

# DAIMLER

## DiagnosticLink 8.10 Service Diagnostics & Tools

### Daimler Trucks



BHARATBENZ

## DiagnosticLink 8.10 supported software packages

- **MY2019 Heavy Duty (HD) software (DD13/DD15/DD16):**
  - MCM21T – m6.7.0.2
  - ACM21T - e7.59.2.0
  - CPC04T - R42\_00\_000a
  - TCM01T – NAMT150700
  - CPC302T – R31.33.00
- **MY2019 Medium Duty (MD) software (DD5/DD8):**
  - MCM21T – m12.02.02.02
  - ACM21T - e13.54.02.00
  - CPC04T - R42\_00\_000a

## DiagnosticLink 8.10 supported software packages (continued)

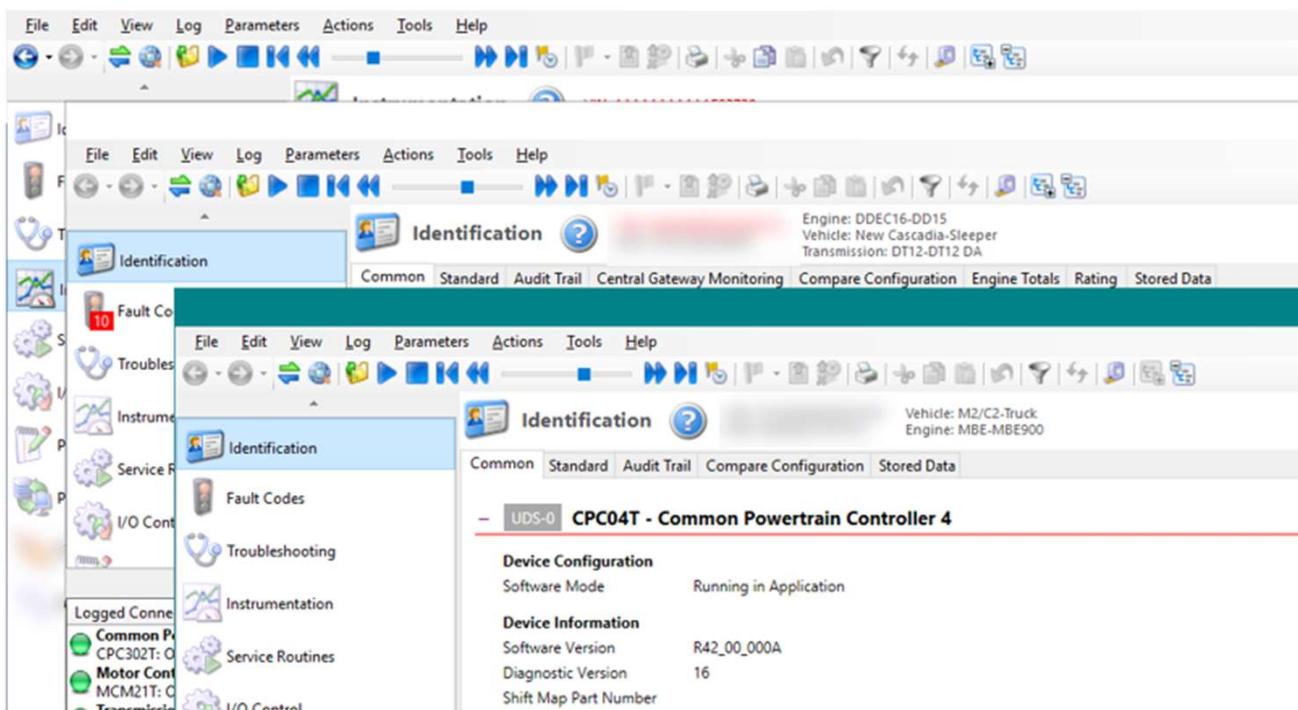
- **MY2019 MD software (ECONIC):**
  - MCM21T - m12.02.02.02 (DD5/DD8)
  - ACM21T - e13.54.02.00
  - CPC302T - R31.83.02
- **MY2019 HD software (Euro V) (DD13/DD16):**
  - MCM21T - m12.12.0.3
  - ACM21T - e7.59.2.0
  - CPC04T - R42\_00\_000a
  - TCM01T - NAMT150700
  - CPC302T - R31.33.00
- **MY2019 MD software (Euro V) (MBE900 – MR2 Project):**
  - MR201T - V30
  - CPC04T - R42\_00\_000a

## Additional panel support included

- **New Cascadia 43JYST Pre-series Vehicle Project Launch**
  - New diagnostic panels included:
    - HSV Calibration Panel
    - APS3 Service Calibration Panel
    - Side Radar Left Calibration Panel
    - ICC5 Auto Config Diagnostic Routine

## Ability to review multiple log files at one time

- Multiple instances of DiagnosticLink can now be launched to view multiple log files.



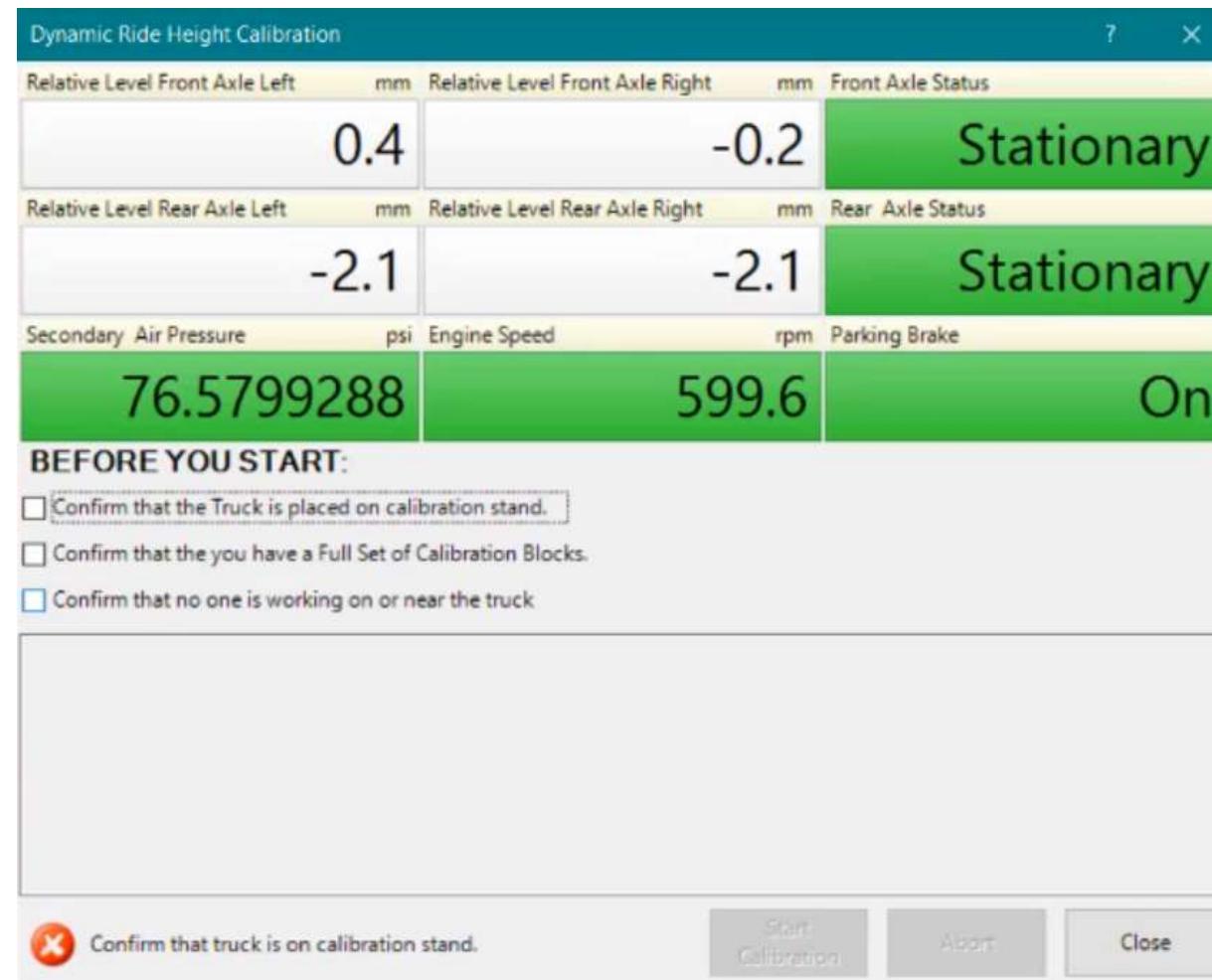
## Hadley Smart Valve dynamic ride height adjustment

- Allow user to manually adjust the height of the truck equipped with HSV.

Dynamic Ride Height Adjustment					
Relative Level Front Axle Left	mm	Relative Level Front Axle Right	mm		
	-2.9		-0.9		
Front Axle Status	Stationary				
Relative Level Rear Axle Left	mm	Relative Level Rear Axle Right	mm		
	-1.7		-1.7		
Rear Axle Status	Stationary				
Secondary Air Pressure	kPa	Ignition Switch	Parking Brake		
224.000000		On	On		
System Faults					
Channel	Name	Number	Mode		
System	Move To				Jog
Front Axle	Raised	Standard	Aero	Lowered	Up
Rear Axle	Raised	Standard	Aero	Lowered	Up
Both Axles	Raised	Standard	Aero	Lowered	Up
Save Current Position As:	Raised	Standard	Aero	Lowered	Close

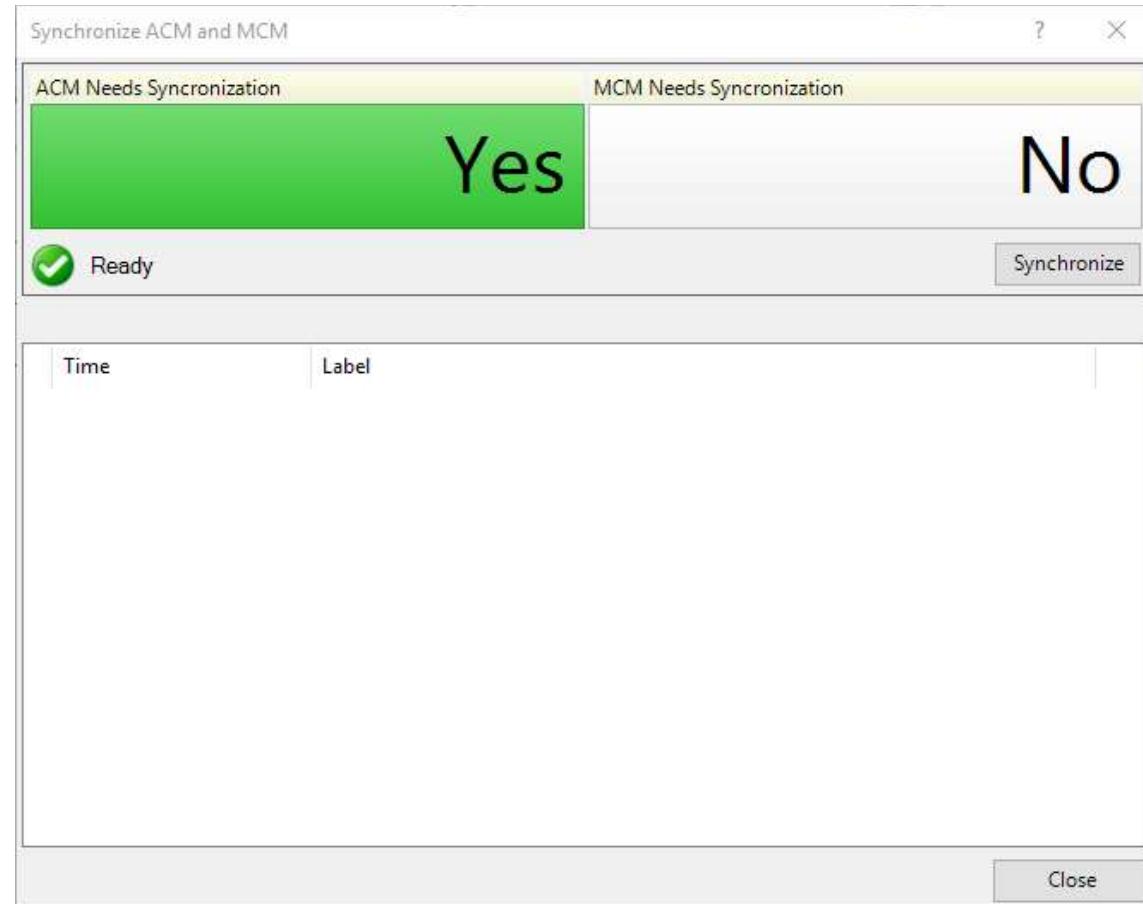
## Hadley Smart Valve dynamic ride height calibration

- Allows user to calibrate the HSV.

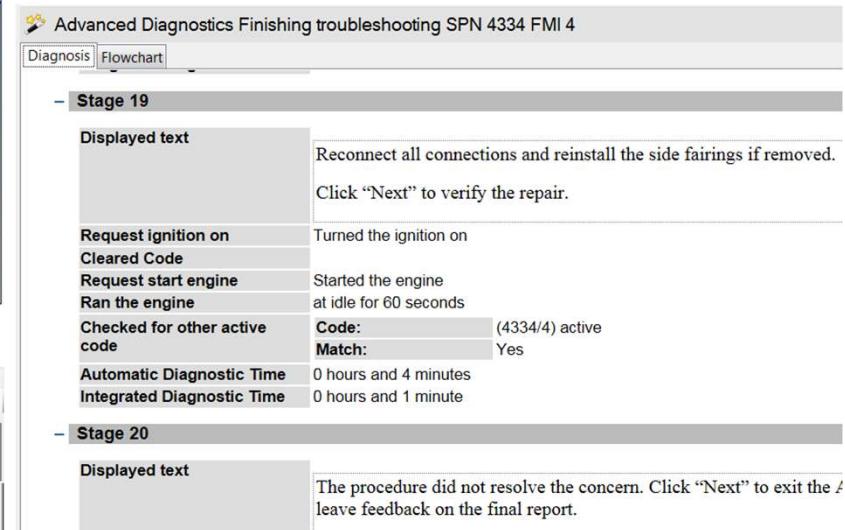
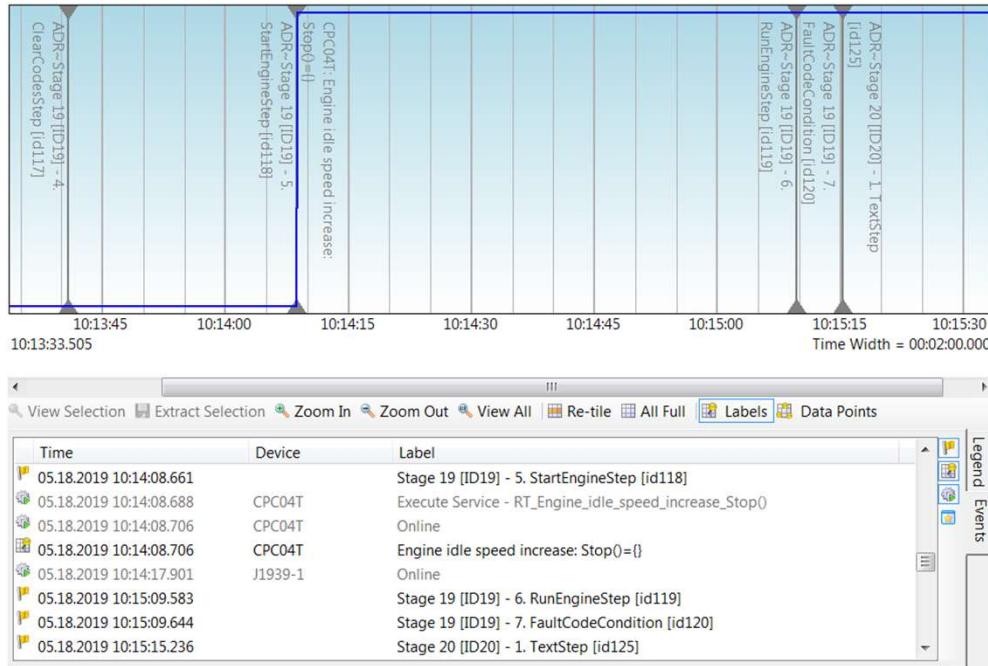


## The Synchronize ACM and MCM panel can be used to clear MU faults set in ACM when the SR096 service has been activated

- Marries ACM/MCM for Euro V HDEP engines.
- Because the panel clears non-erasable faults, the following conditions must be met:
  - ACM/MCM VINs must match.
  - Either ACM or MCM must have been programmed using DiagnosticLink.
  - Server connection is required.



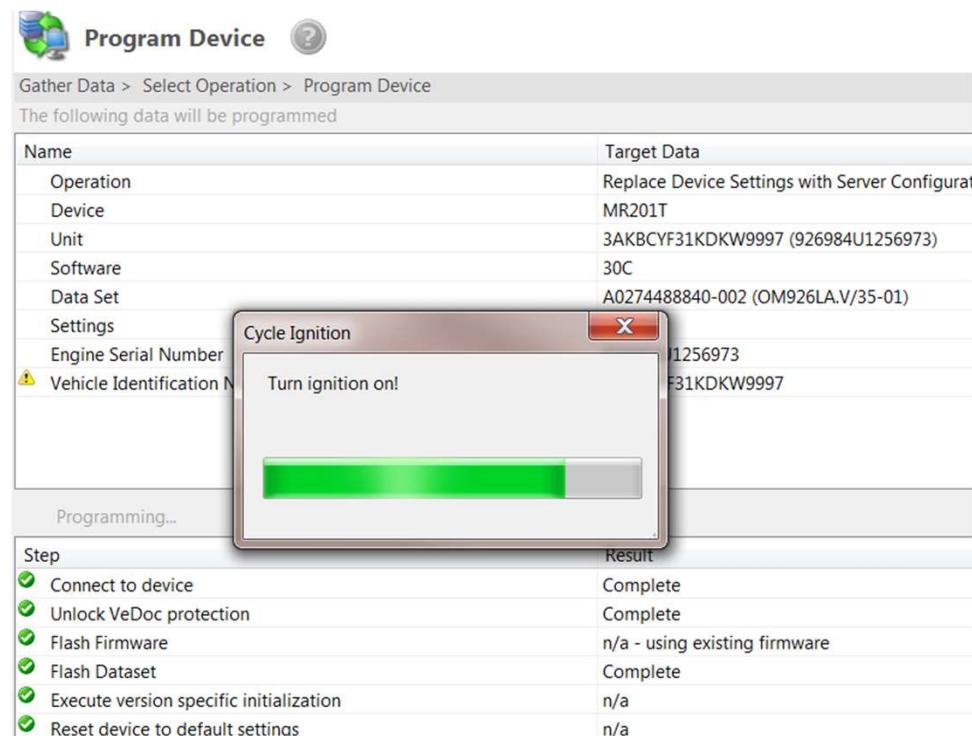
## Follow an ADF from a logfile



- When navigating an ADF, each activity is now stored as a label with the .DrumrollLog file.
- This could be used - in conjunction with .TroubleshootingReport files - for deep-dive diagnosis of the troubleshooting state.

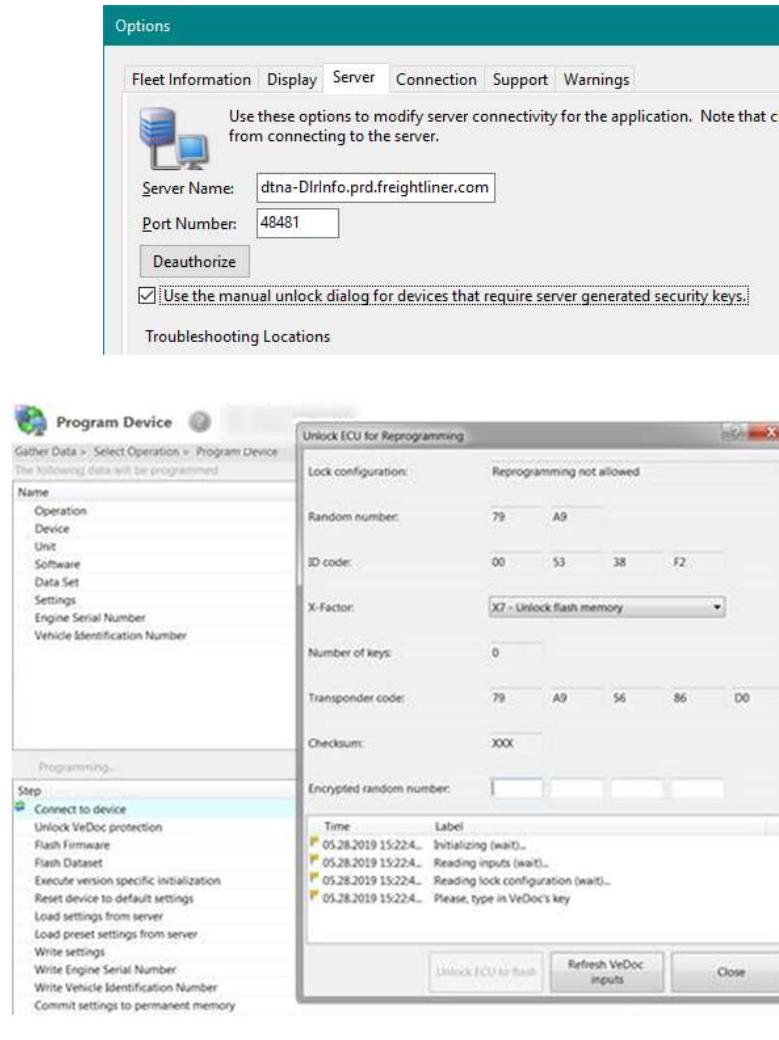
## MR2 ECU requires ignition key on off step as part of the programming sequence

- As MR2 is a carry over ECU from Europe, there is an expectation that certain actions to commit parameters will require an ignition key cycle.
- After programming the ECU, DiagnosticLink will now guide the technician to turn the ignition off, and then back on again.
- This is needed to ensure that parameters are correctly stored in the ECU



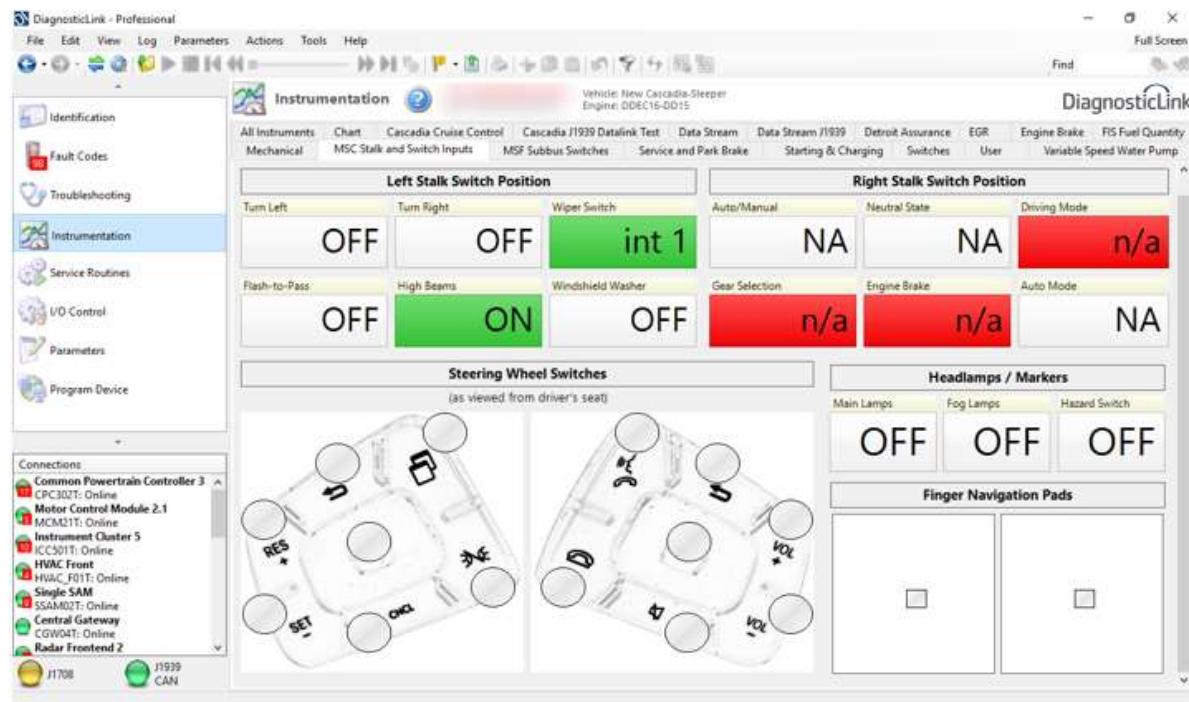
## Manual mode to program MR2 ECU if internet is not available.

- A server connection is required to at the time of programming an MR2 ECU.
- If an internet connection is not available, the manual entry dialog can be enabled for use by navigating to **Tools > Options > Server** and by checking the option 'Use the manual unlock dialog..' and click **OK**.
- While connected to the MR2, click the Actions panel and select 'Unlock ECU for Reprogramming'



## New MSC Stalk and Switch Inputs panel for New Cascadia 43JYST

- A new version of the MSC Stalk and Switch Inputs panel was built for 43JYST (new HMI)
- It supports the new steering wheel switches and the status of the touch sensitive X/Y finger navigation pads
- The Finger Navigation Pad status areas will dynamically update to show the current touch position.



## MSF switch descriptions added for ECONIC

- The complete set of MSF switch descriptions for the ECONIC vehicle

Instrumentation    Vehicle: Econic-Waste

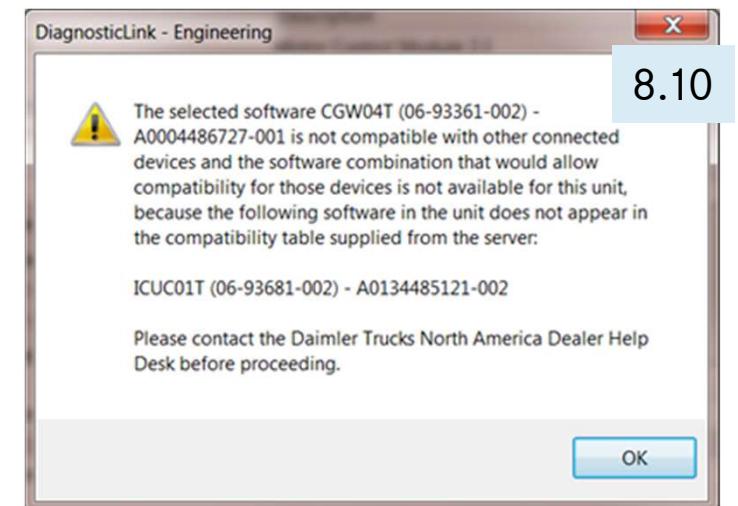
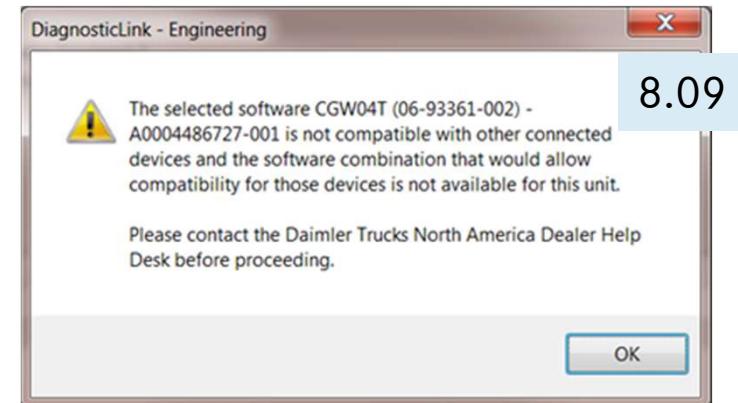
All Instruments | Chart | Data Stream J1939 | Detroit Assurance | Lane Departure Warning | MSC Stalk and Switch Inputs | **MSF Subbus Switches** | User

NOTE: Hardwired switches will not display a switch position.

Switch ID	Description	Position
003	Backup Alarm Dual Volume	not pressed
017	Normal level I/II	not pressed
018	Stop Normal level	not pressed
027	Horn Select Switch	not pressed
030	Utility Lamp	not pressed
035	Front Dome Lamp (dash)	not pressed
036	Reading Lamps Driver (Upper) / Night light (Lower)	not pressed
041	Operating speed switch	not pressed
042	Power takeoff 1	not pressed
055	DPF Regeneration Auto	not pressed
073	Lighting Check	not pressed
080	Front Dome Lamp	not pressed
145	Override / Engine Shutdown	not pressed
173	Open/close co-driver window	not pressed
177	Automated Hazard Light	not pressed
182	Hill Holder / Halt Brake	not pressed
205	Difflock Inter Axle / Step 1	not pressed
206	Difflock Rear Axle / Step 2	not pressed
209	Park brake 4 wheel drive	not pressed
222	Beacon	not pressed
236	Spot Light	not pressed
252	LDW Off / ABA Off	not pressed
485	Air conditioning switch	hardwired

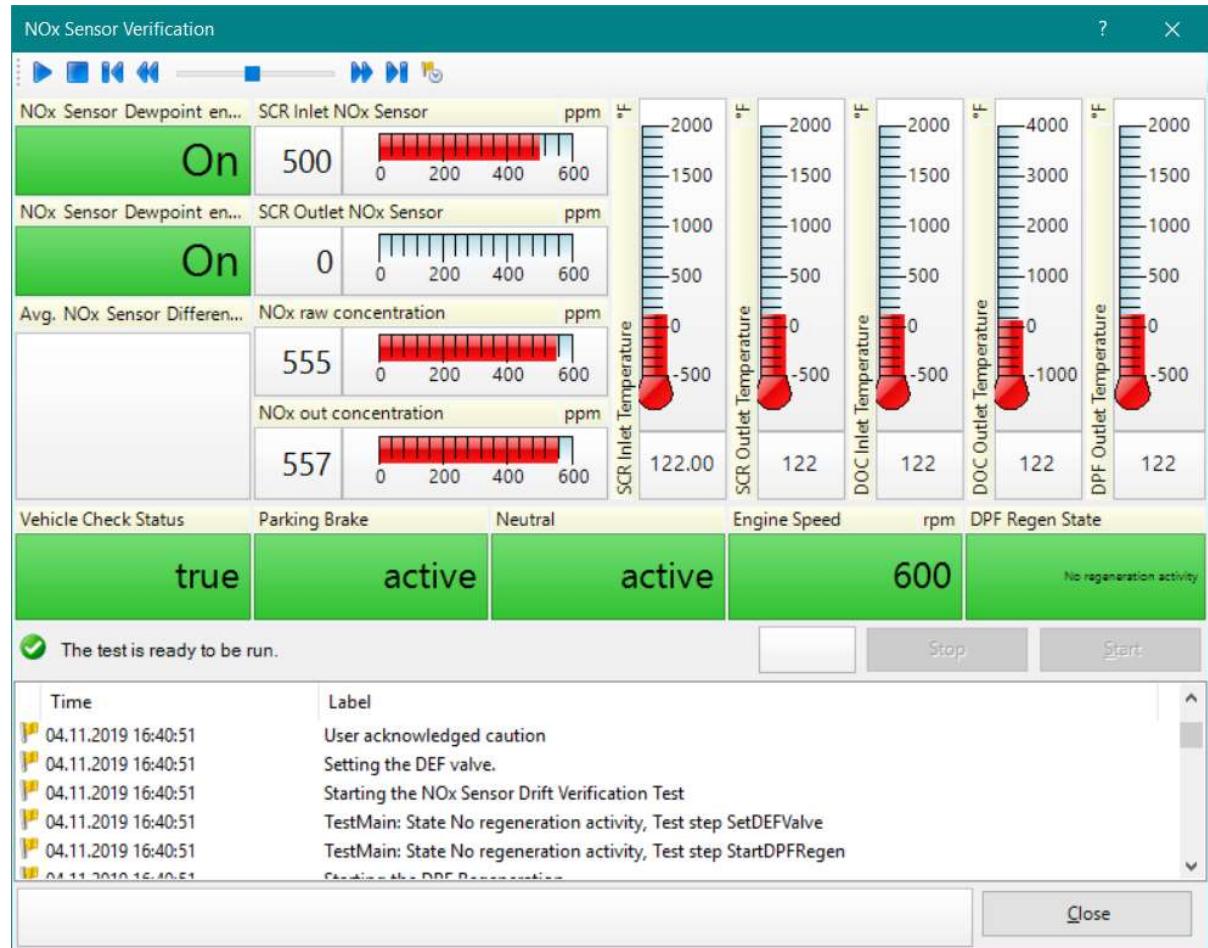
## Compatibility hint context is misleading

- When the user attempts to program an ECU using “Program Device”, the warning dialog text *“The selected software is not compatible with other connected devices and the software combination that would allow compatibility for those devices is not available for this unit”* will now include the real reason why that compatibility is not available.
- Here we see that in 8.09 CGW04T (the ECU to be programmed) is the only ECU called out in the warning dialog.
- But in 8.10, the actual ECU with the problematic documentation (ICUC01T) is specifically called out as such.
- This additional detail is hoped to make it easier to provide accurate documentation in the chassis-side compatibility table.



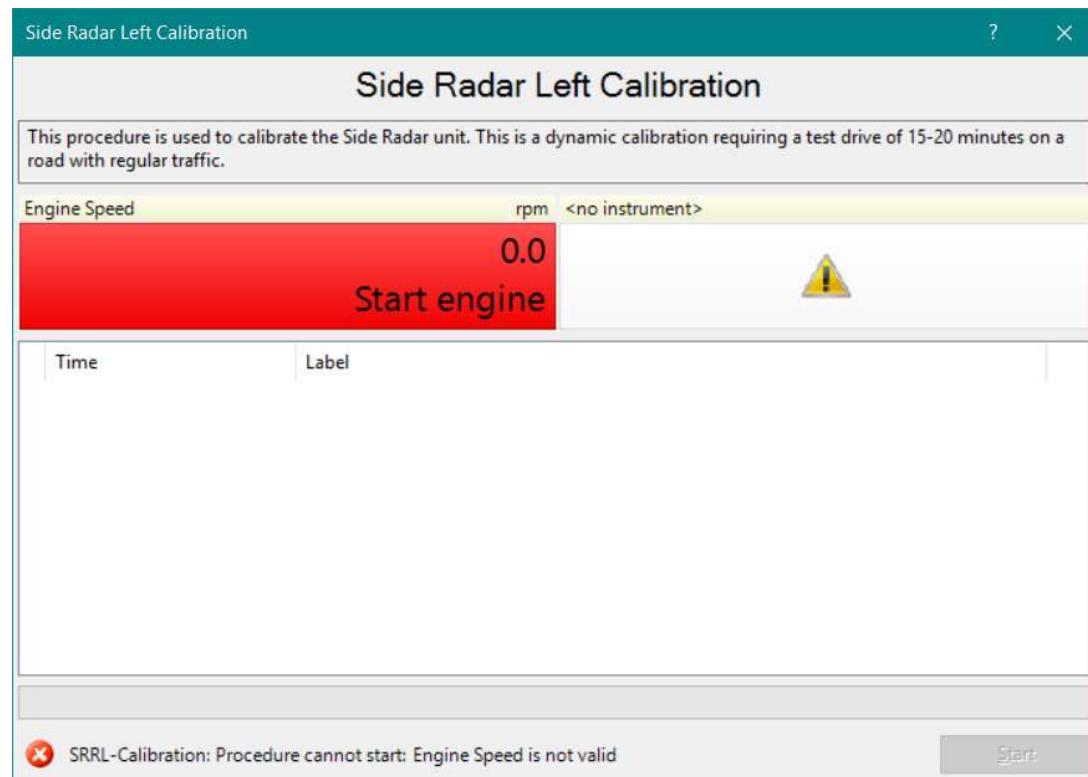
## NOx Sensor Verification Test Panel Update

- The previous version of the panel was not always able to detect when a NOx sensor needed to be replaced.
- The test now performs one complete High Idle Regeneration before the NOx sensors are sampled and compared.
- The minimum time that the test runs will be the time required to perform a High Idle Regeneration, and a second regeneration if the NOx sensors were not ready to be tested by the end of the first HIR.
- The test will take longer, on average, to be performed than before but the results should be more reliable.



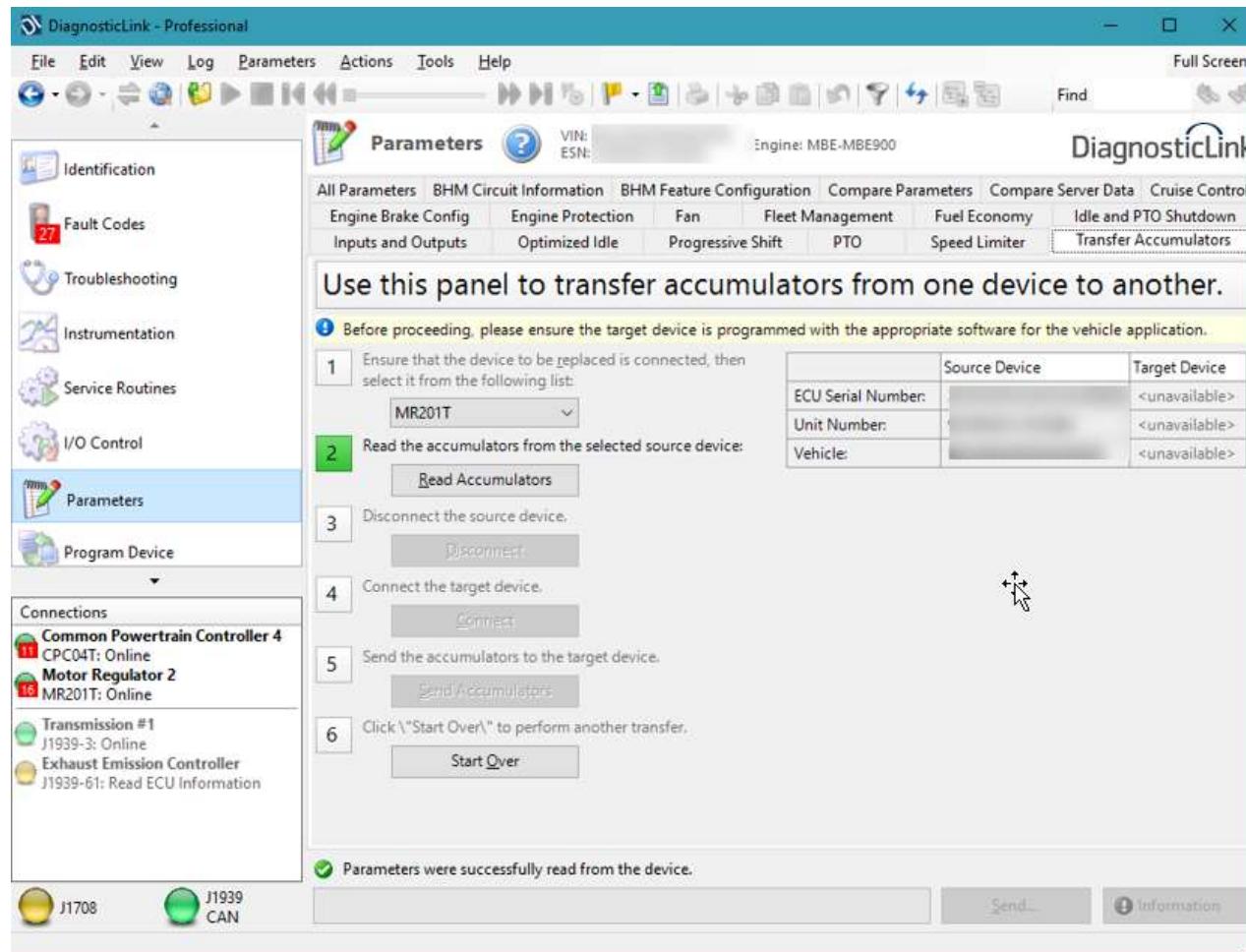
## Side Radar *Left* Calibration panel

- The panel is based on the Side Radar *Right* Calibration panel.



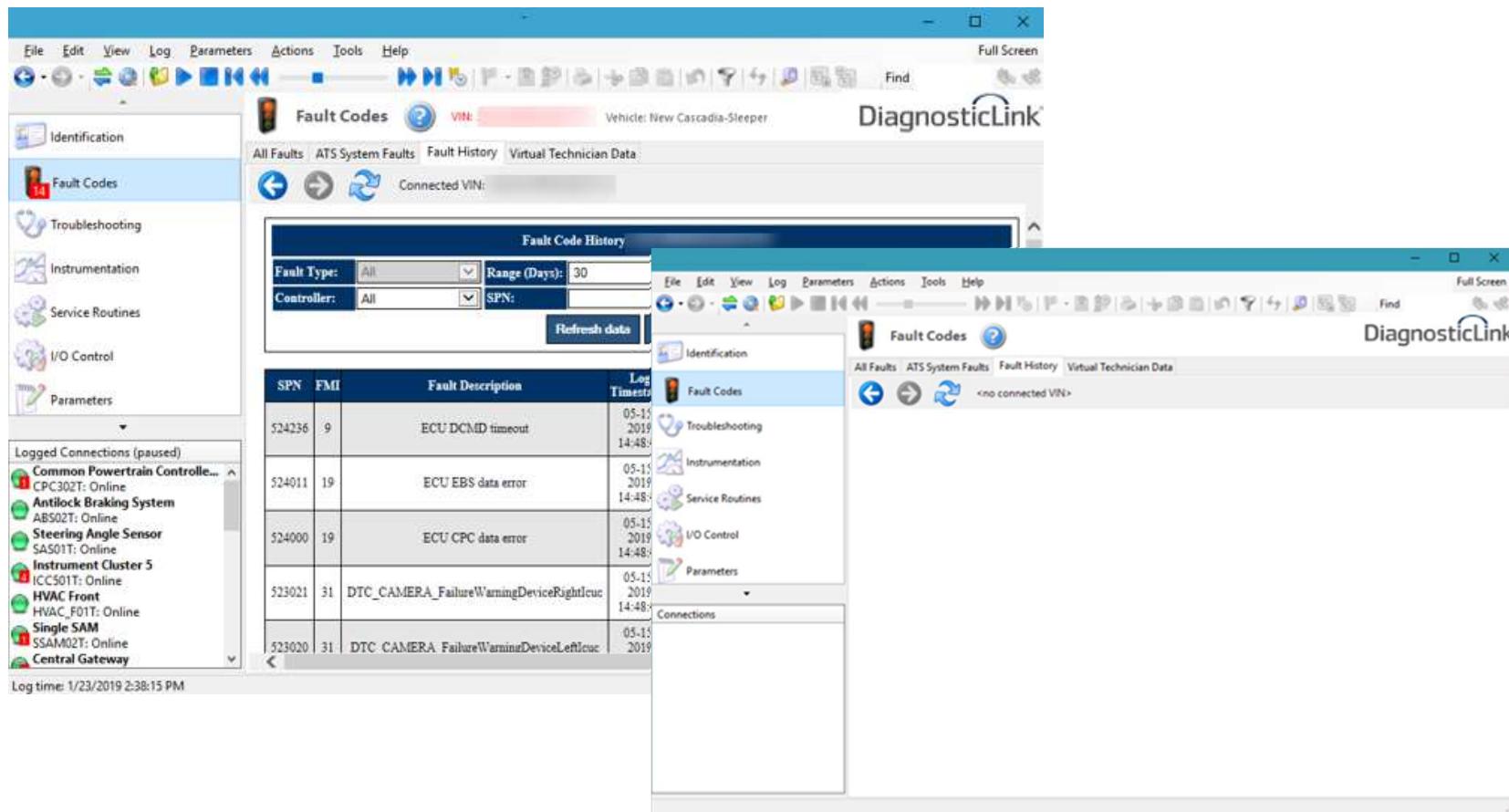
## Euro V MR2 Update Transfer Accumulators panel

- Updated the Transfer Accumulators panel to support the MR2.



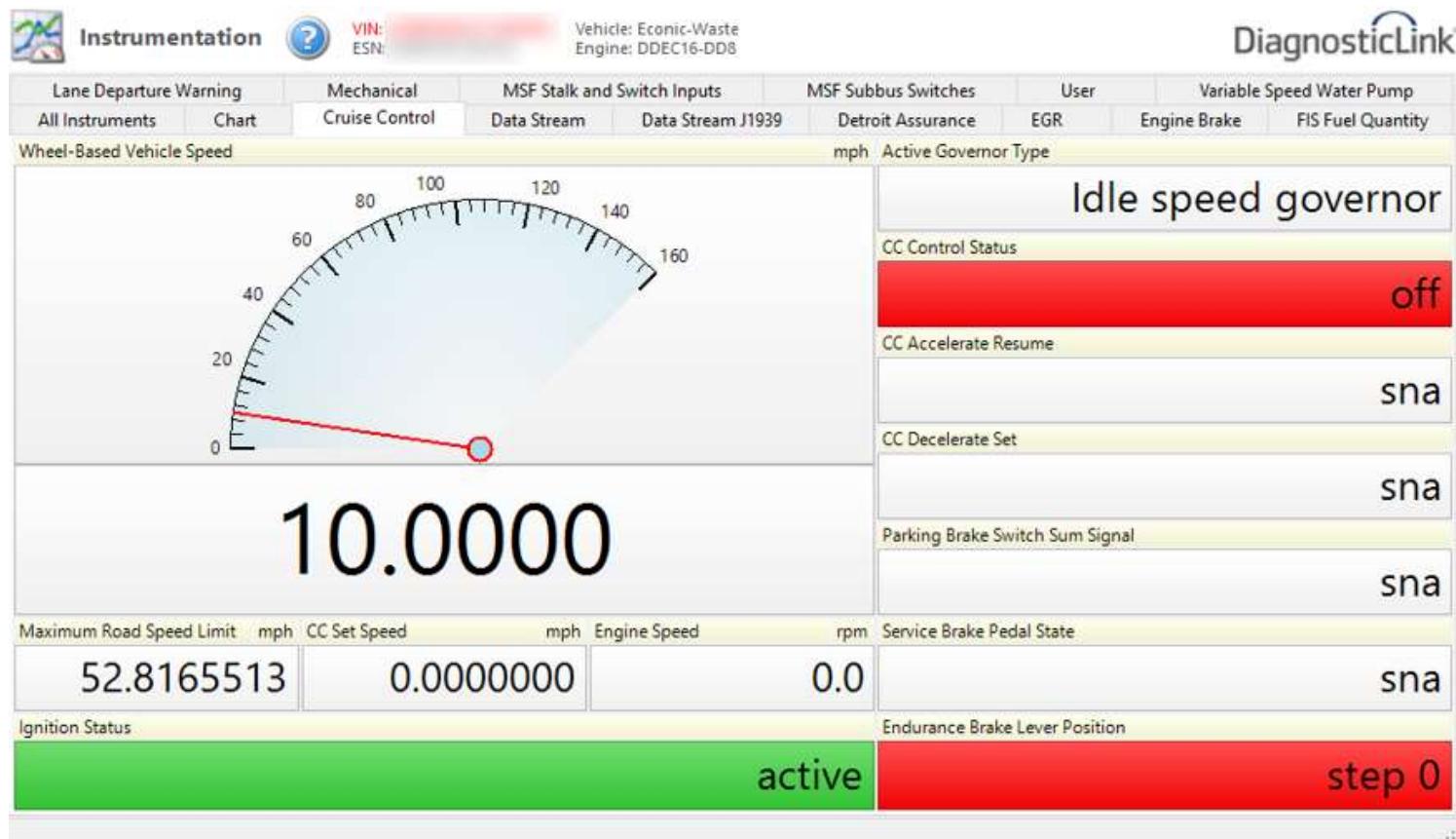
## Log File Fault History Refresh web page view

- Whenever the VIN is null, a blank page will be displayed.



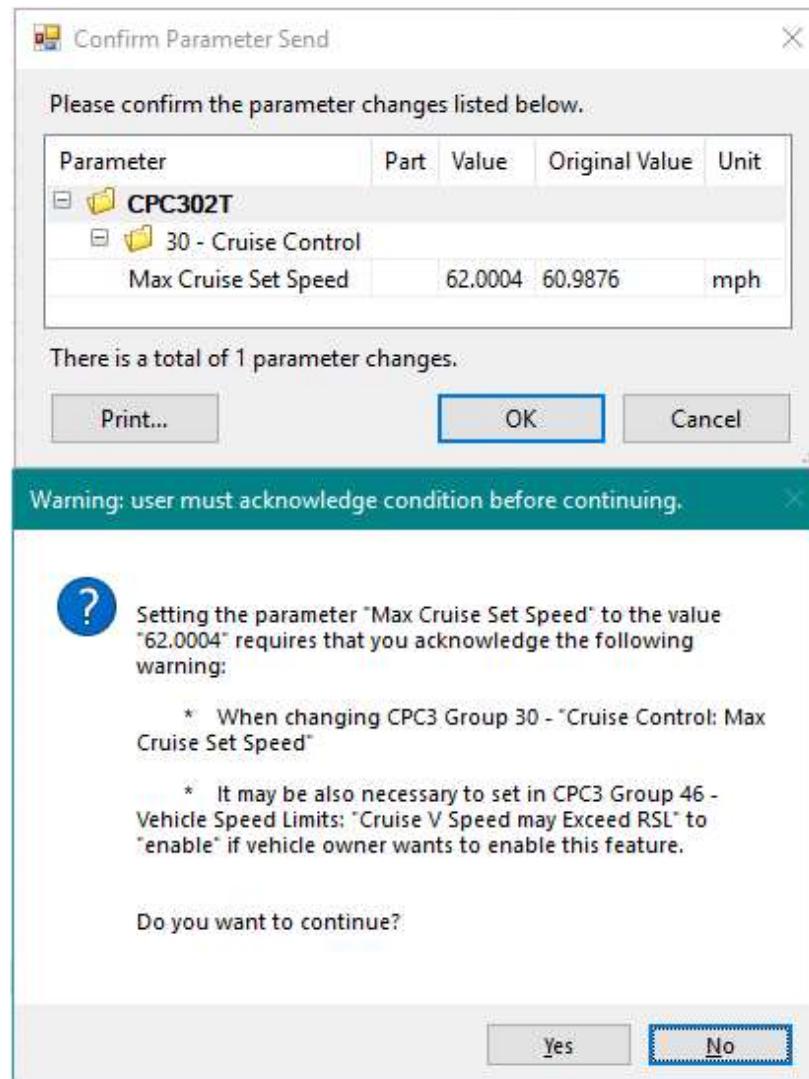
## ECONIC Instrument Panel Support - Cruise Control panel updates

- Endurance Brake Position (replaces Engine Brake)
- Ignition Status (replaces Clutch Open)



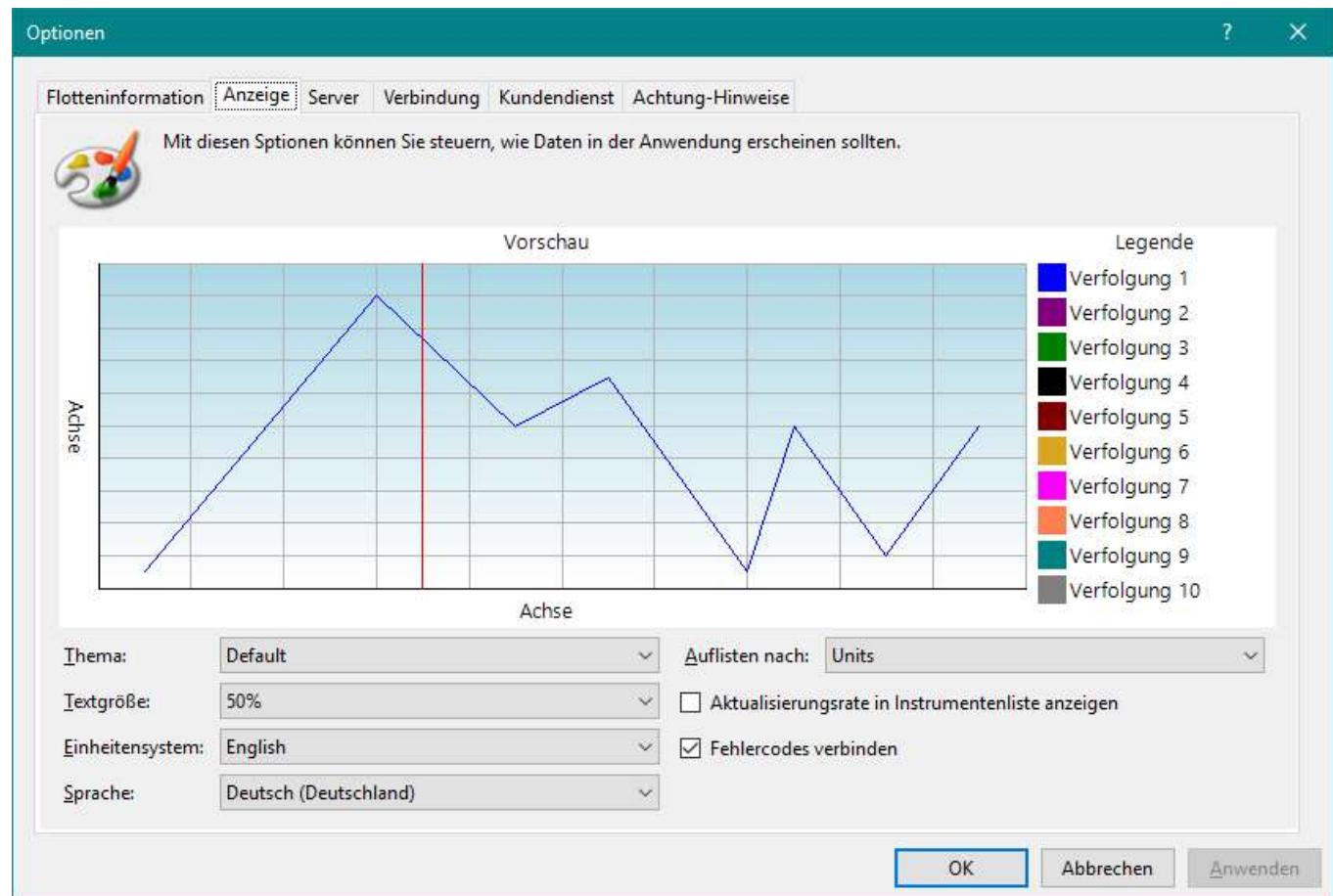
## CPC3 message display update

- Warning message now displays when changing CPC3 Group 30 - Cruise Control: Max Cruise Set Speed



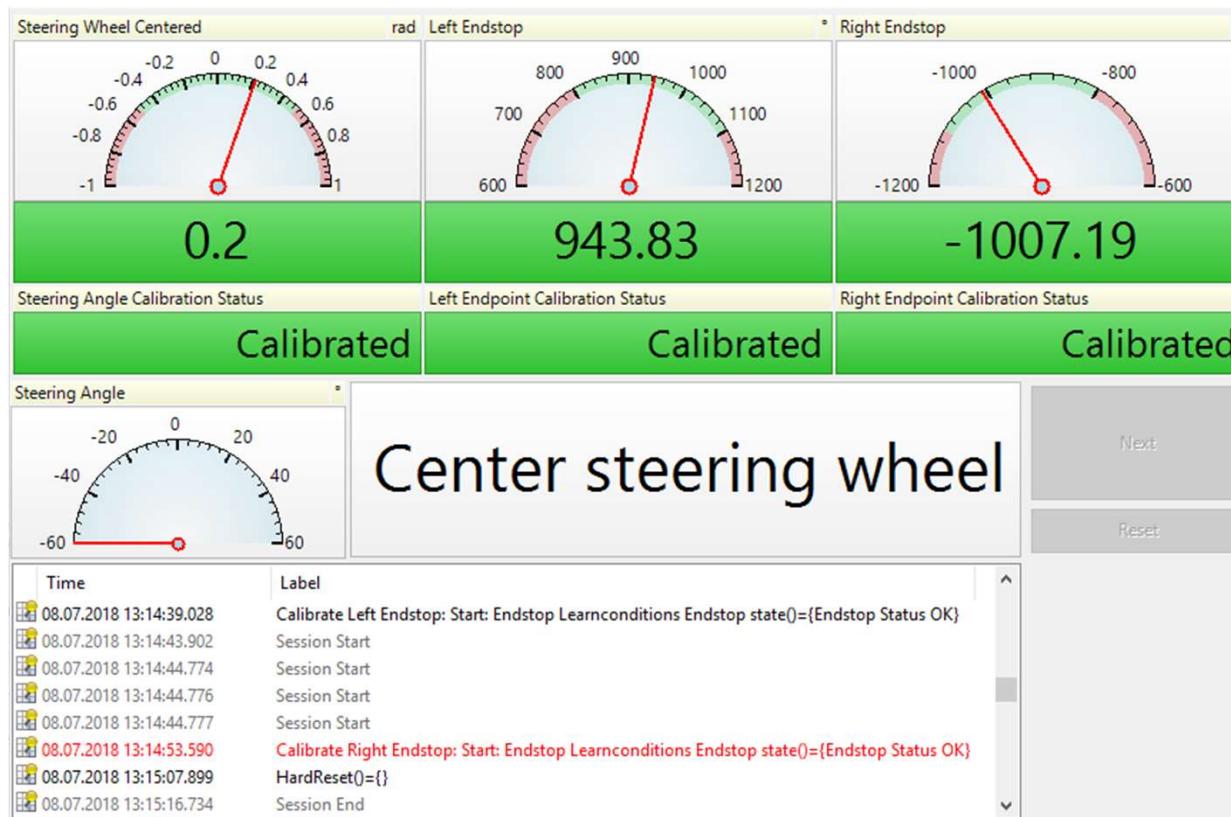
## German language pack support included in DiagnosticLink 8.10

- English to German translations now available with the exception of text in CBF files.
- Requires separate install of German Language Pack



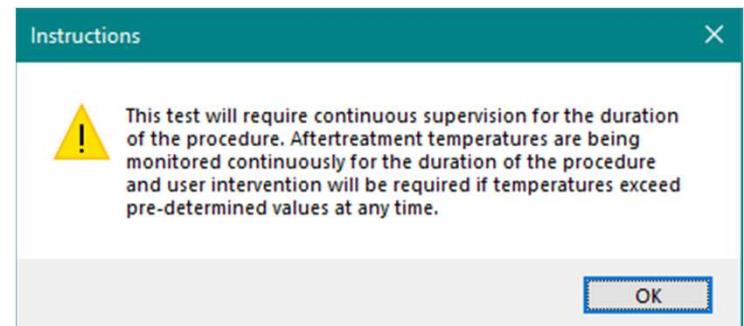
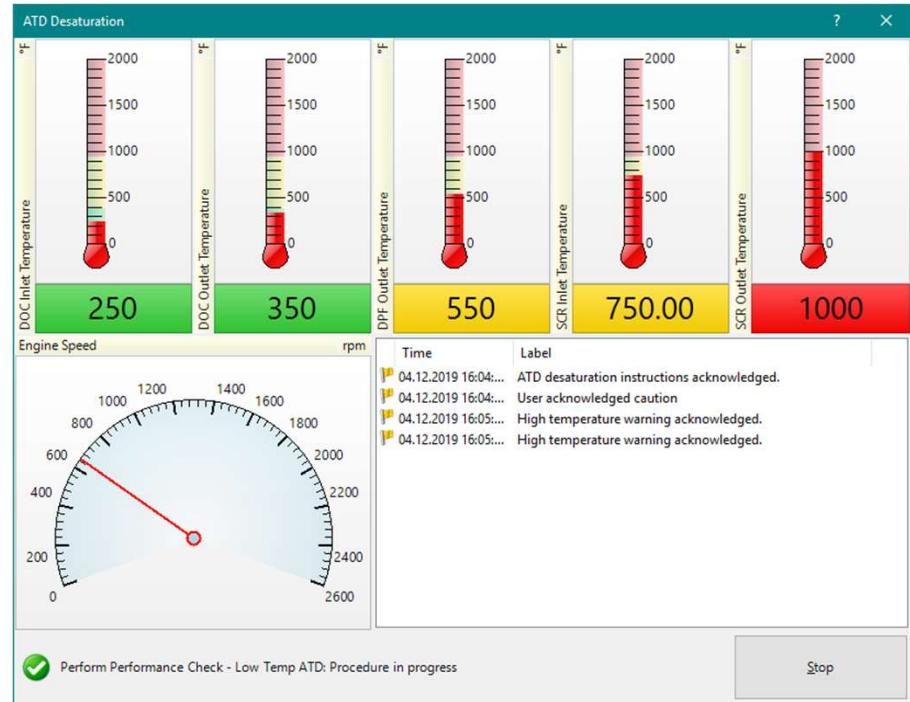
## APS3 Service Endstop Calibration

- This panel is used to calibrate the center and end stop positions of the APS3 system
- Calibration is reset at the beginning of the process and if any errors are encountered to ensure a partial calibration is not stored



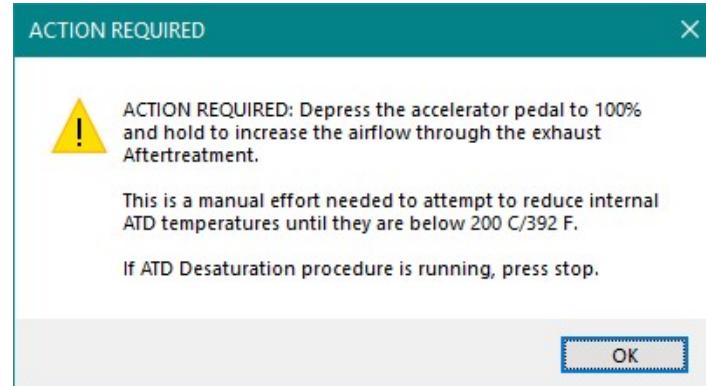
## ATD Desaturation Panel

- New panel displaying relevant temperature signals:
  - DOC Inlet Temperature
  - DOC Outlet Temperature
  - DPF Outlet Temperature
  - SCR Inlet Temperature
  - SCR Outlet Temperature
- Temperatures show warning color (yellow) at 200°C and fault color (red) at 500°C.
- Engine must be running (>0 rpm) and all temperatures must be below fault condition (500°C) to allow routine to be started.
- Instructions are shown at start of test, informing user they must continuously monitor routine
- All dialogs and warnings shown are recorded when the user acknowledges them and a log entry is created.



## ATD Desaturation Panel (cont.)

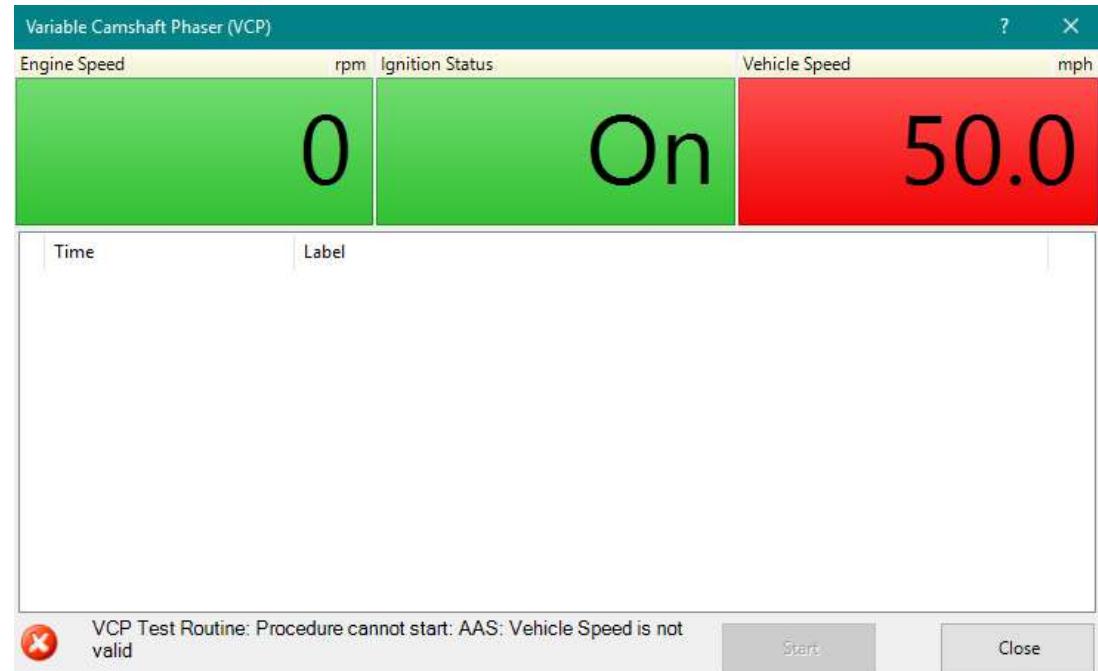
- At 500°C a popup is shown with instructions to press the accelerator pedal and increase airflow. It also instructs the user to stop the procedure.
- This popup if dismissed will be shown again every 5 seconds until temperatures drop below 500°C.
- Panel cannot be closed while the routine is running or the temperatures are above 500°C.
- Maximum temperatures reached during routine are recorded and sent as event data to Reservoir with information about the connected device.



```
<event appid="mschum01" time="20190412160542960" engine="" vehicle="3AKJHLR3JSJRA883" device="A">
<eventinfos>
  <eventinfo name="DT_AS007_DOC_Inlet_Temperature">250</eventinfo>
  <eventinfo name="DT_AS008_DOC_Outlet_Temperature">350</eventinfo>
  <eventinfo name="DT_AS009_DPF_Outlet_Temperature">550</eventinfo>
  <eventinfo name="DT_AS018_SCR_Inlet_Temperature">750</eventinfo>
  <eventinfo name="DT_AS019_SCR_Outlet_Temperature">1000</eventinfo>
</eventinfos>
<deviceidentities>
  <deviceidentity qualifier="DiagnosisVariant">acm_0x0236</deviceidentity>
  <deviceidentity qualifier="CO_SoftwareVersion">7.58.2.0</deviceidentity>
  <deviceidentity qualifier="CO_DiagnosisVersion">54</deviceidentity>
  <deviceidentity qualifier="CO_EcuSerialNumber">D5D33401</deviceidentity>
  <deviceidentity qualifier="CO_HardwarePartNumber">0004463754001</deviceidentity>
  <deviceidentity qualifier="CO_SoftwarePartNumber">0174488954001</deviceidentity>
  <deviceidentity qualifier="CO_VIN">3AKJHLR3JSJRA883</deviceidentity>
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  <deviceidentity qualifier="CO_CertificationNumber">
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  <deviceidentity qualifier="CO_SoftwareMode">Running in Application</deviceidentity>
  <deviceidentity qualifier="CO_ApplicationCode">06N04C1621</deviceidentity>
  <deviceidentity qualifier="CO_ApplicationCodePartNumber">A0514473854.007</deviceidentity>
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  <deviceidentity qualifier="CO_CVN_PM_SENSOR">00000000</deviceidentity>
</deviceidentities>
</event>
```

## M2 DD8 engine Actions/ Variable Camshaft Phaser (VCP)

- Updated the panel to have “Read Actual VCP Position” Instrument taken out.



## VIN and ESN added to the engine/vehicle identification bar

- VIN and ESN are now displayed in the identification bar
- Users can right click on either fields and copy the values to their clipboard
- VIN / ESN will be displayed in red when connected to different ECUs with different VINs / ESNs
- If the user hovers over a red VIN and ESN, a tool tip will appear and show the notification, that a VIN/ESN Inconsistency was detected

