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Section 1

General Information

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General Information

Techline Connect Overview

Techline Connect is a new application with an intuitive user interface that integrates service information, reprogramming, diagnostics and other information designed to enhance technician efficiency.

Using This Manual

To increase effectiveness with the Techline Connect software, users should familiarize themselves with the format and information contained in this guide.

Everything contained in this manual is based on the latest product information available at the time of publication.

The right is reserved to make changes at any time without notice.

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Getting Started

System Requirements

In order to optimize the capabilities and features of Techline Connect, the minimum system requirements must be met.

Techline Connect requires business grade internet connectivity to download application updates, data packages for GDS2 diagnostics, large calibrations files as well as other important features.

Review the GM Dealer Infrastructure Guidelines in detail to ensure the PC's that Techline Connect will be installed on meet the necessary requirements. <https://www.gmdit.com/>

Computing Requirements (Laptop)

Display	15" display full Hi Definition (HD)
Hard Drive	500+ GB capacity
System Memory	8GB RAM
Processor	Intel Core i7 5th Gen
Operating System	Windows 10

System Administrator Support

The assistance of the dealerships system administrator may be needed to complete the installation of Techline Connect!

Techline Connect will require the download and installation of PC client application components. In many cases, dealership internet security restricts certain downloads through network and security administration.

Installation

From TIS2Web

Select the link displayed in the startup message:

From Global Connect

From the Service tab, select the Techline Connect Link. (If the link is not visible in your profile, see your Partner Security Coordinator (PSC) to ensure you have the correct access.

Downloads and Updates

Techline Connect will install a Download Manager. Download Manager uses a two-step process that is an intelligent application service that will automatically download new data and updates as well as help manage installations. Downloads are determined by the dealership's service profile.

Download Manager

Download Manager is installed as part of the Techline Connect installation. Download Manager will appear on the home screen upon logging in to Techline Connect and will automatically check for valid application leases and renew leases if necessary. Any updates to the application will also download and install automatically.

TECHLINE CONNECT

- Checking Lease...
- Checking for Software Updates...
- Downloading Updates... (3 Active Downloads)

MDI	<div style="width: 42%;"><div style="width: 42%;"></div></div>	42%
Service Programming 2	<div style="width: 60%;"><div style="width: 60%;"></div></div>	60%
GDS 2 Data Global	<div style="width: 50%;"><div style="width: 50%;"></div></div>	50%

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Techline Updates

GDS 2 Data SAIC	<div style="width: 100%;"><div style="width: 100%;"></div></div>	Completed
MDI	<div style="width: 20%;"><div style="width: 20%;"></div></div>	Installing...
GDS 2 Data Saab	<div style="width: 0%;"><div style="width: 0%;"></div></div>	Waiting...
GDS 2 Data Opel/Vauxhall	<div style="width: 0%;"><div style="width: 0%;"></div></div>	Waiting...
GDS 2 Data FLYER	<div style="width: 0%;"><div style="width: 0%;"></div></div>	Waiting...
GDS 2 Data Global	<div style="width: 0%;"><div style="width: 0%;"></div></div>	Waiting...
GDS 2 Data China	<div style="width: 0%;"><div style="width: 0%;"></div></div>	Waiting...
GDS 2 Data Freightliner	<div style="width: 0%;"><div style="width: 0%;"></div></div>	Waiting...

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1-6 Getting Started

Download (Step 1): Downloads will automatically be delivered to each PC that has Techline Connect installed.

Downloads can include

- GDS2 Application and Data
- MDI Updates
- Large calibration files

GDS2: Techline Connect will automatically update application and diagnostic data based on the version already installed on the PC.

Note: On initial installation of Techline Connect, the default diagnostic package must be installed using the GDS2 Manage Diagnostic Package function.

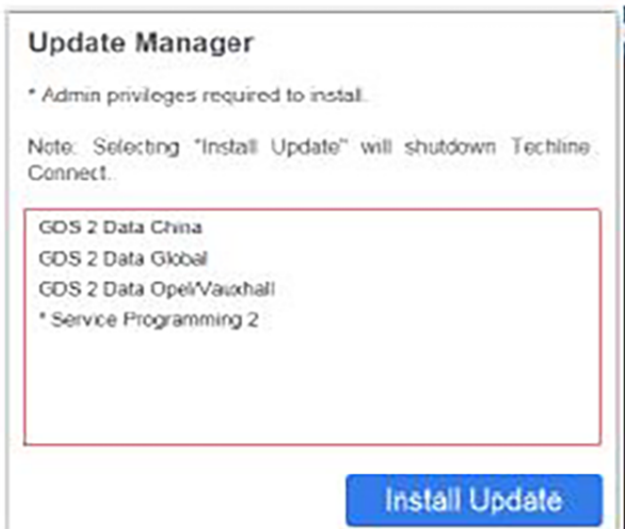
MDI: Techline Connect uses the same MDI Manager and MDI drivers used by your existing installation.

If MDI is not installed, Techline Connect will download MDI Manager. Follow the MDI installation and connection instructions found in the MDI installation guide.

Large Calibration Files: Large Calibration files will be made available to ALL Techline Connect PCs. Installation of these files can be ignored by the user.

Updates

Updates (Step 2): When downloads are completed by the Download Manager, the Update Manager will instruct the user to either perform the update or postpone the update to another time.



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Note: Selecting Install Update will close Techline Connect, requiring a new login.

Dashboard

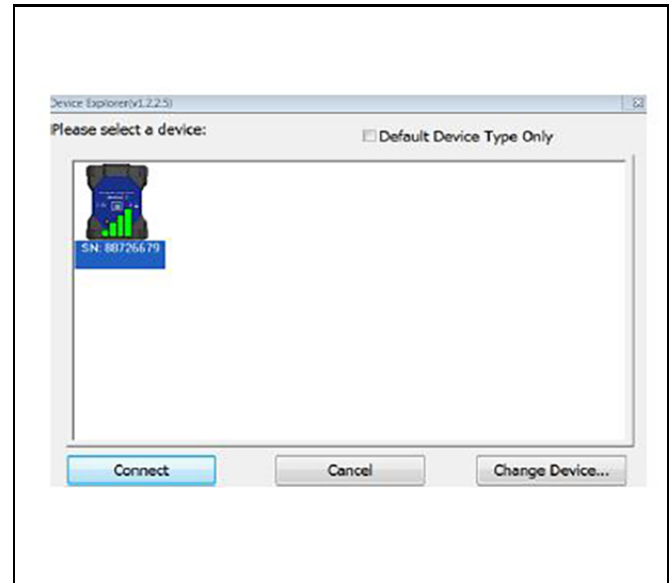
Description

Techline Connect manages the MDI/VCI connection along with vehicle connection.

1. Launch Techline Connect
2. Connect the MDI/VCI and establish the device connection

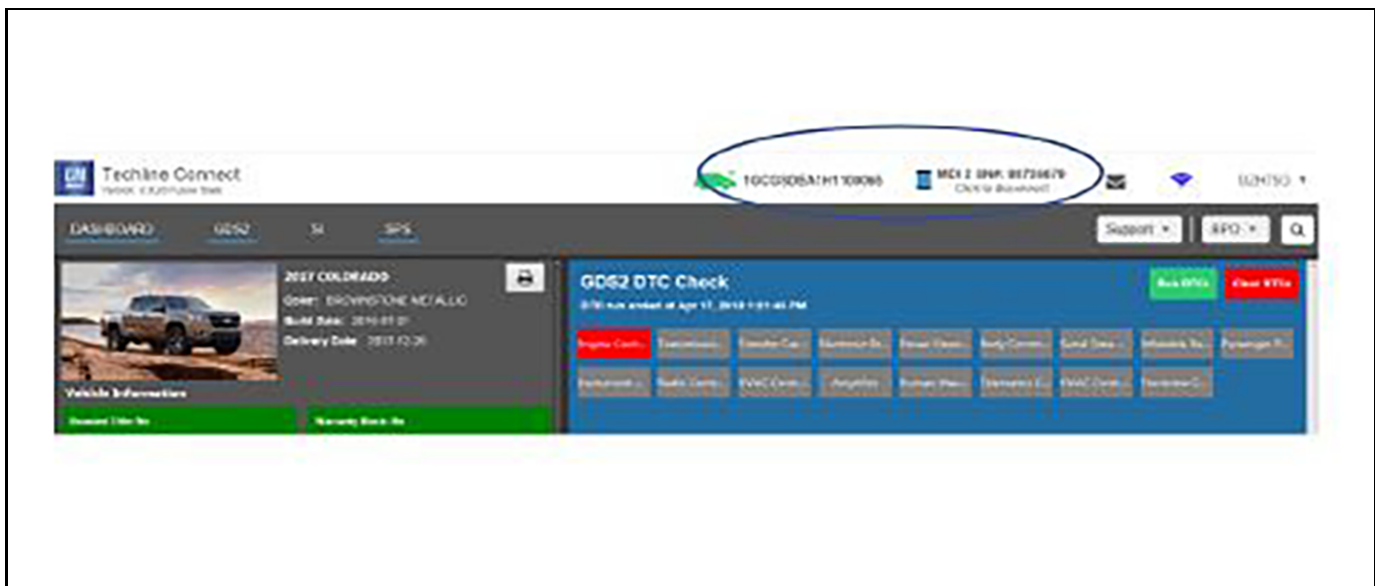
Tool Bar

Select MDI/VCI:



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With MDI/VCI connected to the vehicle, select MDI from MDI Explorer when prompted to establish device connection. When device connection is established, Techline Connect will automatically connect to the vehicle and retrieve the VIN showing VIN of the vehicle and MDI/VCI connection status.

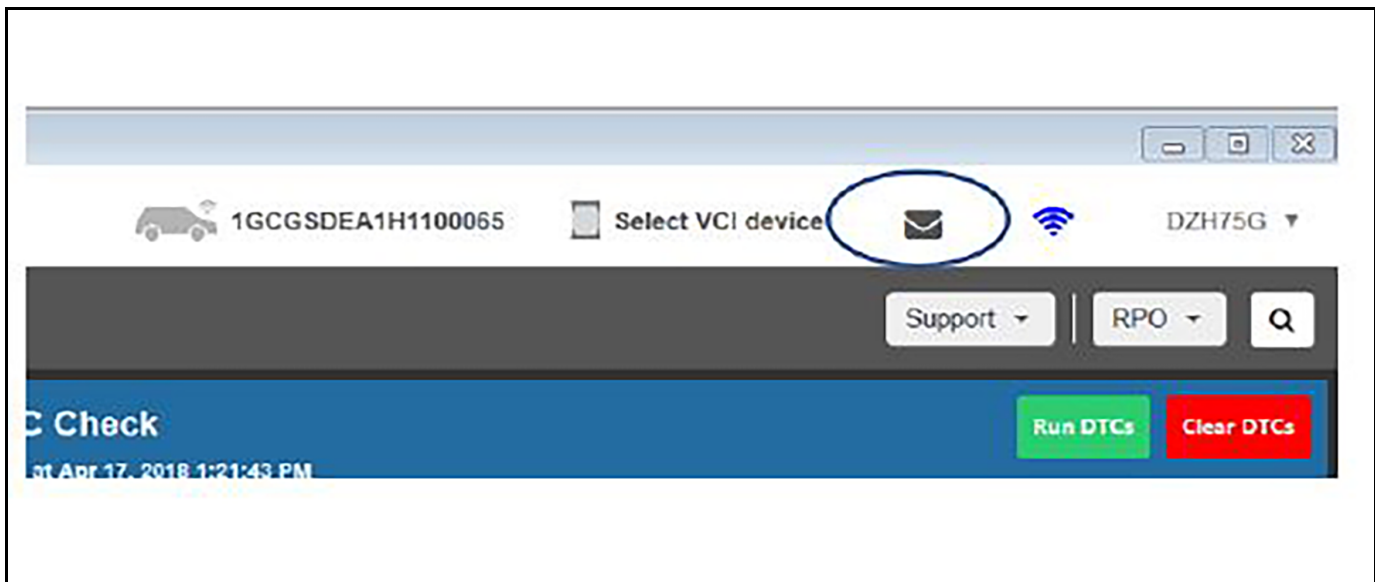


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Note: *Vehicles prior to 2009 may not be supported
Techline Connects Get VIN.

Vehicle Selection

Select Vehicle:



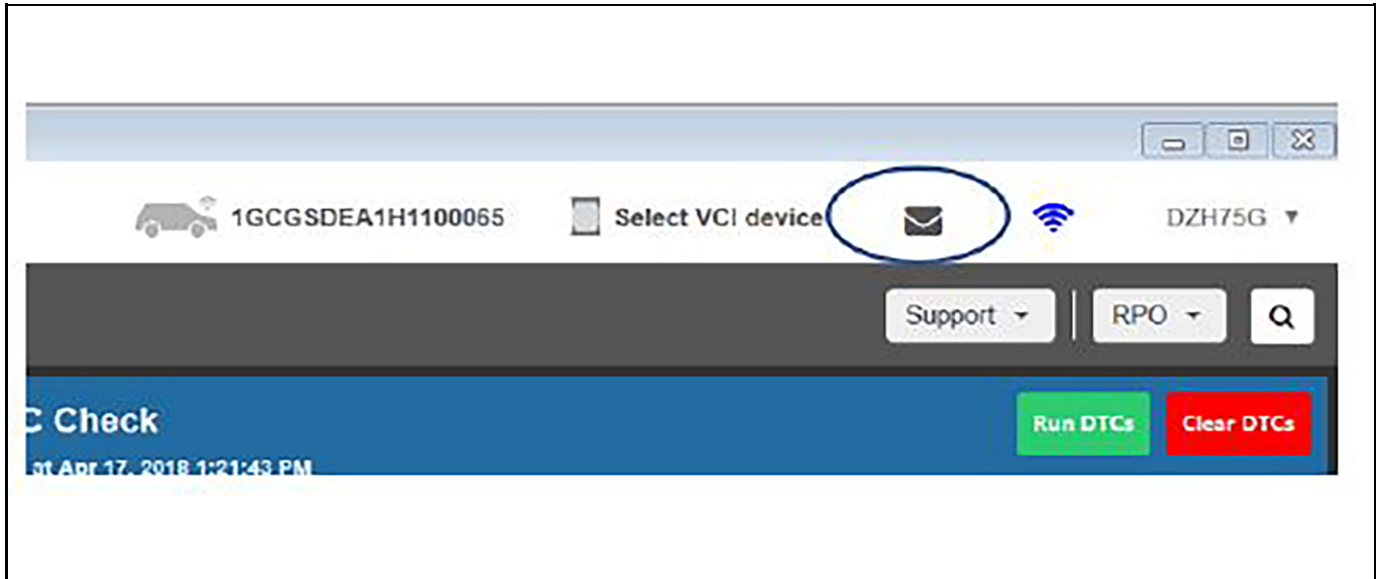
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1. Manual VIN input (type or copy/paste)
2. Select Year/Make/Model
3. Select VIN from history
4. Select Year Make Model search from history

1-8 Getting Started

Mail

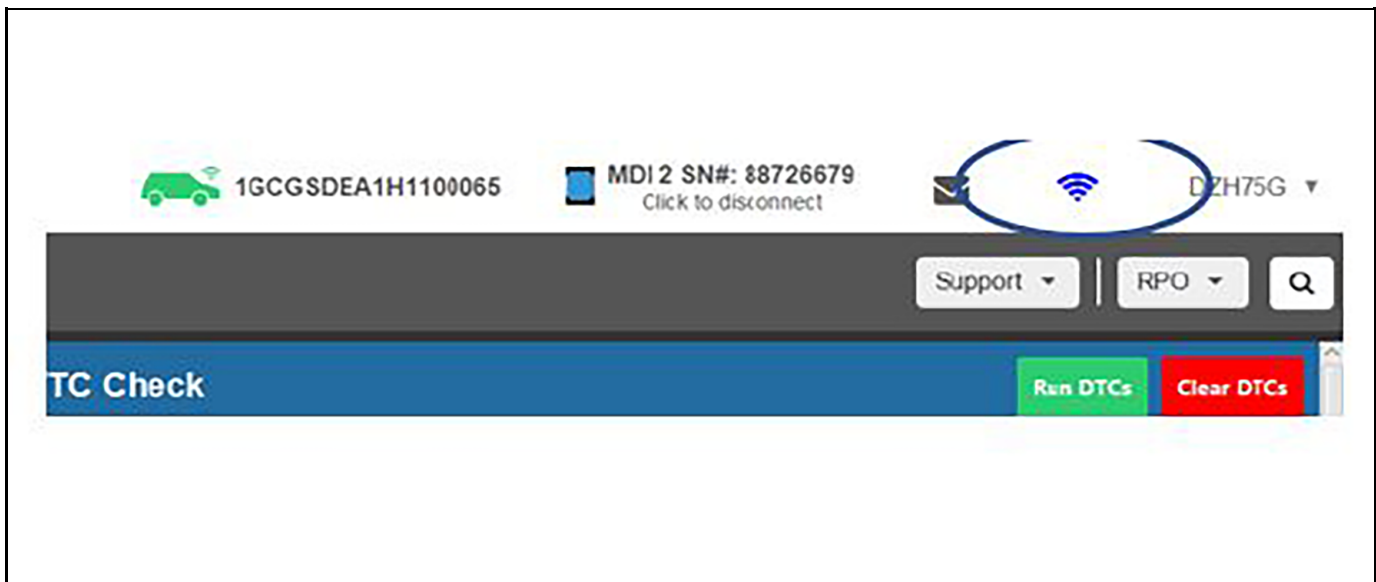
The mail icon will send an email to Techline Customer Support Center (TCSC) for application questions. For troubleshooting related issues it is recommended to contact TCSC directly. Note: For VEHICLE related issues contact Technical Assistance Center (TAC).



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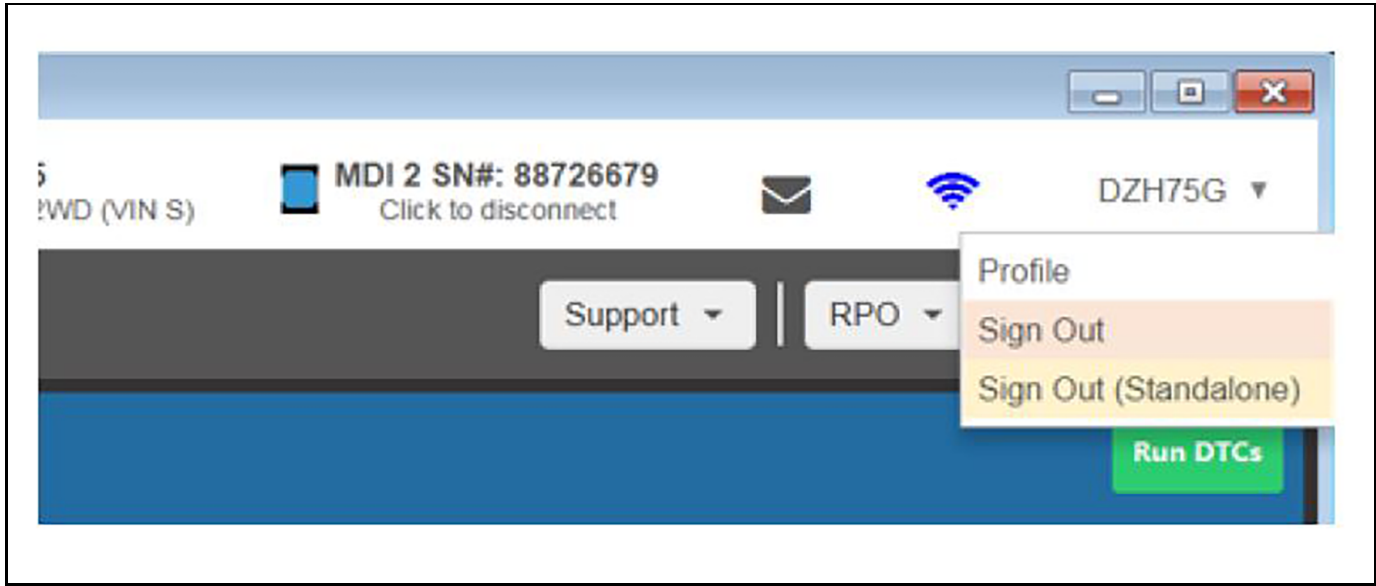
Internet Connection

When wireless symbol is blue, it represents connection to internet.



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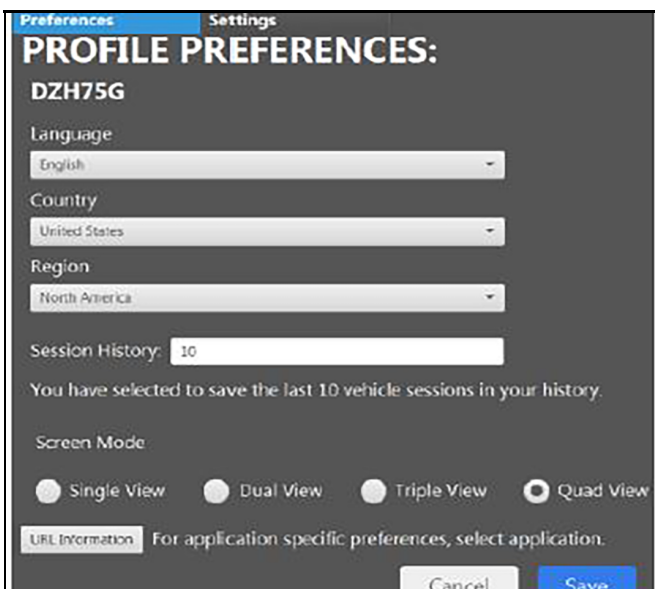
Login Information



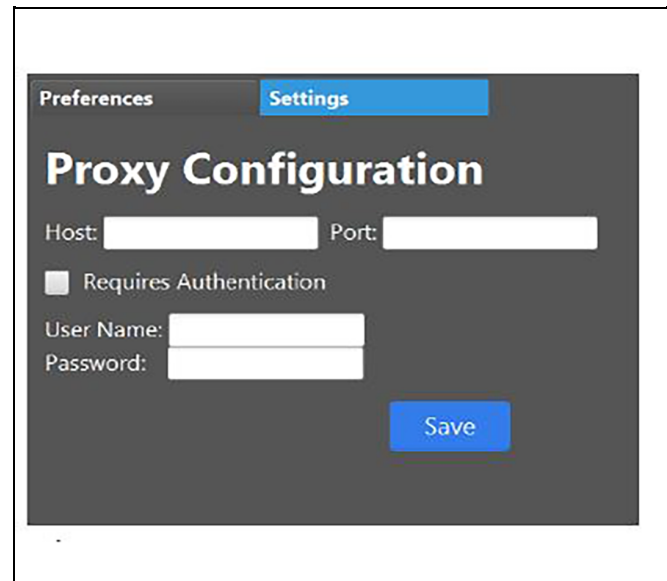
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Preferences: Provides options for language, country, and region settings as well as Session History and Screen Mode.

Settings:



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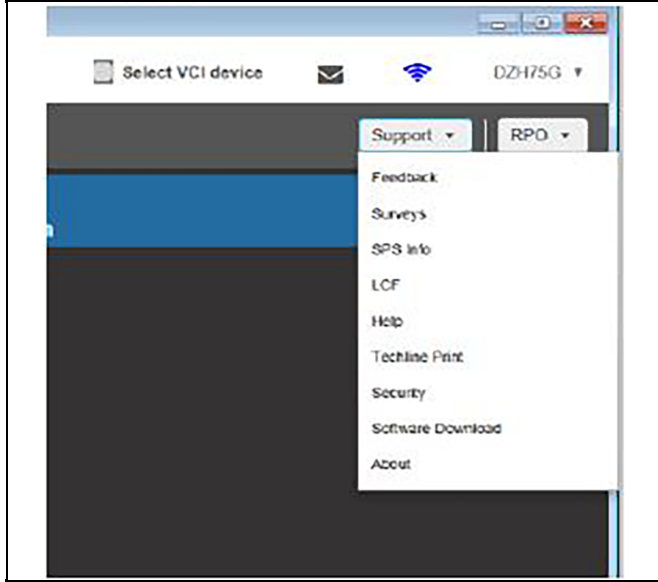
Sign Out: Sign out from Techline Connect and return to Login page.

Sign Out (Standalone): Sign Out of Techline Connect (no connection to Service Information and programming) while allowing GDS2 Stand Alone diagnostics for test drives.

Support

Support contains access to a number of resources and functions that have not been included within Techline Connect.

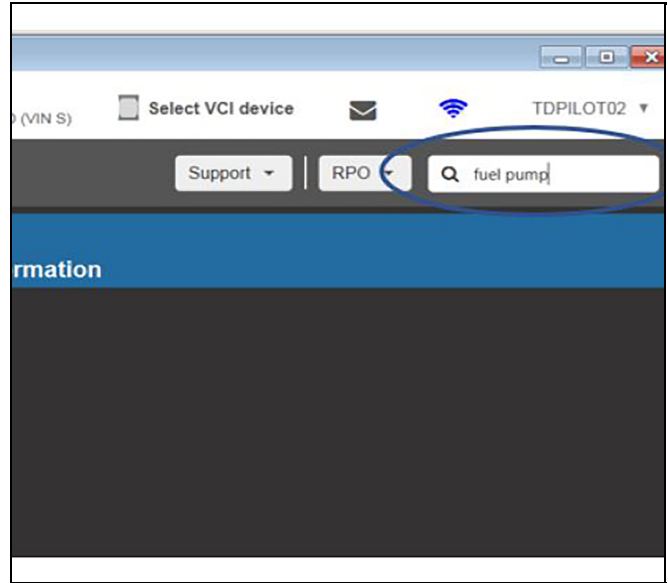
TIP: Tech2Win can be installed from “Software Download” and will function separately from Techline Connect.



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Quick Search

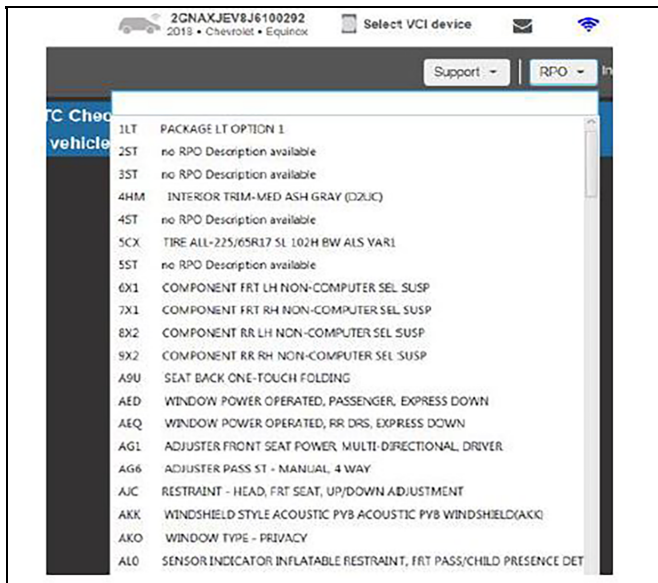
Quick Search is an easy way to perform a Service Information (SI) Keyword search from the Techline Connect dashboard. After establishing a vehicle connection or selecting a VIN, Year/Make/Model in the Vehicle Selection drop down, enter a keyword or phrase then select “enter”. Techline Connect will automatically open SI in a panel with the keyword search.



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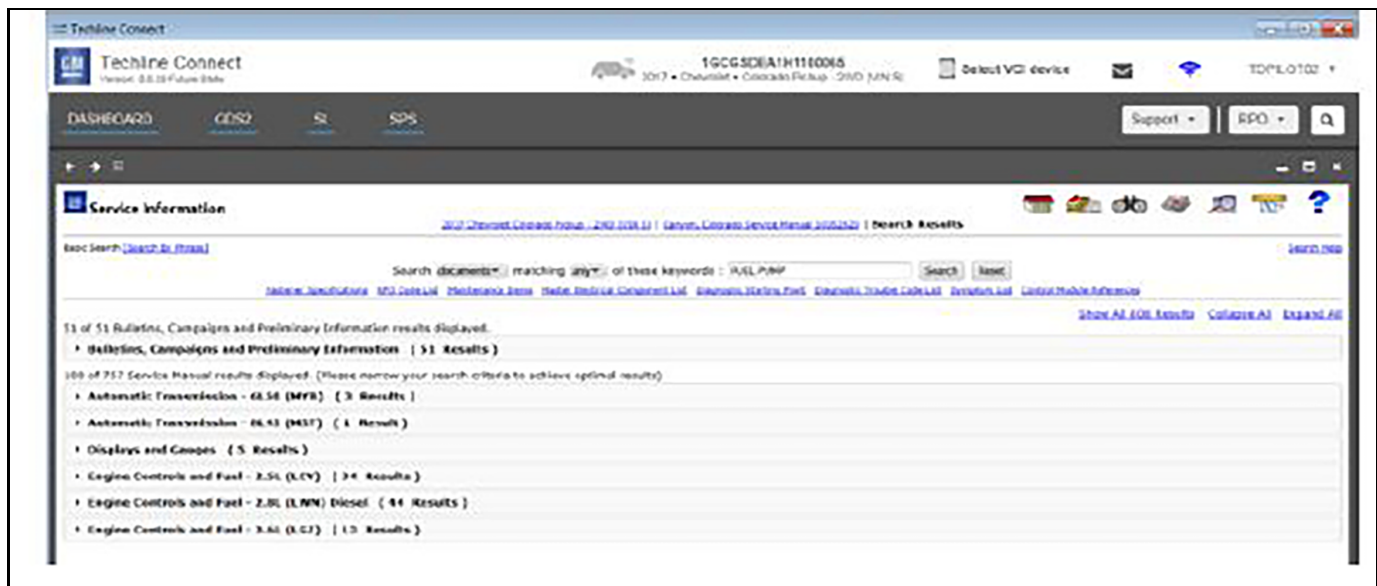
RPO

The RPO drop down displays Regular Production Options for a selected VIN. The RPO drop down can be accessed from any screen within Techline Connect.



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Search results are based on “Documents”:



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Dashboard Functions

Techline Connect's Dashboard is designed to display critical vehicle information on the vehicle selected in a simple and easy to understand view.

Vehicle Connection

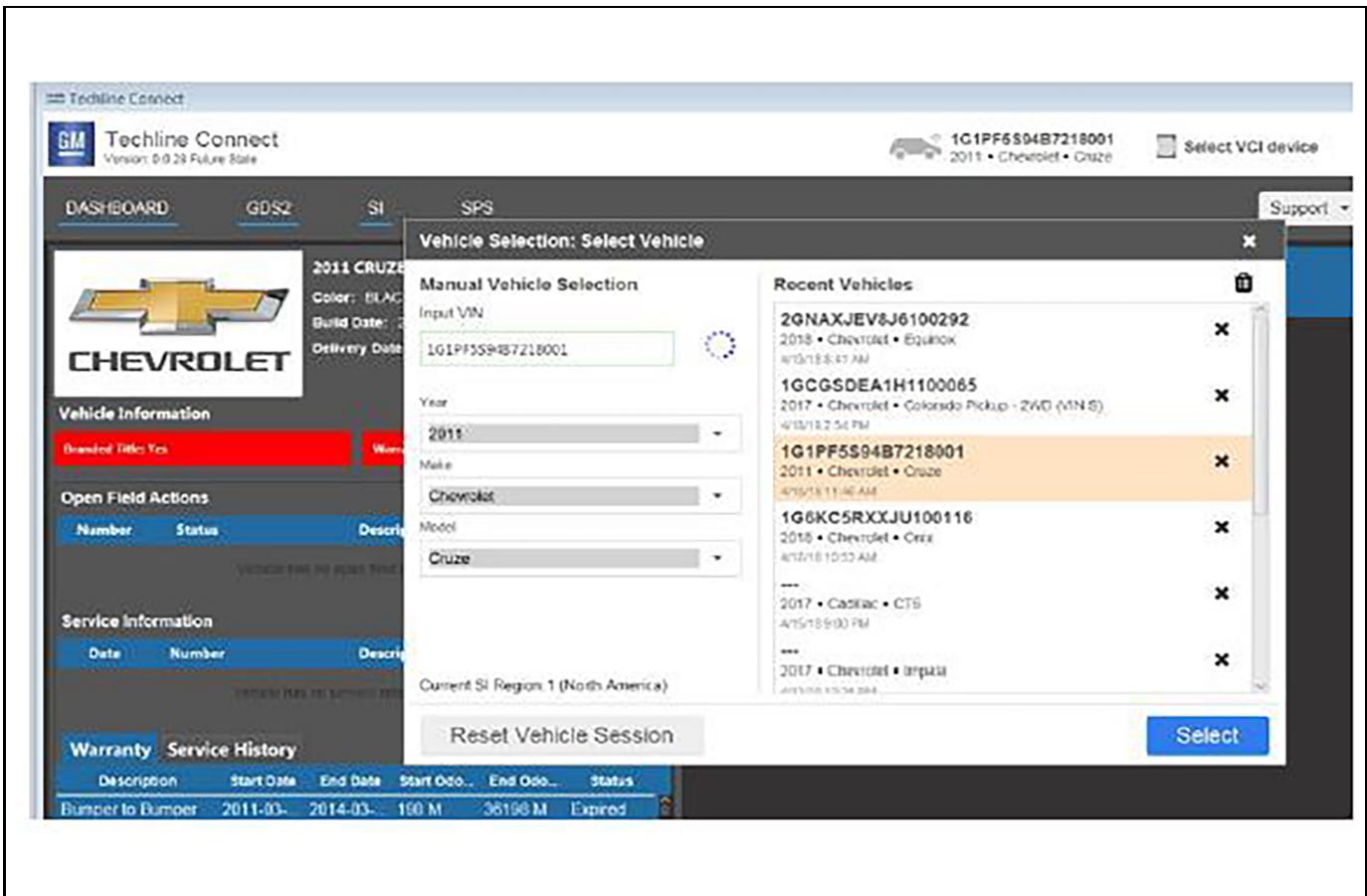
Techline Connect Dashboard is optimized when there is a vehicle connection.

Vehicle Description: Provides the marketing description of the vehicle including color and image (when available).

Investigate Vehicle History: Provides key IVH and warranty information used by a service technician.

Retrieve Vehicle Wide DTCs: A quick and easy way to perform a vehicle state of health check by searching diagnostic trouble codes (DTCs).

Note: * Retrieve vehicle Wide DTCs is only available to use on Global A vehicles. Vehicles that use GMLAN, ClassII and other protocols require the Tech II.



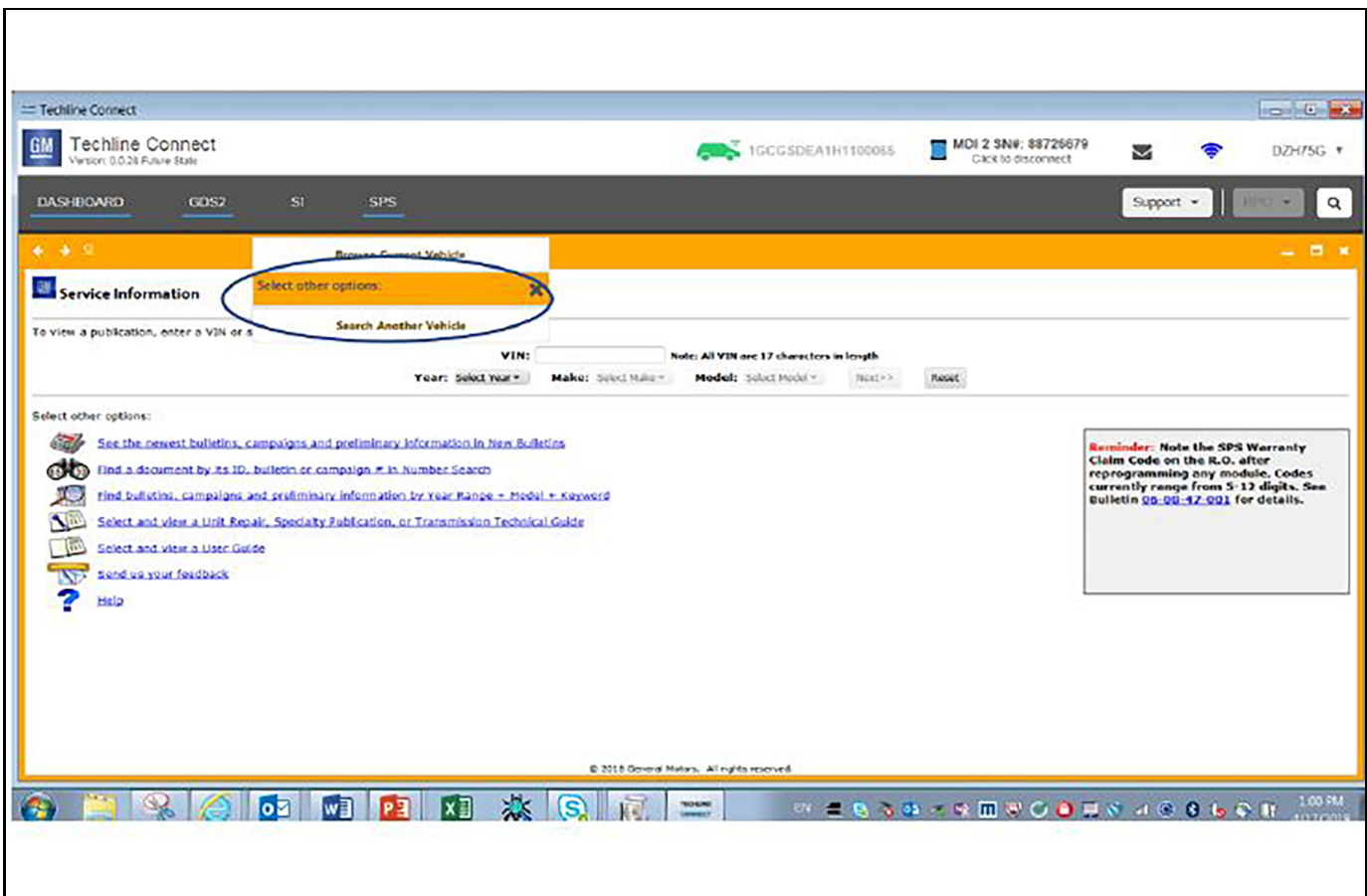
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SI — Browse Current Vehicle

SI can be used with and without a vehicle connection. SI can be searched by VIN and Year/Make/Model.

SI is 'Active' when entering a VIN, selecting a VIN from history or selecting a Year/Make/Model.

Selecting the SI tab opens Techline Connect panel management allowing SI navigation in multiple panels (windows) at the same time.



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Opening SI Documents in Multiple Panels

1. Techline Connect Multi-Panel view allows a user to open multiple documents at the same time.
2. To open a new panel RIGHT CLICK on the link and select Open In a New Page.
3. Techline Connect can be configured from one to four panels. (Under “your ID” and preference).

TIP: Printing — To print a document RIGHT CLICK again and select print.

GDS2

Global Diagnostic System 2 (GDS2) has been integrated into the Techline Connect application. Techline Connect GDS2 has the same functionality as GDS2 delivered through TIS2Web with enhanced navigation, VIN sharing and automated updates.

Using GDS2

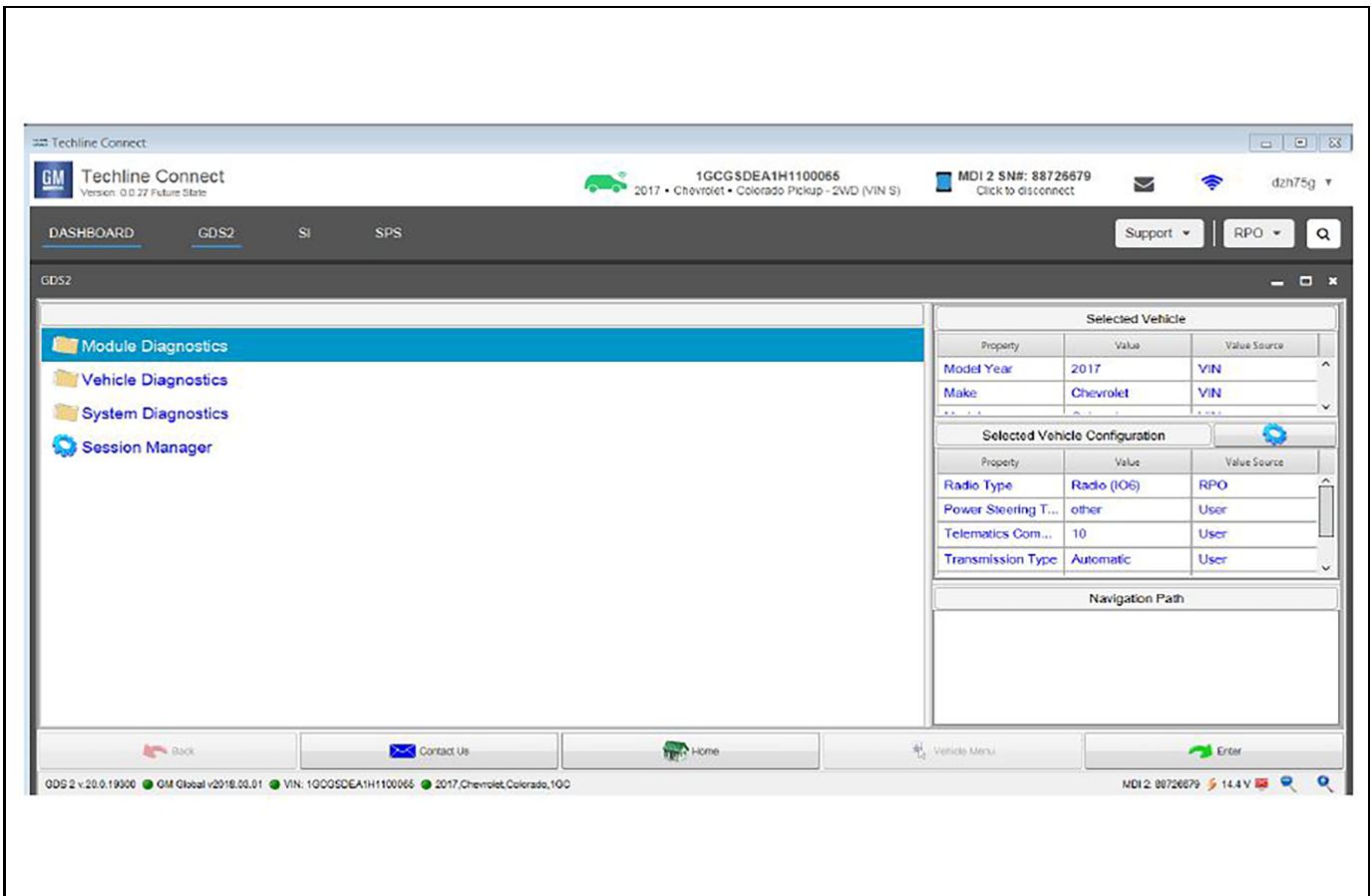
Establish an MDI/VCI connection and vehicle connection in Techline Connect.

1. Select GDS2 from the dashboard. GDS2 will open within Techline Connect in its own panel.

The screenshot shows the Techline Connect interface for a 2017 Colorado pickup truck. The top navigation bar includes 'DASHBOARD', 'GDS2' (highlighted), 'SI', and 'SPS'. The main content area is divided into two panels. The left panel shows vehicle information and service history. The right panel, titled 'GDS2 DTC Check', displays a table of vehicle configuration properties.

Property	Value	Value Source	Select
Engine Identifier	2.5L (LCV)	RPO	<input type="checkbox"/>
HVAC Control Module Type	Auto Control Single Zone (C6...	RPO	<input type="checkbox"/>
Power Steering Type	other	User	<input type="checkbox"/>
Radio Type	Radio (O6)	RPO	<input type="checkbox"/>
Telematics Communication Interface Control Module V...	10	User	<input type="checkbox"/>

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2. GDS2 will open at the Select Diagnostics screen.
3. Proceed with GDS2 functions.

Note: On initial installation of Techline Connect, the default diagnostic package must be installed using the GDS2 Manage Diagnostic Package function.

SPS

The Service Programming System (SPS) updates the flash calibration files that are stored on onboard vehicle control modules using Pass-Thru Programming. Pass-Thru Programming is an SAE industry standard. SPS is integrated in Techline Connect.

Programming

The major difference from current SPS and SPS in Techline Connect is that the vehicle connection is established in the Techline Connect Dashboard.

Steps to begin SPS

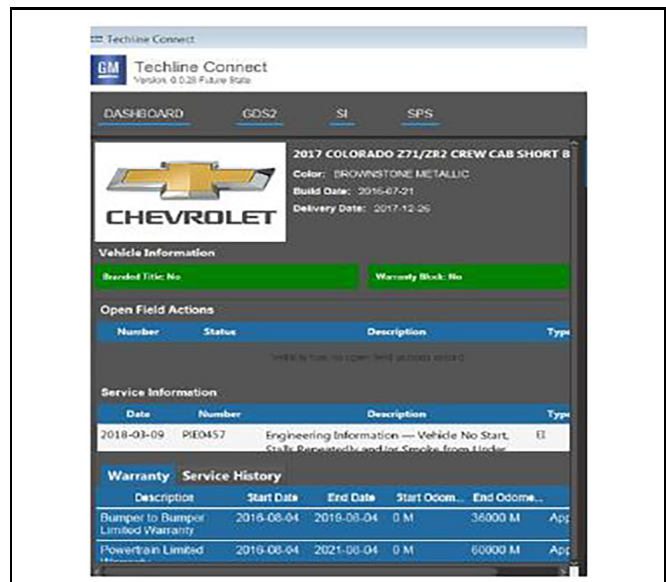
1. Establish MDI/VCI connection. Techline Connect will automatically read the vehicle VIN.
 - Once VIN and vehicle description is displayed in the Dashboard header select the SPS icon.
2. SPS will open after a short startup.
3. SPS will display the selected VIN, there is no need to "build the vehicle".
4. Navigate SPS as normal to programming and other Setup/configuration functions.

Vehicle Overview

Vehicle overview provides a description of the selected vehicle, as well as important information such as Open Field Actions, warranty and service history.

VIN is required to populated Vehicle Overview.

Note: Information in Vehicle Overview may be limited based on the vehicle model year or build region.



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GDS2 DTC Check

GDS2 DTC Check is a convenient function that allows technicians to perform a vehicle wide DTC scan from the Dashboard. The DTC Check also allows technicians to clear codes from the Dashboard. In order to perform this function, an active MDI/VCI and vehicle connection is required.

Green: Indicates successful communication with the ECU but no DTCs.

Red: Indicates successful communication with ECU and DTCs detected.

Grey: Indicates No communication with ECU. This can mean that the ECU does not exist on the vehicle or the ECU is not responding.

The screenshot shows the GDS2 DTC Check interface. At the top, it displays vehicle information: 3GTU2NEC3HG169214 (2017 GMC Truck Sierra 4WD) and MDI 2 SN#: 89726679. Below this is a grid of modules with status indicators (Green, Red, Grey). A table titled 'DTC Information' lists detected codes and their descriptions.

DTC	DTC Desc	Module Code	Module Desc	Status
81325	Control Module Power Circuit		Radio Controls	History
81325	Control Module Power Circuit		Radio	History
8127E	Front Video Display Output Signal		Human Machine Int...	History
U0415	Invalid Data Received From Electronic Brake Control ...		Power Steering Con...	History
U0140	Lost Communication with Body Control Module		Frontview Camera ...	History
U0121	Lost Communication with Electronic Brake Control Mo...		Frontview Camera ...	History
81011	System Disabled Information Stored		Frontview Camera ...	History

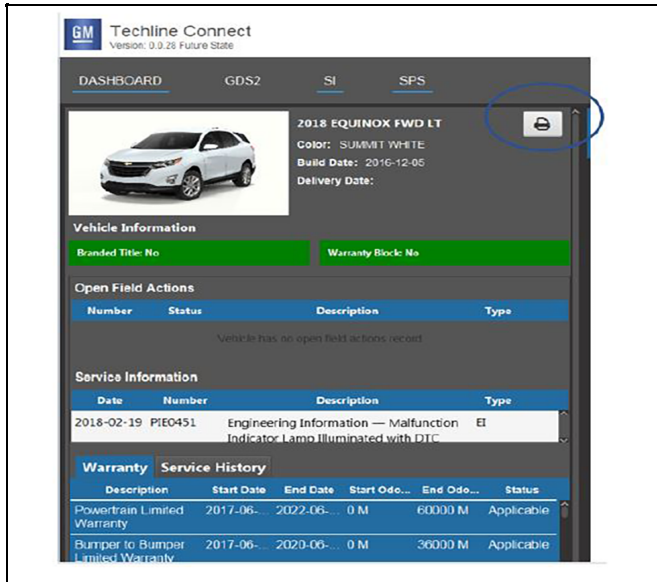
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Note: Some codes may require GDS2 to be cleared. Techline Connect will indicate when this is necessary.

Note: GDS2 DTC Check is limited to Global A vehicle architecture!

Dashboard Print

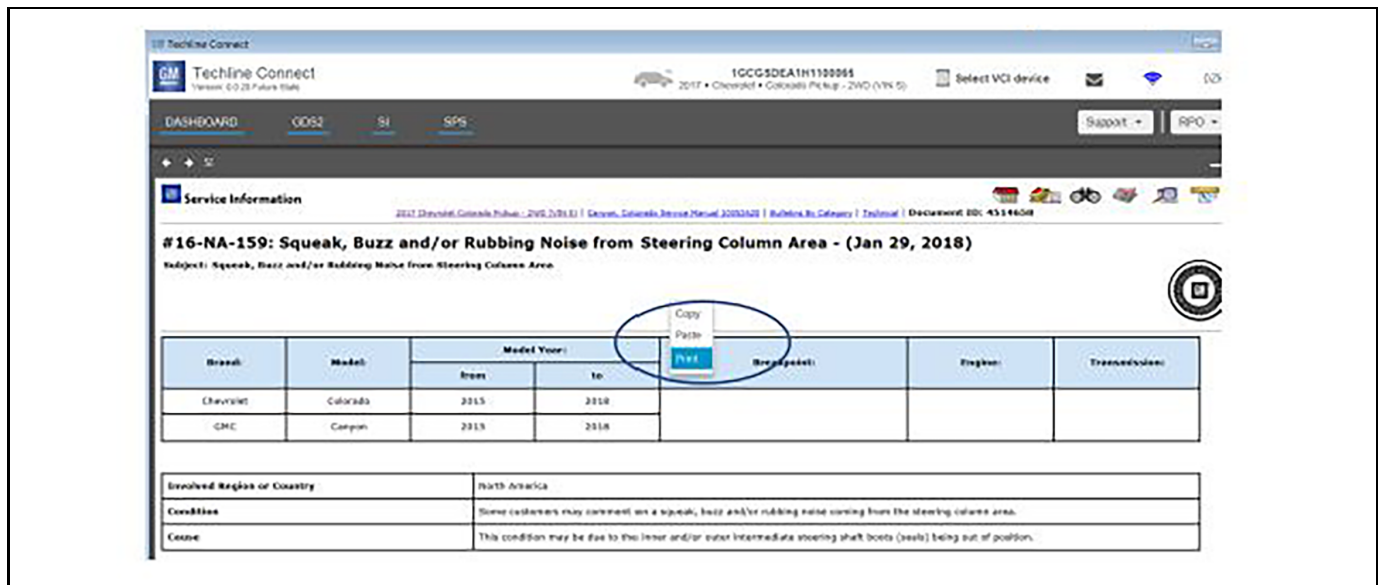
Print is enabled on the Techline Connect Dashboard in a single print icon. Selecting the icon allows printing of any or all Dashboard content.



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To print SI documents:

1. Navigate to the document that needs to be printed.
2. "Right Click" within the document and select the print option.



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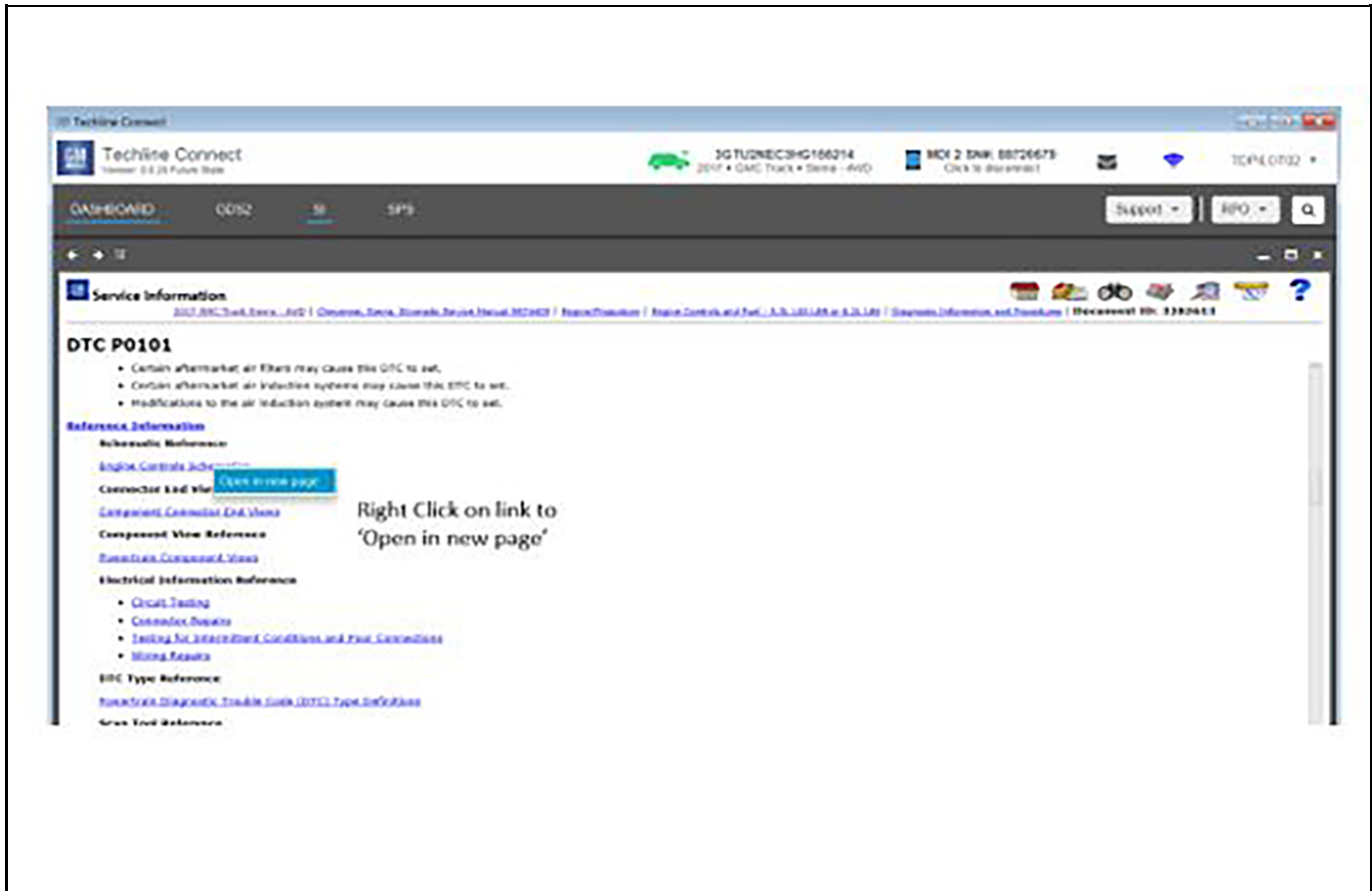
Panel Management

Panel Management

Panel Management is a powerful Techline Connect feature that gives technicians the ability to view multiple screens and applications at the same time, allowing for various window configurations as shown below.

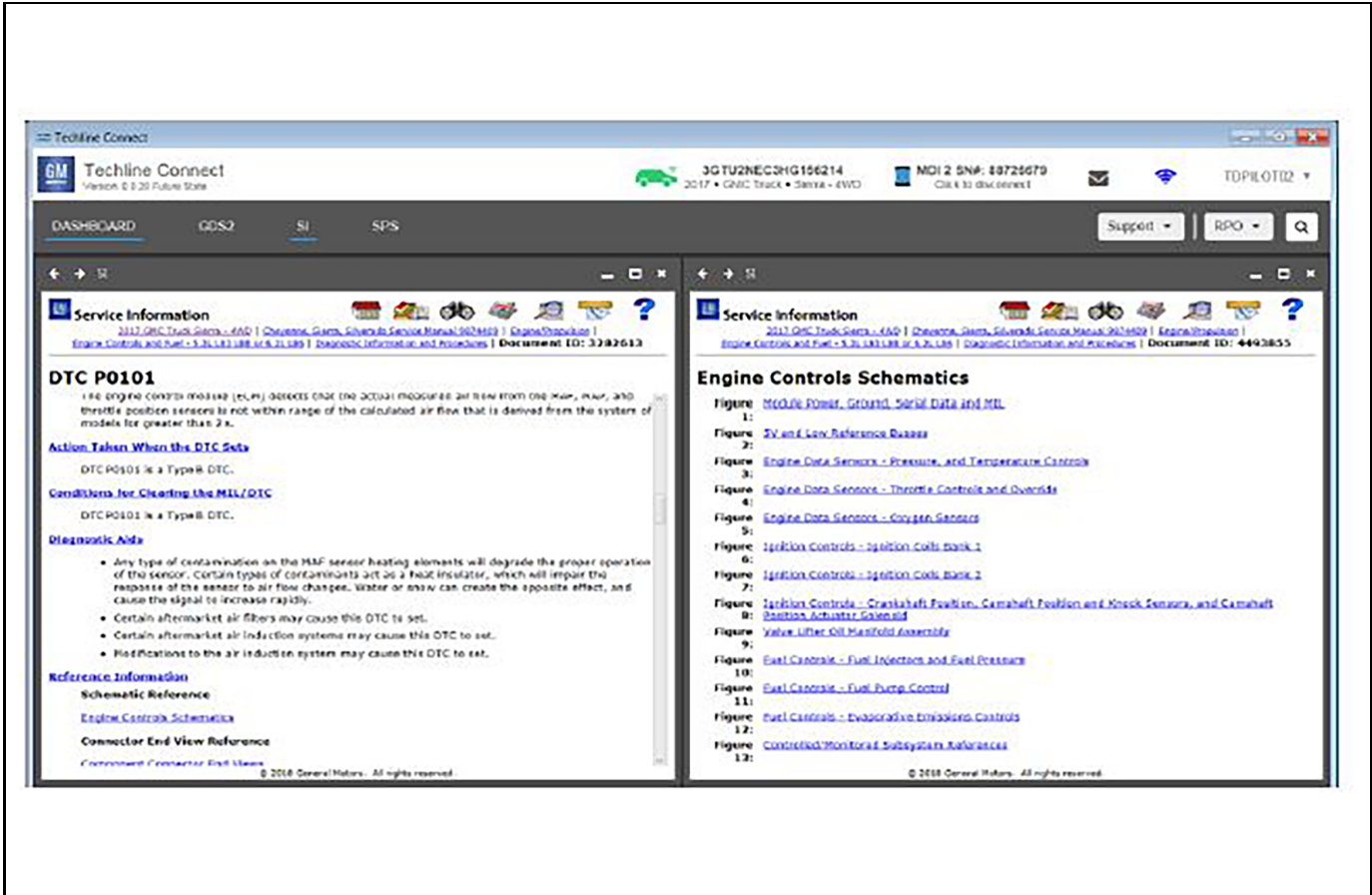
Right Click to Open a New Panel

From an initial search, a new panel can be opened by right clicking on a link.



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Dual panels



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The screenshot shows the Techline Connect web application interface. At the top, there is a navigation bar with 'DASHBOARD', 'GDS2', 'SI', and 'SPS' tabs. The user's vehicle information is displayed as '3GTU2NEC3HG156214' (2017 GMC Truck) and 'MD12 SNR: 88726879'. The interface is split into two main panels:

- Left Panel: DTC P0101**

Service Information
 2017 GMC Truck, Sierra, AND | Chevrolet, Sierra, Silverado Service Manual, 307449 | Data/Procedure |
 Engine Controls, and Fuel - 3.3L I4 LE, 3.6L I4 LE, 4.8L V6 | Diagnostic Information and Procedures | Document ID: 3282612

DTC P0101
 The engine control module (ECM) detects that the actual measured air flow from the MAF, MAF, and throttle position sensors is not within range of the calculated air flow that is derived from the systems of models for greater than 2 s.

Action Taken When the DTC Sets
 DTC P0101 is a Type B DTC.

Conditions for Clearing the MIL/DTC
 DTC P0101 is a Type B DTC.

Diagnostic Aids

 - Any type of contamination on the MAF sensor heating elements will degrade the proper operation of the sensor. Certain types of contaminants act as a heat insulator, which will impair the response of the sensor to air flow changes. Water or snow can create the opposite effect, and cause the signal to increase rapidly.
 - Certain aftermarket air filters may cause this DTC to set.
 - Certain aftermarket air induction systems may cause this DTC to set.
 - Modifications to the air induction system may cause this DTC to set.

Reference Information

Schematic Reference
[Engine Controls Schematics](#)

Connector End View Reference
[Mass Air Flow Sensor End View](#)

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- Right Panel: Engine Controls Schematics**

Service Information
 2017 GMC Truck, Sierra, AND | Chevrolet, Sierra, Silverado Service Manual, 307449 | Data/Procedure |
 Engine Controls, and Fuel - 3.3L I4 LE, 3.6L I4 LE, 4.8L V6 | Diagnostic Information and Procedures | Document ID: 4493855

Engine Controls Schematics

 - Figure 1: [Intake, Power, Ground, Serial Data and MIL](#)
 - Figure 2: [EV and Low Reference Runners](#)
 - Figure 3: [Engine Data Sensors - Pressure, and Temperature Controls](#)
 - Figure 4: [Engine Data Sensors - Throttle Controls and Controls](#)
 - Figure 5: [Engine Data Sensors - Throttle Controls](#)
 - Figure 6: [Ignition Controls - Ignition Coils Bank 2](#)
 - Figure 7: [Ignition Controls - Ignition Coils Bank 1](#)
 - Figure 8: [Ignition Controls - Crankshaft Position, Camshaft Position and Knock Sensors, and Crankshaft Position Actuator Solenoid](#)
 - Figure 9: [Valve Lifter Oil Manifold Assembly](#)
 - Figure 10: [Fuel Controls - Fuel Injectors and Fuel Pressures](#)
 - Figure 11: [Fuel Controls - Fuel Pump Control](#)
 - Figure 12: [Fuel Controls - Evaporative Emissions Controls](#)
 - Figure 13: [Controlled/Monitored Subsystem References](#)

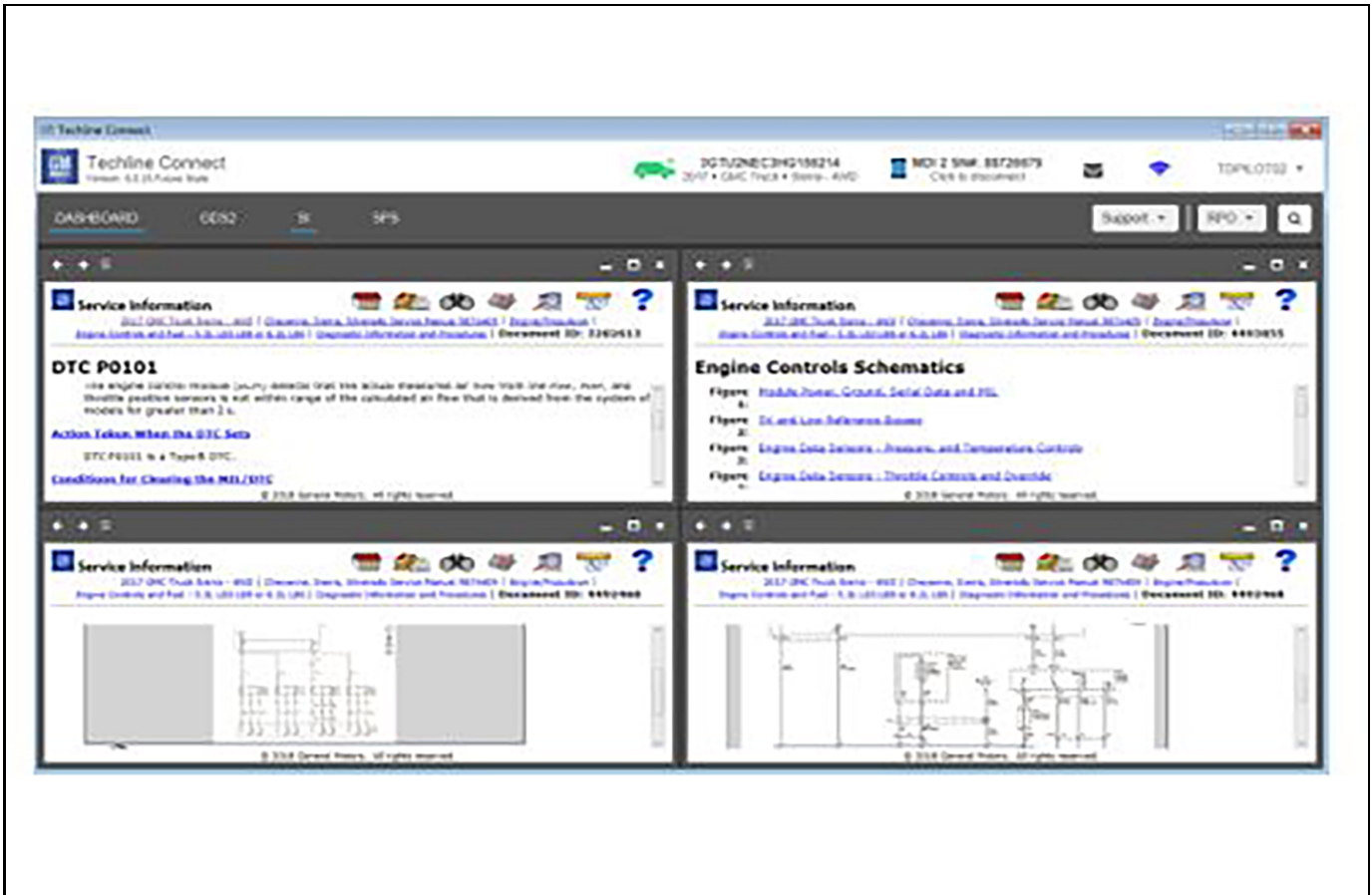
A button labeled 'Open in new page' is highlighted in blue.

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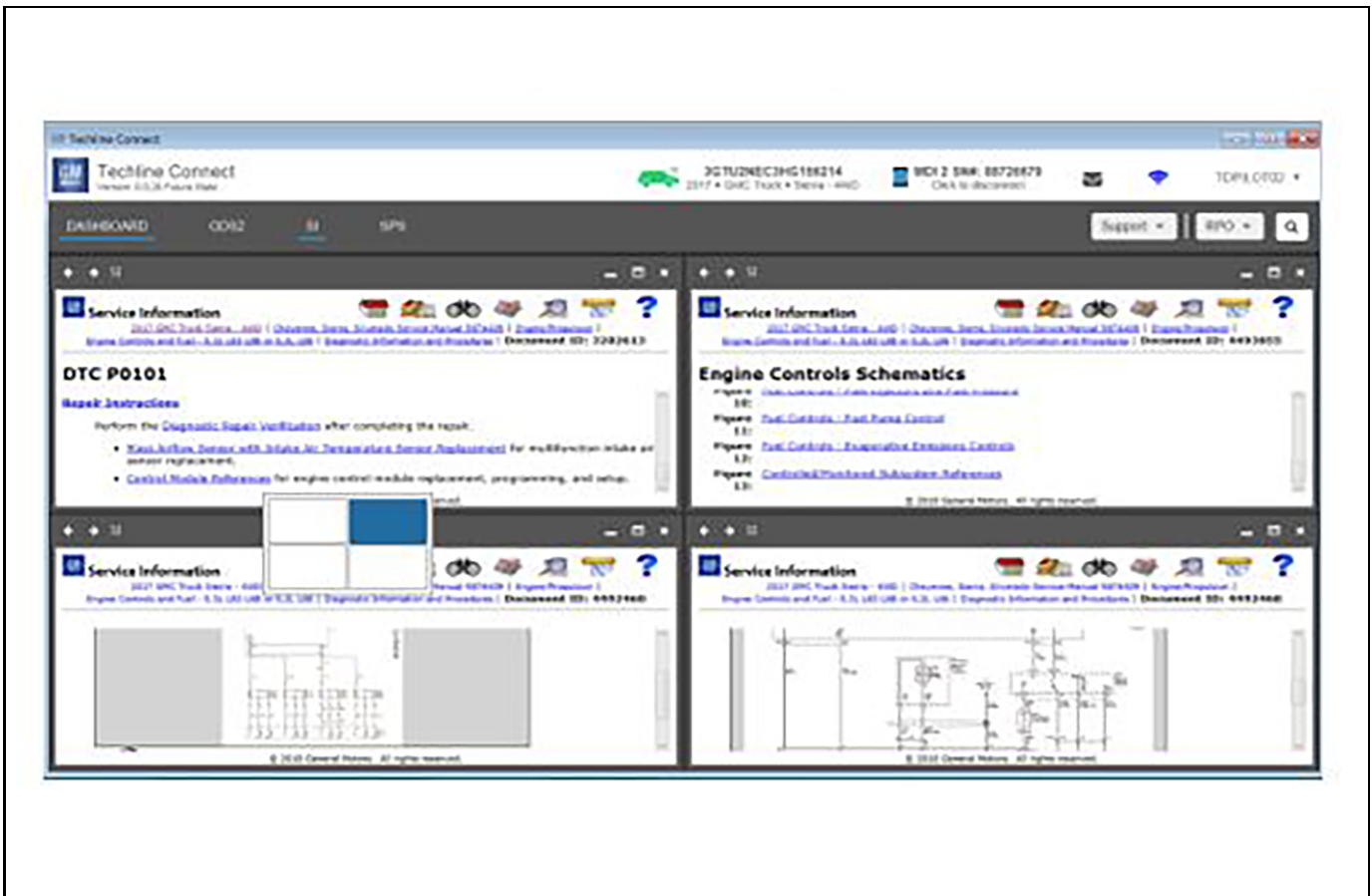
1-22 Panel Management

Open up to four panels



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Additional documents or applications can be dropped into a panel of your choice



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