DiagnosticLink 8.17 Features

12/08/2022

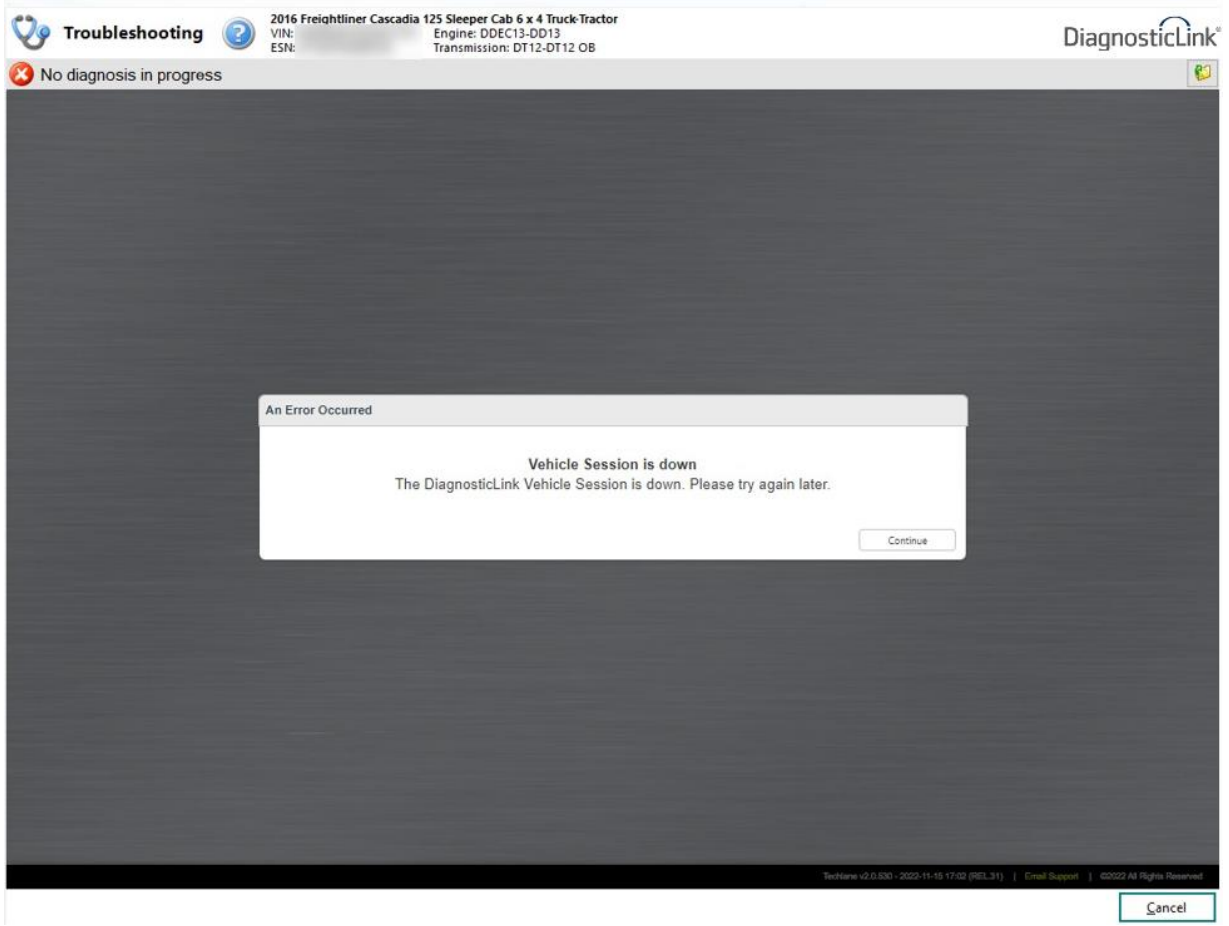
DAIMLER TRUCK
North America

DL 8.17 Release Features Summary

- Covers full support for DD15TCO, DD13TC0, MY2022 HDEP, MY2022 MDEG ECU software packages
- The Techlane web browser has been migrated to Microsoft Edge Webview2.
- The open log file form has been updated with tooltip text for describing parameters.
- An issue has been resolved where eCPC parameter writes resulted in contractors being opened.
- Parameter updates disallowed during vehicle charging.
- The Help About menu now displays the RP1210 device name and version.
- The Help References dialog has been updated from DTNAConnect to the DTNA Portal.
- The client new version notification has been updated for internal users.
- Bootloader flashing support has been added for EMG vehicles
- The TechLit download process has been enhanced to help improve the troubleshooting manual update procedure.
- Campaign Management panel added to support checking status and starting campaigns for vehicles
- New panels added for EMG vehicle support.

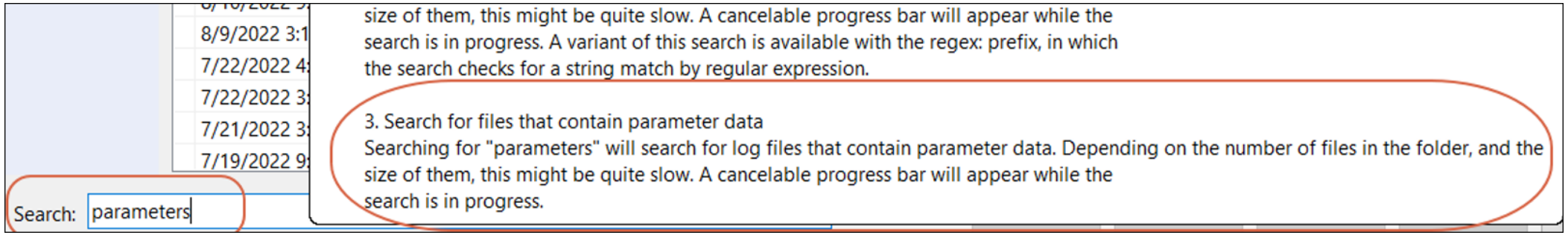
Microsoft Edge Webview2

- When the WebView2 component is not installed, an error will be displayed in the Techlane window (for dealers with Techlane access).
- The embedded web browser used by Techlane was migrated to WebView2 which uses the Microsoft Edge chromium-based browser.



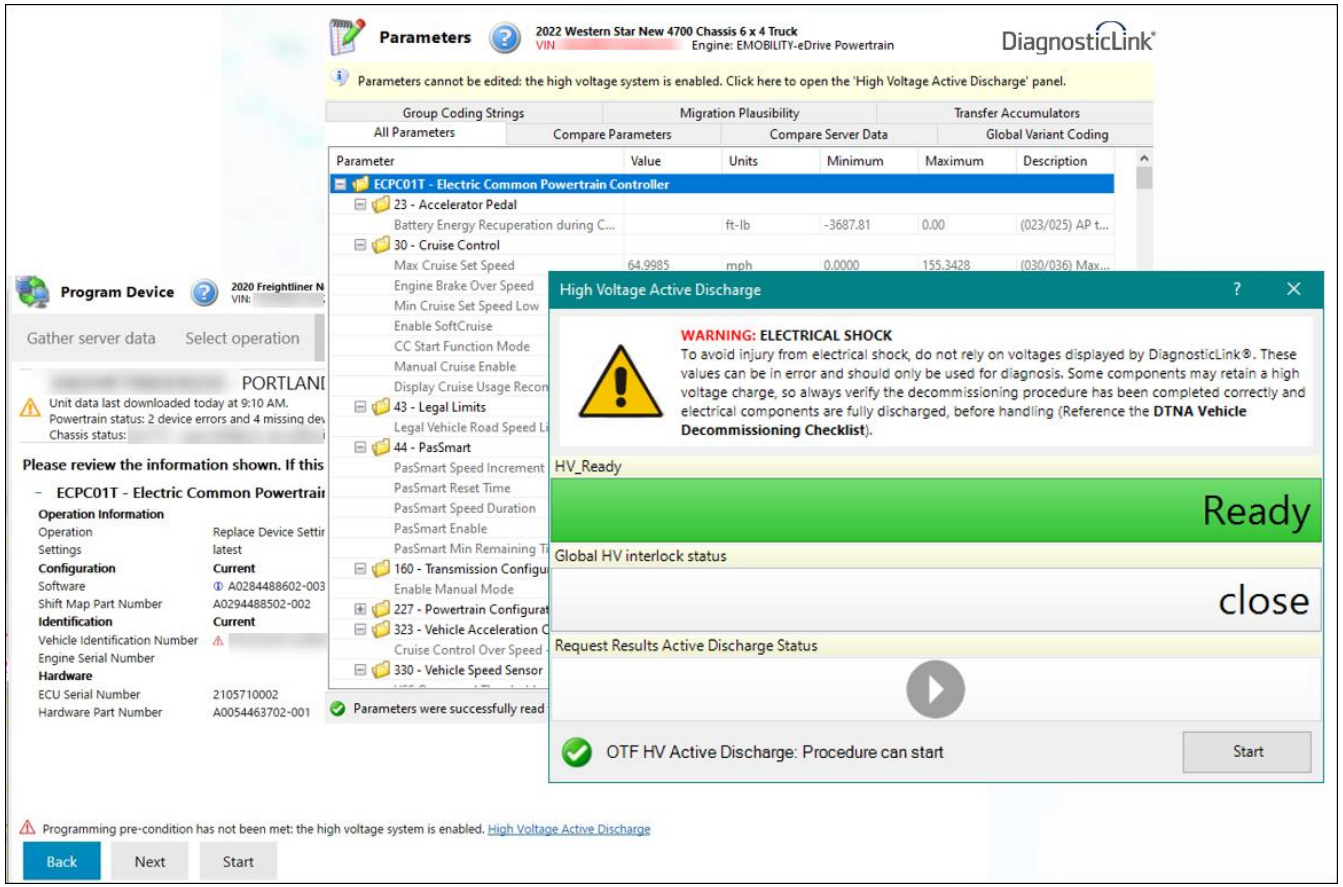
Parameter Tooltip Text

- The open log file form has been updated with tooltip text for describing parameters.
- Typing “parameters” in the open log file search box displays all log files that contain parameter values



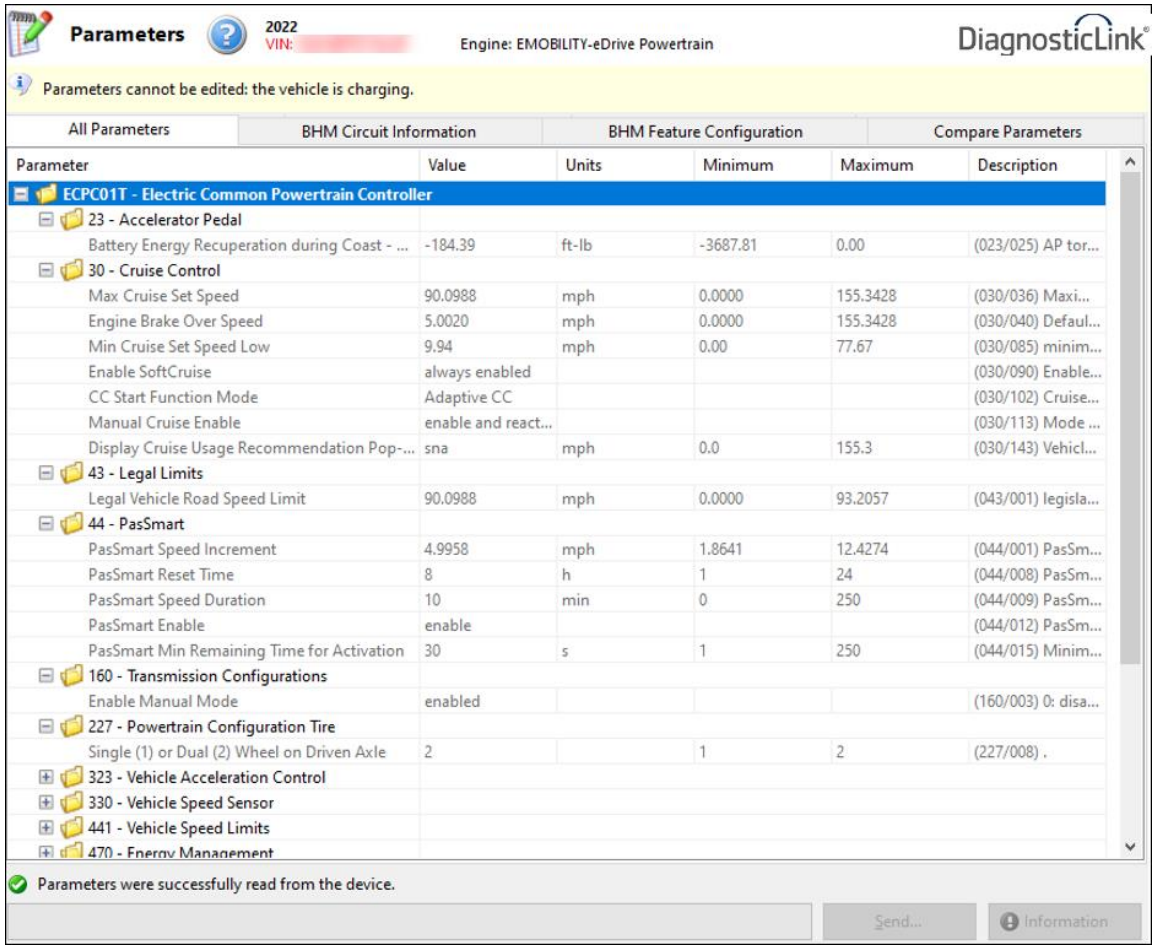
eCPC Parameter Fix

- When parameters are written to eCPC, the “Soft reset” routine is called to commit parameters to permanent memory.
- If the vehicle is in “HV ready” state, executing this routine will cause the contactors to be ungracefully opened.
- To avoid this, DiagnosticLink will prevent the user from performing actions that cause parameters to be written when the vehicle is in “HV ready” state.
- The user is warned of the condition, and is provided access to the “HV Active Discharge” dialog, to resolve the condition.



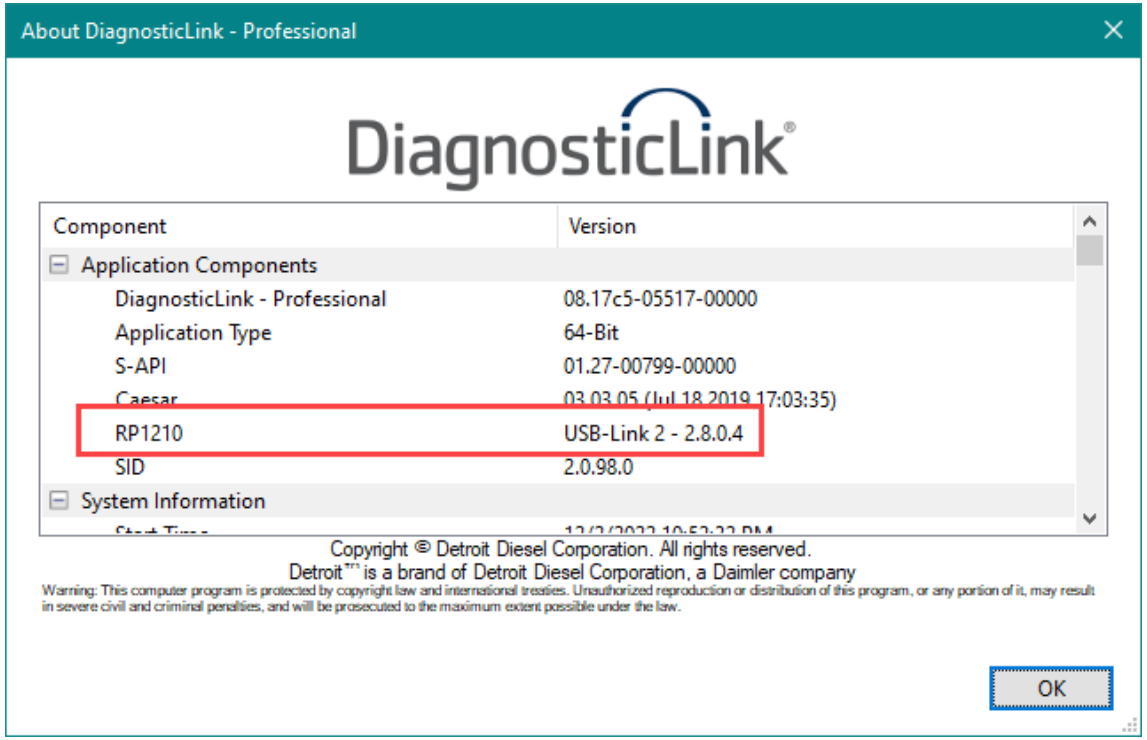
Parameter Updates Disallowed During Vehicle Charging

- Parameter updates should not be allowed (to any ECU) while the vehicle is charging.
- Similar to the behavior of the tool when the ‘last service data’ check is not satisfied, the user is prevented from making changes until the precondition indicated at the top of the screen has been resolved.
- The Send button is also disabled when the precondition state is detected.



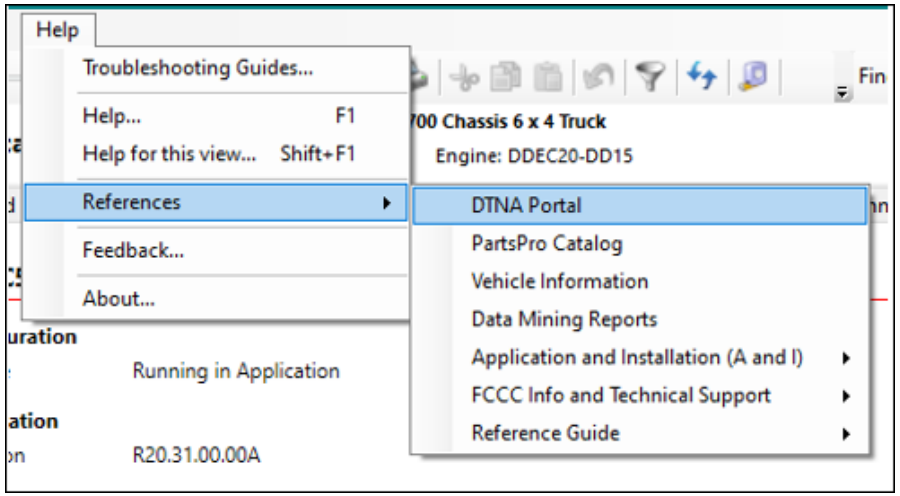
RP1210 Device Name and Version

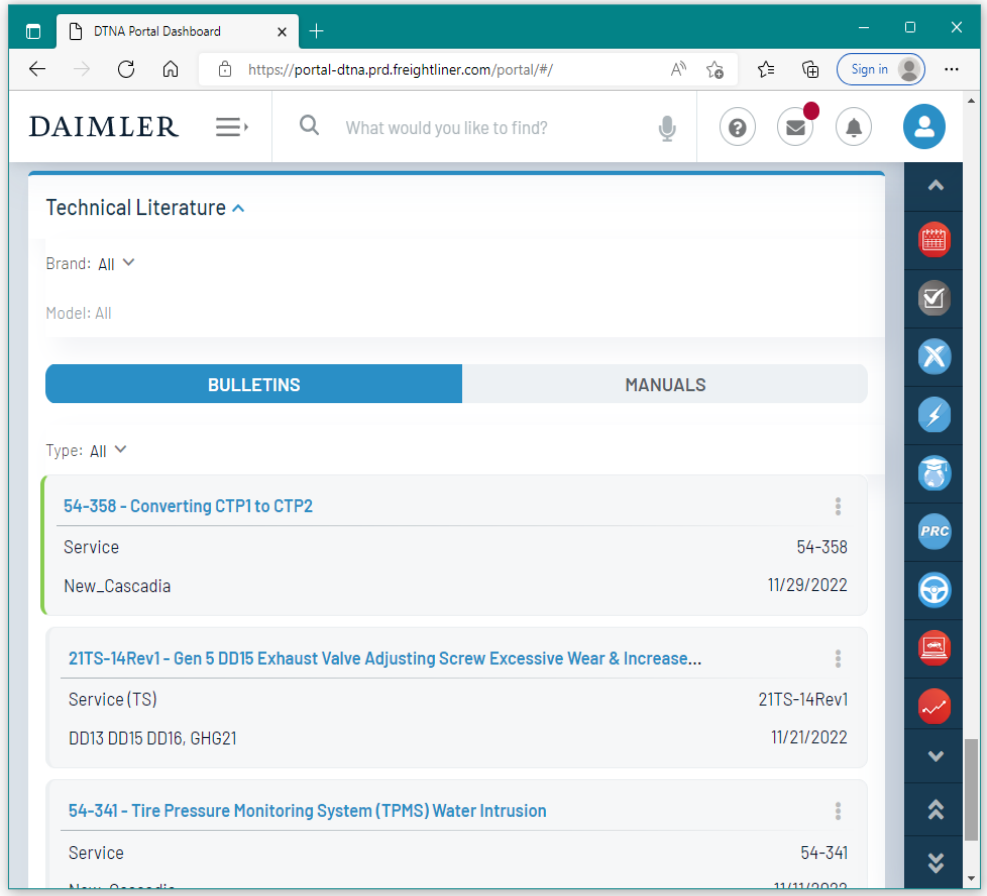
- When supporting DiagnosticLink users, either interactively or when investigating incident reports, it is often useful to be able to know the RP1210 driver version used.
- The RP1210 device name and the driver version have been added to the Help > About menu.



Client Shortcut Updated

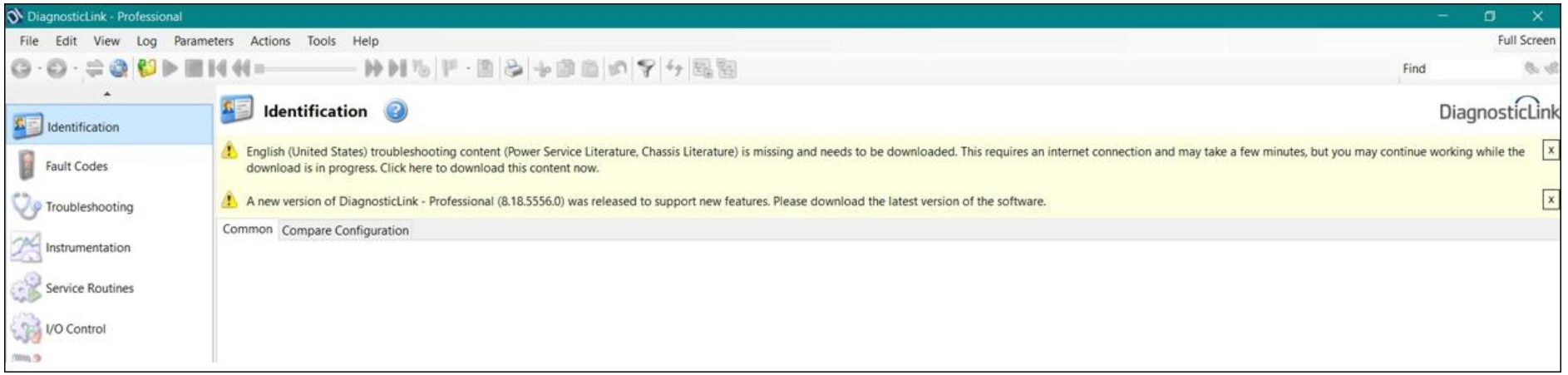
- Since DTNAConnect will be sunset and replaced with the new 'DTNA Portal', the client shortcut text and URL is updated.





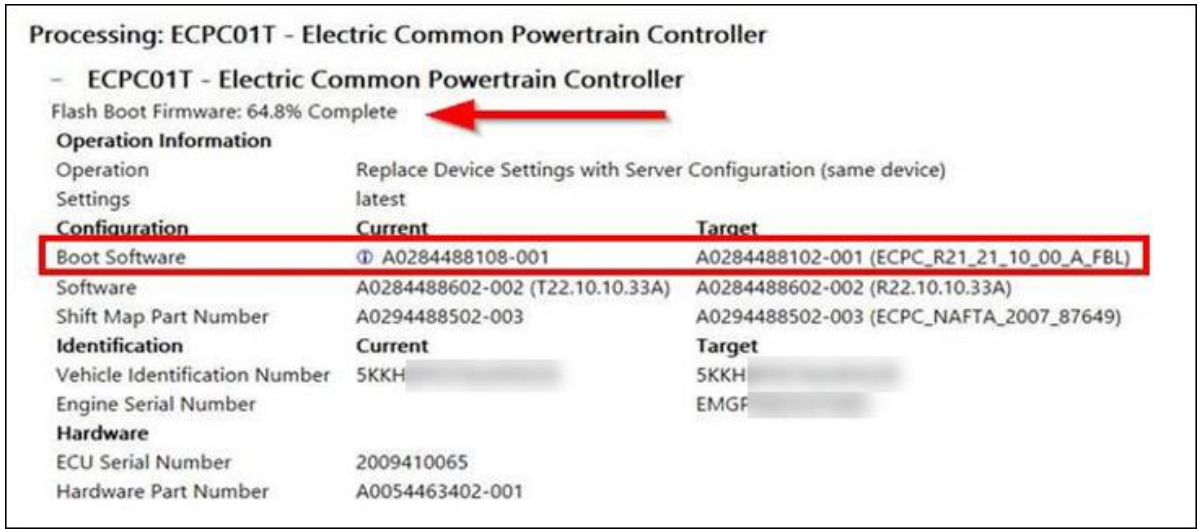
Update client new version notification for internal PRO users

- When a new version of DiagnosticLink is released, existing users are prompted to update via a message shown in the notification panel at the head of the screen.
- DiagnosticLink Professional users are prompted to visit the Snap-on ordering website to download the new version of the software. This works for most users, but not for internal users.
- DiagnosticLink 8.17 will show a more appropriate message that doesn't reference the ordering site for internal users.



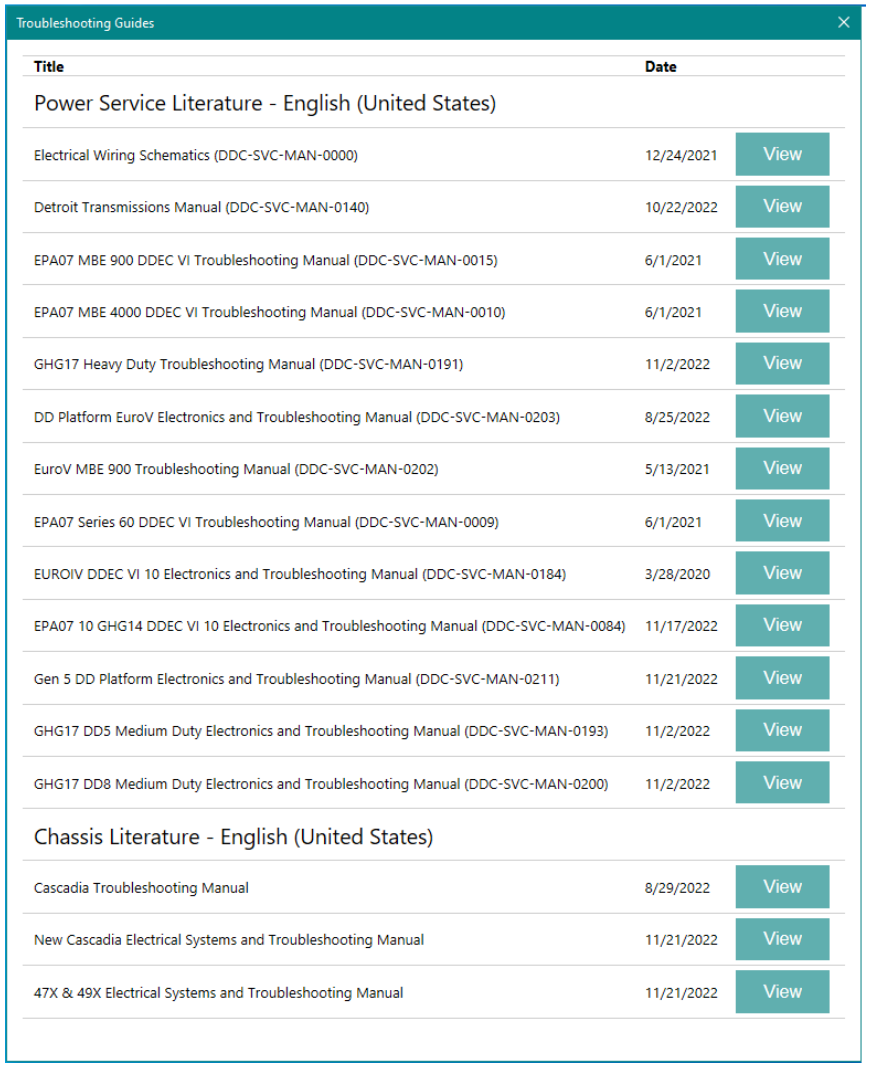
Support eCPC Bootloader Updates

- Support added to flash eCPC bootloader if necessary
- Flash is attempted based on update/programming of application software
- Will only be programmed if server data specifies a different version from current bootloader



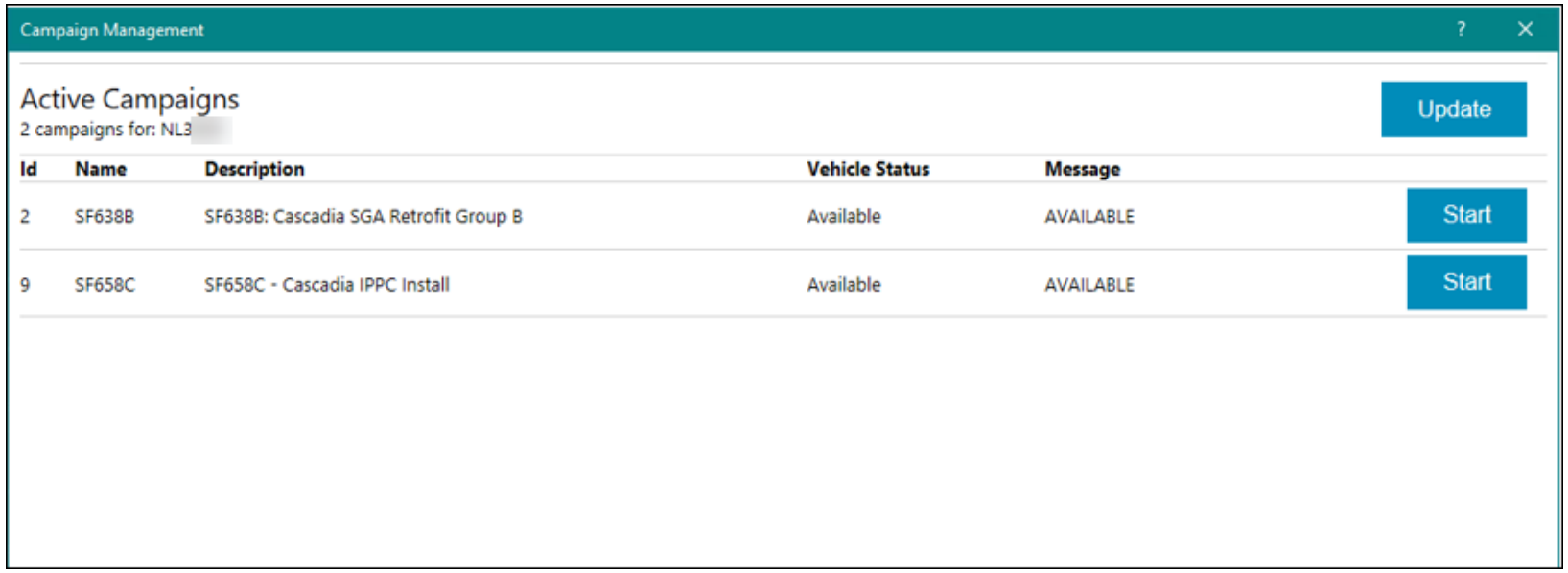
TechLit Enhancement

- One of the major pain points of the TechLit distribution mechanism in DiagnosticLink was that the tool contains fixed references to specific manuals (in config.xml)
- This causes two main issues:
  - Not possible to change name/path of existing guides, as the reference will be broken.
  - Not possible to release new manuals without a corresponding DiagnosticLink update.
- The solution is to reference the same query as performed by the website, to obtain information about the specific manual type (e.g. troubleshooting) and the target model information (e.g. Cascadia, DD5).
- The target manuals to be downloaded by the tool are determined by these queries; new manuals can be distributed without a service pack.
- As part of this work, the downloaded structure now more closely aligns to that of the web site, which means that downloads can be optimized such that we don't download content that is already present.
- This allows a terminated content download to be resumed without re- starting from the beginning.



Campaign Management Panel

- Panel created to support checking status and starting campaigns for vehicles.
- Allows for multiple campaigns to be checked/selected for the connected VIN



AFTERMARKET
DRIVING THE UPTIME REVOLUTION

New Panels Added for EMG

12/08/2022

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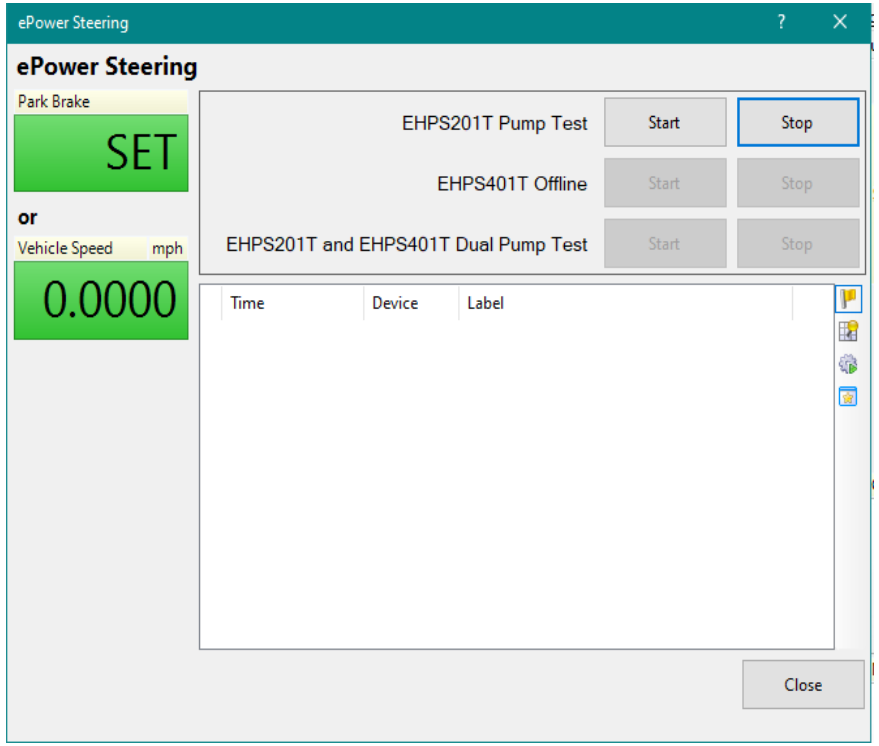
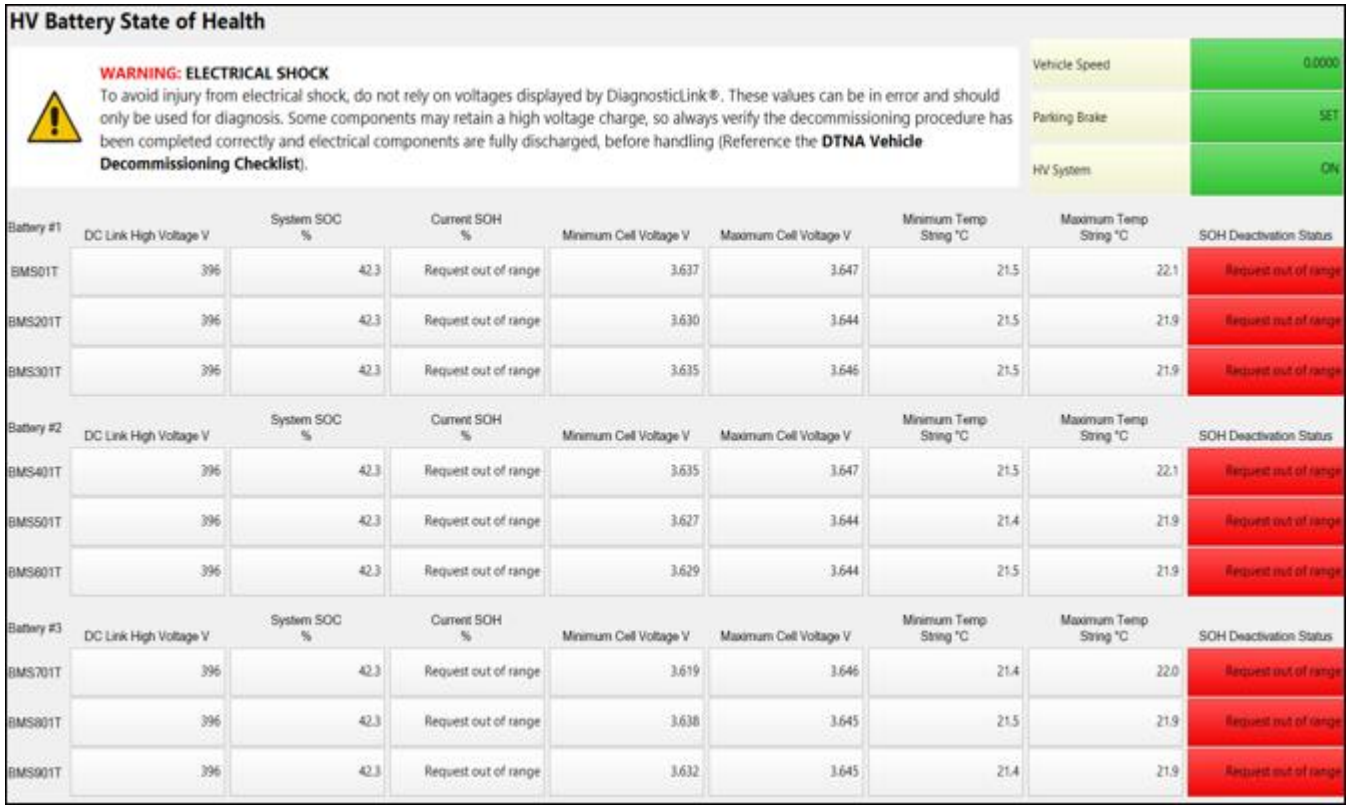
ePower Steering Panel

- Dialog to test EHPS201T and EHPS401T pumps



High Voltage Batteries State of Health Panel

- Panel to diagnose EMG high voltage battery state of health.



HV Battery State of Health

WARNING: ELECTRICAL SHOCK
To avoid injury from electrical shock, do not rely on voltages displayed by DiagnosticLink®. These values can be in error and should only be used for diagnosis. Some components may retain a high voltage charge, so always verify the decommissioning procedure has been completed correctly and electrical components are fully discharged, before handling (Reference the **DTNA Vehicle Decommissioning Checklist**).

Vehicle Speed	0.0000
Parking Brake	SET
HV System	ON

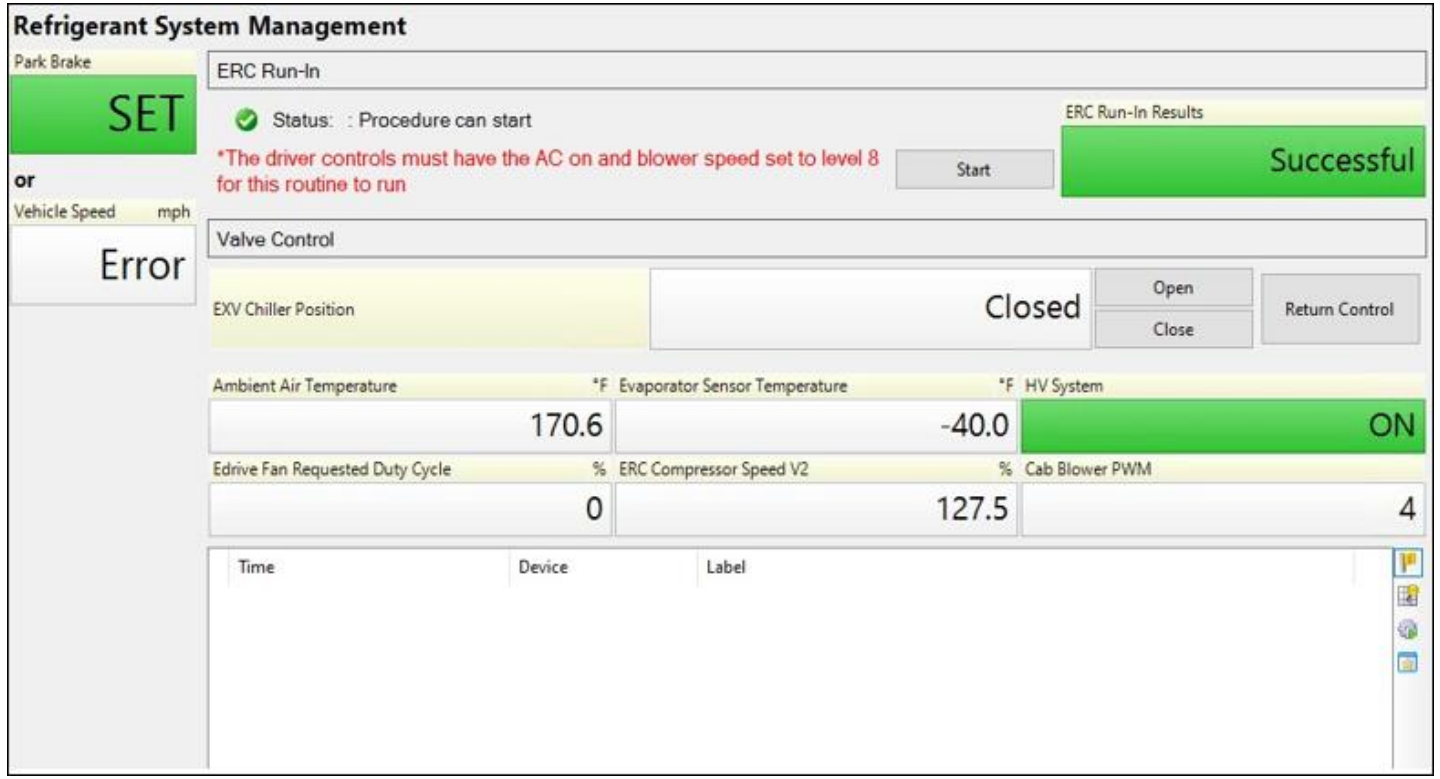
Battery #1	DC Link High Voltage V	System SOC %	Current SOH %	Minimum Cell Voltage V	Maximum Cell Voltage V	Minimum Temp String °C	Maximum Temp String °C	SOH Deactivation Status
BMS01T	396	42.3	Request out of range	3.637	3.647	21.5	22.1	Request out of range
BMS201T	396	42.3	Request out of range	3.630	3.644	21.5	21.9	Request out of range
BMS301T	396	42.3	Request out of range	3.635	3.646	21.5	21.9	Request out of range

Battery #2	DC Link High Voltage V	System SOC %	Current SOH %	Minimum Cell Voltage V	Maximum Cell Voltage V	Minimum Temp String °C	Maximum Temp String °C	SOH Deactivation Status
BMS401T	396	42.3	Request out of range	3.635	3.647	21.5	22.1	Request out of range
BMS501T	396	42.3	Request out of range	3.627	3.644	21.4	21.9	Request out of range
BMS601T	396	42.3	Request out of range	3.629	3.644	21.5	21.9	Request out of range

Battery #3	DC Link High Voltage V	System SOC %	Current SOH %	Minimum Cell Voltage V	Maximum Cell Voltage V	Minimum Temp String °C	Maximum Temp String °C	SOH Deactivation Status
BMS701T	396	42.3	Request out of range	3.619	3.646	21.4	22.0	Request out of range
BMS801T	396	42.3	Request out of range	3.638	3.645	21.5	21.9	Request out of range
BMS901T	396	42.3	Request out of range	3.632	3.645	21.4	21.9	Request out of range

eRC Run In 'Refrigerant System Management' Panel

- Panel to diagnose EMG refrigerant system.



High Voltage Batteries Safe to Ship

- Panel to indicate state of high voltage batteries.

HV Battery Safe to Ship

1. Key off, wait 3 seconds and then press the e-stop button.
2. Wait 3 seconds and then key on, internal isolation resistance can take up to ten seconds to populate.
3. Once readings populate, key off, wait 3 seconds and then return e-stop to normal operation.

Vehicle Speed	0.0000
Parking Brake	Set
HV System	ON

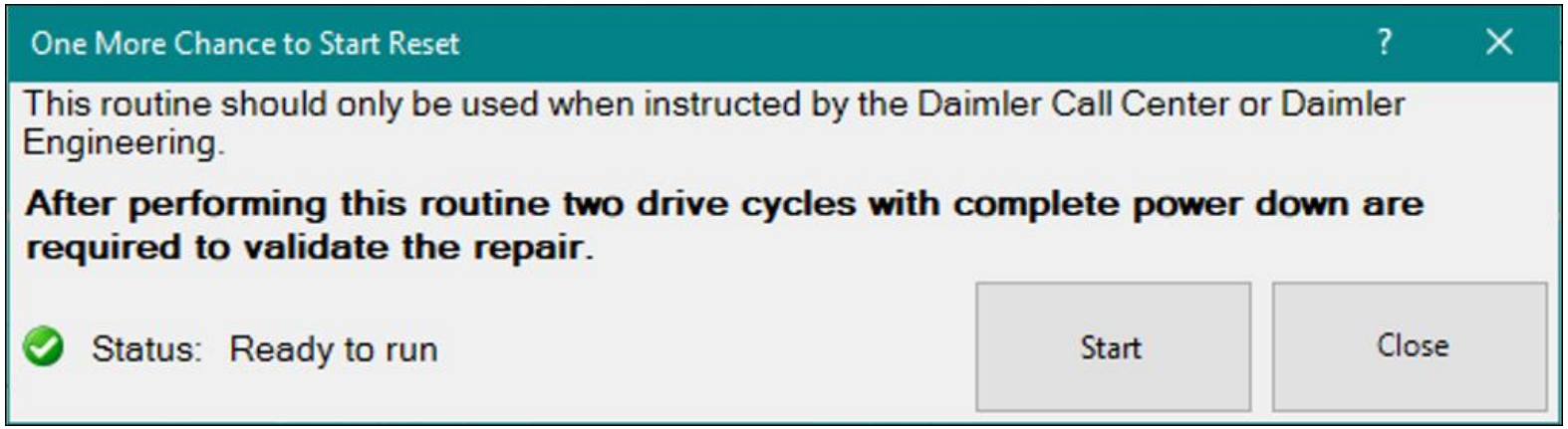
Battery #1	Aux. Contactor Negative	Aux. Contactor Positive	Precharge Contactor	HV Contactor Negative	HV Contactor Positive	Internal Isolation Resistance kOhm	Minimum Cell Voltage V	Maximum Temp String °C
BMS01T	Open	Open	Open	Closed	Closed	signal not available	3.637	22.1
BMS201T	Closed	Closed	Open	Closed	Closed	signal not available	3.630	21.9
BMS301T	Open	Open	Open	Closed	Closed	signal not available	3.635	21.9
Battery #2	**Aux. Contactor Negative**	**Aux. Contactor Positive**	**Precharge Contactor**	**HV Contactor Negative**	**HV Contactor Positive**	**Internal Isolation Resistance kOhm**	**Minimum Cell Voltage V**	**Maximum Temp String °C**
BMS401T	Closed	Closed	Open	Closed	Closed	signal not available	3.635	22.1
BMS501T	Open	Open	Open	Closed	Closed	signal not available	3.627	21.9
BMS601T	Open	Open	Open	Closed	Closed	signal not available	3.629	21.9
Battery #3	**Aux. Contactor Negative**	**Aux. Contactor Positive**	**Precharge Contactor**	**HV Contactor Negative**	**HV Contactor Positive**	**Internal Isolation Resistance kOhm**	**Minimum Cell Voltage V**	**Maximum Temp String °C**
BMS701T	Open	Open	Open	Closed	Closed	signal not available	3.619	22.0
BMS801T	Open	Open	Open	Closed	Closed	signal not available	3.638	21.9
BMS901T	Open	Open	Open	Closed	Closed	signal not available	3.632	21.9

Low Voltage Batteries State of Health

- Panel to diagnose EMG low voltage battery state of health.

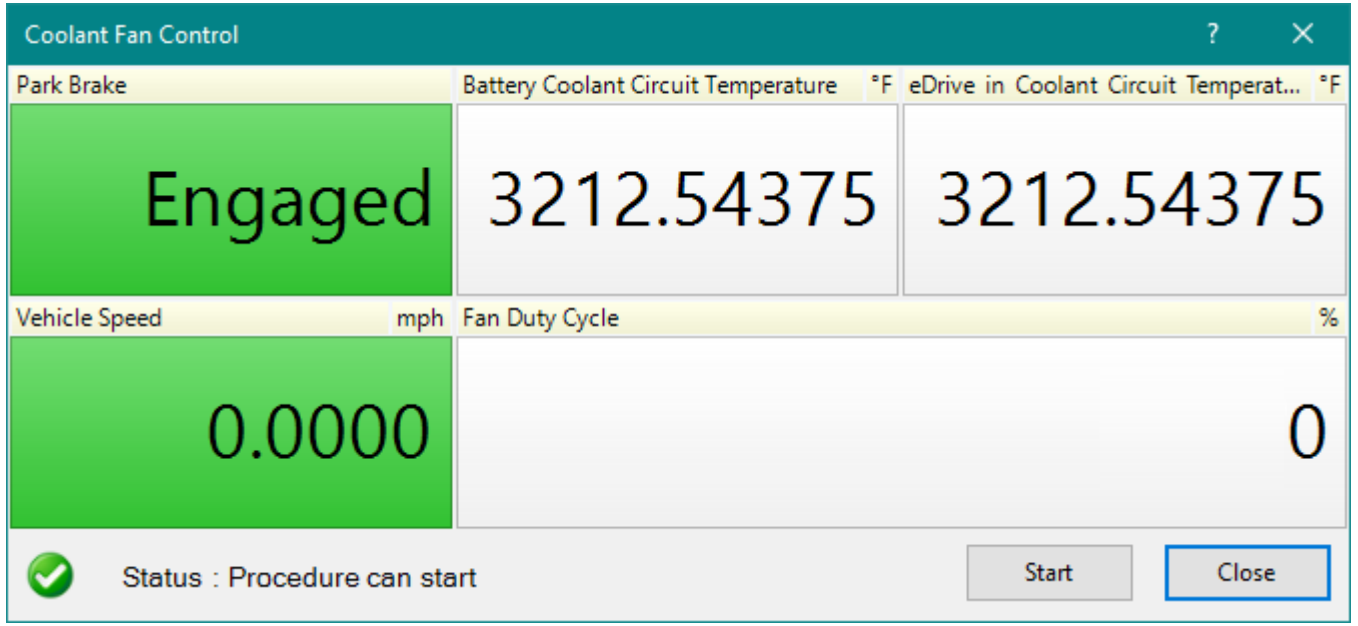
One More Chance to Start Reset

- Dialog to allow the technician to OMCS routine when instructed by Call Center.



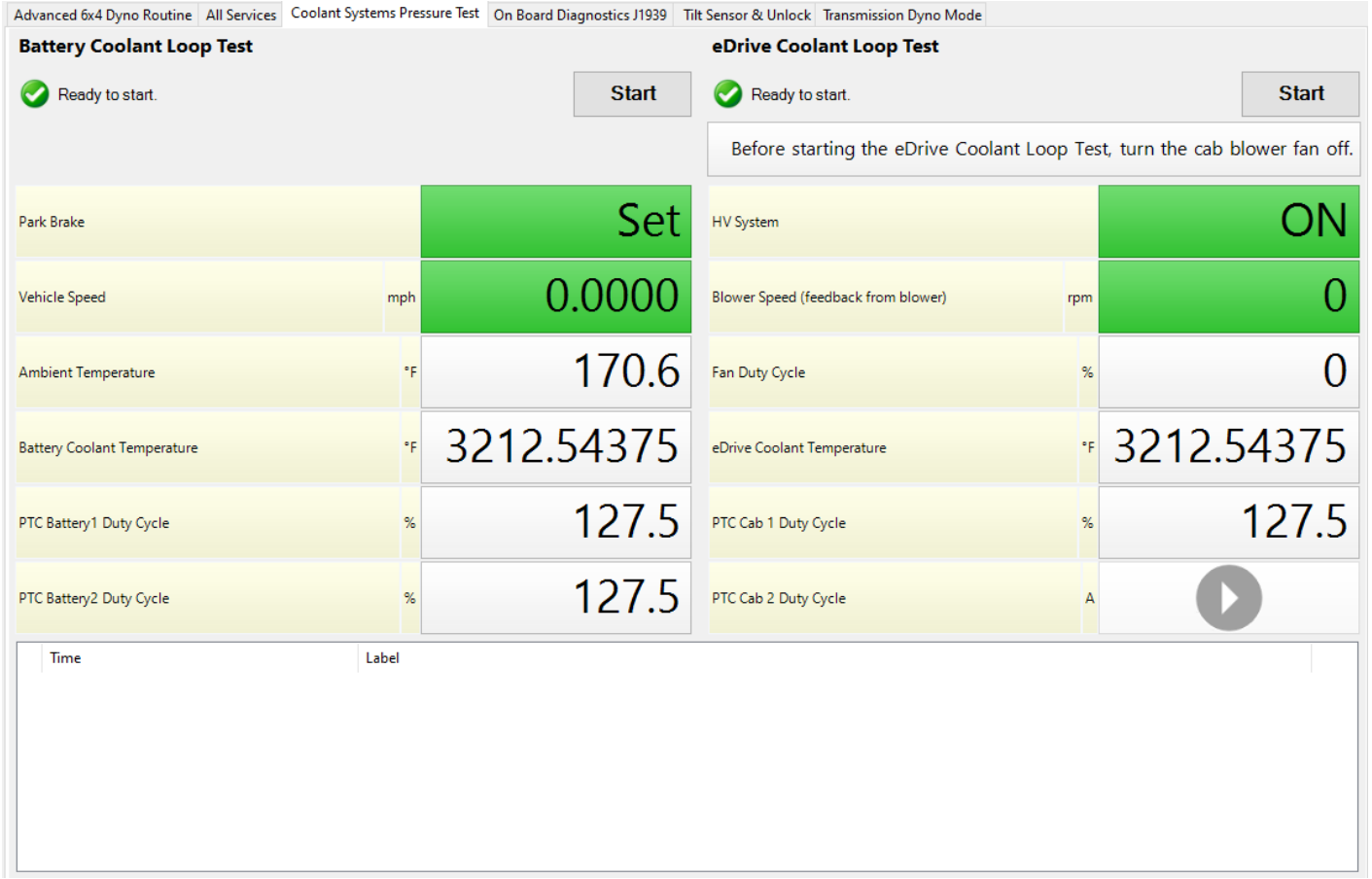
Fan Control for the Coolant Cooling Fans

- Provides control of the cooling fans.
- On Start, the eDrive Fan is set to 50% and returns to 0% on Stop.
- Available from the Actions menu.



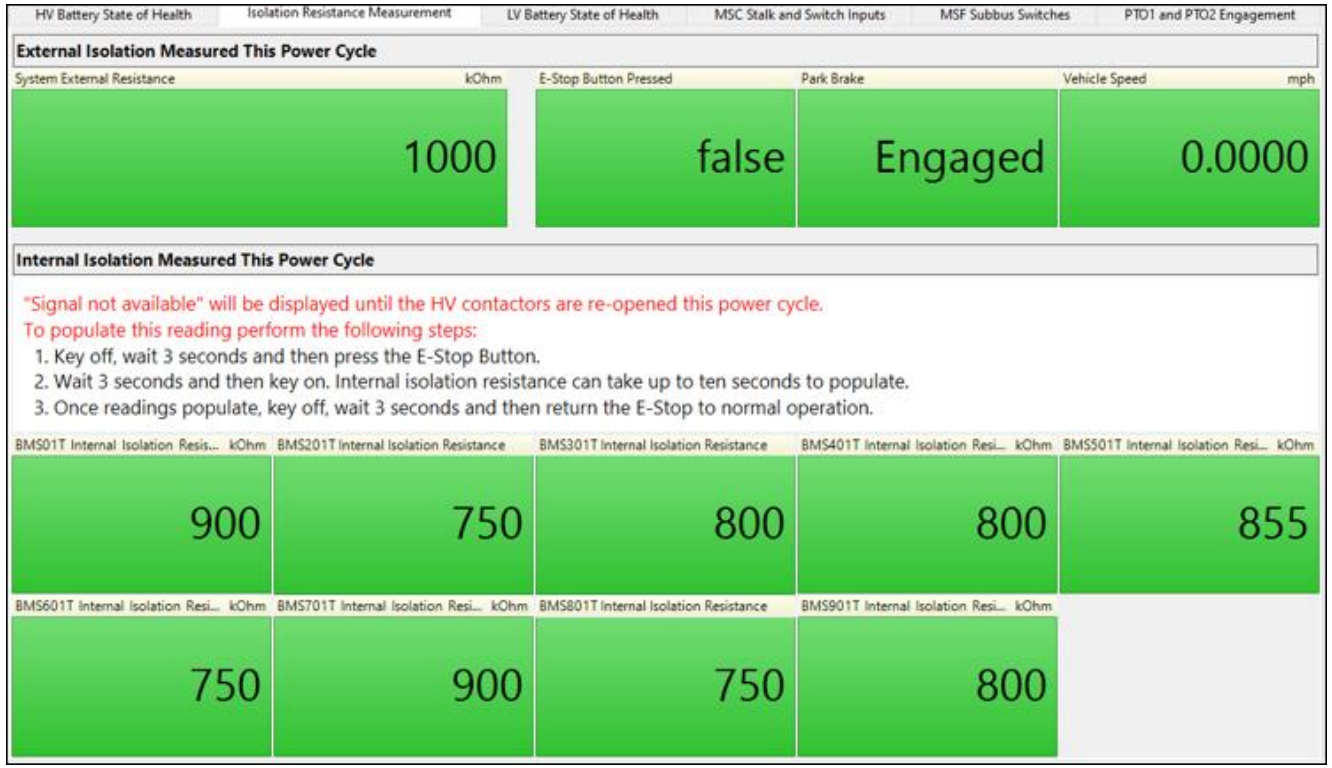
EMG Coolant Systems Pressure Testing

- Provides EMG vehicles with a way to have their coolant systems leak tested.
- The panel performs a series of controls to heat and pressurize the coolant systems so visual leak testing can be performed.
- Available in the Service Routines view.



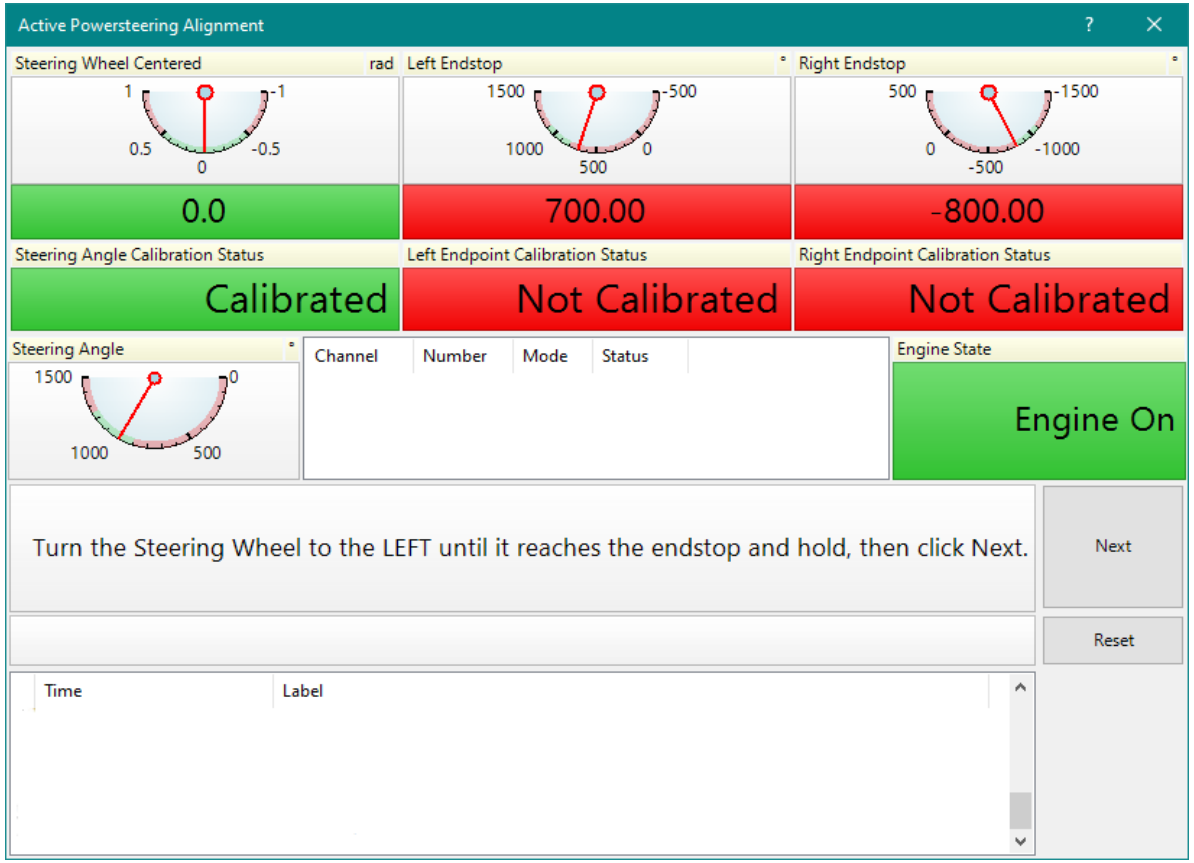
EMG Isolation Resistance

- External Isolation Measured This Power Cycle runs automatically once initial power up and ignition on is performed.
- For Internal Isolation Measured This Power Cycle, the on screen instructions must be followed.
- Available in the Instrumentation view.



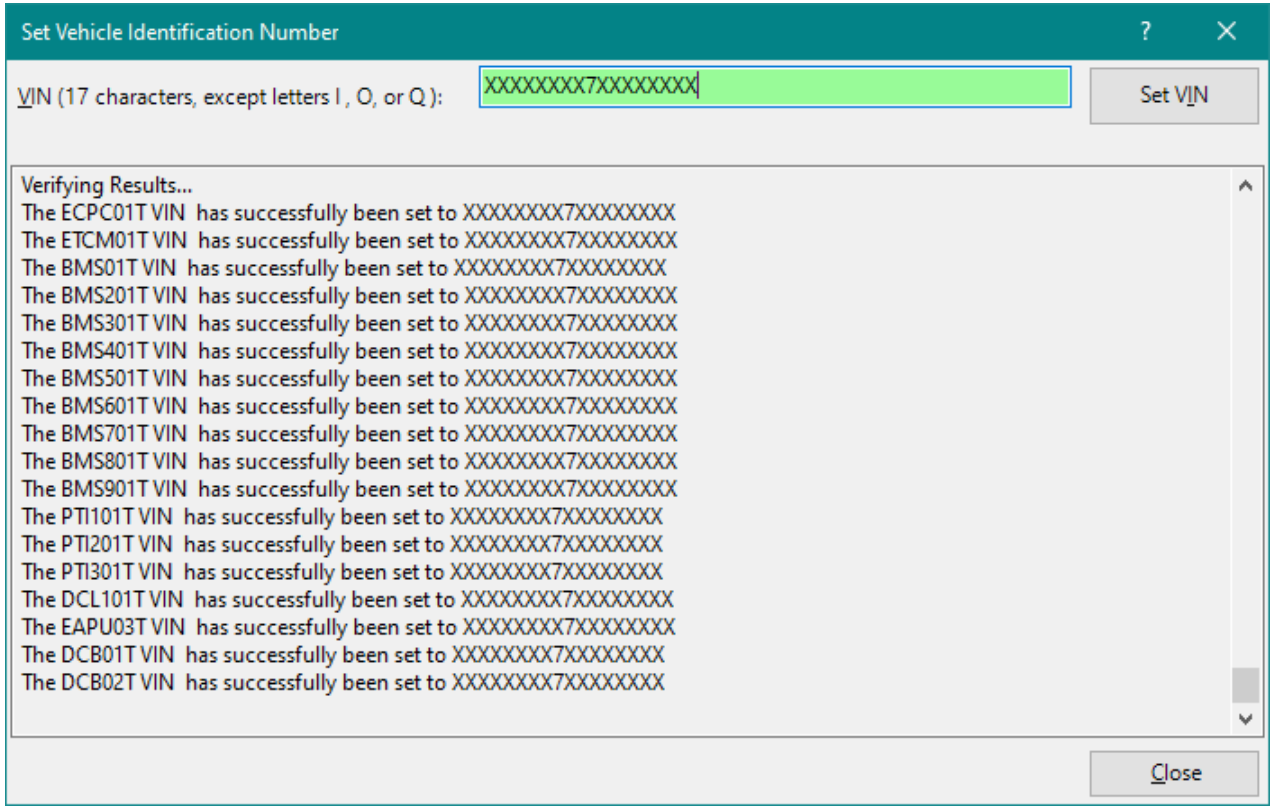
Active Power steering alignment panel gauge refinement

- Originally, the gauges appeared to turn in the opposite direction of the wheel.
- To alleviate confusion, the dials have been rotated so the green areas are in the expected position when turning the steering wheel.



Enable "Set Engine Serial Number / Vehicle Identification Number" Panel

- New support for EMG:
  - DCB01T, DCB02T
  - DCL101T
  - PTI101T-PTI301T
- Existing support for EMG:
  - ECPC01T
  - ETCM01T
  - EAPU03T



eDrive Temperature Sensors and Speed Sensors

- New EMG Instrumentation panel

eDrive Temperature and Speed Monitoring

Temperature					
Ambient Air	°F	170.6	Battery Coolant Circuit	°F	3212.54375
Transmission Oil	°F	3226.94375	PT Sensor Chiller Refrigerant	°F	11756.3
Inverter #1	°F	419	PT Sensor Chiller Internal	°F	11756.3
E Motor #1	°F	419	eDrive Coolant Inlet	°F	3212.54375
Inverter #2	°F	419	eDrive Coolant Outlet	°F	3212.54375
E Motor #2	°F	419	eAxle Coolant Circuit	°F	3212.54375
Inverter #3	°F	419	eAxle 2 Coolant Circuit	°F	3212.54375
E Motor #3	°F	419			
Speed					
Gearbox Input	rpm	10485.60	eDrive Motor 1 Actual	rpm	16448.5
GearboxOutput	rpm	10444.64	eDrive Motor 2 Actual	rpm	16448.5
			eDrive Motor 3 Actual	rpm	16448.5

EMG Electrically Driven Air Compressor (EDAC) Oil Life Reset

- The Oil Life value needs to be reset when the Electrically Driven Air Compressor (EDAC) is replaced
- This Service Routine Dialog calls the reset service.
- Upon completion, a message box displays the result of calling the reset service.