preconfigured as the default. Ethernet (RJ45) configuration can be done using a Link Local address, USB-to-Ethernet adapter or a local Hub. A yellow icon indicates that pairing is required for a Point-to-Point connection. A wireless configuration via an Access Point (AP) requires that the 802.11 b,g,n AP SSID is visible and set up with WPA2 security.

Ethernet Interface using a Link Local Address

The MDI Manager is used to configure the interfaces to MDI 2. There are three mediums for connecting with the device: two wired (USB and RJ45) and one wireless in two modes -- AP (Access Point) mode and P2P (Point-to-Point) mode. For an ethernet connection using a static Link Local address, configure the MDI 2 with an IP address in the same range.

PC Sleep Setting

It is very important to change the default Power Management option for your interface to MDI 2. With the proper setup, if a

Ethernet adapter Ethernet:	
Connection-specific DNS Suffix . :	
Description	Intel(R) Ethernet Connection (4) I219-LM
Physical Address :	10-62-E5-E8-99-35
DHCP Enabled	Yes
Autoconfiguration Enabled :	Yes
Link-local IPv6 Address	fe80::5779:1aef:d805:473d%11(Preferred)
Autoconfiguration IPv4 Address :	169.254.147.249(Preferred)
Subnet Mask	255.255.0.0
Default Gateway :	
DHCPv6 IAID	202400485
DHCPv6 Client DUID :	00-01-00-01-23-50-15-1D-10-62-E5-E8-99-35
DNS Servers	fec0:0:0:ffff::1%1

Ethernet interface configuration using a Link Local address.



test takes longer to execute than the PC Power and Sleep Option configuration, your interface adapter will not be allowed to sleep.

For additional information on setup of the MDI 2 using the MDI Manager, refer to the MDI 2 User Manual available in Service Information or contact the Techline Customer Support Center (TCSC) at 1-800-828-6860 (English) or 1-800-503-3222 (French).

Thanks to Chris Henley

New Trailer Tire Pressure Sensors Offer Increased Capability



The Trailer Tire Pressure Monitor System features four additional tire pressure monitor sensors.

The trailering app (RPO ZL6) available on 2020-2022 Silverado 1500, Silverado 2500HD/3500HD, Sierra 1500 and Sierra 2500HD/3500HD trucks includes Trailer Tire Pressure and Temperature Monitoring. As part of the Trailer Tire Pressure Monitor System (RPO PTT), four additional tire pressure monitor sensors are included for use on up to four trailer tires.

As part of the system, the Trailer Tire Pressure Module (TTPM) and Trailer Tire Pressure Sensors (TTPS) are designed to read up to 100 PSI.

For trailer tires with a higher tire pressure specification, new TTPM and TTPS parts are now available that broadcast a signal



up to 147 PSI. A new calibration for the Instrument Panel Cluster (IPC) will enable the higher signal to be displayed on the Driver Information Center. Replacing the trailer tire pressure components is a customer pay alteration.

Different Model Years, Different Requirements

Different model years feature different trailering components and software. Depending on the model year of the vehicle, the following components and software updates are required to update the Trailer Tire Pressure Monitor System:

2020 Model Year Vehicles — Replace both the TTPM and sensors and then update the IPC software to V168 or higher.

2021 Model Year Vehicles — Replace both the TTPM and sensors and then update the IPC software to V164 or higher.

2022 Model Year Silverado 1500 LTD, Sierra 1500 Limited Vehicles (RPO J21) — Built prior to December 1, 2021 — Replace only the TTPM and then update the IPC to the most current software. Later vehicles already have the new TTPM.

2022 Model Year Silverado 1500, Sierra 1500 Vehicles (RPO J22) — Do not replace the TTPM or sensors. Ensure the IPC software is V164 or higher.

2022 Heavy-Duty Trucks — Built in Flint prior to October 1, 2021 — Replace both the TTPM and sensors and then update the IPC software to V164 or higher. Do not replace the TTPM or sensors on vehicles built in Oshawa. Ensure the IPC software is V164 or higher.

If necessary to update the system, replace the TTPM, located behind the license plate, and follow the relearn procedure for the module.

When installing the new Trailer Tire Pressure Sensors, make sure the air passage of the sensor faces away from the wheel and the sensor is flush with the wheel surface.

Finally, be sure to follow all recommended programming procedures when updating the Instrument Panel Cluster software.

Refer to Bulletin #22-NA-172 for more information and part numbers.

Thanks to Dave MacGillis and Kevin Minor





GM TechLink is published for all GM retail technicians and service consultants to provide timely information to help increase knowledge about GM products and improve the performance of the service department.

Publisher:

Ravishankar Bommanahally GM Customer Care and Aftersales

Editor: Chris Henley 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

General Motors service tips are intended for use by professional technicians, not a "do-it-yourselfer." They are written to inform those 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 information applies to your vehicle or that your vehicle will have that condition. See a General Motors dealer servicing your brand of General Motors vehicle for information on whether your vehicle may benefit from the information. Inclusion in this publication is not necessarily an endorsement of the individual or the company. All information contained herein is based on the latest information available at the time of publication and is subject to change without notice. Copyright © 2023 General Motors. All rights reserved.