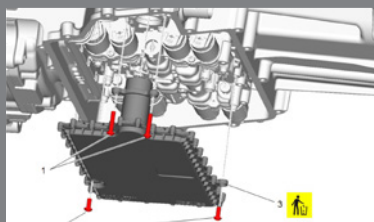


Questions About Labor Times?



Labor time studies are completed for new vehicles as well as new service procedures to support the latest vehicle systems, service bulletins and other requirements.



CX Connect Features Updated in Latest Release
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Questions About Labor Times?

Answers to the Latest FAQs in Service Information

The Labor Time Group is responsible for warranty repair time studies, accessories and Pre-Delivery Inspections (PDI). Labor time studies are completed for new vehicles as well as new service procedures to support the latest vehicle systems, service bulletins and other requirements.

Here are some of the most common questions asked about labor times and how those times are determined.

How are warranty labor times studies performed?

All warranty labor times are determined by following the steps of the associated service procedure. The technician will:

- read the step in the procedure and start the stopwatch
- select from the toolbox the appropriate tool to perform that step
- perform the step
- return to the toolbox
- stop the watch

The individual time for each step is captured for the entire service procedure.

All part-removal step times and all part-reinstallation times are recorded until the entire procedure is complete. This is often done when the service procedure is being validated for accuracy/effectiveness. If errors are discovered, corrections to the procedures are submitted for revision and the labor times adjusted accordingly.

Each time study is only done once; not the best of 3 or an average of multiple studies. There are also not “practice runs” to be able to perform steps faster.

Some RPO consolidation can happen for simplification of the guide, and, in that instance, the higher time is published.

How long does it take to study an entire vehicle or just a powertrain?

An entire vehicle, bumper-to-bumper could take up to 26 weeks while a single study of a powertrain can take up to 8 weeks.

Is there a markup? If so, what is it? What is included in the markup percentage?

There is a 21% markup on Warranty Labor Times for unproductive time, which takes into consideration the “real world” environment. The fact that each step is performed individually also keeps the technician at a reasonable pace and working as it was the first time doing the repair. The markup includes things like reading technical literature, obtaining and returning special tools, age of vehicle, limited diagnostics and repair variation.

The markup time is included regardless of the need for items like special tools and is not meant to be an exact time for each repair but a fair allowance for the dealership as a whole.

Who does this work and where?

In the U.S., labor time studies are performed by technicians with experience in the independent aftermarket or a dealership at a facility that is set up very similar to a GM dealership. It is not a special lab environment with access to tools or equipment not available to a GM dealership.



Labor time studies are performed at a facility that is set up very similar to a GM dealership.

CONTINUED ON PAGE 3



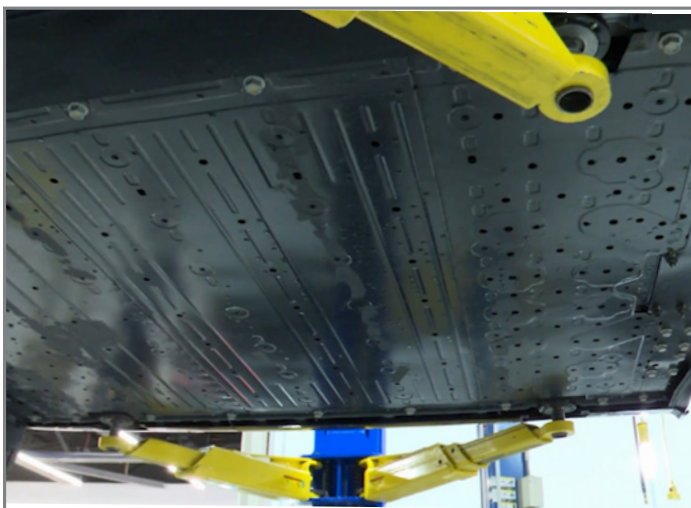
How often is a Labor Time Guide updated?

Unlike the Service Manual, which updates every night, the Labor Time Guide is only updated monthly. Updating the guide more often could create confusion in Warranty Claim processing. Revisions are visible on the first of the month.

Updates may take three to seven weeks before they appear in SI depending on when the change request was submitted to the Global Labor Time and processed.

What tools are used?

Time studies are performed using a standard set of tools plus required GM Special Tools. A standard set of tools include tools a professional technician is expected to have or have available in a GM dealership; and that can be purchased readily on the open market. This includes tools needed to perform repairs without damage and to properly torque fasteners.



The use of power tools is limited to some fasteners.

Are power tools used to perform time studies?

Commonly used hand impact drivers are used in time studies. The use of power tools is limited to the removal of fasteners and “running up” of bolts 1/4-inch and M6 or larger.

All final tightening and torquing of fasteners are done by hand. All fasteners with torque specs are torqued and space needed for a torque wrench is considered.

How does the diagnosis add-time work? Is this available for all labor codes?

Diagnosis is available on many electrical service procedures as these are often the most difficult and less obvious vehicle problems to resolve. Traditionally, any electrical condition that resulted in a Diagnostic Trouble Code or Malfunction Indicator Light was provided 0 to .3 add time to perform diagnostics. Recently, many of these same conditions had this add time increased to up to an hour. These are typically applied to control modules, sensors, actuators, switches and wiring.

Mechanical labor codes do not normally have diagnostic time available. The work performed to diagnose a mechanical issue usually requires the disassembly of the vehicle to determine the root-cause and is covered in the labor time for the affected system/component.

Does the Labor Time Activity group get feedback about labor times?

Feedback is sent from GSI to a feedback email box. A Problem Tracking Record (PTR) is generated. Special labor time coordinators review the PTRs and respond back to the PTR submitter via email.

Corrections are sometimes made to Labor Time Guides (LTG) based on the outcome of the review. All PTRs are reviewed with their outcome reported back to the submitter.

The Request for Review process is available to dealership service management personnel to request a review of Labor Time Guide (LTG) publications by using the Request for Review form, accessed by selecting the Feedback icon (yellow mail slot icon at the top of the screen). The primary intent of the process is to communicate a question regarding a published time allowance. It is important that the vehicle identification information and option content that could affect or influence the repair in question be provided. It is also important to submit a complete detailed description of

CONTINUED ON PAGE 5

Do Not Swap Control Modules

GM diagnostic strategy does not support the practice of swapping control modules during the course of diagnosis or to expedite a repair. Features in today's vehicles are increasingly software configurable. They can affect vehicle safety systems, anti-theft systems, performance components and customer personalization information.

First introduced in 2010, GM's Global Architecture (Global A) electrical system and the later Vehicle Intelligence Platform (VIP) electrical system do not allow control modules to be swapped between vehicles.

Problems can occur on these models when attempting to swap a control module configured for one vehicle into another. Symptoms such as no-start conditions and DTCs that cannot be cleared are to be expected. Issues also may be introduced into vehicles that exhibit no symptoms until a later date, adding to the complexity of diagnosing the vehicle. These "sleeper issues" may be triggered only after multiple key cycles or only after battery power has been removed from the BCM. Such issues can be time-consuming to rectify, driving up unnecessary warranty expenses and leading to customer dissatisfaction.

SYMPTOMS OF MODULE SWAPPING

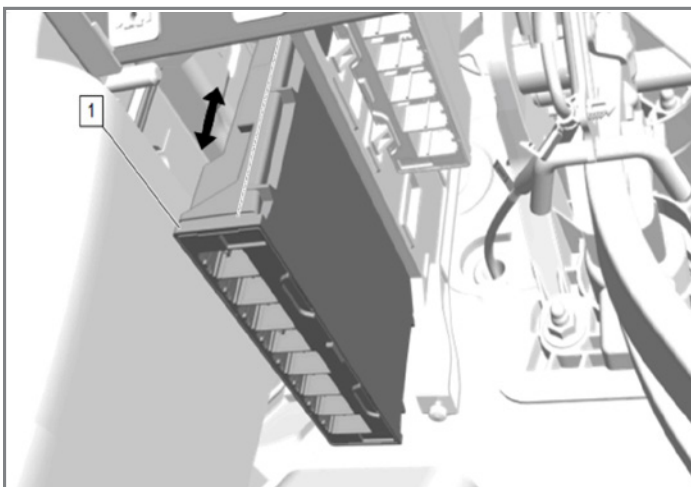
A variety of symptoms may appear in a vehicle containing one or more control modules swapped from a like vehicle. Depending upon which control modules have been swapped, possible symptoms include:

- The VIN read by GDS and SPS does not match the vehicle.
- Current DTC B3902 – Incorrect IMMO ID Rec. set in IPC, SDM, ECM, HVAC, Steering Column Lock Control Module (if equipped) or BCM. There are no warning lamps or DIC messages and this DTC cannot be cleared.
- IPC module displays (- - -) for odometer and trip odometer values.
- Vehicle will enter power mode only if the key fobs that match the donor vehicle BCM are included in the swap.
- BCM and/or ECM has current DTC B389A – Environment Identification. There is a Service Theft System message on the DIC, the Security MIL is illuminated, and this DTC cannot be cleared.
- ECM odometer value is incorrect for the vehicle.
- Radio displays Locked.

SECURITY PROTOCOL

Swapping control modules, including the ECM, BCM, EBCM, SDM, TCM, ECC (HVAC), EPS, HPCM, IPC, and Radio, between vehicles with Global Architecture electrical systems will damage both controllers and result in a no start condition on both vehicles due to the vehicle's security code protocol.

These modules all have IDs that must match in order for the BCM to allow the engine to start. The control modules are coded to the vehicle when they are first programmed, which results in a unique ID being permanently stored in that module. Swapping these security-related modules will cause difficult and time-consuming



Global electrical systems do not allow control modules, such as the BCM (#1) to be swapped between vehicles.

QUESTIONS, FROM PAGE 3

the work performed, including the correlating service procedure Document ID number. The statement, “Followed service manual procedure”, is not sufficient to fully research the issue. All inquiries received through this process will be investigated.

Why would a labor time change?

There are generally three scenarios where labor times would change. (both up and down):

- **Service Procedure Change** – After the initial time study, we may find a better way to service. For example, originally access to the part may have been through the hood or front of the vehicle but is now serviced through the wheelhouse. This improves the procedure and changes the time required.
- **Service Strategy Change** – After the initial time study, it may be determined that we need to change how we are servicing a component. For example, bleed procedures or access to ensure proper repair.
- **Vehicle Build Change** – After the initial time study, vehicle design may be changed. For example, brackets changed/ removed/added, shields added or removed or assemble vs component repair.

Why do third-party labor time manuals (e.g., AllData, Motor) have different labor times than GM Labor Time Guides?

GM LTGs are developed for fair compensation to the GM Dealership or authorized repair facilities with access to required GM special Tools, Training and other franchise benefits.

Third party labor time manuals are for the purpose of estimating and are not intended as a substitute for GM warranty labor times. They are designed for the typical independent repair shop mechanic who has not been specially trained by an OEM and does not necessarily have all the factory-approved tools and diagnostic equipment.

Third-party labor-time manual providers do not perform the detailed on-car labor time studies as GM does.

Why do labor times for all the parts required to do a repair add up to more than the labor time for the repair?

A labor time represents the time for a complete repair. Adding up multiple, individual labor times, often referred to as “stacking,” does not accurately represent the time to perform the repair. This could result in the inclusion of redundant labor time allowances, add-times and markups.

For more Frequently Asked Questions (FAQ) about labor times, refer to the Labor Time Guide for a specific vehicle in Service Information and select Preface > Labor Time Frequently Asked Questions.

► Thanks to Dan Carter

CONTROL MODULES, FROM PAGE 4

remediation processes that may include the purchase of new components for both vehicles.

There are a number of security methods in operation, including:

Security Code – The purpose of the security code is to protect the vehicle's security information against tampering. It's a random code, unique to each vehicle, generated at the vehicle assembly plant.

Environmental ID – The purpose of the Environmental ID is to increase the time and complexity involved in attempting a vehicle theft by swapping control modules. In a potential theft situation, it will not allow continued running of the engine.

Seed and Key – The purpose of Seed and Key is to protect certain control modules from unauthorized reprogramming when they are outside of the assembly plant environment. Each control module that implements Seed and Key is manufactured with a unique seed value and a corresponding key value stored in memory.

On today's vehicles, the electrical architecture plays a significant role in how a vehicle is equipped and operates. The best diagnostic path for all vehicles, regardless of equipment, is to follow the procedures outlined in the appropriate Service Information.

Check out Bulletin #25-NA-256 for more details.

► Thanks to Matt Gage



TCSC Top Issues This Week

The Techline Customer Support Center (TCSC) is available to help dealerships with diagnostic and programming issues related to Techline Connect (TLC) and the Service Programming System (SPS).

TCSC has now released their latest tips to help technicians when using Techline Connect applications. Look for the latest tips on TechLink each week.

To get the most out of Techline Connect, be sure to review the following items before making a call to the TCSC.

The following information covers current issues and trends facing dealerships as of November 12, 2025.

WEEKLY ISSUES

1. Image Processor Control Module (IPM) Fails to Program in 2024 Vehicles (T1LD, T1HD, Silverado EV/Sierra EV, HUMMER EV, Envision, Lacrosse, Acadia, Traverse, LYRIQ, Equinox EV, Blazer EV, Malibu and XT4)

Due to a supplier issue, dealers who have ordered Part Number 13557733 may have received Part Number 13564342 from SPECMO. PN 13564342 is not a compatible part number for 2024 model year vehicles and will fail to program, resulting in an E-4491 error in SPS2.

The issue has been corrected and SPECMO will now ship PN 13557733 when ordered. However, due to the part being on back order, there is currently no stock available. ETA is 2-3 weeks arrival on new part stock for PN 13557733 as of November 10, 2025.

2. 2025 T1XX LD Trucks Software Reconfiguration Issue

There is an issue with 2025 T1XX LD Trucks BCM software that does not allow TCSC to reconfigure the following accessories or reconfigurations:

- Fast Flash (bulb outage detection) Removal (ZW9)
- Remote Start Add
- Speed Governor Changes (adding or removing)
- Police Vehicle Reconfigurations
- High Idle (UF3)
- Engine Timeout Disable (SK4)

Engineering is working to resolve this issue. There currently is no ETA for a fix. Refer to #PIT6443 for more information.

Note: Tire reconfigurations are still supported for these vehicles.

3. 2025 HD Trucks Wireless Keypad Accessory Issue

There is an issue with Wireless Keypad Accessory adds on 2025 HD Trucks where the keypad will fail to learn to the vehicle. The error "Communication Could Not Be Established" and/or "Write Failure" may be seen.

This is a known issue, and engineering is currently researching a solution. There is no ETA for a fix.

Note: All other T1XX LD/HD keypad issues have been resolved. Before performing the wireless keypad learn, the BCM must be programmed to receive the latest calibrations.

4. Front-View Camera Programming or Camera Learn Issues Specific to 2024 Colorado and Canyon (ZR2)

There is currently a known issue with the Front-View Camera involving ONLY 2024 Colorado/Canyon built with ZR2 and UHY, and without UWI, UKW, or ULV.

The Front-View Camera may fail to program or set loss of communication codes such as U0265. The Camera Learn also may fail in GDS2 with various errors.

A VCI is required to correct this problem. Please reach out to TCSC for this fix.

COMMON ISSUES

1. Bulletin #24-NA-098: SPS Best Practices and Programming Error Troubleshooting

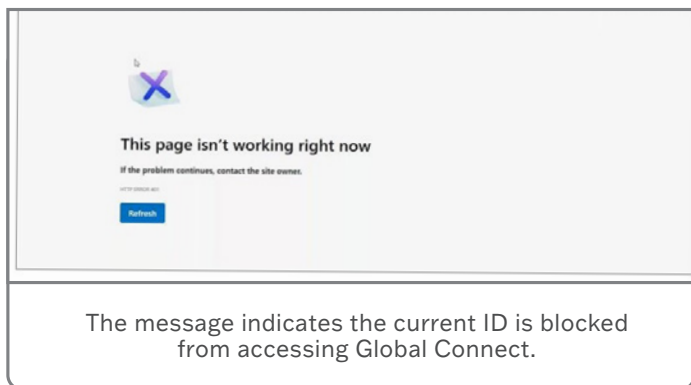
Document ID: 6662319 has been published to assist with common programming errors, descriptions and recommended helpful/general troubleshooting for SPS errors. Please refer to this page if you encounter a programming error within SPS2/TLC.

2. TLC Restricted Access

The following message may be seen when attempting to access Techline Connect:

The message indicates that the current ID is blocked from accessing Global Connect. This can be for several reasons but

CONTINUED ON PAGE 7



typically is due to a counterfeit MDI device.

To unblock the account, reach out to TCSC via CX Connect with the following information:

- User ID in Global Connect
- Email of User
- First and Last Name of User
- BAC/Dealer Code and Name of Dealership

TCSC will be able to reach out to the Cybersecurity team that will be able to determine the cause of the block and may be able to unblock the account. In the case of a counterfeit MDI, the counterfeit tool must be destroyed, and a legitimate Bosch device must be used to ensure the ID is not blocked again. Repeat offenders may not be unblocked from access.

3. E-9111/E-9113 TCM/MCVM Operation Errors

An E-9111 or E-9113 error may occur when programming the TCM, or after replacing the transmission assembly/valve body, and entering the TUN/PUN under MCVM Operations in SPS2.

The error is caused by a mismatch in data between the vehicle's TUN/PUN and the TUN/PUN uploaded in the GM database. Please ensure the complete TUN/PUN number is entered correctly, and that the TUN/PUN is in capital letters. Double check that the number zero (0) is not a letter "O" and that there are not any typos or extra characters.

If the TUN/PUN is correct, open a DCM case with TCSC and attach a clear picture of the replacement TUN/PUN in the case, as TCSC will require these to work with Engineering and have the issue addressed.

If you are receiving these errors via programming and the TUN/PUN was not replaced, TCSC may still require the TUN number.

4. T1XX Trucks ECM/Radio/IPC Part Missing from SPS2 Part Dropdown

When performing IPC Graphics programming, Radio USB, or ECM programming, you may be prompted in SPS2 to select "Service Hardware." However, this is misleading.

For IPC Graphics programming, use the "Boot Software Part Number 1" found in GDS2 under Identification Information.

Similarly, for the Radio USB Programming, use the "Calibration Part Number 1" (also may be called "Application Part Number 1") found in GDS2 under Identification Information.

Additionally, for the ECM, use the "Calibration Part Number 1" (also may be called "Software Module Part Number 1") found in GDS2 under Identification Information.

5. 2024-2025 Silverado 2500HD/3500HD and Sierra 2500HD/3500HD Adding ZW9 (Bed Delete) Built with UV2 (HD Surround Vision Camera)

Engineering has confirmed that there are not any compatible calibrations that support both RPO ZW9 (Bed Delete) and RPO UV2 (HD Surround Vision Camera).

Please be advised that ZW9 cannot be added to vehicles with UV2 regardless of trim level.

6. T1 Full-Size Trucks and SUVs Downsizing of Tires is Not Supported

Please be advised that downsizing tires of any kind is not supported on any T1 series vehicle from 2021 – Current. This includes full-size trucks (Silverado, Sierra) as well as SUVs (Tahoe, Suburban, Yukon, Escalade).

7. Speed Governor Calibrations Not Available for 2025+ T1 Trucks (LD/HD) Built with QHY Wheels

Calibrations have not been released for Speed Governors (9C2, 9B9, 9D7) for 2025+ Trucks (Silverado/Sierra) built with QHY (LT235/80R18) wheels.

There is no planned release for these calibrations at this time.

8. 2025+ T1XX Trucks and SUVs with 9C1/5W4 – Auto Protected Idle Requires No Changes from TCSC

These vehicles are pre-built with the correct calibration for Auto Protected Idle and no changes are required from TCSC.

If the build date of the vehicle is before August 2025, the vehicle will require a BCM update through SPS2 to receive the latest calibrations to accommodate the Auto Protected Idle.

Note: Auto Protected Idle does not add Extended Idle. Extended Idle is already enabled on 2025+ vehicles built with 9C1/5W4.

HOW TO CONTACT TCSC

- **U.S. ONLY:** Assistance can be provided by using the CX Connect portal in Global Connect. If additional support is needed once the CX Connect case is created, contact TCSC at 1-800-828-6860. For U.S. only, a case is required for phone support.
- **Canada:** Contact TCSC at 1-800-828-6860 (English) or 1-800-503-3222 (French).
- **All other regions:** Contact your regional Technical Assistance team for Global Techline Support.

► Thanks to the Techline team

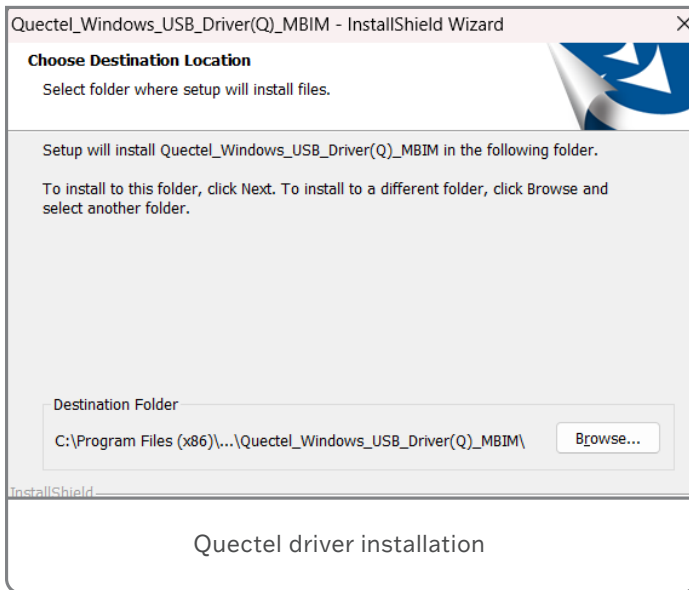
New SAVI Manager Release Updates USB Driver

The new SAVI Manager v2.29.0 release provides an update to address USB driver failure. The latest release will correct the issue of the Quectel driver failing to install by automatically starting the manual installation process.

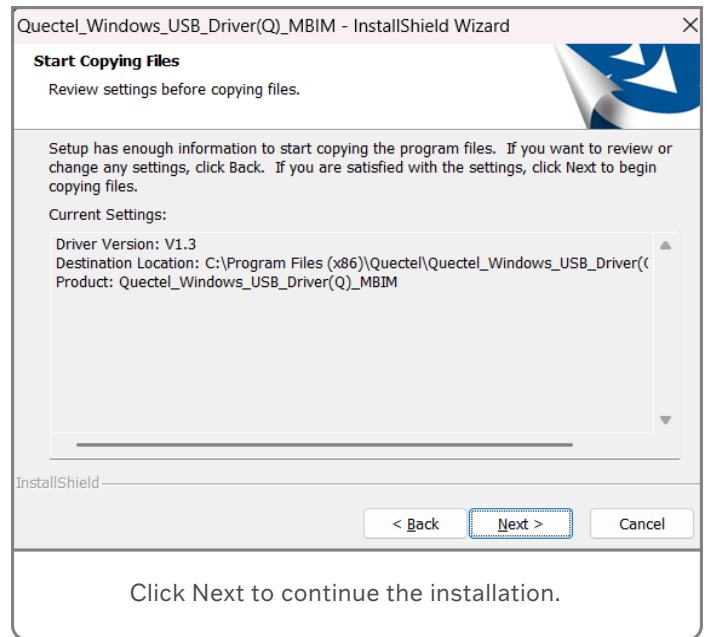
The Service Advisor Vehicle Interface (SAVI) service lane scan tool streamlines the vehicle walkaround process for service advisors in GM dealerships (U.S.) and accurately provides a variety of critical vehicle data for warranty claims. SAVI dongle-generated vehicle data documentation is required for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

The following steps should be performed if your dongle's USB driver fails to install.

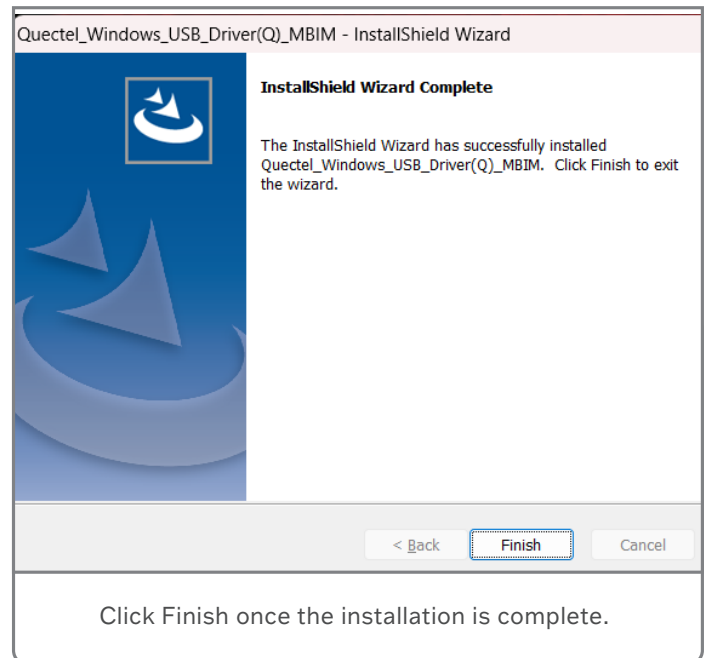
Follow the prompts for the Quectel driver installation. Click Next.



Click Next to begin copying program files.



Once the installation is complete, click Finish.



Once the USB driver update is complete, it should no longer be necessary to contact the Techline Customer Support Center for assistance on this issue.

► Thanks to Chris Henley

CX Connect Features Updated in Latest Release

The latest CX Connect release includes a number of enhancements and updates that are designed to increase the functionality of the app and make it easier to use.

VIN SEARCH

The **last 8 digits of the VIN** have been added to the beginning of the vehicle name to help more easily identify the correct VIN when a last 8 digits search is performed.

The best way to search for the correct vehicle is to copy and paste the **last 8 digits of the VIN** and validate the selection in the suggested results or copy and paste the **Full VIN** and select **Show More Results**.

Vehicle

JR366459

Show more results for "JR366459"

Search Results

JR366459 - 2018 GMC Yukon XL

JR366459

VIN search includes the last 8 digits of the VIN and the vehicle name.

Do not search for a vehicle by **Year/Make/Model**. It will result in associating the incorrect VIN to the case.

CASE INFORMATION

A new **Case Information** area that includes all required non-assessment fields is in the same area in the draft case to help improve technician case submission workflow.

CONTACT NAME UPDATES

Users can change the **Contact Name** on a case to other dealership personnel within their dealership.

Dealer Instructions

In order to submit your draft, please include all relevant information on case.

The below elements are required:

- "Description"
- "Last Odometer Reading"
- "Odometer Reading Unit of Measure"
- "DTC's and Symptom Bytes"
- "Times In"
- "Days Down"
- "Repair Order"
- "Techline - SPS Diagnostic Form" assessment and complete it.

If there is any additional documentation relevant to your case, add it as an attachment.

Once completed, click button "Submit Draft" to send your case to a GM Advisor.

Case Information

Case Number	Description
75158676	
Vehicle	Last Odometer Reading
JR366459 - 2018 GMC Yukon XL	
Type	Odometer Reading Unit of Measure
TCSC	

New Case Information area includes all required non-assessment fields.

Type

TCSC

Contact Name

Rich Forneris

Account Name

RAMEY CHEVROLET, INC.

Odometer Reading Unit of Measure

DTC's and Symptom Bytes

Times In

Contact Name

Rich

Show more results for "Rich"

Search Results

Rich Forneris

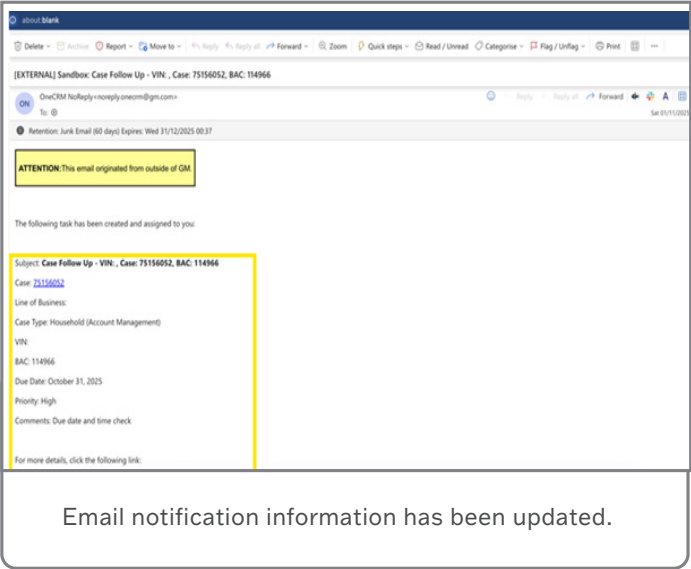
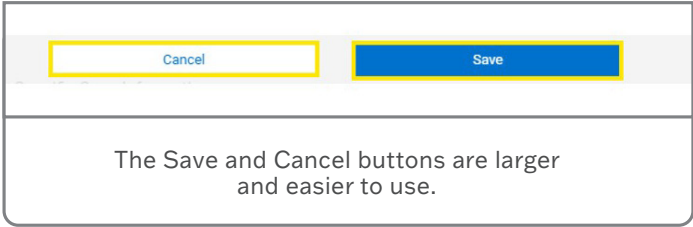
Rich Forneris

Rich Forneris

The Contact Name can be changed to other dealership personnel.

ENHANCED FUNCTIONALITY

Increased size of **Save and Cancel** buttons to mitigate accidental click issues.



► Thanks to John Sauer

EMAIL NOTIFICATION INFORMATION

Email notification information has been updated to add information to the subject and body for better case identification, including:

- BAC
- VIN
- Case Number
- Line of Business
- Case Type



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:
Rick Miller
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@5by5dzn.com

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

GM TechLink on the Web:
GM GlobalConnect

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