

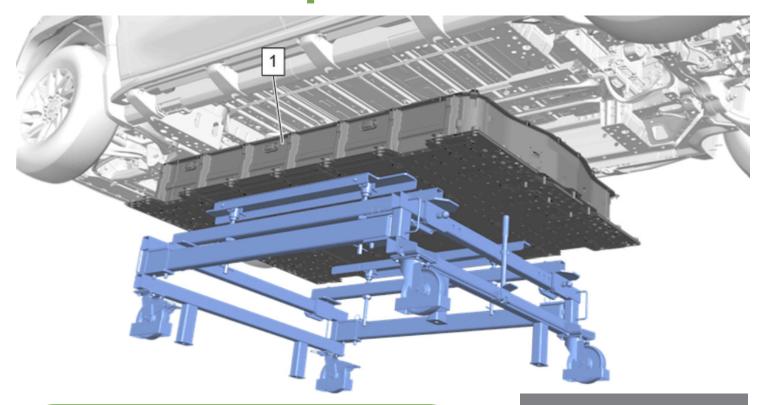






Mid-October 2024, Volume 26, No. 20

## **Follow All Guidelines to Determine Hybrid/EV Battery** Stability, Return Shipping Requirements

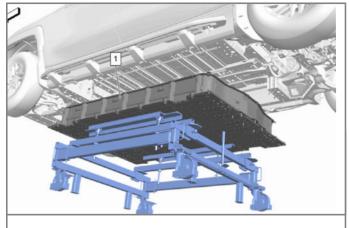


Before returning the high-voltage battery, there are a number of criteria to follow in order to determine the internal stability of the battery and the proper core return shipping method.

Follow All Guidelines to Determine	
Hybrid/EV Battery Stability, Return Shipping Requirements	
Shipping Requirements2	
Proactive Alerts —	
12V Battery Drain Detection	
for EVs4	
Using Multi-Factor Authentication	
for Techline Connect6	
Vehicle Speed Limitations8	

## Follow All Guidelines to Determine Hybrid/EV Battery Stability, Return Shipping Requirements

Before returning the high-voltage battery of the 2023-2025 LYRIQ; 2024-2025 Blazer EV, Equinox EV, Silverado EV, Sierra EV; 2022-2025 HUMMER EVs; and 2022-2025 BrightDrop models, there are a number of criteria to follow in order to determine the internal stability of the battery and the proper core return shipping method.



High-voltage battery

If the vehicle has any of the following DTCs set, there are several additional checks that need to be performed to help determine the proper repair instructions to follow.

#### **CURRENT DTCS**

- POAA6 (Hybrid/EV Battery Voltage System Isolation Lost)
- U359E (Hybrid/Electric Vehicle Battery Pack 2 Isolation Fault)
- POAE3 (Hybrid/Electric Vehicle Battery Precharge Contactor Circuit Stuck Open)
- POC78 (Hybrid/Electric Vehicle Battery System Precharge Time Too Long)

- U1666 (Lost Communication with Hybrid/Electric Vehicle Battery Pack Communication Module on Private Bus 1)
- U1667 (Lost Communication with Hybrid/Electric Vehicle Battery Pack Communication Module on Private Bus 3)
- U2426 (Hybrid/Electric Vehicle Battery Pack Communication Module Lost Communication with Hybrid/Electric Vehicle Battery Cut-Off Actuator on Private CAN Bus 1)
- U2427 (Hybrid/Electric Vehicle Battery Pack Communication Module Lost Communication with Hybrid/Electric Vehicle Battery Cut-Off Actuator on Private CAN Bus 2)
- U2BFC (Hybrid/Electric Vehicle High Voltage Battery Pack Thermal Event Damage)
- P1C34 (Hybrid/EV Battery Pack Current Sensor Temperature Sensor Circuit Low)
- U35B5 (Hybrid/Electric Vehicle Battery Monitoring Module Performance)

#### **HISTORY DTCS**

- POAA6 (Hybrid/EV Battery Voltage System Isolation Lost)
- U359E (Hybrid/Electric Vehicle Battery Pack 2 Isolation Fault)

All repairs must be documented in a Technical Assistance Center (TAC) case. Refer to Bulletin #23-NA-151 for complete details. All information in the bulletin must be completed as outlined.

The information presented in the bulletin addresses high-voltage battery stability, the potential for loss of isolation, vehicle handling based on the condition of the high-voltage battery and battery pack return shipping requirements.

## FOLLOW ALL CHECKLIST GUIDELINES

Be sure to follow the Hybrid/EV Stability Checklist in the bulletin that covers vehicle inspection guidelines and high-voltage battery removal inspection and analysis. These steps, which will help determine the correct storage and shipping procedures, include:

CONTINUED ON PAGE 3



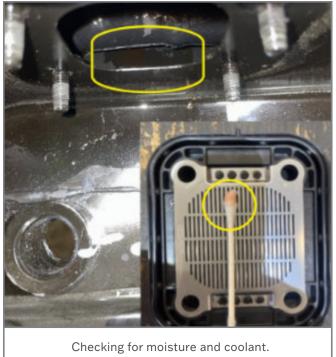
Inspecting the coolant level.

- Inspecting the coolant level.
- Checking the GDS2 session log for Hybrid/EV Vehicle Battery Pack Thermal Stability Data.
- Moving the vehicle to a stable location.
- Starting a TAC case.
- Disabling high voltage at the A4 Hybrid/EV Battery Pack.
- Inspecting all battery pack HV connectors and headers.
- Removing the HV battery pressure equalizer vent and inspection plug and checking for moisture and coolant.
- Performing the Hybrid Battery Pack Coolant Passage Leak Test.

Refer to Bulletin #23-NA-151 for more information.



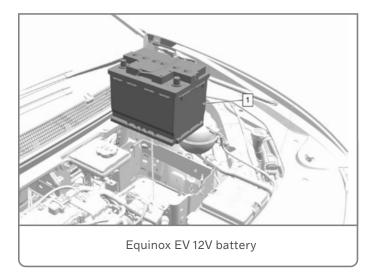
Battery pack HV connectors and headers



► Thanks to John Sauer

## Proactive Alerts — 12V Battery Drain Detection for EVs

Proactive Alerts, a feature of OnStar Advanced Diagnostics, are designed to help predict specific types of potential performance degradation based on current vehicle data. Several new Proactive Alerts have been added to select 2024 EV models that address 12V Battery Drain Detection. These new types of Proactive Alerts will help to identify parasitic drain or other issues related to the low voltage battery in electric vehicles.



#### PROACTIVE ALERT IDENTIFIERS

The Proactive Alerts system collects and stores specific system performance data each Power-On cycle, which is transmitted via the cellular system (OnStar). The transmitted data is stored off-board the vehicle and analyzed by special algorithms to detect degraded performance. When monitored system performance degrades to predetermined levels, the off-board system sends a Proactive Alert Identifier. Currently, no associated DTCs are stored in the vehicle.

12V Battery Drain Detection uses available vehicle data to determine if an excessive amount of battery capacity, measured

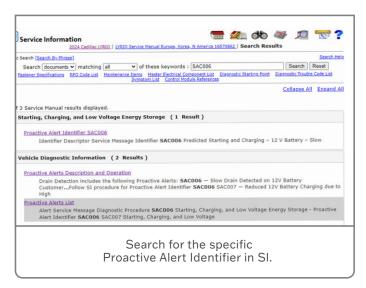
in amp-hours, was drawn from the 12V battery while the vehicle was in Off mode. The new Proactive Alerts are:

Proactive Alert Identifiers	Description
SAC006	Slow Drain Detected on 12 V Battery
SAC007	Reduced 12V Battery Charging due to High Voltage Battery Low State of Charge
SAC008	Severe Drain Detected on 12V Battery
SAC009	12 V Battery Low State of Charge due to Possible Parasitic Drain

The diagnostics for each Proactive Alert Identifier can be found in the Service Information under Engine/Propulsion > Starting, Charging, and Low Voltage Energy Storage > Diagnostic Information and Procedures. An example is shown below.



#### REPAIR PROCEDURES

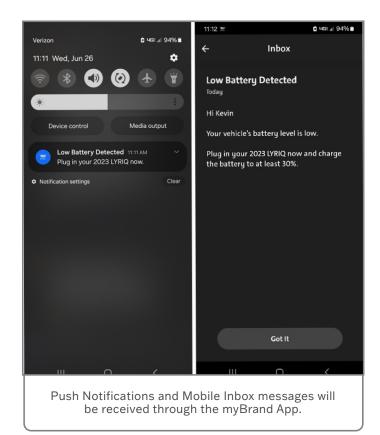


When reviewing Service Information procedures, be sure to search for the specific Proactive Alert Identifier and not a generic term for the repair, such as "battery."

Follow the diagnostic and repair procedures for each Proactive Alert Identifier. As part of the Diagnostic System Check, check for related Service Bulletins, e.g., Vehicle Wide Programming Instructions.

### CUSTOMER AND DEALERSHIP MESSAGES

Customers must sign up for the service through OnStar to receive Proactive Alerts. Once enrolled, they may receive Push Notifications and Mobile Inbox messages through the myBrand App when potential performance degradation is detected.



Additional Notification channels, such as e-mail and text message, will be available in the future.

For more information about the operation of 12V Battery Drain Detection, refer to the Service Information under Diagnostic Overview, Starting Point, and Programming > Vehicle Diagnostic Information > Description and Operation > Proactive Alerts Description and Operation (Document ID: 6535725).

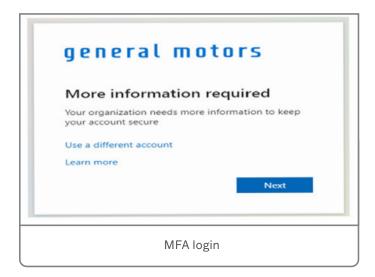
Thanks to Brett Holsworth



# Using Multi-Factor Authentication for Techline Connect

Multi-Factor Authentication (MFA) — an identity verification process that requires at least two methods of authentication, such as a password and a temporary passcode, to verify a user's identity — is now being rolled out to a number of GM dealerships for logging in to Techline Connect. Additional dealerships will continue to be added, along with other GlobalConnect applications, in the following months.

The MFA login procedure is designed to improve the security of the applications. If a user is sharing a login ID, contact your dealership's Partner Security Coordinator to create a unique ID.



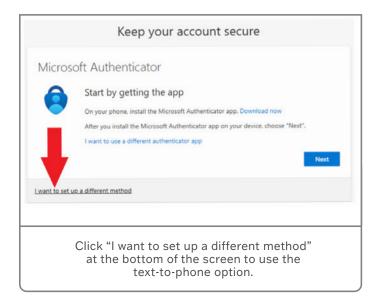
There are three methods of validation using MFA:

- Text message to a cell phone.
- Phone call to a cell phone.
- Installation of the Microsoft Authenticator app on a smartphone.

The easiest method to use for dealership personnel may be a text message to a mobile phone.

To set up MFA using a text message:

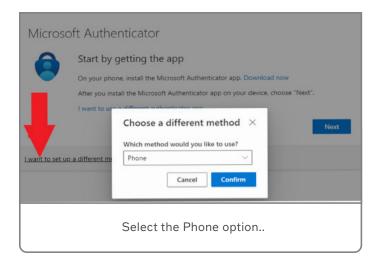
1. After logging into GlobalConnect and selecting the TLC launch link, the authentication options will be shown. Click Next, and then click "I want to set up a different method" at the bottom of the screen to use the text-to-phone option.



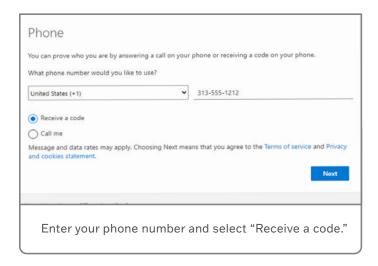
Using a phone number will allow a user to validate through a text message or a phone call. A one-time validation is needed for either option. The text option will send a string of characters that you will then type into a prompt.



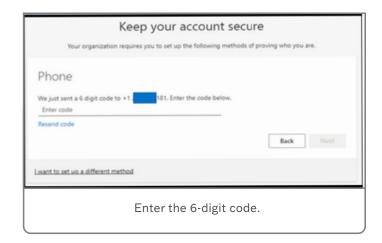
2. Select "Phone" in the drop-down menu.



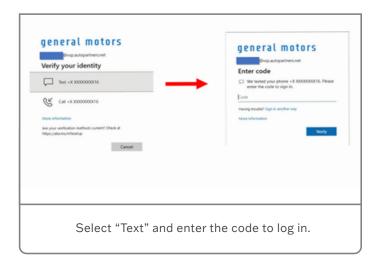
3. Enter your phone number and select "Receive a code." A code will be sent to your phone via text.



4. Enter the 6-digit code in the appropriate field and click "Next" and then "Done" to complete the initial setup.



5. The next login after completing the initial setup will display several verification screens. Select "Text" and enter the code from the text message.



Once logged in, if the browser is left open, you will have 8 hours before needing to authenticate using MFA again.

► Thanks to Chris Henley

## **Vehicle Speed Limitations**



There are several reasons why a speed limitation may be in place on 2020-2025 Corvette models, such as an active Teen Driver mode or the convertible folding top is not properly secured. The vehicle's speed may be limited to a certain value or, at times, a "speed limited" message may appear on the Driver Information Center. No DTCs will be set.

It's important to understand why these limitations may occur and the operating characteristics of the related system. The following systems have associated vehicle speed limitations based on the current status of the system.

Be sure to confirm the speed limitation and system operation in the appropriate Service Information as a diagnostic starting point before making any other repairs

Additional information about the operation of various systems also can be found in the Owner's Manual.

Refer to Bulletin #24-NA-225 for more details.

▶ Thanks to Lane Rezek

Speed	System	Reason
Limitation		
155 mph (250 km/h)	Folding Top	Folding top open and properly stowed.
99 mph (160 km/h)	Loss of Module Communication	General loss of communication between modules.
85 mph (136 km/h)	Teen Driver/ Valet Mode	Teen Driver or Valet Mode active (acceleration also limited).
85 mph (136 km/h)	Suspension	Suspension control module in full soft mode due to a system fault.
82 mph (132 km/h)	Loss of OnStar Communication	Loss of communication with the OnStar module.
62 mph (100 km/h)	Brakes	Brake hydraulic fluid leak detected.
58 mph (93 km/h)	Folding Top	Folding top not secured.
26 mph (42 km/h)	Hood	Front compartment (hood) not secured
15 mph (24 km/h)	Shuttle Mode (E-Ray)	Shuttle Mode active.
2 mph (3 km/h)	OnStar	OnStar Stolen Vehicle active (may require ECM replacement to resolve).



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:

GM Customer Care and Aftersales

Editor:

Paul Bielecki

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 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 © 2024 General Motors. All rights reserved.