INSITE™ 8.0.0 - What's New?

Cummins

Electronic Service Tools

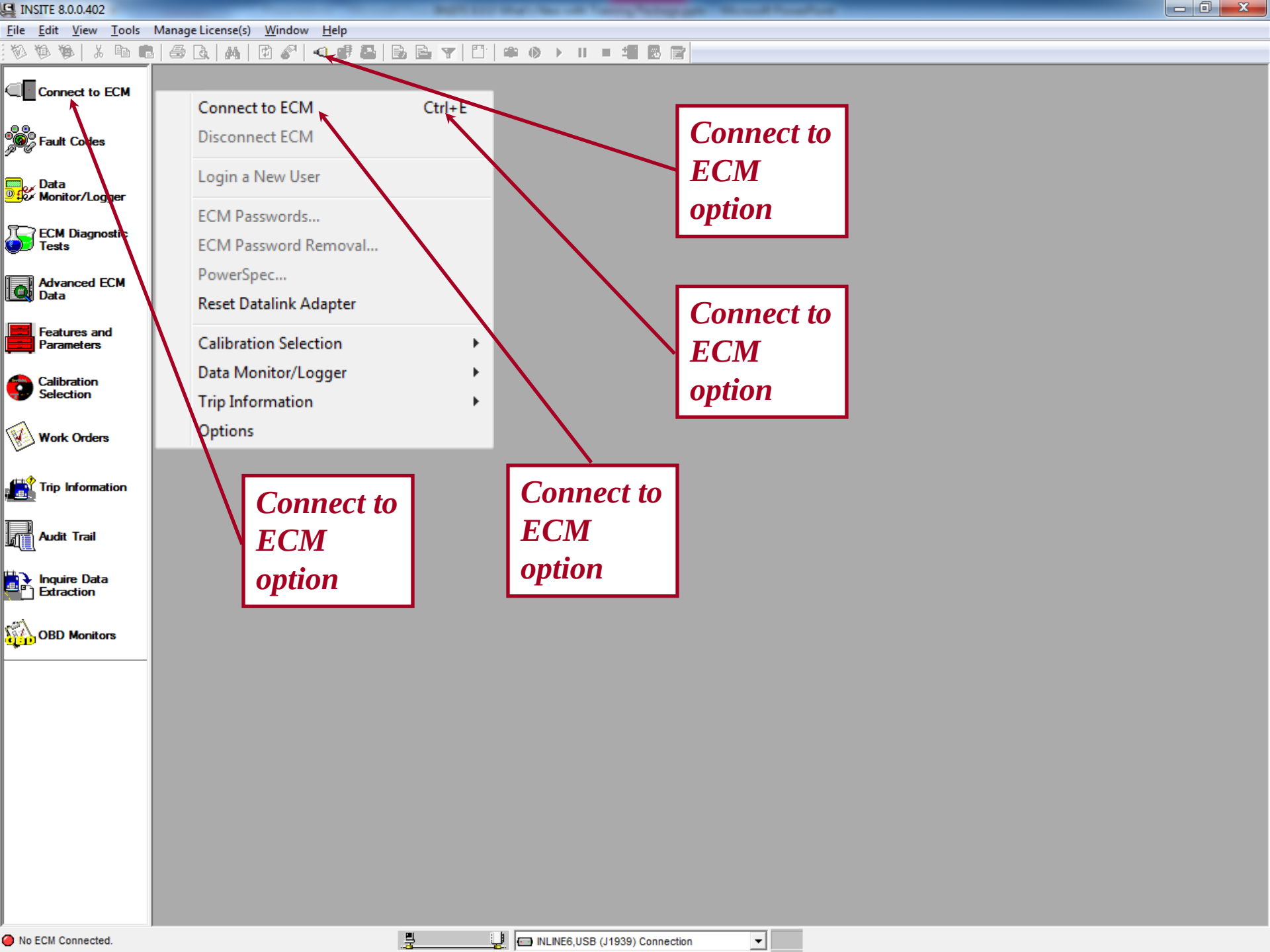
Connections

Select the desired Connection Type

- INLINE 5/6, RP1210A or Simulator
- Will open a Connect Window

If previous connection type selected

- Tools → Connect to ECM
- Ctrl+E
- Connect to ECM icon on the View Bar
- Connect to ECM icon on the Tool Bar


INSITE 8.0.0.402
File Edit View Tools Manage License(s) Window Help
Connect to ECM
Fault Codes
Data Monitor/Logger
ECM Diagnostic Tests
Advanced ECM Data
Features and Parameters
Calibration Selection
Work Orders
Trip Information
Audit Trail
Inquire Data Extraction
OBD Monitors
Connect to ECM Ctrl+E
Disconnect ECM
Login a New User
ECM Passwords...
ECM Password Removal...
PowerSpec...
Reset Datalink Adapter
Calibration Selection
Data Monitor/Logger
Trip Information
Options
Connect to ECM option
Connect to ECM option
Connect to ECM option
Connect to ECM option
No ECM Connected.
INLINE6,USB (J1939) Connection

Connections

Engine Simulators

- INSITE can Simulate connections to all supported engines
  - Celect Plus, ISX, ISB…
  - Almost Full Simulated tool Functionality
  - Can be used for training or exploring Engine Features
  - Data is simulated and may not represent actual engine data
- Simulator can be used to learn INSITE and Engine features without being connected to an Engine

Connections Wrap Up

- Make sure the desired connection is selected
- To connect to ECM
  - Use Ctrl+E as a shortcut to get connected
  - Use the View Bar icon
  - Tool Bar icon to connect
  - Click on Tools → Connect to ECM

You have concluded this section of the training.

Please click to the next slide and continue or Click Here to return to the Table of Content.

INSITE™ Data Monitor/Logging and OBD Monitors

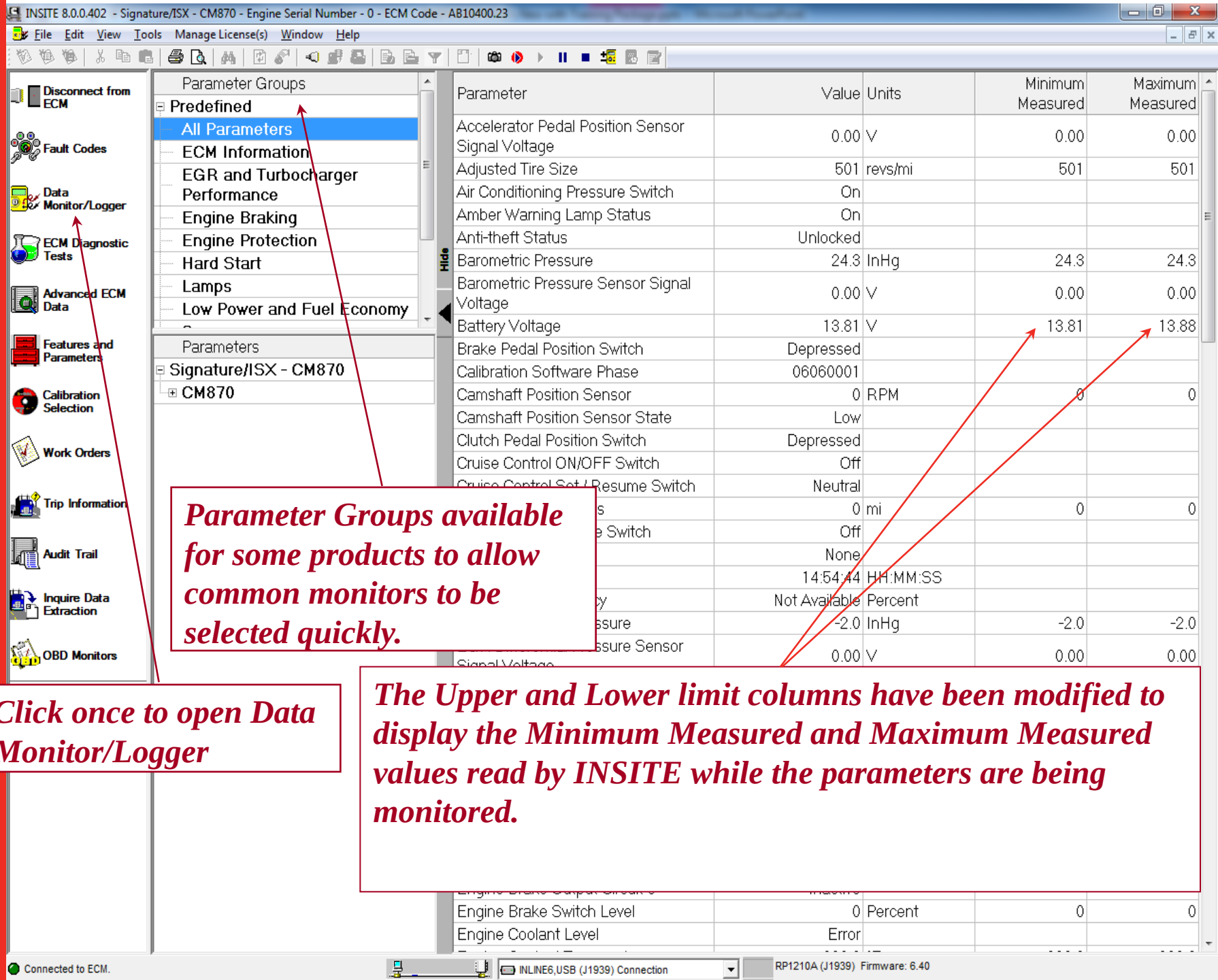
Electronic Service Tools

Innovation You Can Depend On™

Data Monitor / Logger

Method to view or log live engine data at a user defined sample rate.

- Monitor data:
  - View selected parameters to display
- Log data:
  - Continuous logged data for each parameter selected and saved to a file for analysis
- Snapshot:
  - Single data point logged for each parameter selected and saved to a file for analysis


INSITE 8.0.0.402 - Signature/ISX - CM870 - Engine Serial Number - 0 - ECM Code - AB10400.23
File Edit View Tools Manage License(s) Window Help
Disconnect from ECM
Fault Codes
Data Monitor/Logger
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All Parameters
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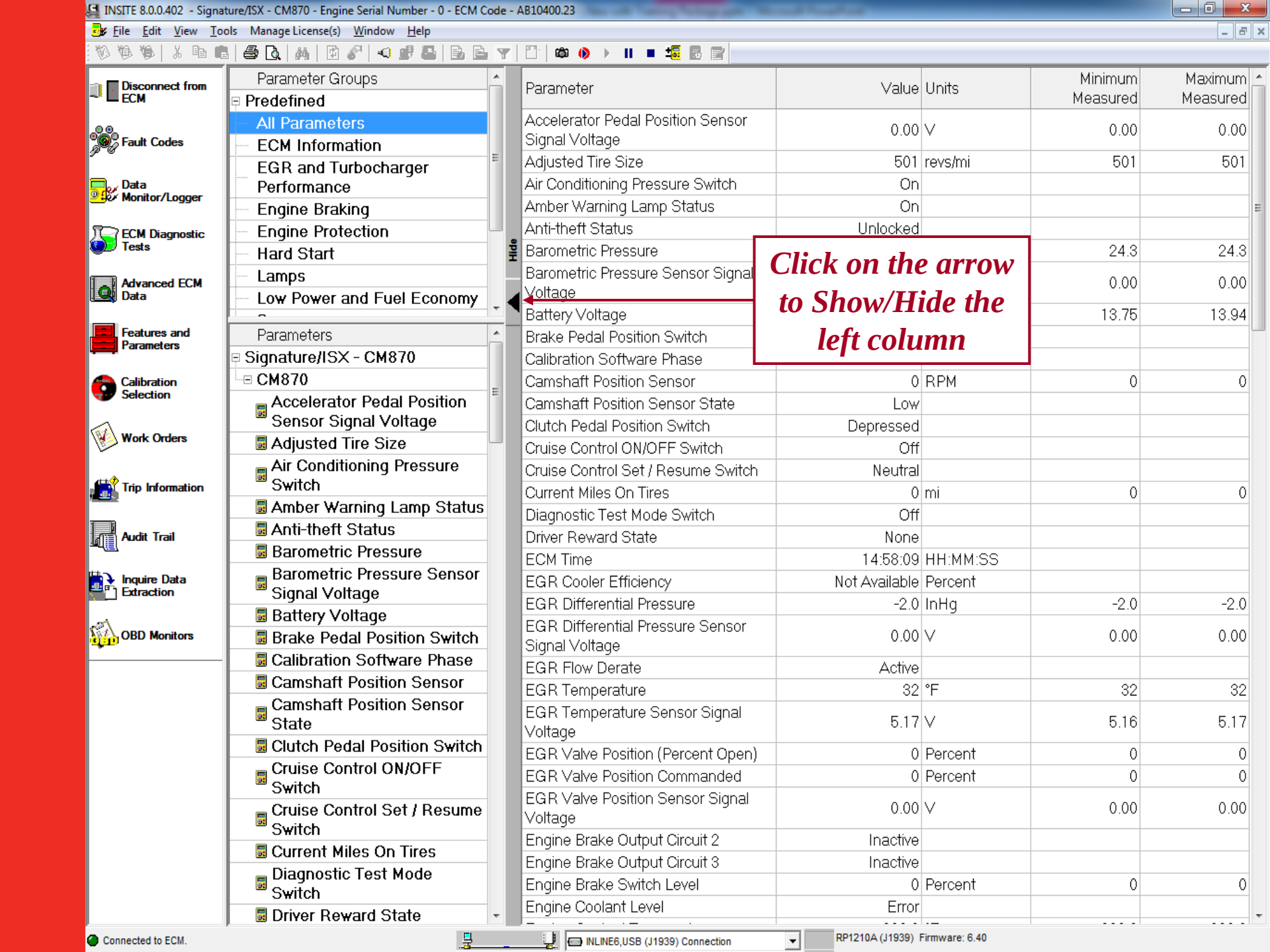
EGR and Turbocharger Performance
Engine Braking
Engine Protection
Hard Start
Lamps
Low Power and Fuel Economy
Parameters
Signature/ISX - CM870
CM870
Hide
Parameter
Value
Units
Minimum Measured
Maximum Measured
Accelerator Pedal Position Sensor Signal Voltage 0.00 V 0.00 0.00
Adjusted Tire Size 501 revs/mi 501 501
Air Conditioning Pressure Switch On
Amber Warning Lamp Status On
Anti-theft Status Unlocked
Barometric Pressure 24.3 InHg 24.3 24.3
Barometric Pressure Sensor Signal Voltage 0.00 V 0.00 0.00
Battery Voltage 13.81 V 13.81 13.88
Brake Pedal Position Switch Depressed
Calibration Software Phase 06060001
Camshaft Position Sensor 0 RPM 0 0
Camshaft Position Sensor State Low
Clutch Pedal Position Switch Depressed
Cruise Control ON/OFF Switch Off
Cruise Control Set / Resume Switch Neutral
0 mi 0 0
Off
None
14:54:44 HH:MM:SS
Not Available Percent
-2.0 InHg -2.0 -2.0
0.00 V 0.00 0.00
Engine Brake Switch Level 0 Percent 0 0
Engine Coolant Level Error
Parameter Groups available for some products to allow common monitors to be selected quickly.
Click once to open Data Monitor/Logger
The Upper and Lower limit columns have been modified to display the Minimum Measured and Maximum Measured values read by INSITE while the parameters are being monitored.
Connected to ECM.
INLINE6,USB (J1939) Connection
RP1210A (J1939) Firmware: 6.40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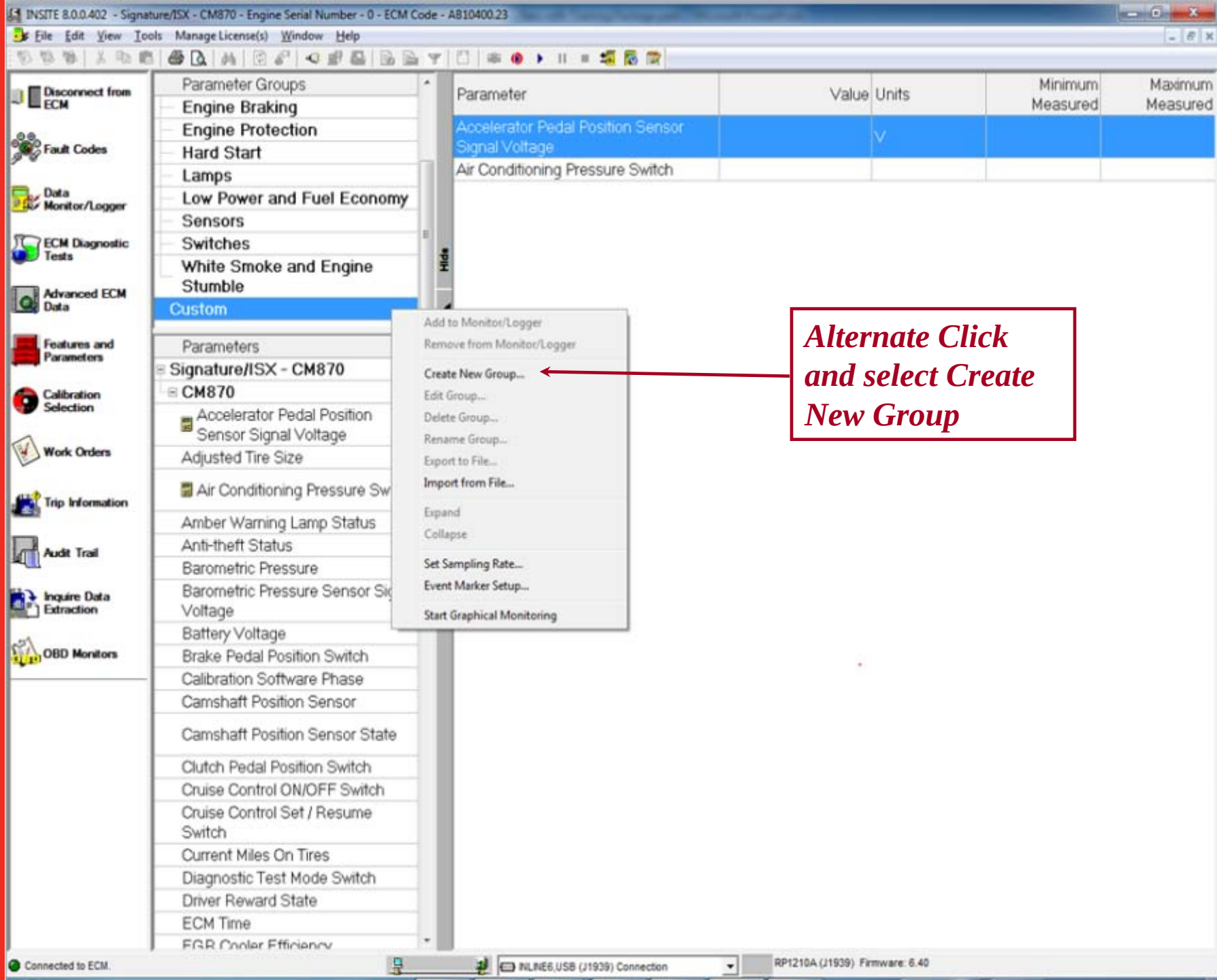
Low Power and Fuel Economy
Parameters
Signature/ISX - CM870
CM870
Accelerator Pedal Position Sensor Signal Voltage
Adjusted Tire Size
Air Conditioning Pressure Switch
Amber Warning Lamp Status
Anti-theft Status
Barometric Pressure
Barometric Pressure Sensor Signal Voltage
Battery Voltage
Brake Pedal Position Switch
Calibration Software Phase
Camshaft Position Sensor
Camshaft Position Sensor State
Clutch Pedal Position Switch
Cruise Control ON/OFF Switch
Cruise Control Set / Resume Switch
Current Miles On Tires
Diagnostic Test Mode Switch
Driver Reward State
Hide
Click on the arrow to Show/Hide the left column
Parameter | Value | Units | Minimum Measured | Maximum Measured
Accelerator Pedal Position Sensor Signal Voltage | 0.00 | V | 0.00 | 0.00
Adjusted Tire Size | 501 | revs/mi | 501 | 501
Air Conditioning Pressure Switch | On
Amber Warning Lamp Status | On
Anti-theft Status | Unlocked
Barometric Pressure | 24.3 | 24.3
Barometric Pressure Sensor Signal Voltage | 0.00 | 0.00
Battery Voltage | 13.75 | 13.94
Brake Pedal Position Switch
Calibration Software Phase
Camshaft Position Sensor | 0 | RPM | 0 | 0
Camshaft Position Sensor State | Low
Clutch Pedal Position Switch | Depressed
Cruise Control ON/OFF Switch | Off
Cruise Control Set / Resume Switch | Neutral
Current Miles On Tires | 0 | mi | 0 | 0
Diagnostic Test Mode Switch | Off
Driver Reward State | None
ECM Time | 14:58:09 | HH:MM:SS
EGR Cooler Efficiency | Not Available | Percent
EGR Differential Pressure | -2.0 | InHg | -2.0 | -2.0
EGR Differential Pressure Sensor Signal Voltage | 0.00 | V | 0.00 | 0.00
EGR Flow Derate | Active
EGR Temperature | 32 | °F | 32 | 32
EGR Temperature Sensor Signal Voltage | 5.17 | V | 5.16 | 5.17
EGR Valve Position (Percent Open) | 0 | Percent | 0 | 0
EGR Valve Position Commanded | 0 | Percent | 0 | 0
EGR Valve Position Sensor Signal Voltage | 0.00 | V | 0.00 | 0.00
Engine Brake Output Circuit 2 | Inactive
Engine Brake Output Circuit 3 | Inactive
Engine Brake Switch Level | 0 | Percent | 0 | 0
Engine Coolant Level | Error
Connected to ECM.
INLINE6,USB (J1939) Connection
RP1210A (J1939) Firmware: 6.40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Inquire Data Extraction
OBD Monitors
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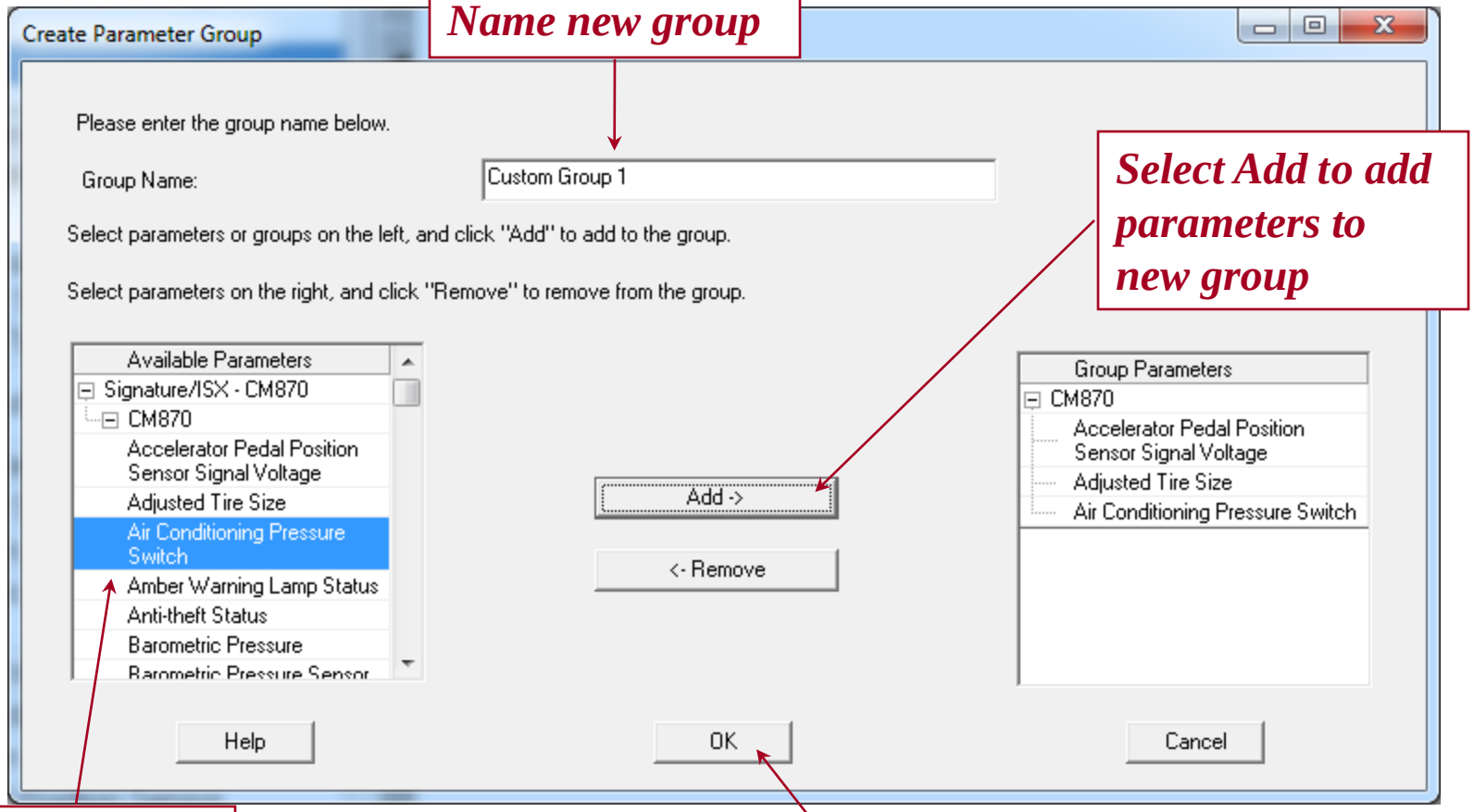
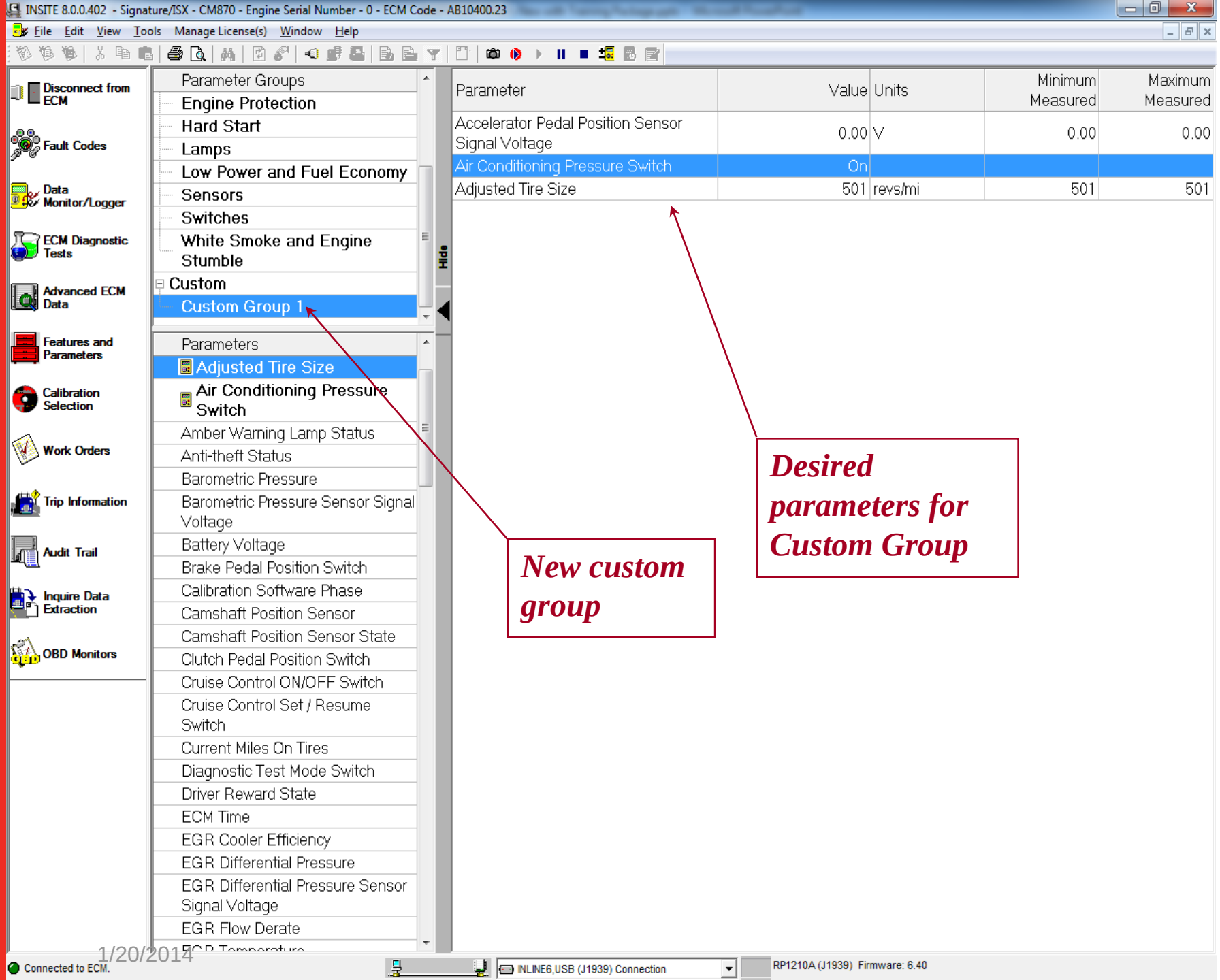
Engine Braking
Engine Protection
Hard Start
Lamps
Low Power and Fuel Economy
Sensors
Switches
White Smoke and Engine Stumble
Custom
Parameters
Signature/ISX - CM870
CM870
Accelerator Pedal Position Sensor Signal Voltage
Adjusted Tire Size
Air Conditioning Pressure Sw
Amber Warning Lamp Status
Anti-theft Status
Barometric Pressure
Barometric Pressure Sensor Sig Voltage
Battery Voltage
Brake Pedal Position Switch
Calibration Software Phase
Camshaft Position Sensor
Camshaft Position Sensor State
Clutch Pedal Position Switch
Cruise Control ON/OFF Switch
Cruise Control Set / Resume Switch
Current Miles On Tires
Diagnostic Test Mode Switch
Driver Reward State
ECM Time
EGR Cooler Efficiency
Hide
Parameter
Value
Units
Minimum Measured
Maximum Measured
Accelerator Pedal Position Sensor Signal Voltage
V
Air Conditioning Pressure Switch
Add to Monitor/Logger
Remove from Monitor/Logger
Create New Group...
Edit Group...
Delete Group...
Rename Group...
Export to File...
Import from File...
Expand
Collapse
Set Sampling Rate...
Event Marker Setup...
Start Graphical Monitoring
Alternate Click and select Create New Group
Connected to ECM.
INLINE6,USB (J1939) Connection
RP1210A (J1939) Firmware: 6.40

Create Custom Group

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Lamps
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Sensors
Switches
White Smoke and Engine Stumble
Custom
Custom Group 1
Parameters
Adjusted Tire Size
Air Conditioning Pressure Switch
Amber Warning Lamp Status
Anti-theft Status
Barometric Pressure
Barometric Pressure Sensor Signal Voltage
Battery Voltage
Brake Pedal Position Switch
Calibration Software Phase
Camshaft Position Sensor
Camshaft Position Sensor State
Clutch Pedal Position Switch
Cruise Control ON/OFF Switch
Cruise Control Set / Resume Switch
Current Miles On Tires
Diagnostic Test Mode Switch
Driver Reward State
ECM Time
EGR Cooler Efficiency
EGR Differential Pressure
EGR Differential Pressure Sensor Signal Voltage
EGR Flow Derate
Hide
Parameter
Value
Units
Minimum Measured
Maximum Measured
Accelerator Pedal Position Sensor Signal Voltage
0.00
V
0.00
0.00
Air Conditioning Pressure Switch
On
Adjusted Tire Size
501
revs/mi
501
501
New custom group
Desired parameters for Custom Group
Connected to ECM.
INLINE6,USB (J1939) Connection
RP1210A (J1939) Firmware: 6.40

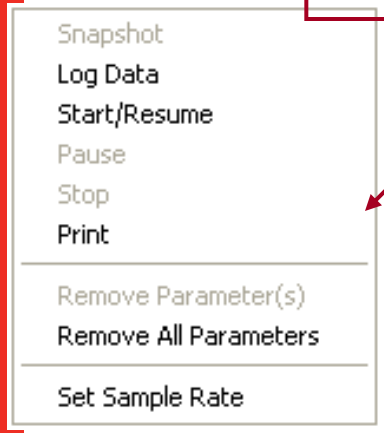
1/20/2014

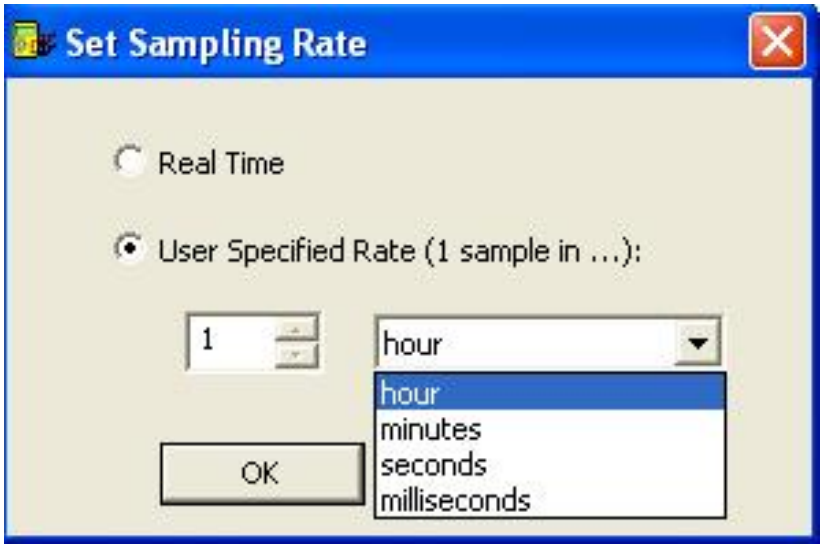
Data Monitor / Logger

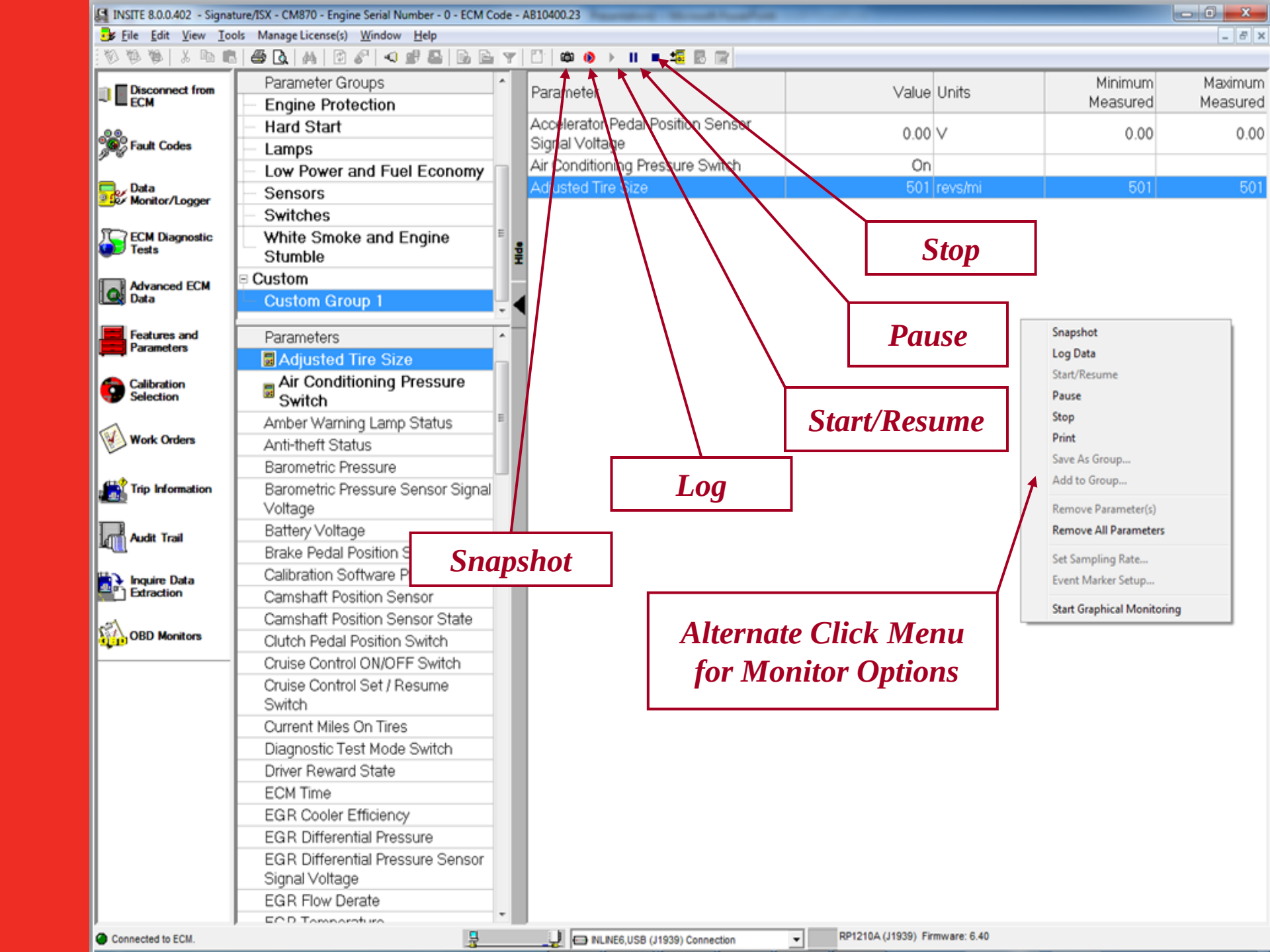
Setting the Data Monitor / Logger sample rate.

- Select Tools → Data → Monitor/Logger → Set Sampling Rate

OR: Alternate Click in Data Monitor/Logger While not Monitoring or Logging



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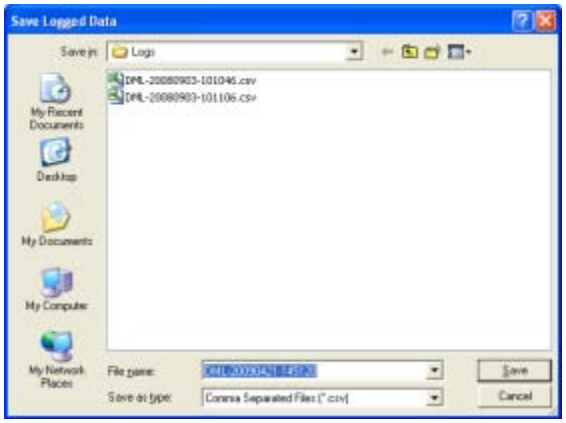
Custom
Custom Group 1
Parameters
Adjusted Tire Size
Air Conditioning Pressure Switch
Amber Warning Lamp Status
Anti-theft Status
Barometric Pressure
Barometric Pressure Sensor Signal Voltage
Battery Voltage
Brake Pedal Position S
Calibration Software P
Camshaft Position Sensor
Camshaft Position Sensor State
Clutch Pedal Position Switch
Cruise Control ON/OFF Switch
Cruise Control Set / Resume Switch
Current Miles On Tires
Diagnostic Test Mode Switch
Driver Reward State
ECM Time
EGR Cooler Efficiency
EGR Differential Pressure
EGR Differential Pressure Sensor Signal Voltage
EGR Flow Derate
Hide
Parameter
Value
Units
Minimum Measured
Maximum Measured
Accelerator Pedal Position Sensor Signal Voltage
0.00
V
0.00
0.00
Air Conditioning Pressure Switch
On
Adjusted Tire Size
501
revs/mi
501
501
Stop
Pause
Start/Resume
Log
Snapshot
Snapshot
Log Data
Start/Resume
Pause
Stop
Print
Save As Group...
Add to Group...
Remove Parameter(s)
Remove All Parameters
Set Sampling Rate...
Event Marker Setup...
Start Graphical Monitoring
Alternate Click Menu for Monitor Options
Connected to ECM.
INLINE6,USB (J1939) Connection
RP1210A (J1939) Firmware: 6.40

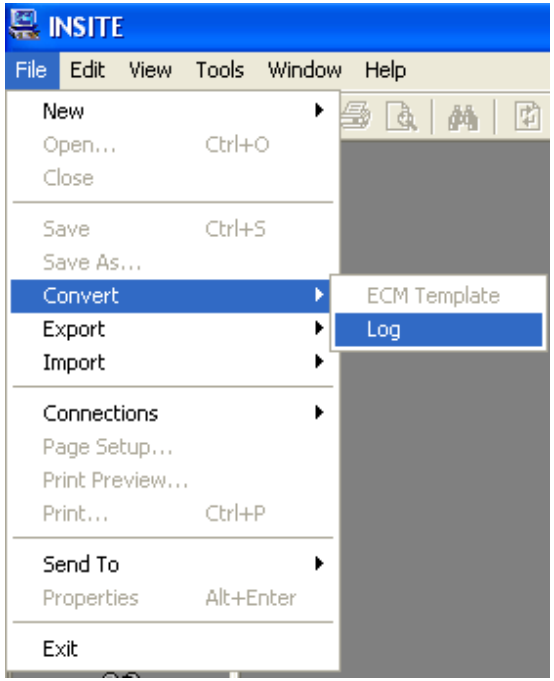
Data Monitor / Logger

Converting a Log file for external use:

- Generate a Log File
- Save the Log File



- INSITE prompts to save once **Stop** has been selected in Data Monitor/Logger
- The log files or the snapshot files are saved as Comma Separated Value (CSV) files
- This file is saved to the hard drive in the **C:\Intelect\Insite\Logs** Directory **or** to the drive INSITE is installed
- User Comments can be added to the Log File



Data Monitor / Logger

- Log file contains:

INSITE Professional 8.0.0.402
Cummins Inc.

Data Log Information

Start Date and Time:	17-Dec-2013,11:05:54.441
Total Log Time:	00:07.7
Source Log Filename:	C:\Users\AME\AppData\Local\Temp\\DML-20131217-110553.log
Destination Path	C:\Intelect\INSITE\Logs
SamplingRate:	1 seconds per sample
Comments:	

Customer and Vehicle Information

Customer Name:	Bart Starr
Vehicle Unit Number:	123456

Engine Information

Model:	STA15
Serial Number:	0
ECM Part Number:	3684009

Date	Time	Accelerator Pedal Position Sensor Signal Voltage (V)	Adjusted Tire Size (revs/mi)	Air Conditioning Pressure Switch	Amber Warning Lamp Status
17-Dec-13	05:54.5	0	501	On	On
17-Dec-13	05:55.5	0	501	On	On
17-Dec-13	05:56.9	0	501	On	On
17-Dec-13	05:57.9	0	501	On	On
17-Dec-13	05:58.9	0	501	On	On
17-Dec-13	06:00.2	0	501	On	On
17-Dec-13	06:01.2	0	501	On	On
17-Dec-13	06:02.2	0	501	On	On

Data Monitor / Logger

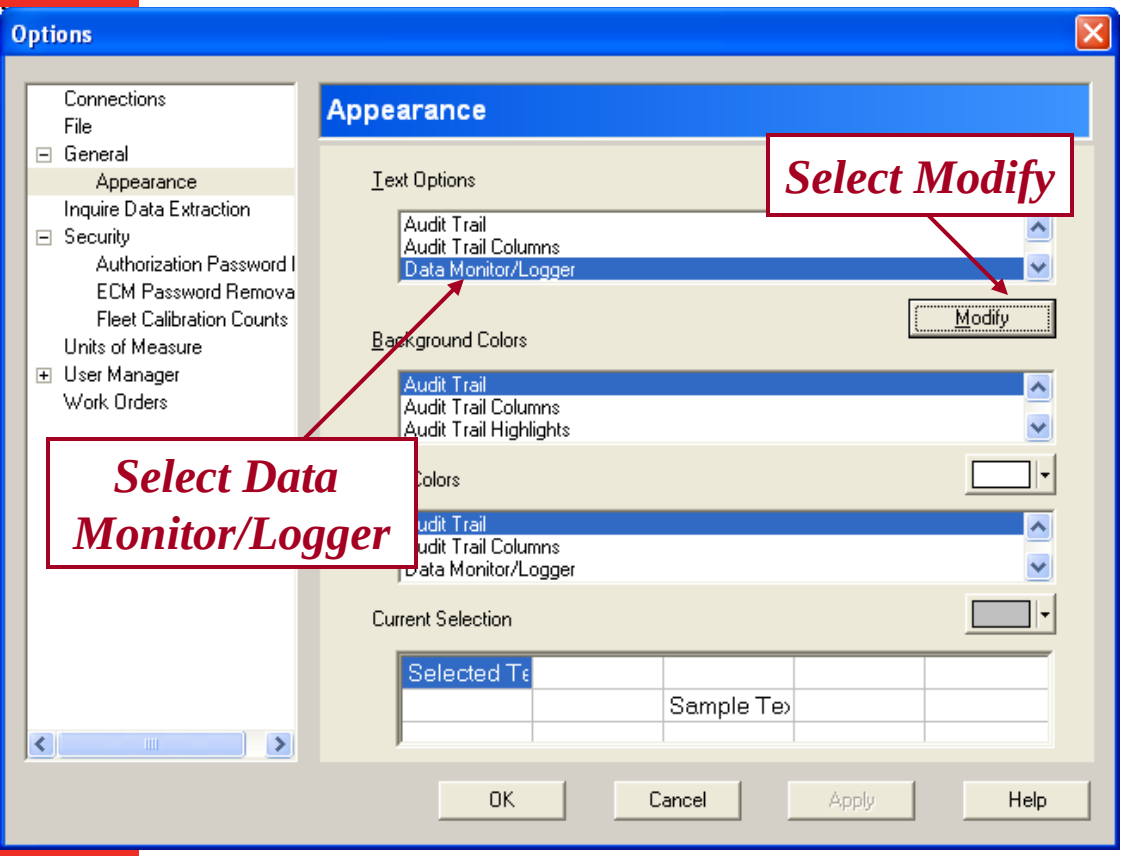
Data Monitor / Logger Limits

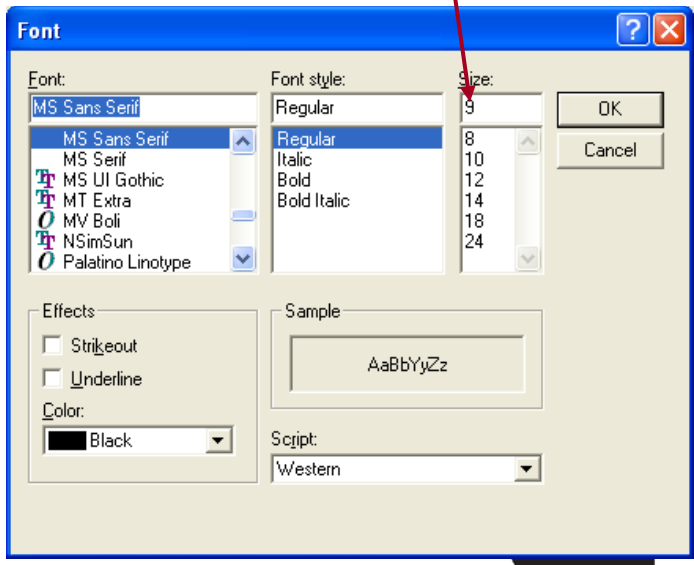
- The Lower Limit and Upper Limit column titles have been replaced with "Min Measured" and "Max Measured”
- The Min Measured column now contains the minimum value observed for each parameter during an open Data Monitor/Logger session.
- The Max Measured column now contains the maximum value observed for each parameter during an open Data Monitor/Logger session.
- The Out of Range Parameter window will no longer be used and has been removed.

Data Monitor / Logger

Increasing the font size in Data Monitor/Logger:

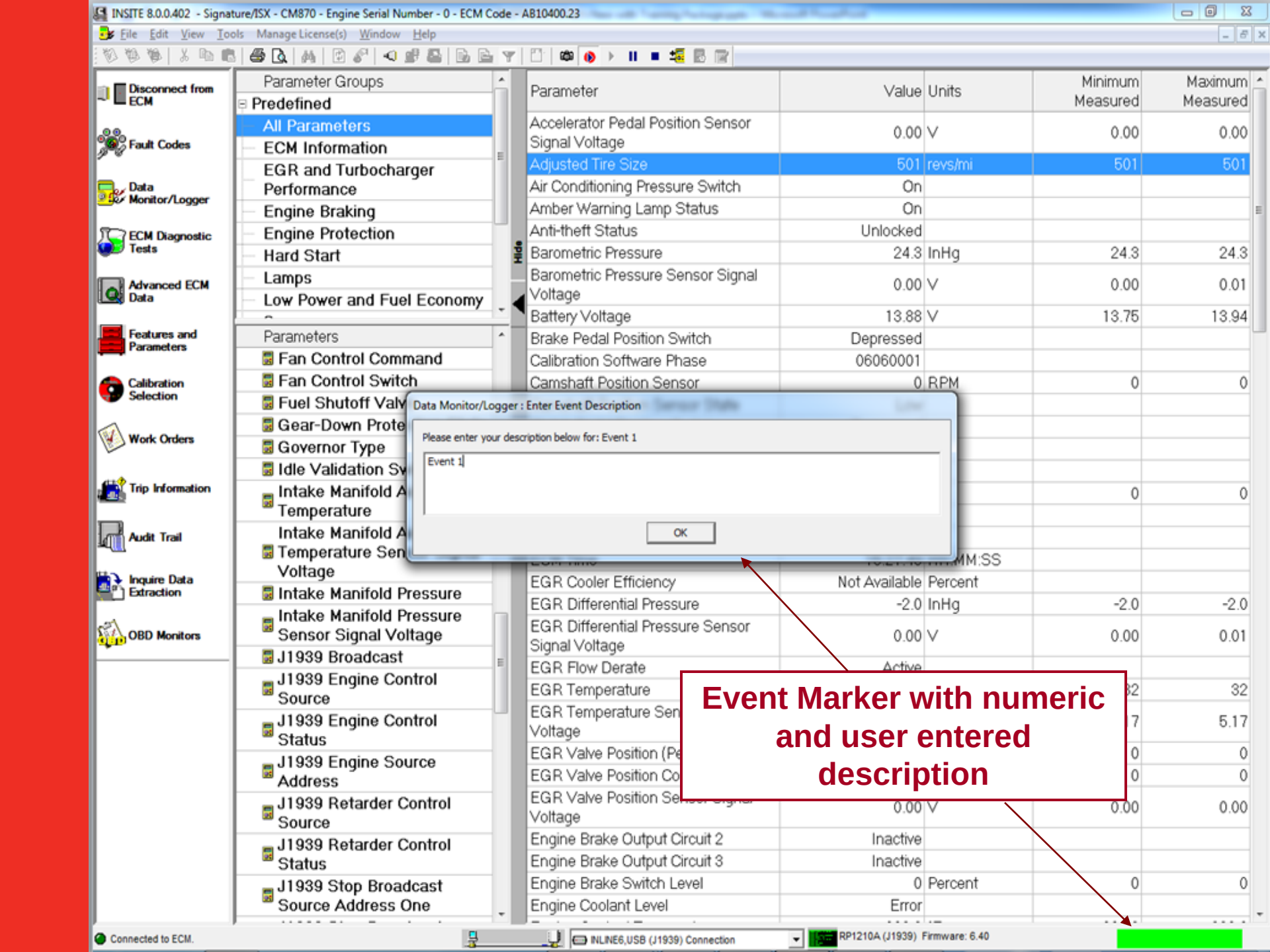
- Select Tools → Options and select Appearance under the General settings





Data Monitor/Logging

- An event can be marked while logging in the main Data Monitor / Logger screen, or when in Graphical Monitoring, by pressing the spacebar
- This provides the option to enable or disable the Event Marker as well as providing the option to create comments for event markers
- The Log file contains the Event Marker Description. For more information on Data Monitor/Logger, refer to Data Monitor logger module on slide 20.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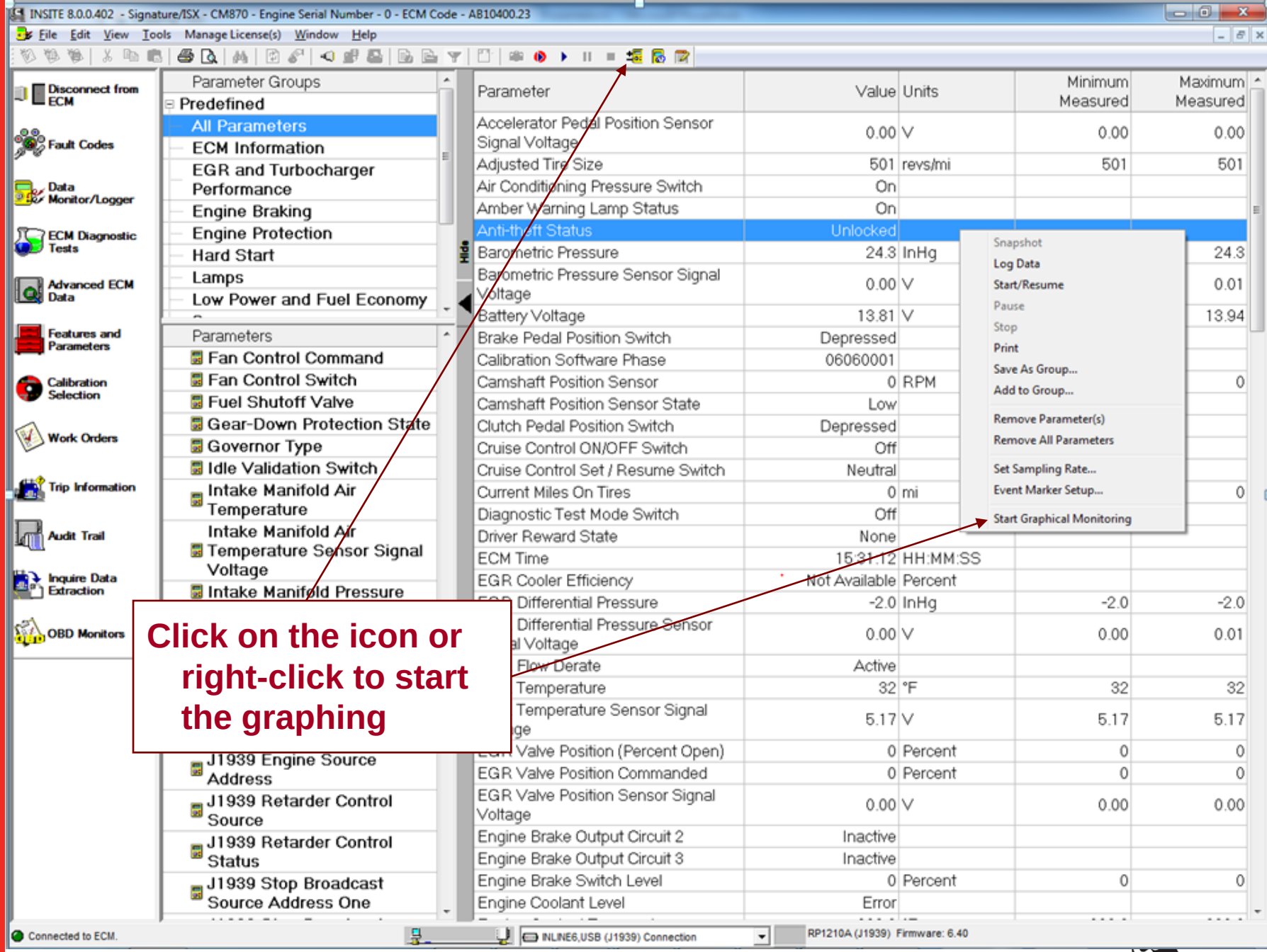
Parameters
Fan Control Command
Fan Control Switch
Fuel Shutoff Valv
Gear-Down Prote
Governor Type
Idle Validation Sv
Intake Manifold A Temperature
Intake Manifold A Temperature Sen Voltage
Intake Manifold Pressure
Intake Manifold Pressure Sensor Signal Voltage
J1939 Broadcast
J1939 Engine Control Source
J1939 Engine Control Status
J1939 Engine Source Address
J1939 Retarder Control Source
J1939 Retarder Control Status
J1939 Stop Broadcast Source Address One
Hide
Parameter
Value
Units
Minimum Measured
Maximum Measured
Accelerator Pedal Position Sensor Signal Voltage 0.00 V 0.00 0.00
Adjusted Tire Size 501 revs/mi 501 501
Air Conditioning Pressure Switch On
Amber Warning Lamp Status On
Anti-theft Status Unlocked
Barometric Pressure 24.3 InHg 24.3 24.3
Barometric Pressure Sensor Signal Voltage 0.00 V 0.00 0.01
Battery Voltage 13.88 V 13.75 13.94
Brake Pedal Position Switch Depressed
Calibration Software Phase 06060001
Camshaft Position Sensor 0 RPM 0 0
0 0
MM:SS
EGR Cooler Efficiency Not Available Percent
EGR Differential Pressure -2.0 InHg -2.0 -2.0
EGR Differential Pressure Sensor Signal Voltage 0.00 V 0.00 0.01
EGR Flow Derate Active
EGR Temperature 32 32
EGR Temperature Sen Voltage 7 5.17
EGR Valve Position (Pe 0 0
EGR Valve Position Co 0 0
EGR Valve Position Se Voltage 0.00 V 0.00 0.00
Engine Brake Output Circuit 2 Inactive
Engine Brake Output Circuit 3 Inactive
Engine Brake Switch Level 0 Percent 0 0
Engine Coolant Level Error
Data Monitor/Logger : Enter Event Description
Please enter your description below for: Event 1
Event 1
OK
Event Marker with numeric and user entered description
Connected to ECM.
INLINE6,USB (J1939) Connection
RP1210A (J1939) Firmware: 6.40

Data Monitor/Logger Graphical Monitoring

- Graphical Monitoring is a way to display, log, print, and save data for up to six parameters in a graph
- Graphical Monitoring visually monitors and plots multiple parameters into a graphical display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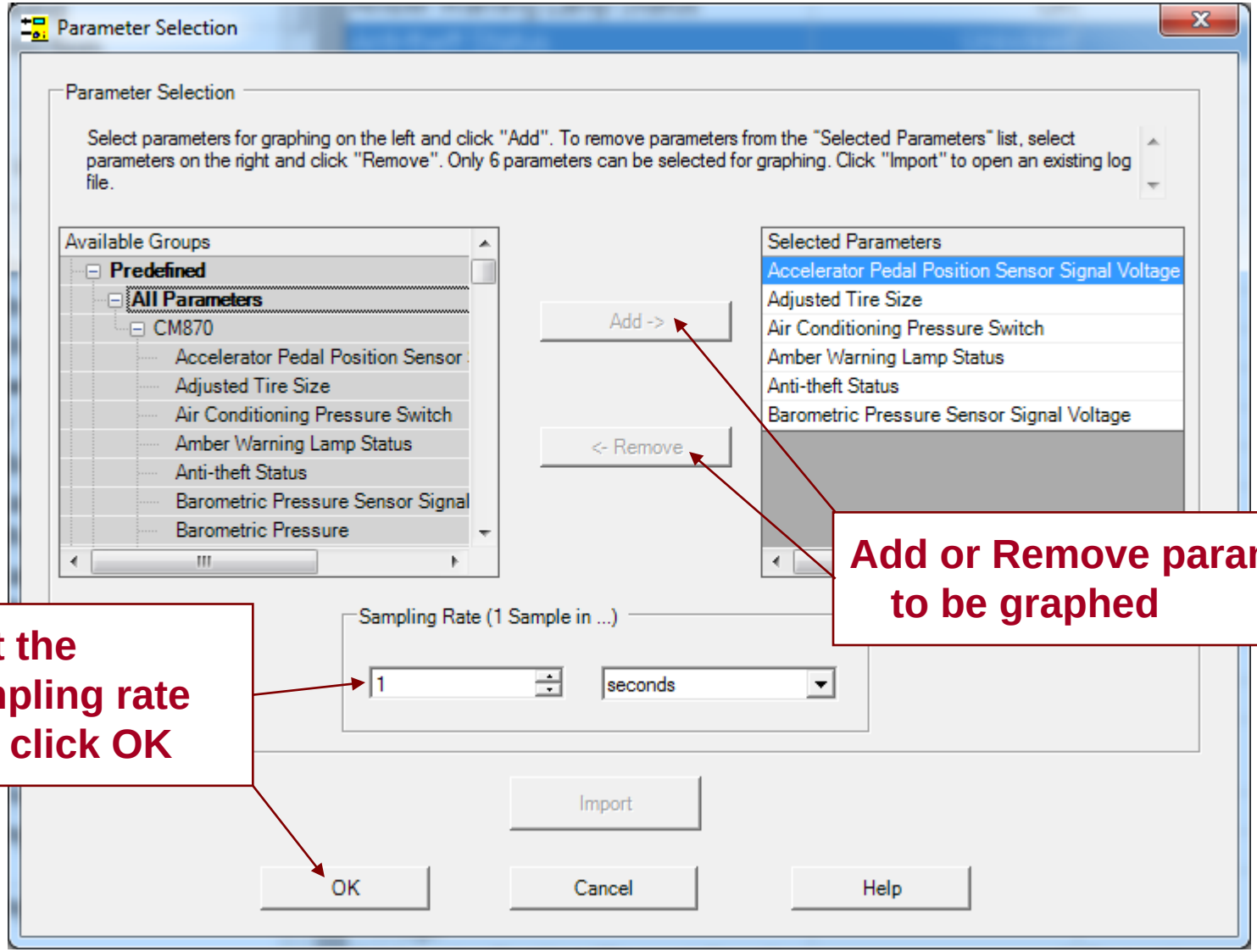
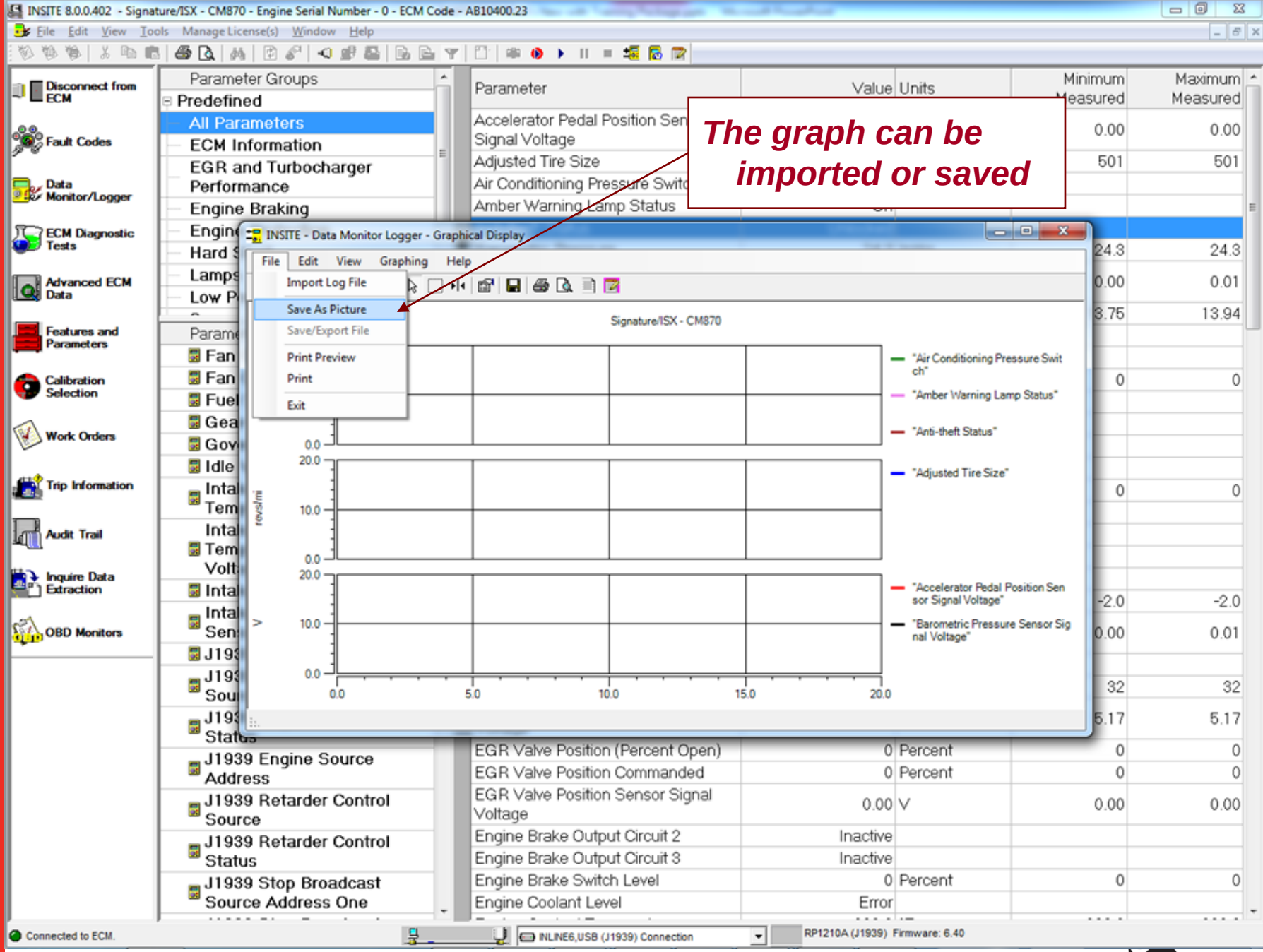
Low Power and Fuel Economy
Parameters
Fan Control Command
Fan Control Switch
Fuel Shutoff Valve
Gear-Down Protection State
Governor Type
Idle Validation Switch
Intake Manifold Air Temperature
Intake Manifold Air Temperature Sensor Signal Voltage
Intake Manifold Pressure
J1939 Engine Source Address
J1939 Retarder Control Source
J1939 Retarder Control Status
J1939 Stop Broadcast Source Address One
Hide
Parameter | Value | Units | Minimum Measured | Maximum Measured
Accelerator Pedal Position Sensor Signal Voltage | 0.00 | V | 0.00 | 0.00
Adjusted Tire Size | 501 | revs/mi | 501 | 501
Air Conditioning Pressure Switch | On
Amber Warning Lamp Status | On
Anti-theft Status | Unlocked
Barometric Pressure | 24.3 | InHg | | 24.3
Barometric Pressure Sensor Signal Voltage | 0.00 | V | | 0.01
Battery Voltage | 13.81 | V | | 13.94
Brake Pedal Position Switch | Depressed
Calibration Software Phase | 06060001
Camshaft Position Sensor | 0 | RPM | | 0
Camshaft Position Sensor State | Low
Clutch Pedal Position Switch | Depressed
Cruise Control ON/OFF Switch | Off
Cruise Control Set / Resume Switch | Neutral
Current Miles On Tires | 0 | mi | | 0
Diagnostic Test Mode Switch | Off
Driver Reward State | None
ECM Time | 15:31:12 | HH:MM:SS
EGR Cooler Efficiency | Not Available | Percent
Differential Pressure | -2.0 | InHg | -2.0 | -2.0
Differential Pressure Sensor Voltage | 0.00 | V | 0.00 | 0.01
Flow Derate | Active
Temperature | 32 | °F | 32 | 32
Temperature Sensor Signal | 5.17 | V | 5.17 | 5.17
Valve Position (Percent Open) | 0 | Percent | 0 | 0
EGR Valve Position Commanded | 0 | Percent | 0 | 0
EGR Valve Position Sensor Signal Voltage | 0.00 | V | 0.00 | 0.00
Engine Brake Output Circuit 2 | Inactive
Engine Brake Output Circuit 3 | Inactive
Engine Brake Switch Level | 0 | Percent | 0 | 0
Engine Coolant Level | Error
Snapshot
Log Data
Start/Resume
Pause
Stop
Print
Save As Group...
Add to Group...
Remove Parameter(s)
Remove All Parameters
Set Sampling Rate...
Event Marker Setup...
Start Graphical Monitoring
Click on the icon or right-click to start the graphing
Connected to ECM.
INLINE6,USB (J1939) Connection
RP1210A (J1939) Firmware: 6.40



Add or Remove parameters to be graphed

Select the sampling rate and click OK


INSITE 8.0.0.402 - Signature/ISX - CM870 - Engine Serial Number - 0 - ECM Code - AB10400.23
File Edit View Tools Manage License(s) Window Help
Disconnect from ECM
Fault Codes
Data Monitor/Logger
ECM Diagnostic Tests
Advanced ECM Data
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Calibration Selection
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Trip Information
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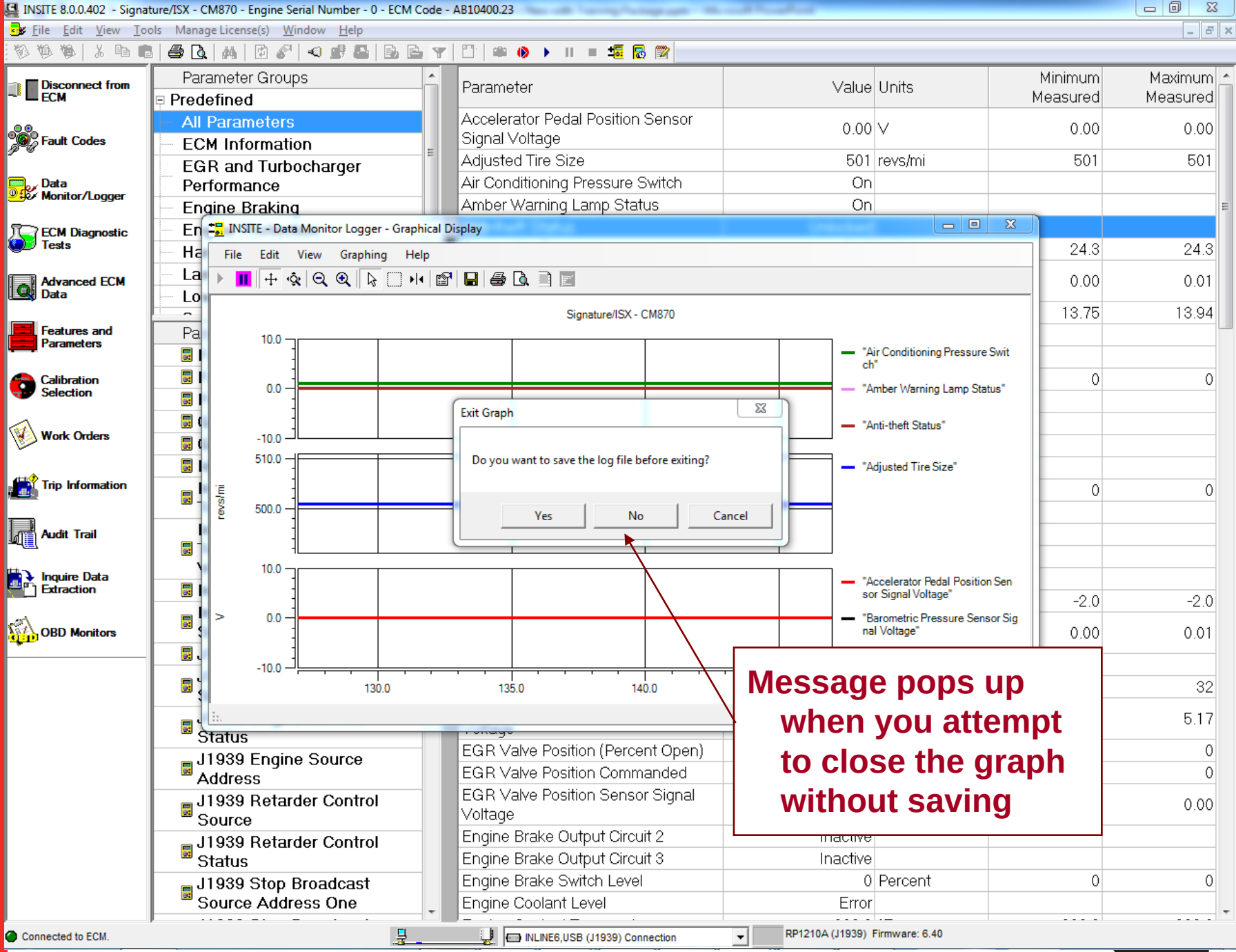
Engine Braking
Hard S
Lamps
Low P
Parame
Fan
Fan
Fuel
Gea
Gov
Idle
Inta
Tem
Inta
Tem
Volt
Inta
Inta
Sen
J193
J193
Sou
J193
Statu
J1939 Engine Source Address
J1939 Retarder Control Source
J1939 Retarder Control Status
J1939 Stop Broadcast Source Address One
Parameter
Value
Units
Minimum Measured
Maximum Measured
Accelerator Pedal Position Sen
Signal Voltage
0.00
0.00
Adjusted Tire Size
501
501
Air Conditioning Pressure Switc
Amber Warning Lamp Status
24.3
24.3
0.00
0.01
3.75
13.94
0
0
0
0
-2.0
-2.0
0.00
0.01
32
32
5.17
5.17
EGR Valve Position (Percent Open)
0
Percent
0
0
EGR Valve Position Commanded
0
Percent
0
0
EGR Valve Position Sensor Signal Voltage
0.00
V
0.00
0.00
Engine Brake Output Circuit 2
Inactive
Engine Brake Output Circuit 3
Inactive
Engine Brake Switch Level
0
Percent
0
0
Engine Coolant Level
Error
The graph can be imported or saved
INSITE - Data Monitor Logger - Graphical Display
File Edit View Graphing Help
Import Log File
Save As Picture
Save/Export File
Print Preview
Print
Exit
Signature/ISX - CM870
"Air Conditioning Pressure Switch"
"Amber Warning Lamp Status"
"Anti-theft Status"
"Adjusted Tire Size"
"Accelerator Pedal Position Sensor Signal Voltage"
"Barometric Pressure Sensor Signal Voltage"
rev/mi
V
0.0
20.0
10.0
0.0
5.0
10.0
15.0
20.0
Connected to ECM.
INLINE6,USB (J1939) Connection
RP1210A (J1939) Firmware: 6.40


INSITE 8.0.0.402 - Signature/ISX - CM870 - Engine Serial Number - 0 - ECM Code - AB10400.23
File Edit View Tools Manage License(s) Window Help
Disconnect from ECM
Fault Codes
Data Monitor/Logger
ECM Diagnostic Tests
Advanced ECM Data
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Trip Information
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Inquire Data Extraction
OBD Monitors
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Predefined
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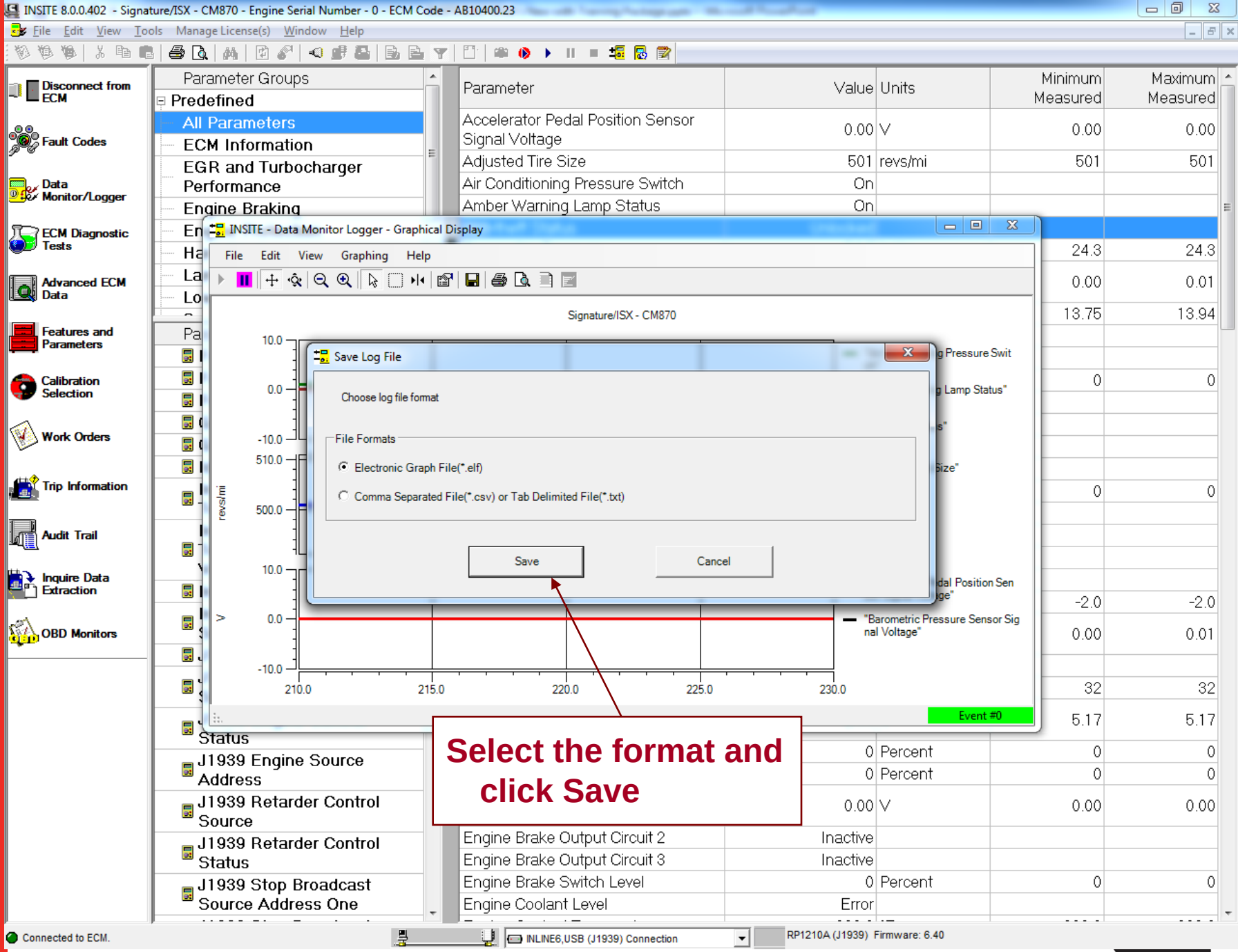
ECM Information
EGR and Turbocharger Performance
Engine Braking
Parameter
Value
Units
Minimum Measured
Maximum Measured
Accelerator Pedal Position Sensor Signal Voltage
0.00
V
Adjusted Tire Size
501
revs/mi
Air Conditioning Pressure Switch
On
Amber Warning Lamp Status
On
INSITE - Data Monitor Logger - Graphical Display
File Edit View Graphing Help
Signature/ISX - CM870
10.0
0.0
-10.0
510.0
500.0
revs/mi
10.0
0.0
-10.0
V
130.0
135.0
140.0
"Air Conditioning Pressure Switch"
"Amber Warning Lamp Status"
"Anti-theft Status"
"Adjusted Tire Size"
"Accelerator Pedal Position Sensor Signal Voltage"
"Barometric Pressure Sensor Signal Voltage"
Exit Graph
Do you want to save the log file before exiting?
Yes
No
Cancel
Message pops up when you attempt to close the graph without saving
J1939 Engine Source Address
J1939 Retarder Control Source
J1939 Retarder Control Status
J1939 Stop Broadcast Source Address One
EGR Valve Position (Percent Open)
EGR Valve Position Commanded
EGR Valve Position Sensor Signal Voltage
Engine Brake Output Circuit 2
Engine Brake Output Circuit 3
Inactive
Engine Brake Switch Level
0
Percent
Engine Coolant Level
Error
Connected to ECM.
INLINE6,USB (J1939) Connection
RP1210A (J1939) Firmware: 6.40


INSITE 8.0.0.402 - Signature/ISX - CM870 - Engine Serial Number - 0 - ECM Code - AB10400.23
File Edit View Tools Manage License(s) Window Help
Disconnect from ECM
Fault Codes
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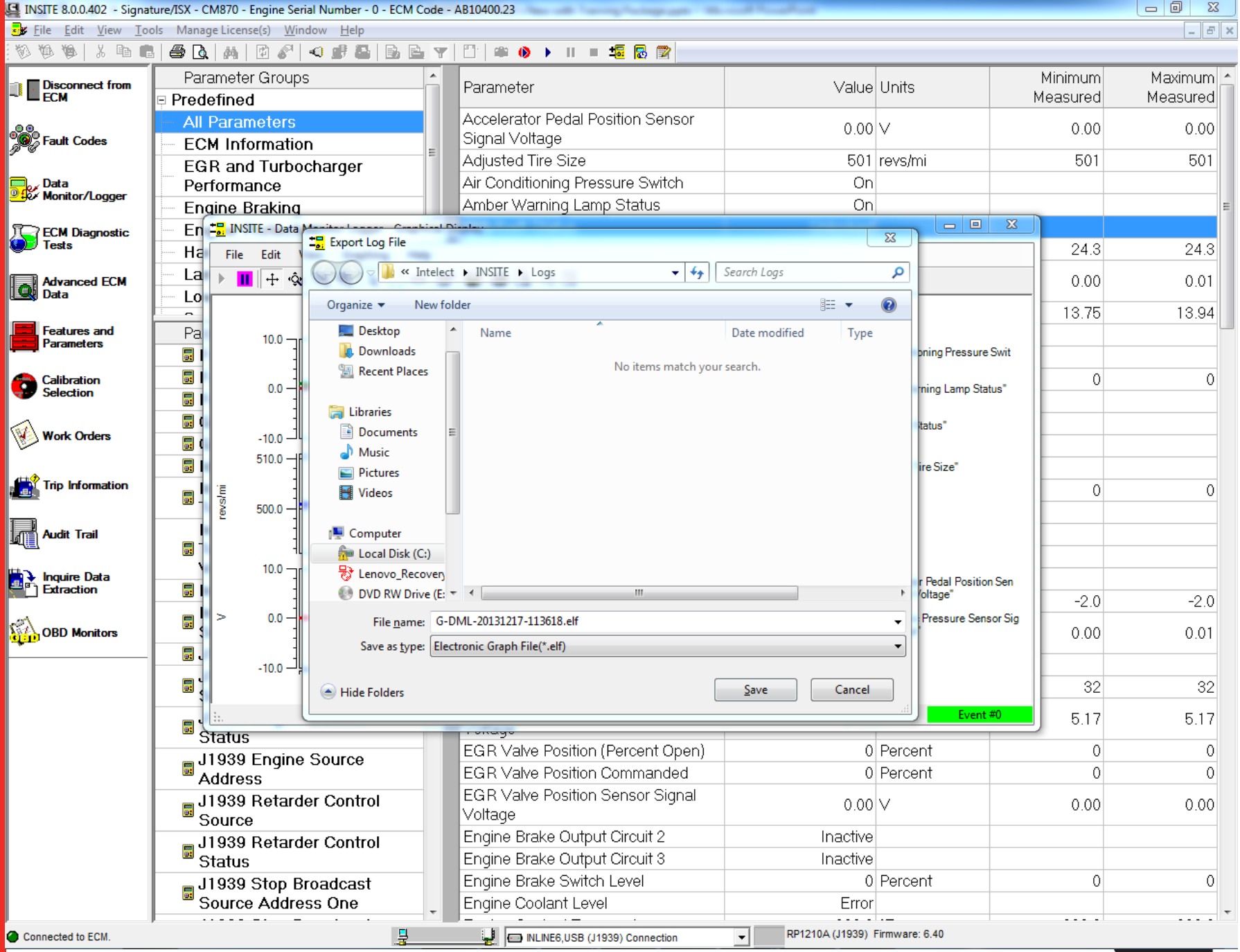
Engine Braking
Parameter
Value
Units
Minimum Measured
Maximum Measured
Accelerator Pedal Position Sensor Signal Voltage
0.00 V
Adjusted Tire Size
501 revs/mi
Air Conditioning Pressure Switch
On
Amber Warning Lamp Status
On
INSITE - Data Monitor Logger - Graphical Display
File Edit View Graphing Help
Signature/ISX - CM870
Save Log File
Choose log file format
File Formats
Electronic Graph File(*.elf)
Comma Separated File(*.csv) or Tab Delimited File(*.txt)
Save
Cancel
"Barometric Pressure Sensor Signal Voltage"
Event #0
Select the format and click Save
J1939 Engine Source Address
J1939 Retarder Control Source
J1939 Retarder Control Status
J1939 Stop Broadcast Source Address One
Engine Brake Output Circuit 2 Inactive
Engine Brake Output Circuit 3 Inactive
Engine Brake Switch Level 0 Percent
Engine Coolant Level Error
Connected to ECM.
INLINE6,USB (J1939) Connection
RP1210A (J1939) Firmware: 6.40


INSITE 8.0.0.402 - Signature/ISX - CM870 - Engine Serial Number - 0 - ECM Code - AB10400.23
File Edit View Tools Manage License(s) Window Help
Disconnect from ECM
Fault Codes
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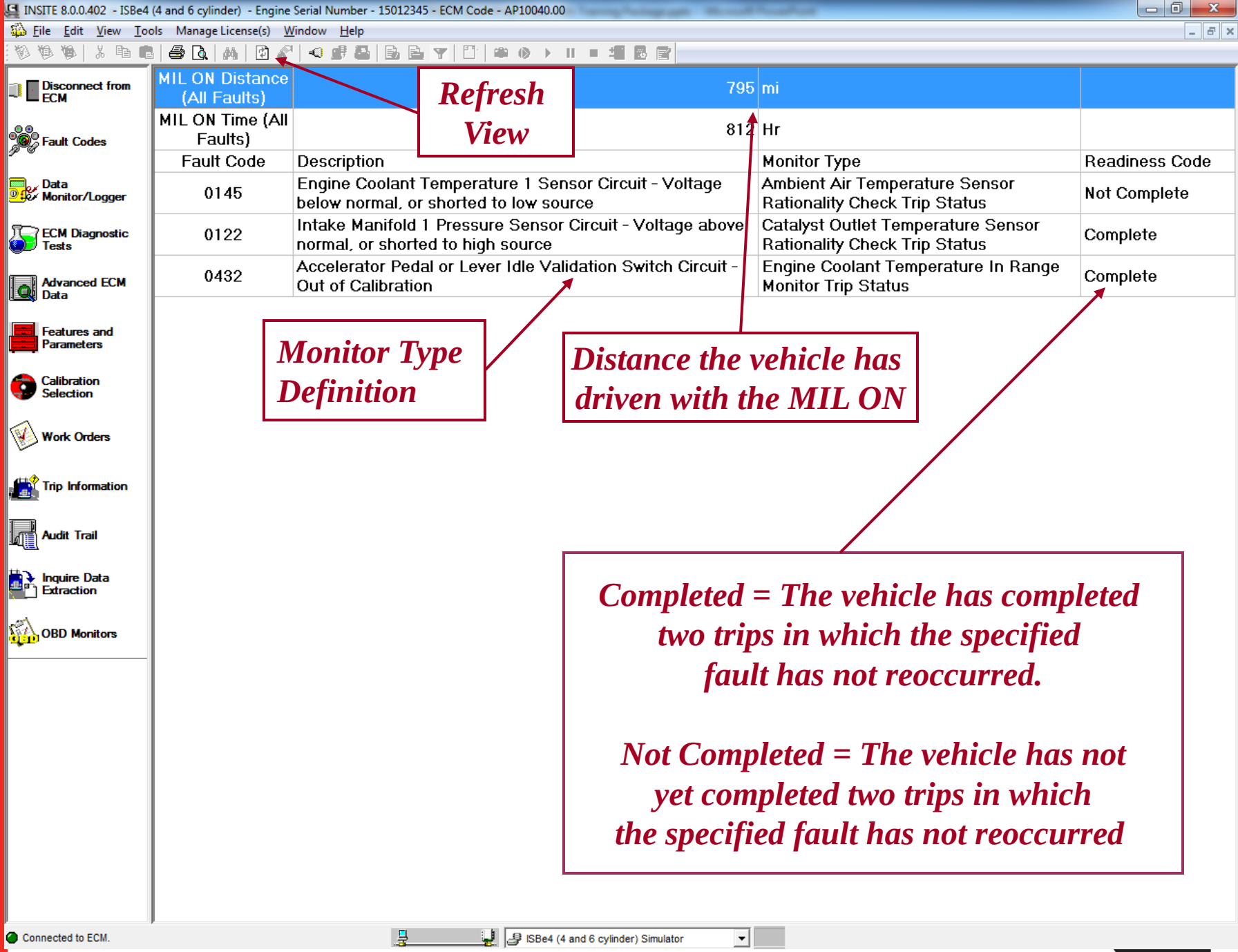
Parameter Groups
Predefined
All Parameters
ECM Information
EGR and Turbocharger Performance
Engine Braking
Parameter
Value
Units
Minimum Measured
Maximum Measured
Accelerator Pedal Position Sensor Signal Voltage 0.00 V 0.00 0.00
Adjusted Tire Size 501 revs/mi 501 501
Air Conditioning Pressure Switch On
Amber Warning Lamp Status On
Export Log File
« Intelect ▸ INSITE ▸ Logs
Search Logs
Organize New folder
Desktop
Downloads
Recent Places
Libraries
Documents
Music
Pictures
Videos
Computer
Local Disk (C:)
Lenovo_Recovery
DVD RW Drive (E:
Name
Date modified
Type
No items match your search.
File name: G-DML-20131217-113618.elf
Save as type: Electronic Graph File(*.elf)
Hide Folders
Save
Cancel
Event #0
J1939 Engine Source Address
J1939 Retarder Control Source
J1939 Retarder Control Status
J1939 Stop Broadcast Source Address One
EGR Valve Position (Percent Open) 0 Percent 0 0
EGR Valve Position Commanded 0 Percent 0 0
EGR Valve Position Sensor Signal Voltage 0.00 V 0.00 0.00
Engine Brake Output Circuit 2 Inactive
Engine Brake Output Circuit 3 Inactive
Engine Brake Switch Level 0 Percent 0 0
Engine Coolant Level Error
Connected to ECM.
INLINE6,USB (J1939) Connection
RP1210A (J1939) Firmware: 6.40

Data Monitor / Logger Wrap Up

- Data Monitor/Logger provides a means to View, Log or Snapshot live engine data
- Log and Snapshot files can be saved as a CSV or Tab delimited (.txt) files for analysis in Excel
- The Data Monitor/Logger appearance can be modified through Tools → Options to display data in a larger font
- Graphical Monitoring is a way to display, log, print, and save data for up to six parameters in a graph

OBD Monitors

- The OBD system monitors components that can affect the emission performance of the vehicle
- Displays a map of all available fault codes with associated monitor type and its readiness status.
- OBD Monitors are never cleared from this view
- User can refresh the view


INSITE 8.0.0.402 - ISBe4 (4 and 6 cylinder) - Engine Serial Number - 15012345 - ECM Code - AP10040.00
File Edit View Tools Manage License(s) Window Help
Disconnect from ECM
Fault Codes
Data Monitor/Logger
ECM Diagnostic Tests
Advanced ECM Data
Features and Parameters
Calibration Selection
Work Orders
Trip Information
Audit Trail
Inquire Data Extraction
OBD Monitors
MIL ON Distance (All Faults) 795 mi
MIL ON Time (All Faults) 812 Hr
Fault Code | Description | Monitor Type | Readiness Code
0145 | Engine Coolant Temperature 1 Sensor Circuit - Voltage below normal, or shorted to low source | Ambient Air Temperature Sensor Rationality Check Trip Status | Not Complete
0122 | Intake Manifold 1 Pressure Sensor Circuit - Voltage above normal, or shorted to high source | Catalyst Outlet Temperature Sensor Rationality Check Trip Status | Complete
0432 | Accelerator Pedal or Lever Idle Validation Switch Circuit - Out of Calibration | Engine Coolant Temperature In Range Monitor Trip Status | Complete
Refresh View
Monitor Type Definition
Distance the vehicle has driven with the MIL ON
Completed = The vehicle has completed two trips in which the specified fault has not reoccurred.
Not Completed = The vehicle has not yet completed two trips in which the specified fault has not reoccurred
Connected to ECM.
ISBe4 (4 and 6 cylinder) Simulator

You have concluded this section of the training.

Please click to the next slide and continue or Click Here to return to the Table of Content.

INSITE™ ECM Diagnostic Tests and Advanced ECM Data

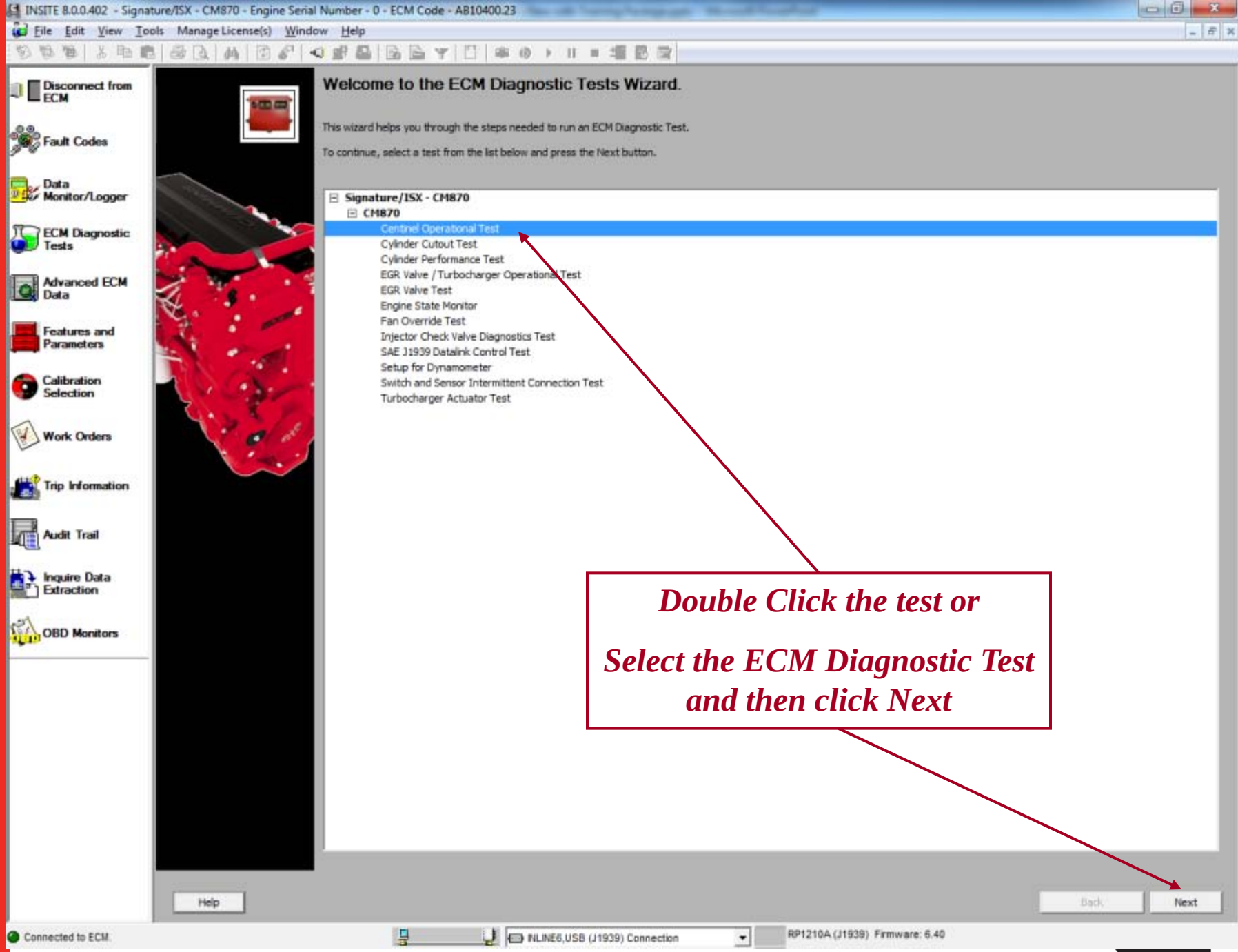
Electronic Service Tools

Innovation You Can Depend On™

ECM Diagnostic Tests

- ECM Diagnostic Tests window displays tests available for the connected engine

- Each Engine supports different ECM Diagnostic Tests


INSITE 8.0.0.402 - Signature/ISX - CM870 - Engine Serial Number - 0 - ECM Code - AB10400.23
File Edit View Tools Manage License(s) Window Help
Disconnect from ECM
Fault Codes
Data Monitor/Logger
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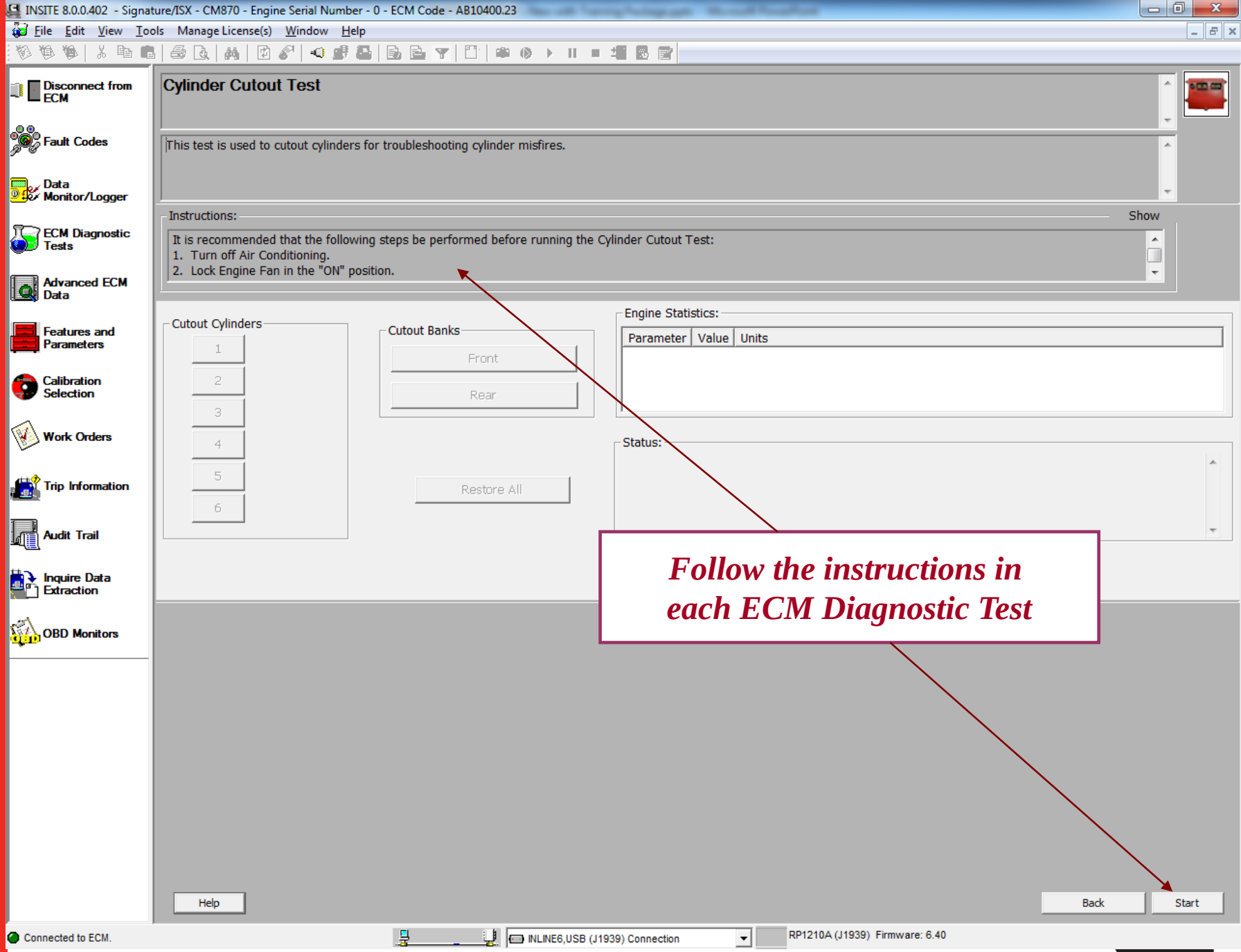
Inquire Data Extraction
OBD Monitors
Welcome to the ECM Diagnostic Tests Wizard.
This wizard helps you through the steps needed to run an ECM Diagnostic Test.
To continue, select a test from the list below and press the Next button.
Signature/ISX - CM870
CM870
Centinel Operational Test
Cylinder Cutout Test
Cylinder Performance Test
EGR Valve / Turbocharger Operational Test
EGR Valve Test
Engine State Monitor
Fan Override Test
Injector Check Valve Diagnostics Test
SAE J1939 Datalink Control Test
Setup for Dynamometer
Switch and Sensor Intermittent Connection Test
Turbocharger Actuator Test
Double Click the test or
Select the ECM Diagnostic Test and then click Next
Help
Back
Next
Connected to ECM.
INLINE6,USB (J1939) Connection
RP1210A (J1939) Firmware: 6.40


INSITE 8.0.0.402 - Signature/ISX - CM870 - Engine Serial Number - 0 - ECM Code - AB10400.23
File Edit View Tools Manage License(s) Window Help
Disconnect from ECM
Fault Codes
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Advanced ECM Data
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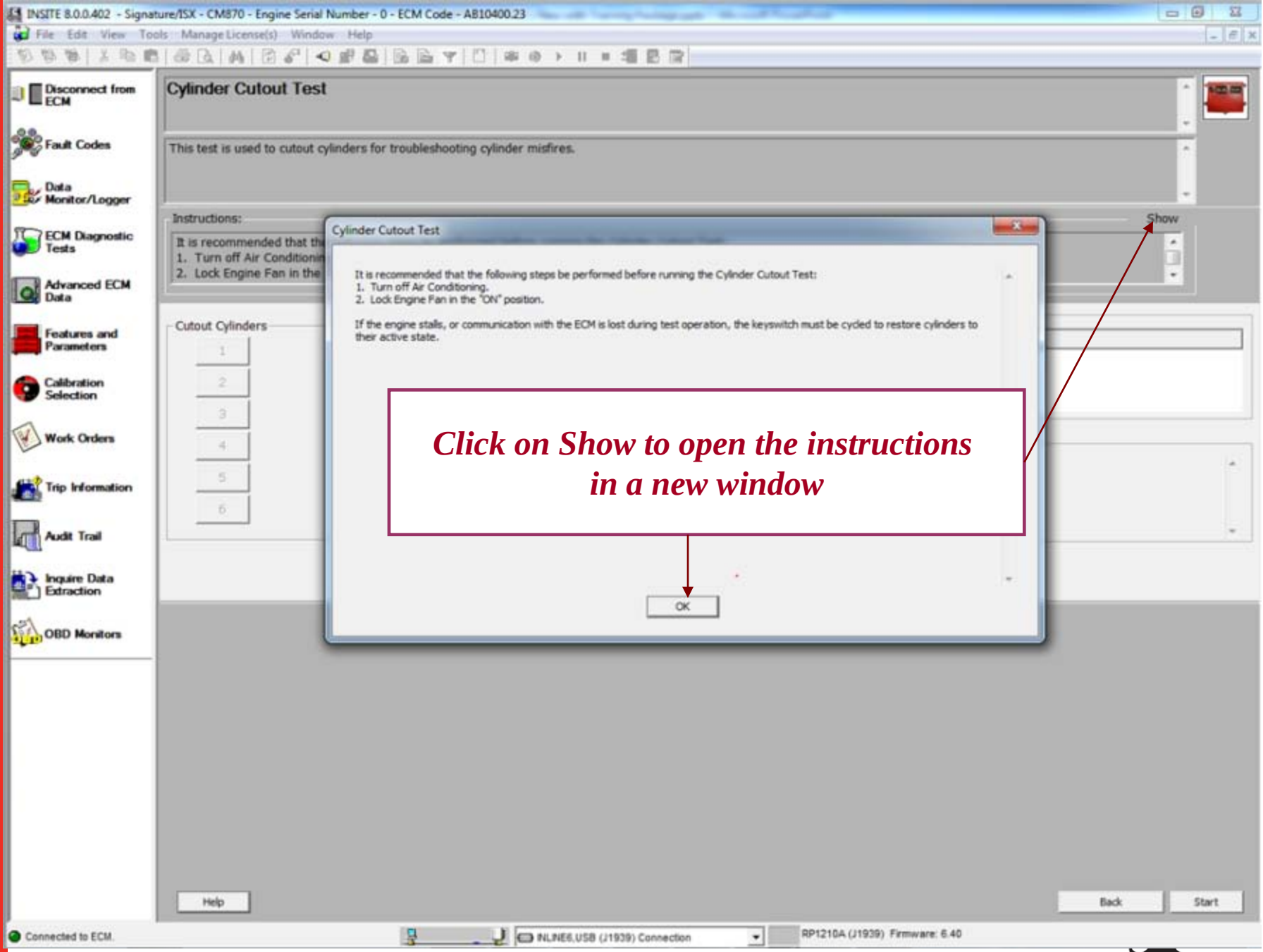
Inquire Data Extraction
OBD Monitors
Cylinder Cutout Test
This test is used to cutout cylinders for troubleshooting cylinder misfires.
Instructions:
Show
It is recommended that the following steps be performed before running the Cylinder Cutout Test:
1. Turn off Air Conditioning.
2. Lock Engine Fan in the "ON" position.
Cutout Cylinders
1
2
3
4
5
6
Cutout Banks
Front
Rear
Restore All
Engine Statistics:
Parameter
Value
Units
Status:
Follow the instructions in each ECM Diagnostic Test
Help
Back
Start
Connected to ECM.
INLINE6,USB (J1939) Connection
RP1210A (J1939) Firmware: 6.40


INSITE 8.0.0.402 - Signature/ISX - CM870 - Engine Serial Number - 0 - ECM Code - AB10400.23
File Edit View Tools Manage License(s) Window Help
Disconnect from ECM
Fault Codes
Data Monitor/Logger
ECM Diagnostic Tests
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Audit Trail
Inquire Data Extraction
OBD Monitors
Cylinder Cutout Test
This test is used to cutout cylinders for troubleshooting cylinder misfires.
Instructions:
Show
Cutout Cylinders
1
2
3
4
5
6
Cylinder Cutout Test
It is recommended that the following steps be performed before running the Cylinder Cutout Test:
1. Turn off Air Conditioning.
2. Lock Engine Fan in the "ON" position.
If the engine stalls, or communication with the ECM is lost during test operation, the keyswitch must be cycled to restore cylinders to their active state.
OK
Click on Show to open the instructions in a new window
Help
Back
Start
Connected to ECM.
INLINE6.USB (J1939) Connection
RP1210A (J1939) Firmware: 6.40

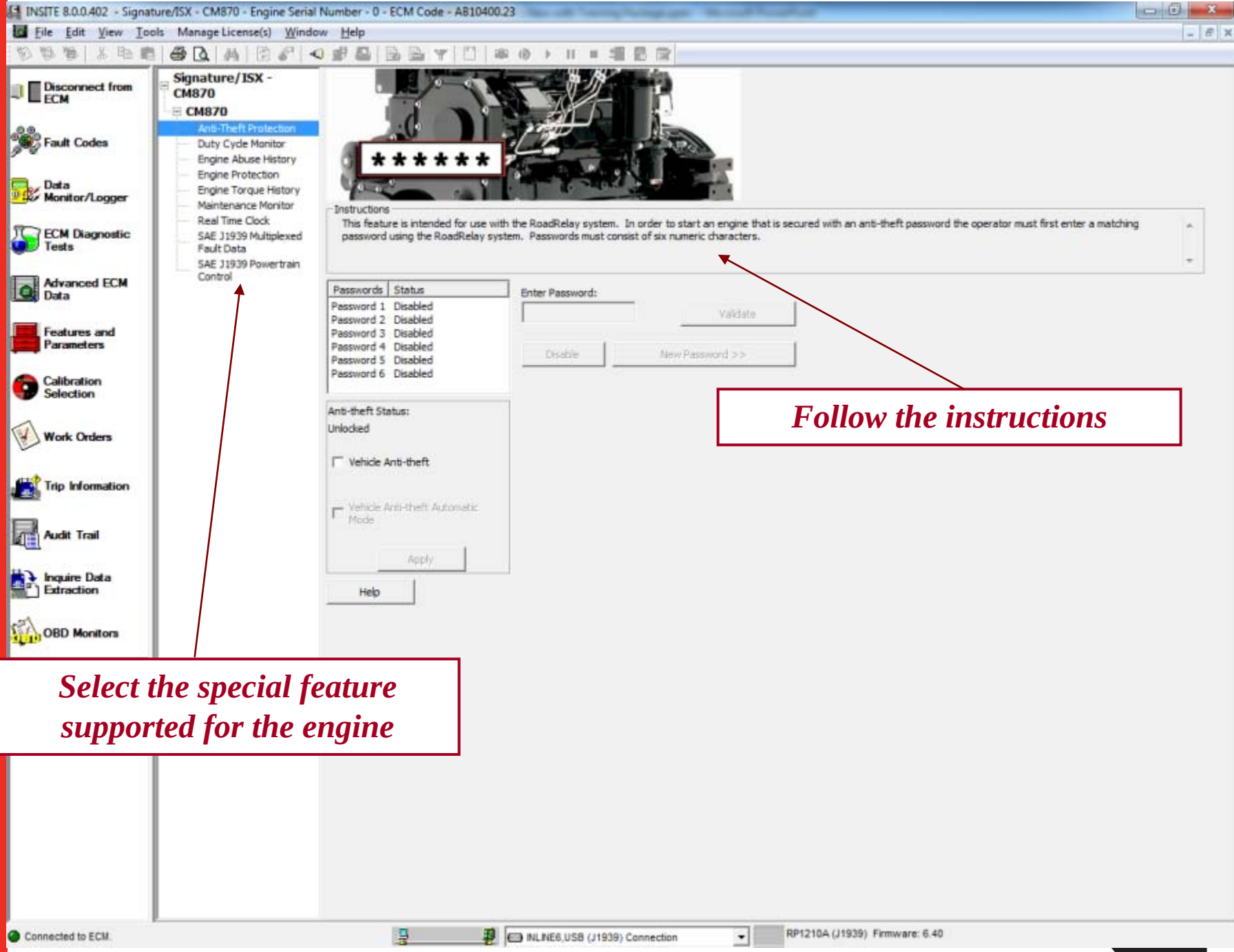
ECM Diagnostic Tests Wrap Up

- Each Engine supports different ECM Diagnostic Tests
- Follow the directions of each test carefully

Advanced ECM Data

- Advanced ECM Data window displays the special features available for the connected engine

- Each Engine supports different special features


INSITE 8.0.0.402 - Signature/ISX - CM870 - Engine Serial Number - 0 - ECM Code - AB10400.23
File Edit View Tools Manage License(s) Window Help
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OBD Monitors
Signature/ISX - CM870
CM870
Anti-Theft Protection
Duty Cycle Monitor
Engine Abuse History
Engine Protection
Engine Torque History
Maintenance Monitor
Real Time Clock
SAE J1939 Multiplexed Fault Data
SAE J1939 Powertrain Control
******
Instructions
This feature is intended for use with the RoadRelay system. In order to start an engine that is secured with an anti-theft password the operator must first enter a matching password using the RoadRelay system. Passwords must consist of six numeric characters.
Passwords Status
Password 1 Disabled
Password 2 Disabled
Password 3 Disabled
Password 4 Disabled
Password 5 Disabled
Password 6 Disabled
Enter Password:
Validate
Disable
New Password >>
Anti-theft Status:
Unlocked
Vehicle Anti-theft
Vehicle Anti-theft Automatic Mode
Apply
Help
Follow the instructions
Select the special feature supported for the engine
Connected to ECM
INLINE6,USB (J1939) Connection
RP1210A (J1939) Firmware: 6.40

Advanced ECM Data Wrap Up

- Each Engine supports different special features
- Follow the directions of each feature carefully

You have concluded this section of the training.

Please click to the next slide and continue or Click Here to return to the Table of Content.

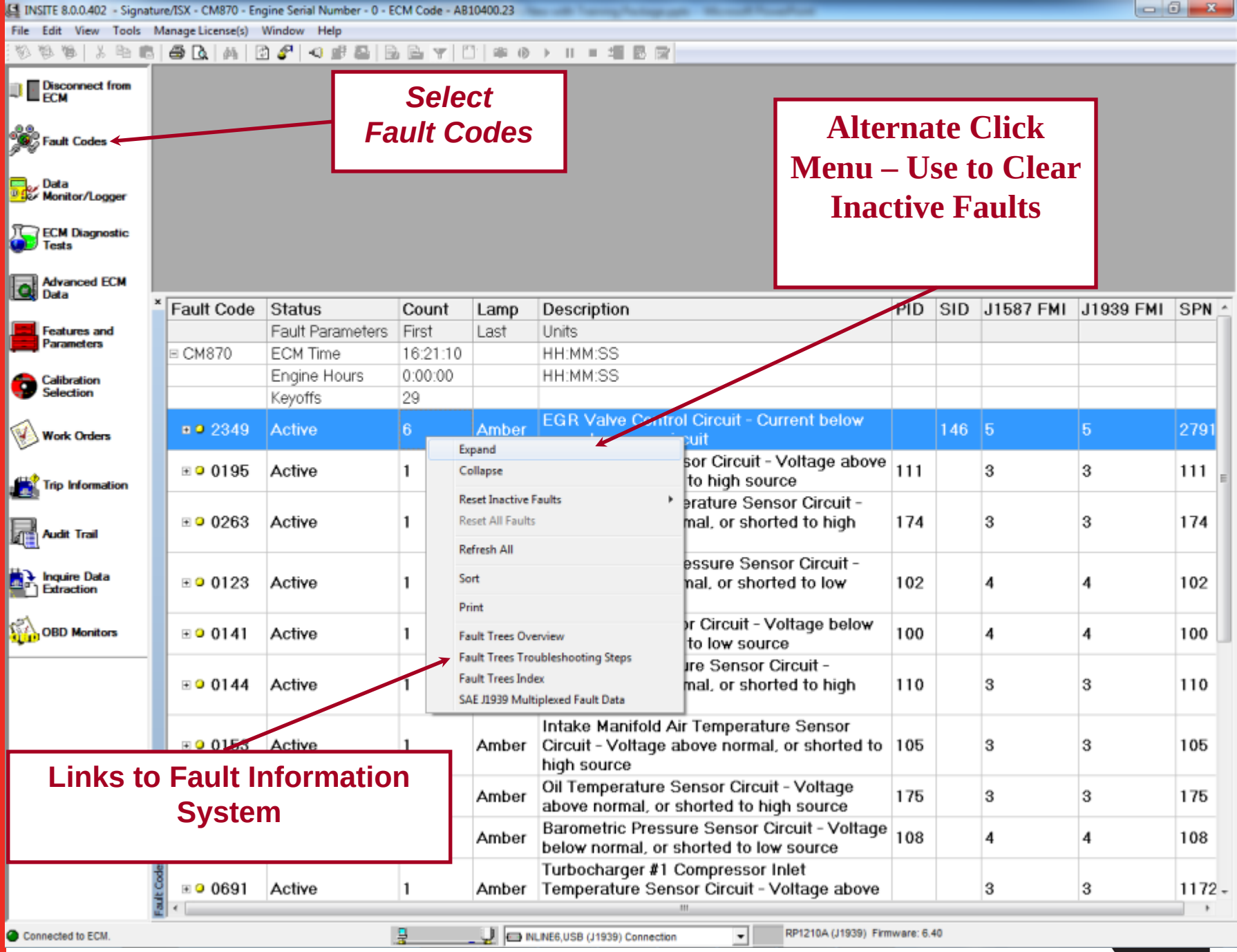
INSITE™ Fault Codes

Electronic Service Tools

Innovation You Can Depend On™

Fault Codes

- Fault Codes window displays an engine's fault data
- Fault Codes include both engine faults and engine protection faults
- Each fault is represented by a Cummins fault code
  - Indicates a specific malfunction or abnormal condition within the controller, subsystem, or engine
- Ability to link to Fault Information System for Troubleshooting Information


INSITE 8.0.0.402 - Signature/ISX - CM870 - Engine Serial Number - 0 - ECM Code - AB10400.23
File Edit View Tools Manage License(s) Window Help
Disconnect from ECM
Fault Codes
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ECM Diagnostic Tests
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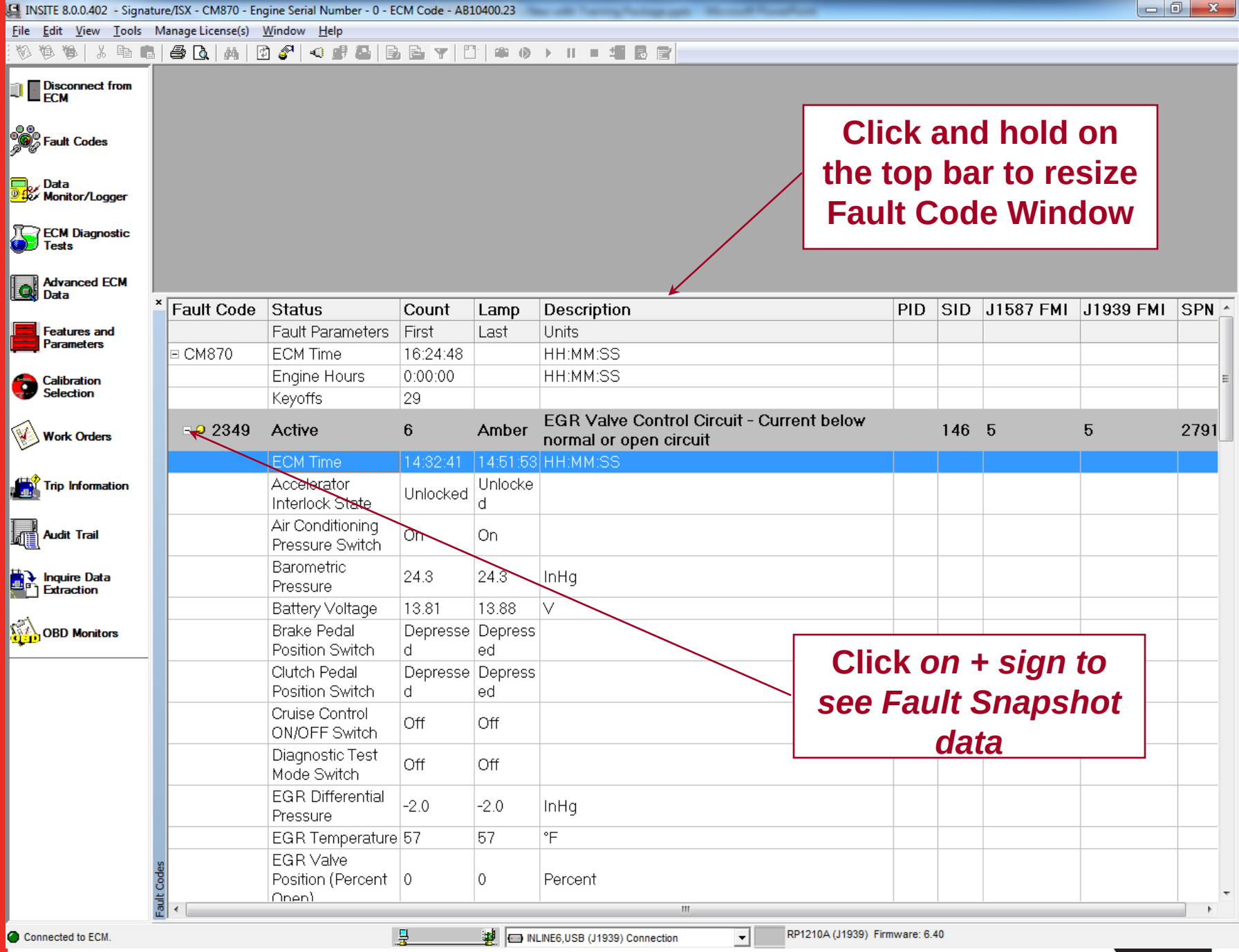
Inquire Data Extraction
OBD Monitors
Select Fault Codes
Alternate Click Menu – Use to Clear Inactive Faults
Links to Fault Information System
Fault Code | Status | Count | Lamp | Description | PID | SID | J1587 FMI | J1939 FMI | SPN
Fault Parameters | First | Last | Units
CM870 | ECM Time | 16:21:10 | HH:MM:SS
Engine Hours | 0:00:00 | HH:MM:SS
Keyoffs | 29
2349 | Active | 6 | Amber | EGR Valve Control Circuit - Current below | 146 | 5 | 5 | 2791
0195 | Active | 1 | to high source | 111 | 3 | 3 | 111
0263 | Active | 1 | mal, or shorted to high | 174 | 3 | 3 | 174
0123 | Active | 1 | nal, or shorted to low | 102 | 4 | 4 | 102
0141 | Active | 1 | to low source | 100 | 4 | 4 | 100
0144 | Active | 1 | mal, or shorted to high | 110 | 3 | 3 | 110
Active | 1 | Amber | Intake Manifold Air Temperature Sensor Circuit - Voltage above normal, or shorted to high source | 105 | 3 | 3 | 105
Amber | Oil Temperature Sensor Circuit - Voltage above normal, or shorted to high source | 175 | 3 | 3 | 175
Amber | Barometric Pressure Sensor Circuit - Voltage below normal, or shorted to low source | 108 | 4 | 4 | 108
0691 | Active | 1 | Amber | Turbocharger #1 Compressor Inlet Temperature Sensor Circuit - Voltage above | 3 | 3 | 1172
Expand
Collapse
Reset Inactive Faults
Reset All Faults
Refresh All
Sort
Print
Fault Trees Overview
Fault Trees Troubleshooting Steps
Fault Trees Index
SAE J1939 Multiplexed Fault Data
Connected to ECM.
INLINE6,USB (J1939) Connection
RP1210A (J1939) Firmware: 6.40


INSITE 8.0.0.402 - Signature/ISX - CM870 - Engine Serial Number - 0 - ECM Code - AB10400.23
File Edit View Tools Manage License(s) Window Help
Disconnect from ECM
Fault Codes
Data Monitor/Logger
ECM Diagnostic Tests
Advanced ECM Data
Features and Parameters
Calibration Selection
Work Orders
Trip Information
Audit Trail
Inquire Data Extraction
OBD Monitors
Click and hold on the top bar to resize Fault Code Window
Fault Code | Status | Count | Lamp | Description | PID | SID | J1587 FMI | J1939 FMI | SPN
Fault Parameters | First | Last | Units
CM870 | ECM Time | 16:24:48 | HH:MM:SS
Engine Hours | 0:00:00 | HH:MM:SS
Keyoffs | 29
2349 | Active | 6 | Amber | EGR Valve Control Circuit - Current below normal or open circuit | 146 | 5 | 5 | 2791
ECM Time | 14:32:41 | 14:51:53 | HH:MM:SS
Accelerator Interlock State | Unlocked | Unlocked
Air Conditioning Pressure Switch | On | On
Barometric Pressure | 24.3 | 24.3 | InHg
Battery Voltage | 13.81 | 13.88 | V
Brake Pedal Position Switch | Depressed | Depressed
Clutch Pedal Position Switch | Depressed | Depressed
Cruise Control ON/OFF Switch | Off | Off
Diagnostic Test Mode Switch | Off | Off
EGR Differential Pressure | -2.0 | -2.0 | InHg
EGR Temperature | 57 | 57 | °F
EGR Valve Position (Percent Open) | 0 | 0 | Percent
Click on + sign to see Fault Snapshot data
Fault Codes
Connected to ECM.
INLINE6,USB (J1939) Connection
RP1210A (J1939) Firmware: 6.40

Signature and ISX CM870 (FIS4021334)

Hide Back Forward Refresh Print

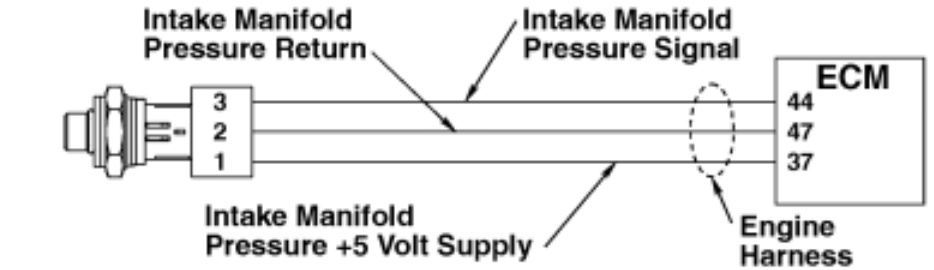
Contents Search Favorites

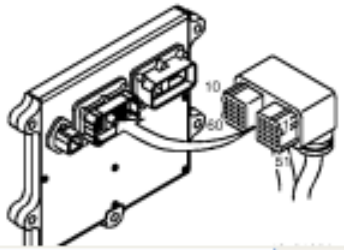
- Troubleshooting
  - (70-fc111) E
  - (70-fc122) I
  - (70-fc123) I
  - (70-fc131) A
  - (70-fc132) A
  - (70-fc133) R
  - (70-fc134) R
  - (70-fc135) E
  - (70-fc141) E
  - (70-fc143) E
  - (70-fc144) C
  - (70-fc145) C
  - (70-fc151) E
  - (70-fc153) I
  - (70-fc154) I
  - (70-fc155) I
  - (70-fc187) S
  - (70-fc195) E
  - (70-fc195-2
  - (70-fc195-3
  - (70-fc196) E
  - (70-fc196-2
  - (70-fc196-3
  - (70-fc197) E
  - (70-fc212) C
  - (70-fc213) C
  - (70-fc214) E
  - (70-fc219) C

Overview

CODE	REASON	EFFECT
Fault Code: 122 PID: P102 SPN: 102 FMI: 3/3 LAMP: Amber SRT:	Intake Manifold Pressure Sensor Circuit - shorted high. High signal voltage detected at the intake manifold pressure circuit.	Engine power derate

Intake Manifold Pressure Sensor Circuit



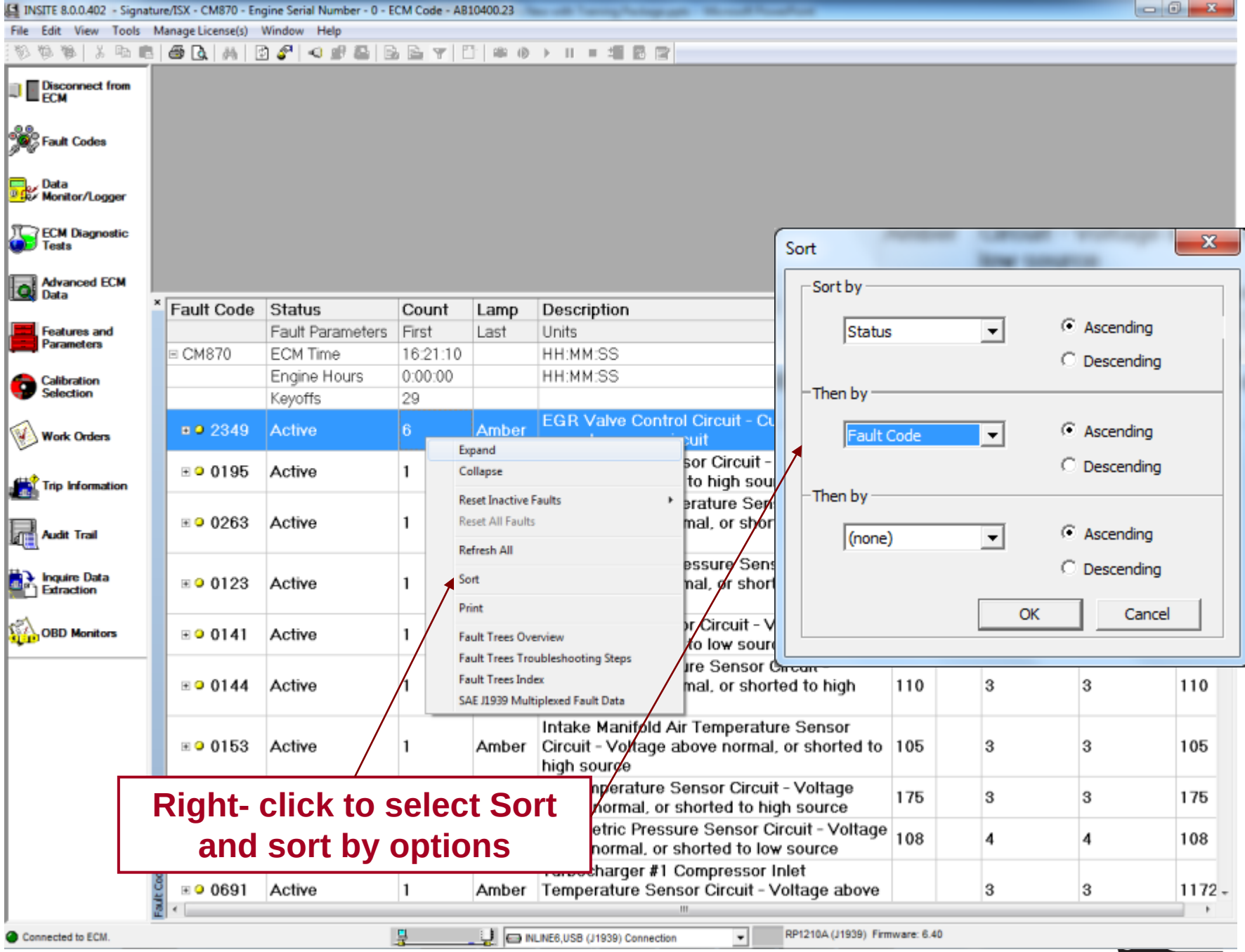


Fault Codes Sorting

- Fault Codes can be sorted by either the column, or by right click for multiple column sorting
- The Fault Code data can be sorted by clicking on the column header for a single column sort
- The data will be sorted based on the selected column in ascending order. Click on the column header again to resort the data in descending order

Note: *Sorting can only be used on the Fault Code, Status, Count, or Lamp columns*

Back to What's New Agenda


INSITE 8.0.0.402 - Signature/ISX - CM870 - Engine Serial Number - 0 - ECM Code - AB10400.23
File Edit View Tools Manage License(s) Window Help
Disconnect from ECM
Fault Codes
Data Monitor/Logger
ECM Diagnostic Tests
Advanced ECM Data
Features and Parameters
Calibration Selection
Work Orders
Trip Information
Audit Trail
Inquire Data Extraction
OBD Monitors
Fault Code
Status
Count
Lamp
Description
Fault Parameters
First
Last
Units
CM870
ECM Time
16:21:10
HH:MM:SS
Engine Hours
0:00:00
HH:MM:SS
Keyoffs
29
2349
Active
6
Amber
EGR Valve Control Circuit - Cu
0195
Active
1
0263
Active
1
0123
Active
1
0141
Active
1
0144
Active
1
0153
Active
1
Amber
Intake Manifold Air Temperature Sensor Circuit - Voltage above normal, or shorted to high source
0691
Active
1
Amber
Temperature Sensor Circuit - Voltage above
Expand
Collapse
Reset Inactive Faults
Reset All Faults
Refresh All
Sort
Print
Fault Trees Overview
Fault Trees Troubleshooting Steps
Fault Trees Index
SAE J1939 Multiplexed Fault Data
Sort
Sort by
Status
Ascending
Descending
Then by
Fault Code
Ascending
Descending
Then by
(none)
Ascending
Descending
OK
Cancel
Right- click to select Sort and sort by options
Connected to ECM.
INLINE6,USB (J1939) Connection
RP1210A (J1939) Firmware: 6.40

Fault Codes Wrap Up

- Fault Codes window shows active and inactive Fault Codes
- Alternate click
  - Link to Fault Information System for Troubleshooting information
  - Clear Inactive Faults
- Links to Troubleshooting available in the Fault Information System

You have concluded this section of the training.

Please click to the next slide and continue or Click Here to return to the Table of Content.

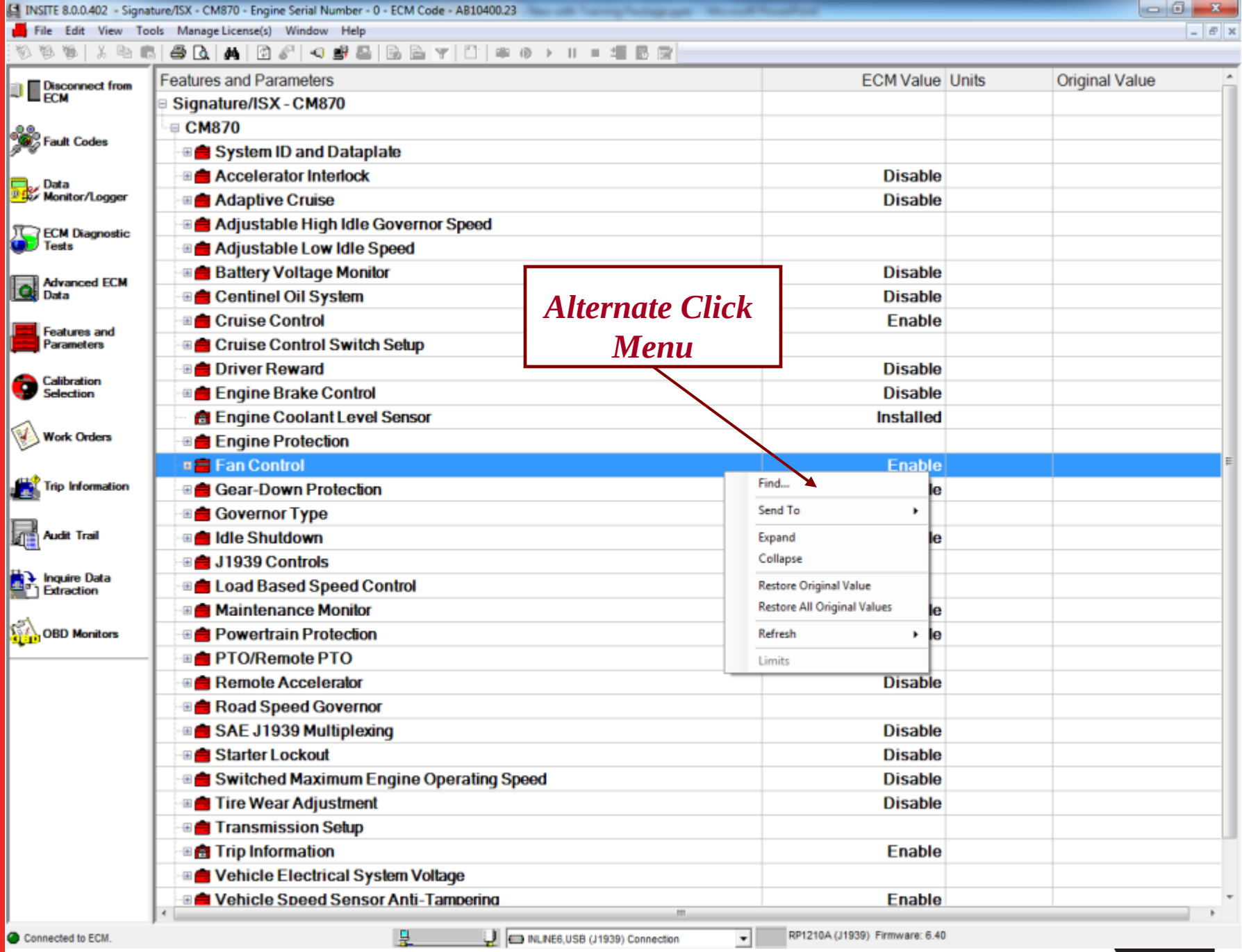
INSITE™ Features and Parameters

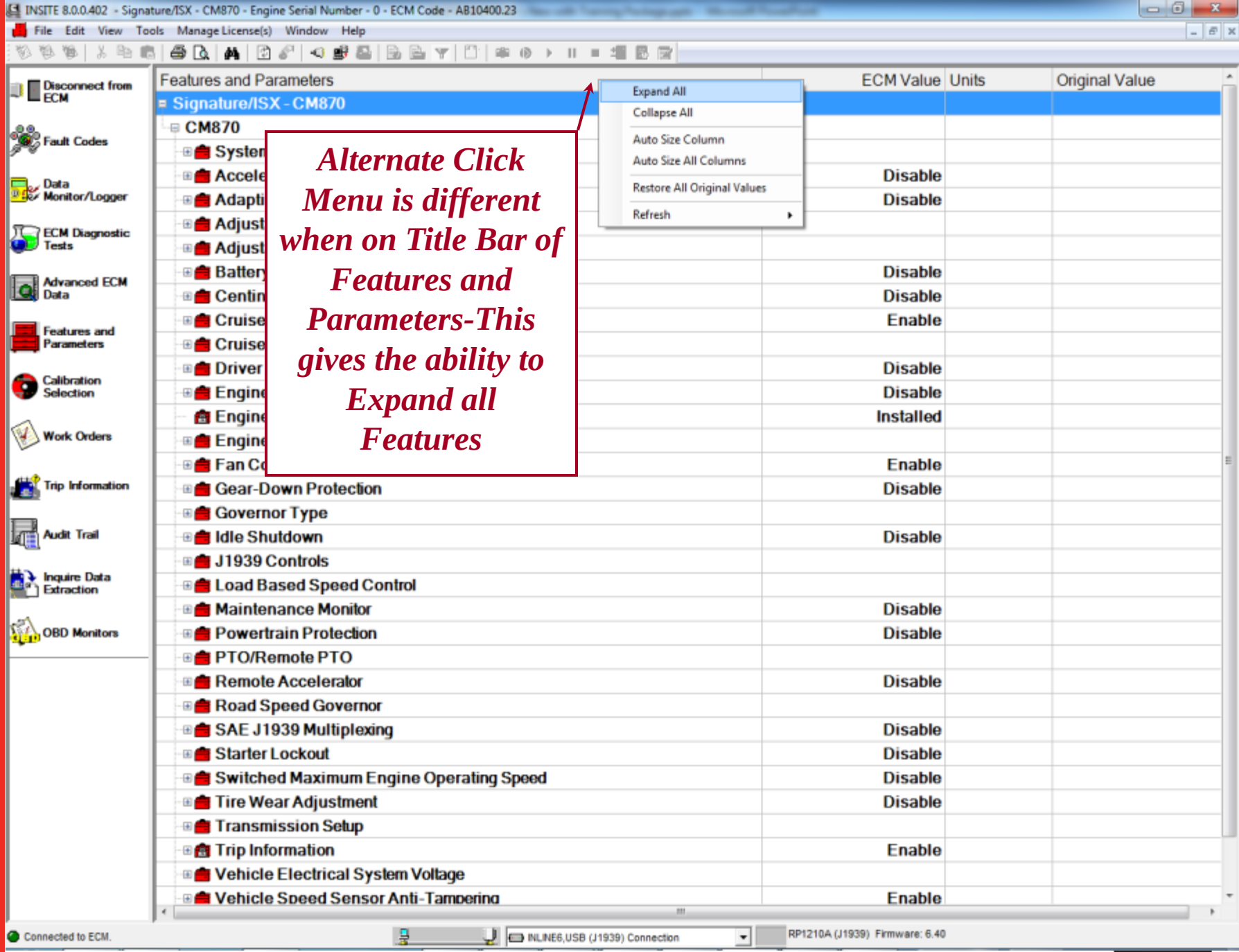
Electronic Service Tools

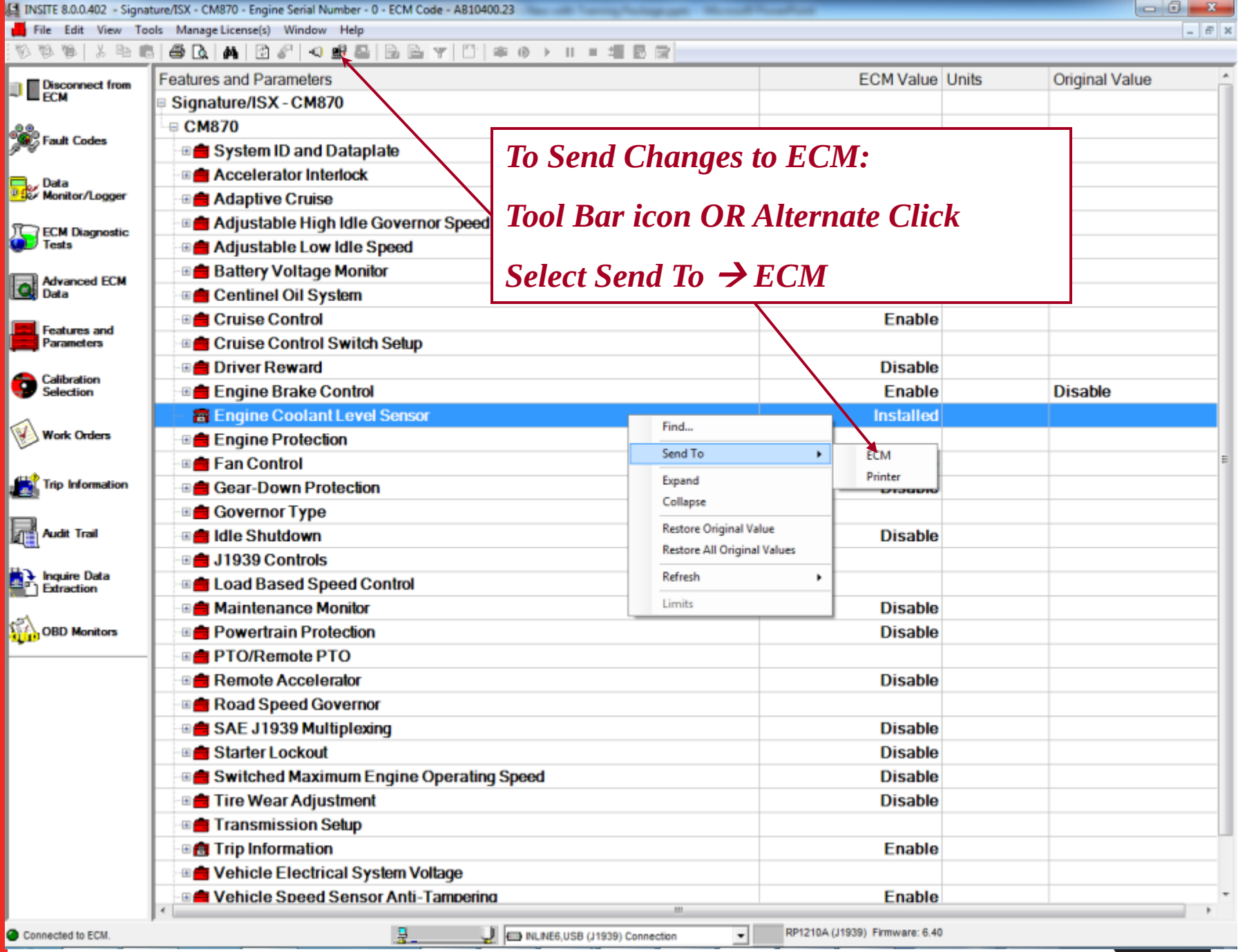
Innovation You Can Depend On™

Features and Parameters

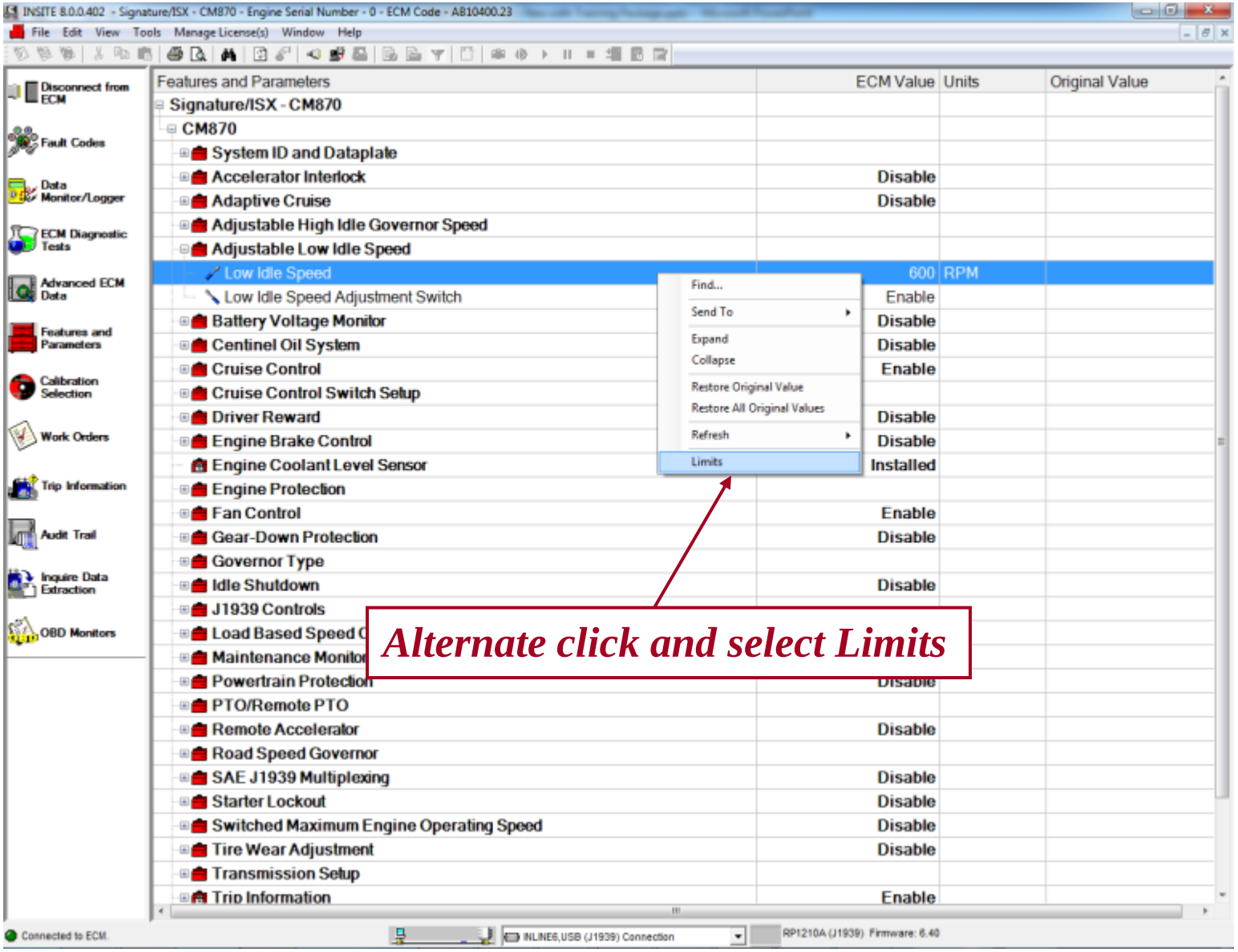
- Allows licensed user to make changes to ECM settings
- Each Engine family may have a unique set of Available Features and Parameters
- Parameters are a subset of Features
- INSITE™ lists Features and Parameters in one view - allowing multiple adjustments at once


INSITE 8.0.0.402 - Signature/ISX - CM870 - Engine Serial Number - 0 - ECM Code - AB10400.23
File Edit View Tools Manage License(s) Window Help
Disconnect from ECM
Fault Codes
Data Monitor/Logger
ECM Diagnostic Tests
Advanced ECM Data
Features and Parameters
Calibration Selection
Work Orders
Trip Information
Audit Trail
Inquire Data Extraction
OBD Monitors
Features and Parameters
ECM Value
Units
Original Value
Signature/ISX - CM870
CM870
System ID and Dataplate
Accelerator Interlock Disable
Adaptive Cruise Disable
Adjustable High Idle Governor Speed
Adjustable Low Idle Speed
Battery Voltage Monitor Disable
Centinel Oil System Disable
Cruise Control Enable
Cruise Control Switch Setup
Driver Reward Disable
Engine Brake Control Disable
Engine Coolant Level Sensor Installed
Engine Protection
Fan Control Enable
Gear-Down Protection
Governor Type
Idle Shutdown
J1939 Controls
Load Based Speed Control
Maintenance Monitor
Powertrain Protection
PTO/Remote PTO
Remote Accelerator Disable
Road Speed Governor
SAE J1939 Multiplexing Disable
Starter Lockout Disable
Switched Maximum Engine Operating Speed Disable
Tire Wear Adjustment Disable
Transmission Setup
Trip Information Enable
Vehicle Electrical System Voltage
Vehicle Speed Sensor Anti-Tampering Enable
Alternate Click Menu
Find...
Send To
Expand
Collapse
Restore Original Value
Restore All Original Values
Refresh
Limits
Connected to ECM.
INLINE6,USB (J1939) Connection
RP1210A (J1939) Firmware: 6.40

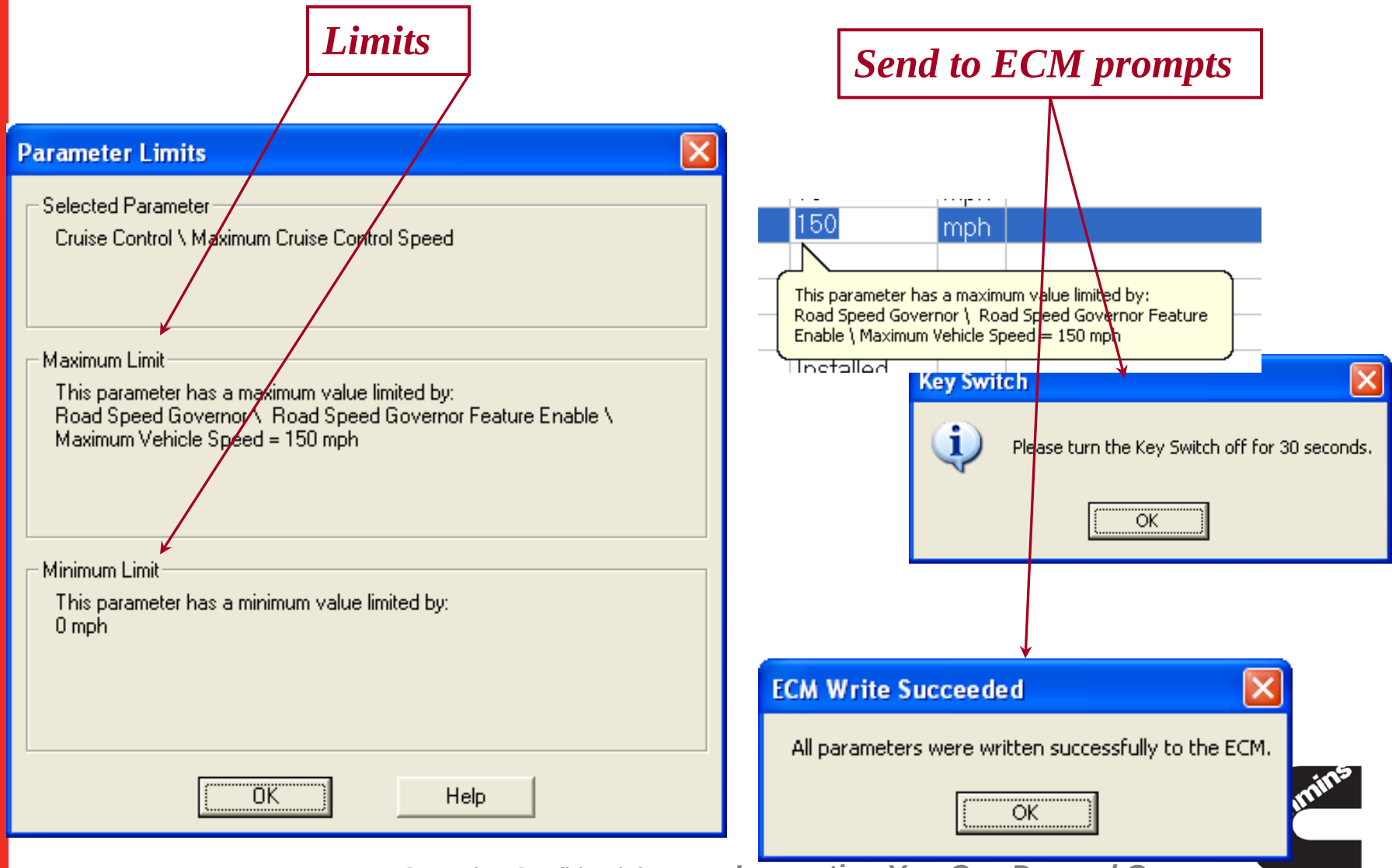

INSITE 8.0.0.402 - Signature/ISX - CM870 - Engine Serial Number - 0 - ECM Code - AB10400.23
File Edit View Tools Manage License(s) Window Help
Disconnect from ECM
Fault Codes
Data Monitor/Logger
ECM Diagnostic Tests
Advanced ECM Data
Features and Parameters
Calibration Selection
Work Orders
Trip Information
Audit Trail
Inquire Data Extraction
OBD Monitors
Features and Parameters
ECM Value
Units
Original Value
Signature/ISX - CM870
CM870
Expand All
Collapse All
Auto Size Column
Auto Size All Columns
Restore All Original Values
Refresh
Alternate Click Menu is different when on Title Bar of Features and Parameters-This gives the ability to Expand all Features
Disable
Enable
Installed
Gear-Down Protection
Governor Type
Idle Shutdown
J1939 Controls
Load Based Speed Control
Maintenance Monitor
Powertrain Protection
PTO/Remote PTO
Remote Accelerator
Road Speed Governor
SAE J1939 Multiplexing
Starter Lockout
Switched Maximum Engine Operating Speed
Tire Wear Adjustment
Transmission Setup
Trip Information
Vehicle Electrical System Voltage
Vehicle Speed Sensor Anti-Tampering
Connected to ECM.
INLINE6,USB (J1939) Connection
RP1210A (J1939) Firmware: 6.40


INSITE 8.0.0.402 - Signature/ISX - CM870 - Engine Serial Number - 0 - ECM Code - AB10400.23
File Edit View Tools Manage License(s) Window Help
Disconnect from ECM
Fault Codes
Data Monitor/Logger
ECM Diagnostic Tests
Advanced ECM Data
Features and Parameters
Calibration Selection
Work Orders
Trip Information
Audit Trail
Inquire Data Extraction
OBD Monitors
Features and Parameters
ECM Value
Units
Original Value
Signature/ISX - CM870
CM870
System ID and Dataplate
Accelerator Interlock
Adaptive Cruise
Adjustable High Idle Governor Speed
Adjustable Low Idle Speed
Battery Voltage Monitor
Centinel Oil System
Cruise Control Enable
Cruise Control Switch Setup
Driver Reward Disable
Engine Brake Control Enable Disable
Engine Coolant Level Sensor Installed
Engine Protection
Fan Control
Gear-Down Protection
Governor Type
Idle Shutdown Disable
J1939 Controls
Load Based Speed Control
Maintenance Monitor Disable
Powertrain Protection Disable
PTO/Remote PTO
Remote Accelerator Disable
Road Speed Governor
SAE J1939 Multiplexing Disable
Starter Lockout Disable
Switched Maximum Engine Operating Speed Disable
Tire Wear Adjustment Disable
Transmission Setup
Trip Information Enable
Vehicle Electrical System Voltage
Vehicle Speed Sensor Anti-Tampering Enable
Find...
Send To
Expand
Collapse
Restore Original Value
Restore All Original Values
Refresh
Limits
ECM
Printer
To Send Changes to ECM:
Tool Bar icon OR Alternate Click
Select Send To → ECM
Connected to ECM.
INLINE6,USB (J1939) Connection
RP1210A (J1939) Firmware: 6.40

Check Limits



Features and Parameters



Features and Parameters Wrap Up

- Multiple adjustments can be made at once
- Tool Tips help in adjusting parameters
- Alternate Click
  - Ability to search using Alternate Click Menu
  - Send changes to ECM
  - View Limits of a parameter
  - Expand all parameters when alternate click on title bar of Features and Parameters

You have concluded this section of the training.

Please click to the next slide and continue or Click Here to return to the Table of Content.

INSITE™ Inquire Data Extraction

Electronic Service Tools

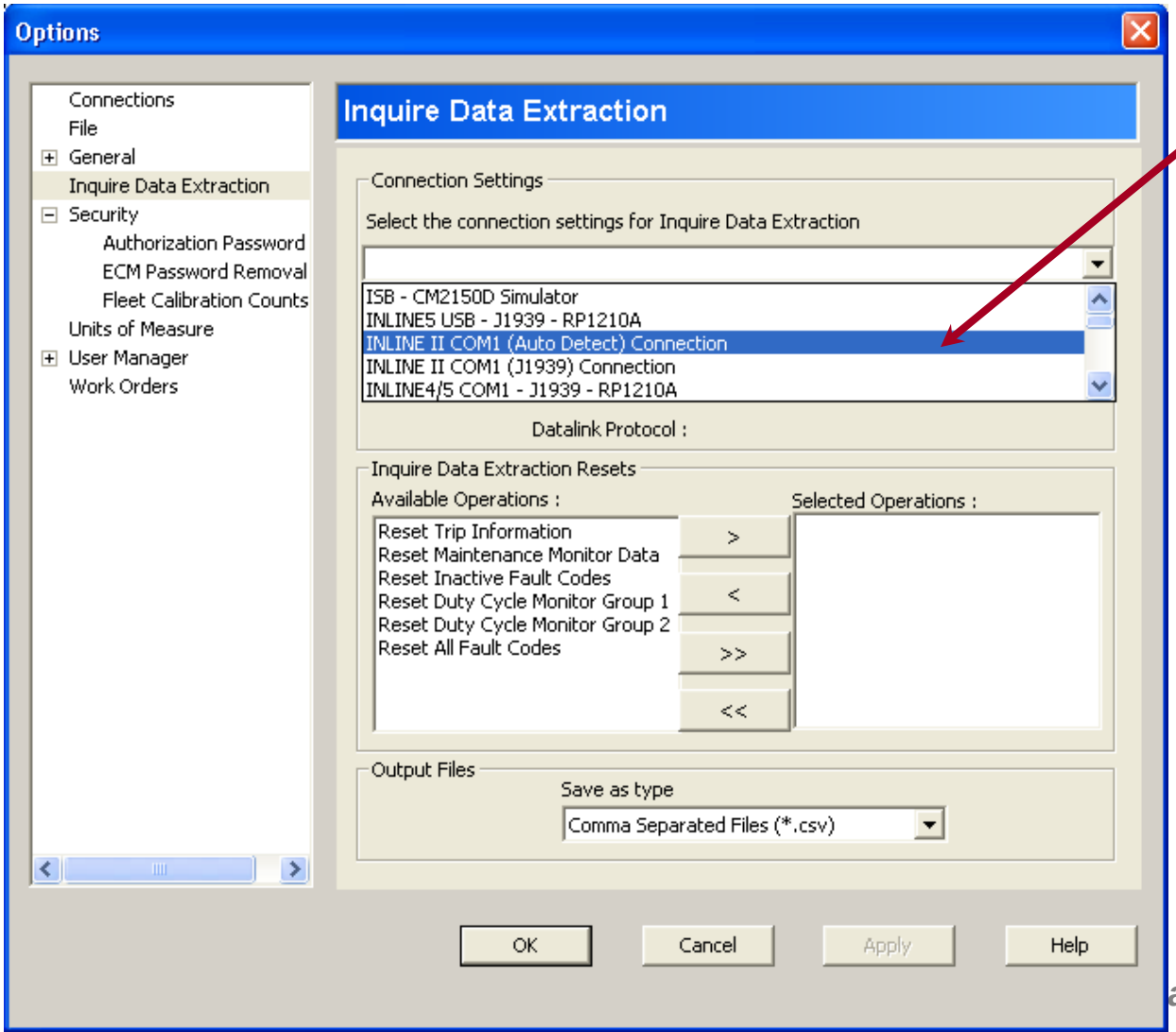
Innovation You Can Depend On™

Inquire Data Extraction

- Used to quickly extract and store ECM data
- Reset selected parameters in a connected engine
  - When no active faults or other issues are present
- Inquire Data Extraction is typically performed while fueling the vehicle
- Extracted data is saved to a ‘CSV’ (Comma Separated Value) file for future use

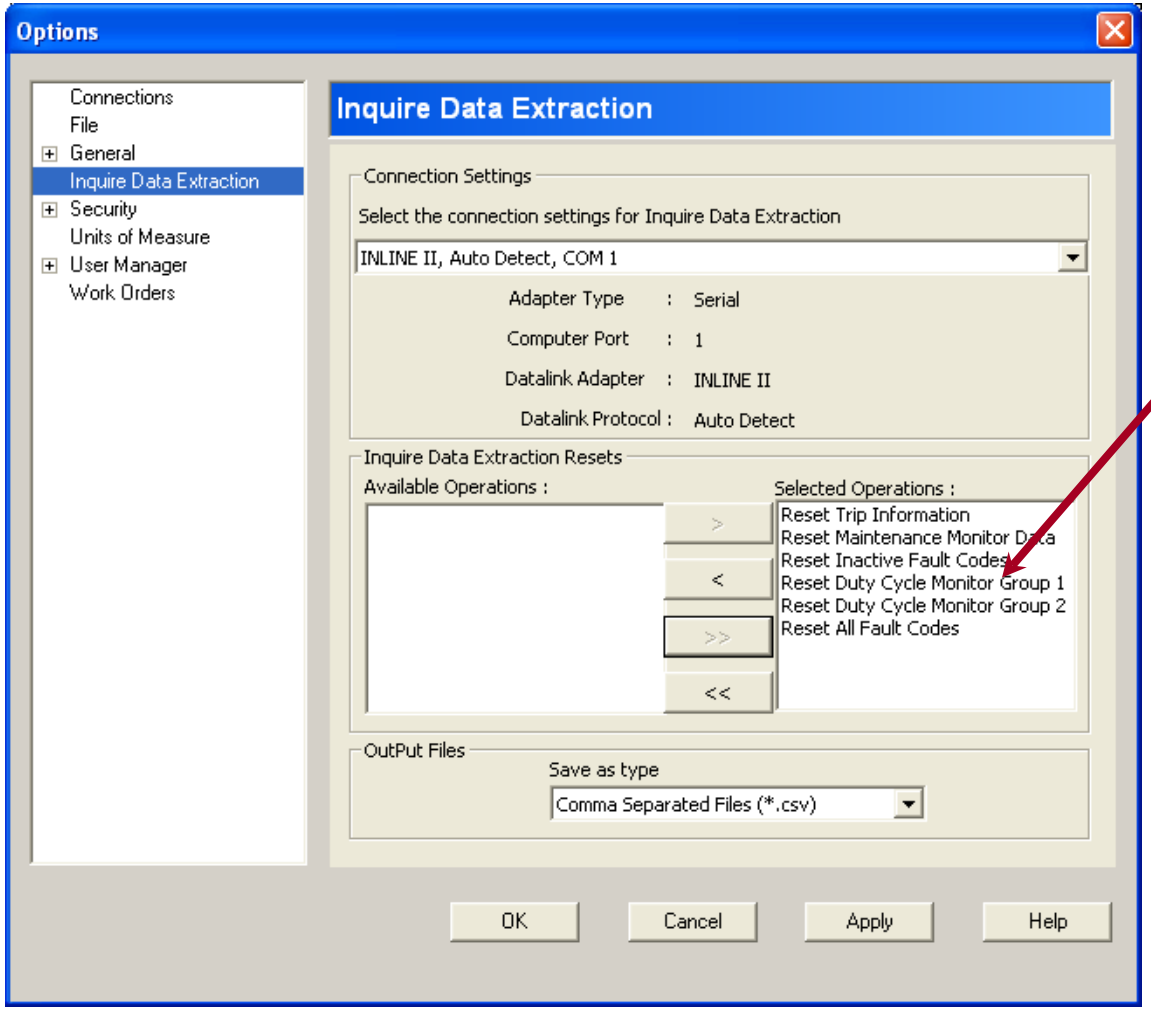
Inquire Data Extraction

Tools → Options



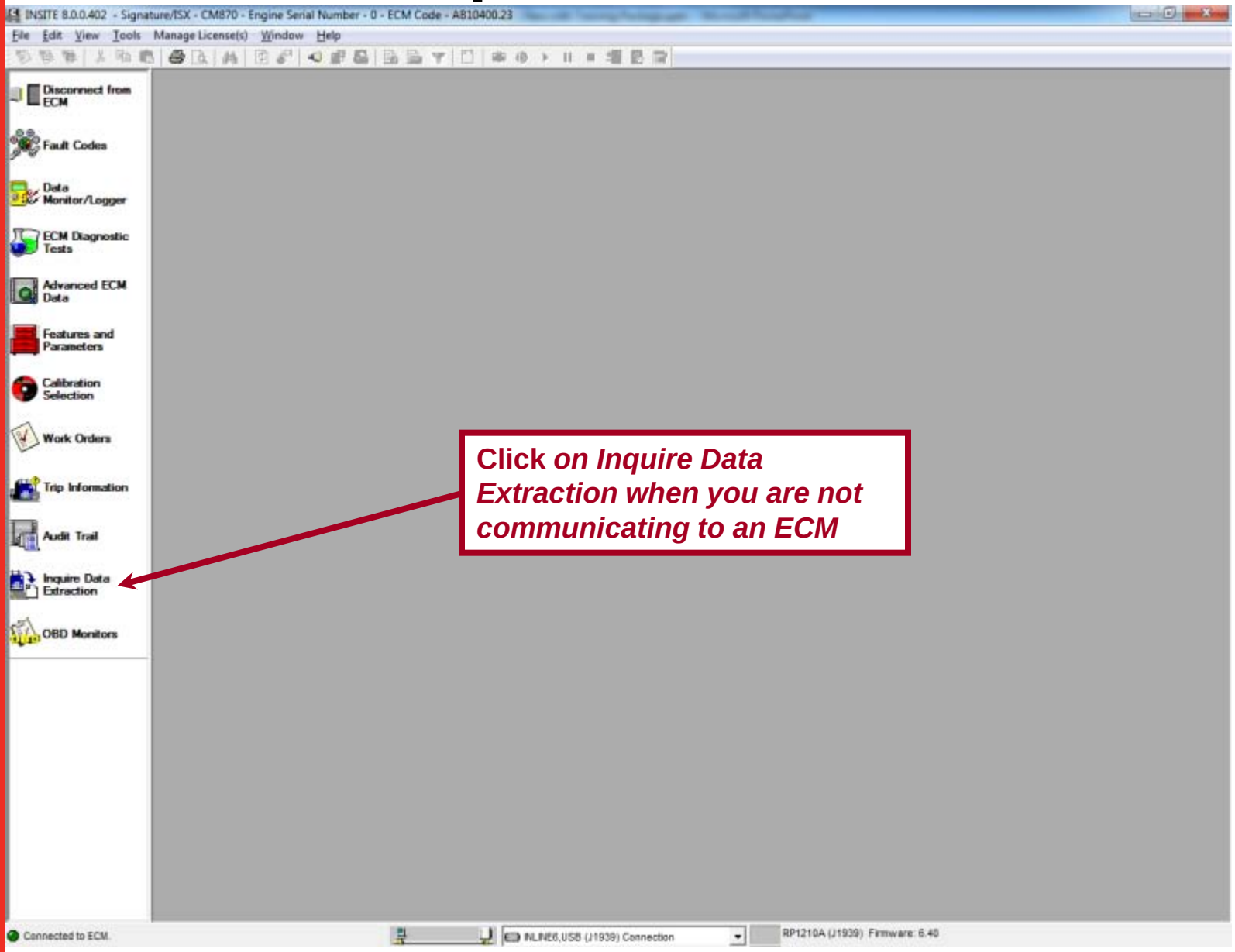
Select the connection

Inquire Data Extraction



Select Operations

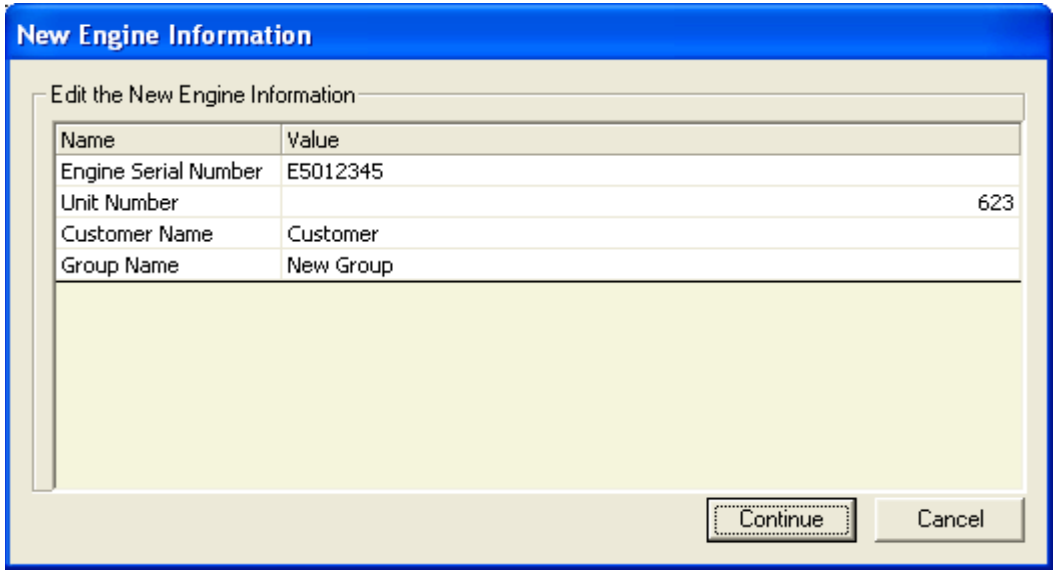
Location of Inquire Data Extraction



Inquire Data Extraction

1st Time Engine Extract

- Vehicle information Listed
- Can be customized for easier identification



INSITE - Inquire Data Extraction

Inquire Data Extraction Status

Current Connection Configuration :

Connection Name : Signature/ISX - CM870 Simulator
Computer Port : 1
Datalink Adapter : N/A
Datalink Protocol : N/A
(To change the settings click on 'Options' button)

Please connect to a vehicle

0 %

Vehicle Properties :

Group Name	Engine Serial Number	Unit Number	Customer Name
New Group			
Vehicle	**E5012345**	**623**	**Customer**
IE5012345_0_20040720105757.csv			
IE5012345_0_20040720110242.csv			
IE5012345_0_20040720110310.csv			
IE5012345_0_20040720110447.csv			
Vehicle	**15012345**	**UNIT001**	**Customer**
I15012345_0_20040720110415.csv			
I15012345_0_20040720110529.csv			
Vehicle	**307662884**	**QSKG**	**Customer**
I307662884_0_20040720110654.csv			
I307662884_1_20040720110656.csv			
I307662884_2_20040720110659.csv			

Inquire Data Extraction

Connect | Close | Options | Help

Inquire Data Extraction Wrap Up

- Excellent application for fleets that need to quickly gather vehicle data
- Simple connection to vehicles
- Provides resets as needed
- Data is automatically formatted for importing to a spread sheet or data base

You have concluded this section of the training.

Please click to the next slide and continue or Click Here to return to the Table of Content.

INSITE™ Installation and Tool – ECM – User Security

Electronic Service Tools

Innovation You Can Depend On™

Agenda

- Installation/Auto Run
- Tool Security
- Start Up
- Tools Options
- ECM Security
- User Manager
- Roll Back Option

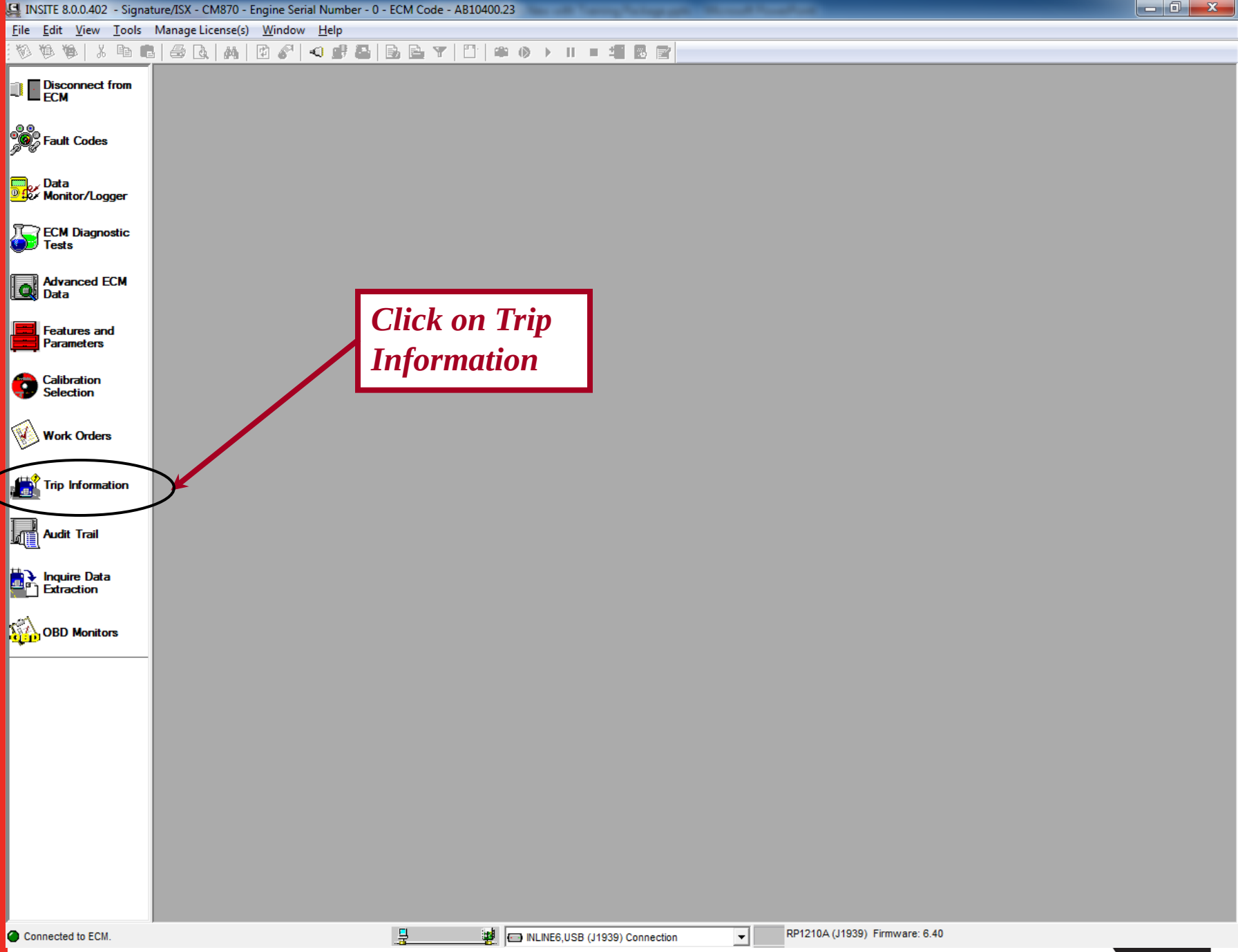
INSITE™ Trip Information

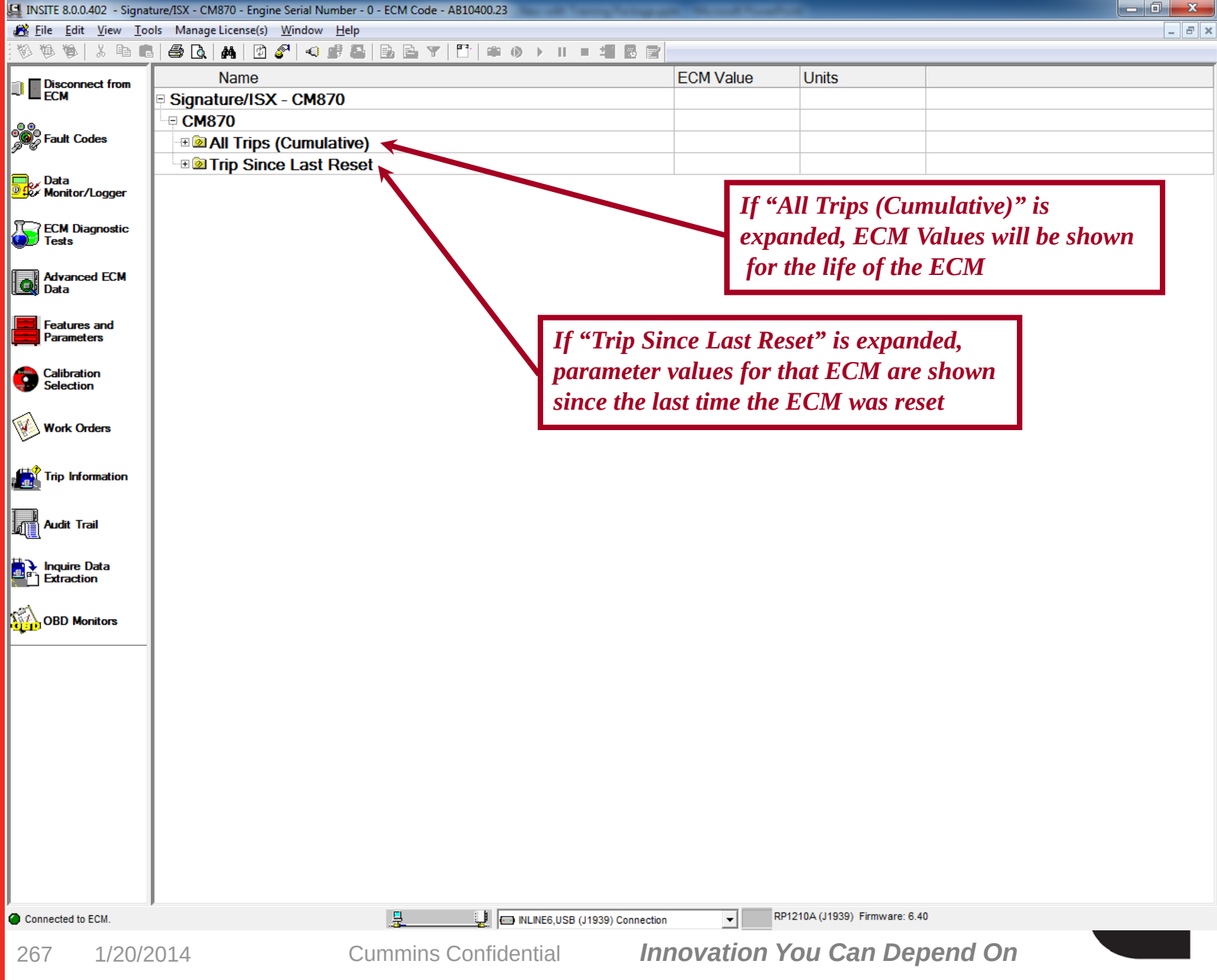
Electronic Service Tools

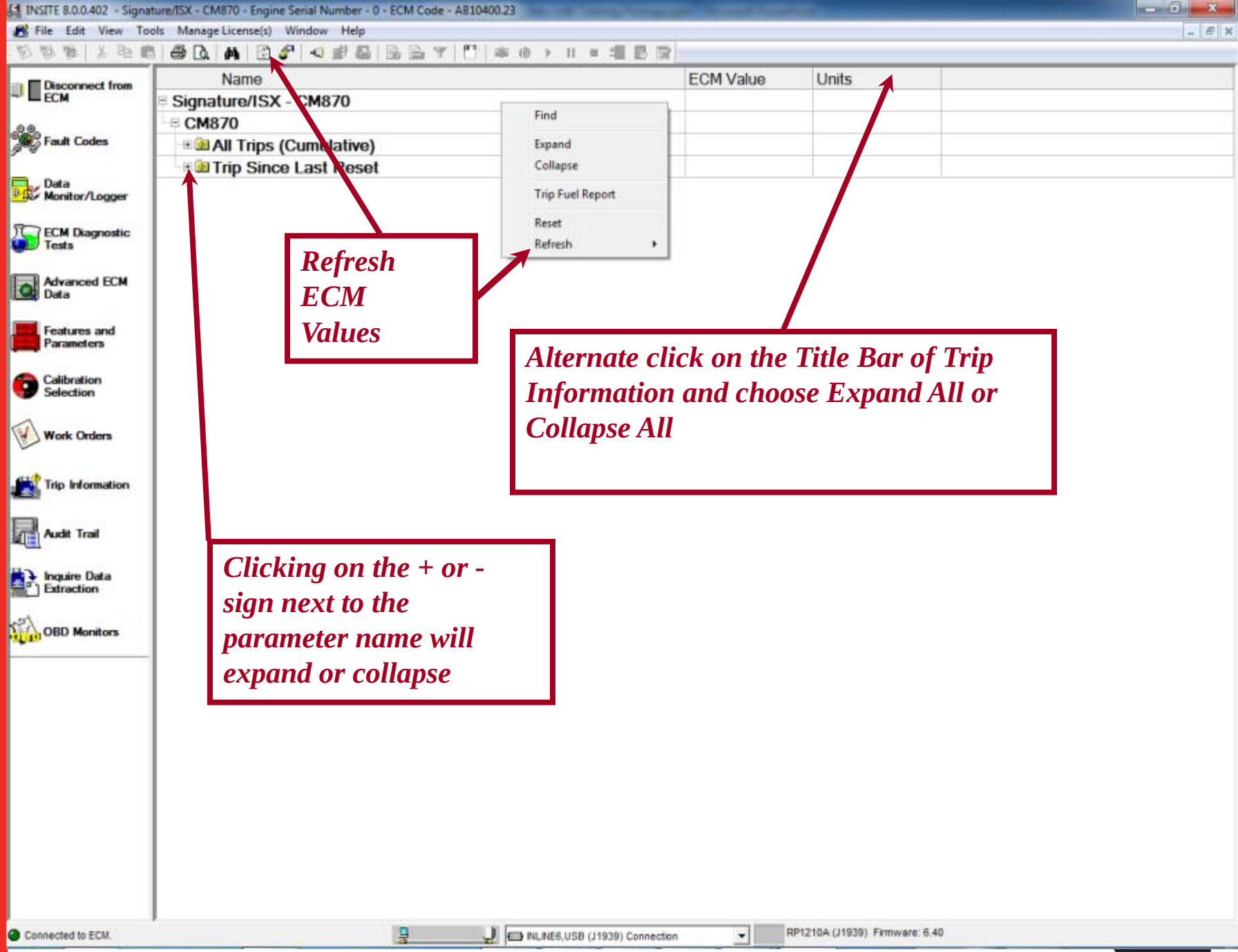
Innovation You Can Depend On™

Trip Information

- Trip Information continuously monitors and records engine operating data that tracks engine and driver performance
- Stored data can be viewed using INSITE™
  - Live module
  - Exported ECM Image
- Parameters are grouped differently, according to the ECM
- Not all ECMs list the same parameters

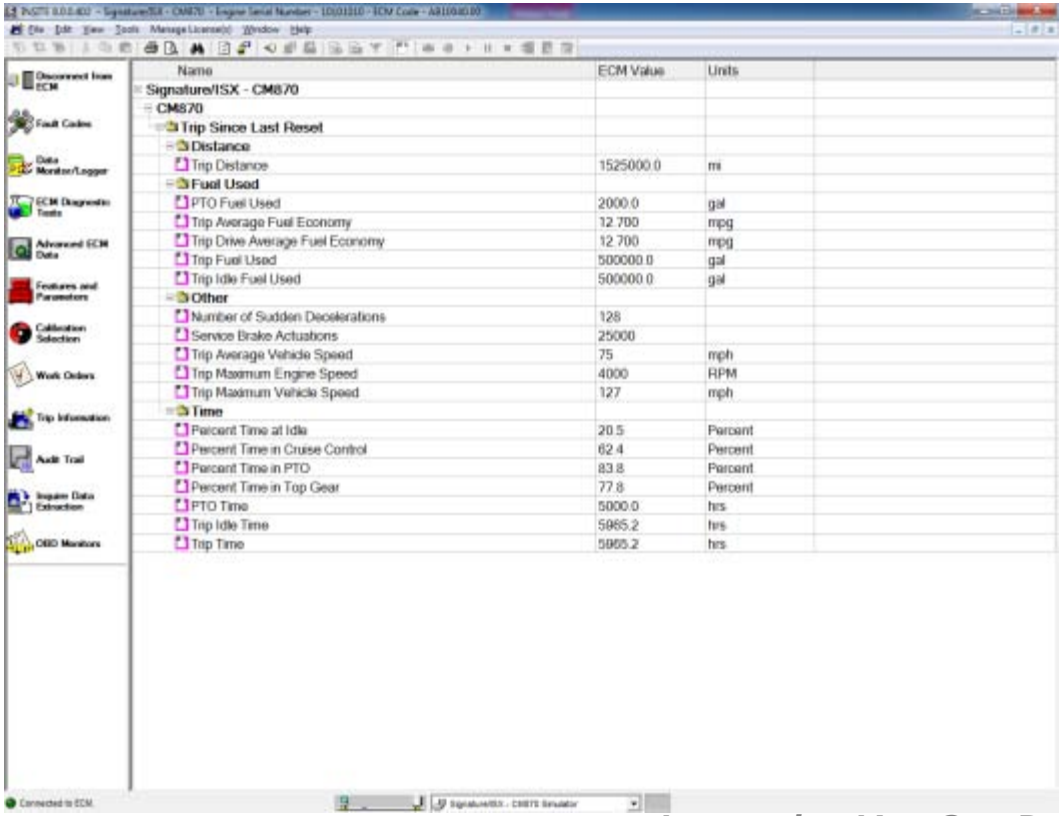

INSITE 8.0.0.402 - Signature/ISX - CM870 - Engine Serial Number - 0 - ECM Code - AB10400.23
File Edit View Tools Manage License(s) Window Help
Disconnect from ECM
Fault Codes
Data Monitor/Logger
ECM Diagnostic Tests
Advanced ECM Data
Features and Parameters
Calibration Selection
Work Orders
Trip Information
Audit Trail
Inquire Data Extraction
OBD Monitors
Click on Trip Information
Connected to ECM.
INLINE6,USB (J1939) Connection
RP1210A (J1939) Firmware: 6.40


INSITE 8.0.0.402 - Signature/ISX - CM870 - Engine Serial Number - 0 - ECM Code - AB10400.23
File Edit View Tools Manage License(s) Window Help
Disconnect from ECM
Fault Codes
Data Monitor/Logger
ECM Diagnostic Tests
Advanced ECM Data
Features and Parameters
Calibration Selection
Work Orders
Trip Information
Audit Trail
Inquire Data Extraction
OBD Monitors
Name
ECM Value
Units
Signature/ISX - CM870
CM870
All Trips (Cumulative)
Trip Since Last Reset
If "All Trips (Cumulative)" is expanded, ECM Values will be shown for the life of the ECM
If "Trip Since Last Reset" is expanded, parameter values for that ECM are shown since the last time the ECM was reset
Connected to ECM.
INLINE6,USB (J1939) Connection
RP1210A (J1939) Firmware: 6.40

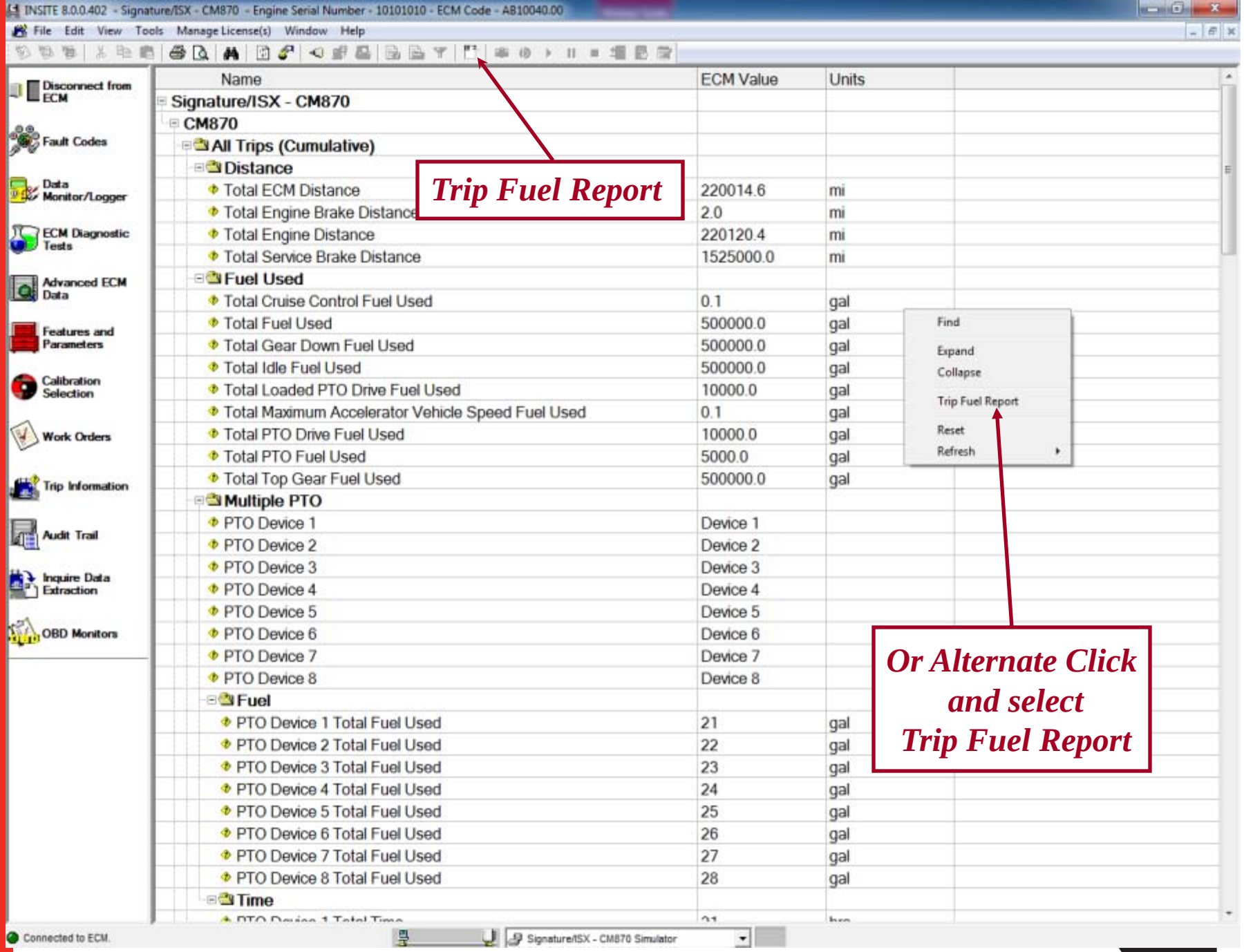

INSITE 8.0.0.402 - Signature/ISX - CM870 - Engine Serial Number - 0 - ECM Code - AB10400.23
File Edit View Tools Manage License(s) Window Help
Disconnect from ECM
Fault Codes
Data Monitor/Logger
ECM Diagnostic Tests
Advanced ECM Data
Features and Parameters
Calibration Selection
Work Orders
Trip Information
Audit Trail
Inquire Data Extraction
OBD Monitors
Name
ECM Value
Units
Signature/ISX - CM870
CM870
All Trips (Cumulative)
Trip Since Last Reset
Find
Expand
Collapse
Trip Fuel Report
Reset
Refresh
Refresh ECM Values
Alternate click on the Title Bar of Trip Information and choose Expand All or Collapse All
Clicking on the + or - sign next to the parameter name will expand or collapse
Connected to ECM.
INLINE6,USB (J1939) Connection
RP1210A (J1939) Firmware: 6.40

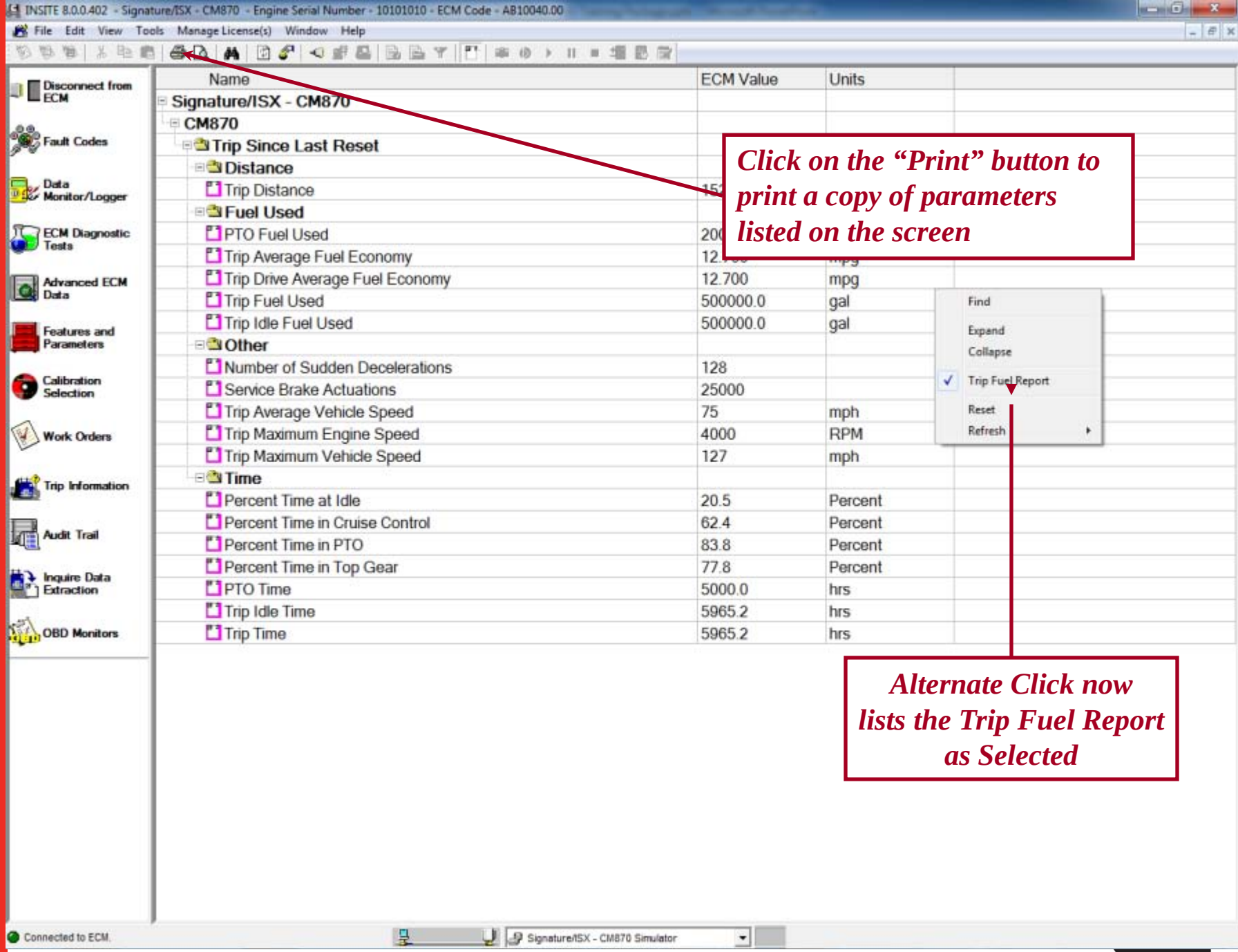
Trip Information:
Trip Fuel Report

- A Trip Fuel Report is a condensed list of fueling parameters
- Available on any engine that supports Trip Information
- Can only be Printed from this view



Name	ECM Value	Units
Signature/ISX - CM870		
CM870		
Trip Since Last Reset		
Distance		
Trip Distance	1525000.0	mi
Fuel Used		
PTO Fuel Used	2000.0	gal
Trip Average Fuel Economy	12.700	mpg
Trip Drive Average Fuel Economy	12.700	mpg
Trip Fuel Used	500000.0	gal
Trip Idle Fuel Used	500000.0	gal
Other		
Number of Sudden Decelerations	128	
Service Brake Actuations	25000	
Trip Average Vehicle Speed	75	mph
Trip Maximum Engine Speed	4000	RPM
Trip Maximum Vehicle Speed	127	mph
Time		
Percent Time at Idle	20.5	Percent
Percent Time in Cruise Control	62.4	Percent
Percent Time in PTO	83.8	Percent
Percent Time in Top Gear	77.8	Percent
PTO Time	5000.0	hrs
Trip Idle Time	5965.2	hrs
Trip Time	5965.2	hrs

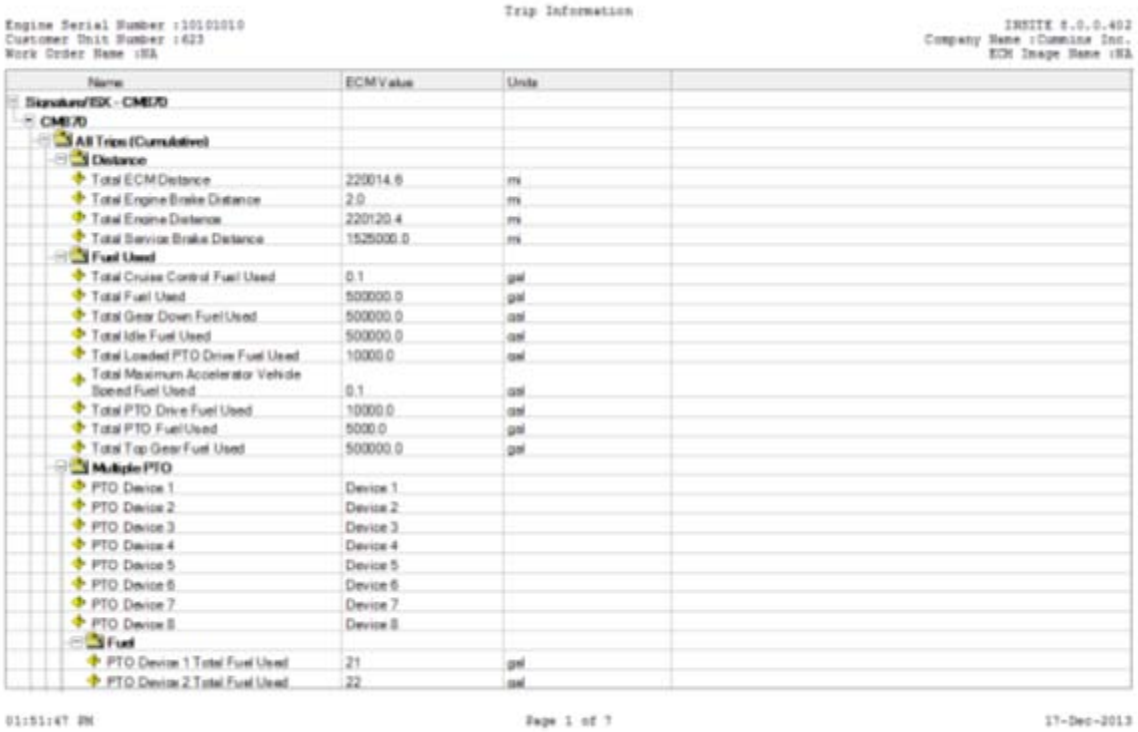

INSITE 8.0.0.402 - Signature/ISX - CM870 - Engine Serial Number - 10101010 - ECM Code - AB10040.00
File Edit View Tools Manage License(s) Window Help
Disconnect from ECM
Fault Codes
Data Monitor/Logger
ECM Diagnostic Tests
Advanced ECM Data
Features and Parameters
Calibration Selection
Work Orders
Trip Information
Audit Trail
Inquire Data Extraction
OBD Monitors
Name
ECM Value
Units
Signature/ISX - CM870
CM870
All Trips (Cumulative)
Distance
Total ECM Distance 220014.6 mi
Total Engine Brake Distance 2.0 mi
Total Engine Distance 220120.4 mi
Total Service Brake Distance 1525000.0 mi
Fuel Used
Total Cruise Control Fuel Used 0.1 gal
Total Fuel Used 500000.0 gal
Total Gear Down Fuel Used 500000.0 gal
Total Idle Fuel Used 500000.0 gal
Total Loaded PTO Drive Fuel Used 10000.0 gal
Total Maximum Accelerator Vehicle Speed Fuel Used 0.1 gal
Total PTO Drive Fuel Used 10000.0 gal
Total PTO Fuel Used 5000.0 gal
Total Top Gear Fuel Used 500000.0 gal
Multiple PTO
PTO Device 1 Device 1
PTO Device 2 Device 2
PTO Device 3 Device 3
PTO Device 4 Device 4
PTO Device 5 Device 5
PTO Device 6 Device 6
PTO Device 7 Device 7
PTO Device 8 Device 8
Fuel
PTO Device 1 Total Fuel Used 21 gal
PTO Device 2 Total Fuel Used 22 gal
PTO Device 3 Total Fuel Used 23 gal
PTO Device 4 Total Fuel Used 24 gal
PTO Device 5 Total Fuel Used 25 gal
PTO Device 6 Total Fuel Used 26 gal
PTO Device 7 Total Fuel Used 27 gal
PTO Device 8 Total Fuel Used 28 gal
Time
Find
Expand
Collapse
Trip Fuel Report
Reset
Refresh
Trip Fuel Report
Or Alternate Click and select Trip Fuel Report
Connected to ECM.
Signature/ISX - CM870 Simulator


INSITE 8.0.0.402 - Signature/ISX - CM870 - Engine Serial Number - 10101010 - ECM Code - AB10040.00
File Edit View Tools Manage License(s) Window Help
Disconnect from ECM
Fault Codes
Data Monitor/Logger
ECM Diagnostic Tests
Advanced ECM Data
Features and Parameters
Calibration Selection
Work Orders
Trip Information
Audit Trail
Inquire Data Extraction
OBD Monitors
Name
ECM Value
Units
Signature/ISX - CM870
CM870
Trip Since Last Reset
Distance
Trip Distance
Fuel Used
PTO Fuel Used
Trip Average Fuel Economy
Trip Drive Average Fuel Economy 12.700 mpg
Trip Fuel Used 500000.0 gal
Trip Idle Fuel Used 500000.0 gal
Other
Number of Sudden Decelerations 128
Service Brake Actuations 25000
Trip Average Vehicle Speed 75 mph
Trip Maximum Engine Speed 4000 RPM
Trip Maximum Vehicle Speed 127 mph
Time
Percent Time at Idle 20.5 Percent
Percent Time in Cruise Control 62.4 Percent
Percent Time in PTO 83.8 Percent
Percent Time in Top Gear 77.8 Percent
PTO Time 5000.0 hrs
Trip Idle Time 5965.2 hrs
Trip Time 5965.2 hrs
Find
Expand
Collapse
Trip Fuel Report
Reset
Refresh
Click on the "Print" button to print a copy of parameters listed on the screen
Alternate Click now lists the Trip Fuel Report as Selected
Connected to ECM.
Signature/ISX - CM870 Simulator

Trip Information

Trip Information may be printed when connected to the ECM or Image

- Tool Bar Printer Icon
- File → Print



Trip Information

Engine Serial Number :10101010
Customer Unit Number :623
Work Order Name :NA

INSITE 8.0.0.402
Company Name :Cummins Inc.
ECM Image Name :NA

Name	ECM Value	Units
Signature/ISX - CM870		
CM870		
All Trips (Cumulative)		
Distance		
Total ECM Distance	220014.6	mi
Total Engine Brake Distance	2.0	mi
Total Engine Distance	220120.4	mi
Total Service Brake Distance	1525000.0	mi
Fuel Used		
Total Cruise Control Fuel Used	0.1	gal
Total Fuel Used	500000.0	gal
Total Gear Down Fuel Used	500000.0	gal
Total Idle Fuel Used	500000.0	gal
Total Loaded PTO Drive Fuel Used	10000.0	gal
Total Maximum Accelerator Vehicle Speed Fuel Used	0.1	gal
Total PTO Drive Fuel Used	10000.0	gal
Total PTO Fuel Used	5000.0	gal
Total Top Gear Fuel Used	500000.0	gal
Multiple PTO		
PTO Device 1	Device 1	
PTO Device 2	Device 2	
PTO Device 3	Device 3	
PTO Device 4	Device 4	
PTO Device 5	Device 5	
PTO Device 6	Device 6	
PTO Device 7	Device 7	
PTO Device 8	Device 8	
Fuel		
PTO Device 1 Total Fuel Used	21	gal
PTO Device 2 Total Fuel Used	22	gal

01:51:47 PM

Page 1 of 7

17-Dec-2013

Trip Information Wrap Up

- Allows the user to view ECM Values for multiple time periods:
  - Lifetime of the ECM
  - Since the Trip Information was last reset
- Trip Fuel Report will display all fuel related parameters for the above time periods
- INSITE™ allows the user to print these screens

You have concluded this section of the training.

Please click to the next slide and continue or Click Here to return to the Table of Content.

INSITE™ Work Orders

Electronic Service Tools

Innovation You Can Depend On™

Work Orders

- A Work Order is the top level identifier that contains the ECM image(s). Work Orders can be used for tracking vehicle and equipment repair history.
- An Image is a copy of the ECM data
- Work Orders may contain multiple Images
  - By default, an “Initial” image is created when connecting to an ECM with the Work Order Mode enabled
  - By default, a “Final” image is created when disconnecting from an ECM with the Work Order Mode enabled
  - Additional “User” images may be created under each Work Order while connected to the ECM
- Work Orders can be created automatically by INSITE™ or manually by the user

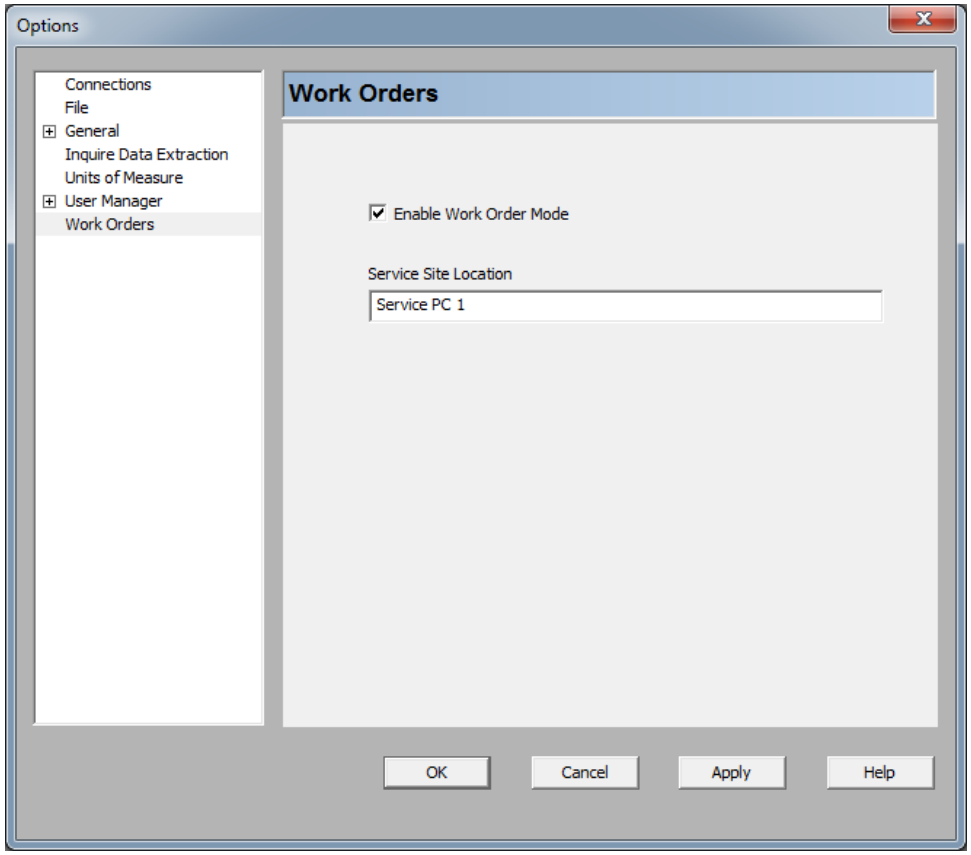
Work Orders

To have INSITE™ automatically create Work Orders when connecting and disconnecting:

Select Tools → Options → Work Orders

- Select “Enable Work Order Mode”

By default this feature is Enabled when INSITE™ is installed.

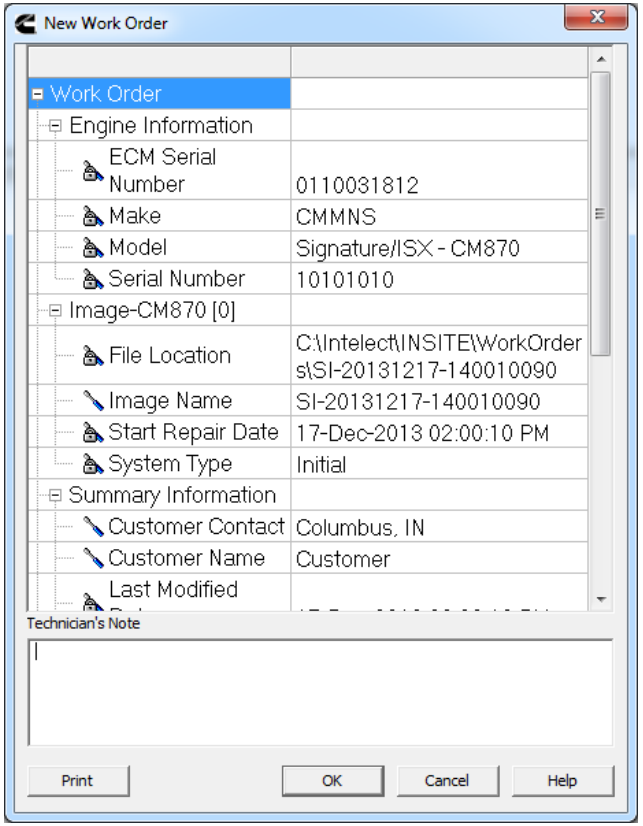


Work Orders

- When connected to an ECM, only Work Orders compatible with that ECM serial number will be displayed
- Disconnect from an ECM to view all Work Orders
- Work Order and Image names are defaulted to a Date – Time format (i.e. WO-20041027-145950 = 10/27/2004-2:59:50). These names can be changed at the time of creation or under the Work Order properties to help identify the specific customer, vehicle or equipment

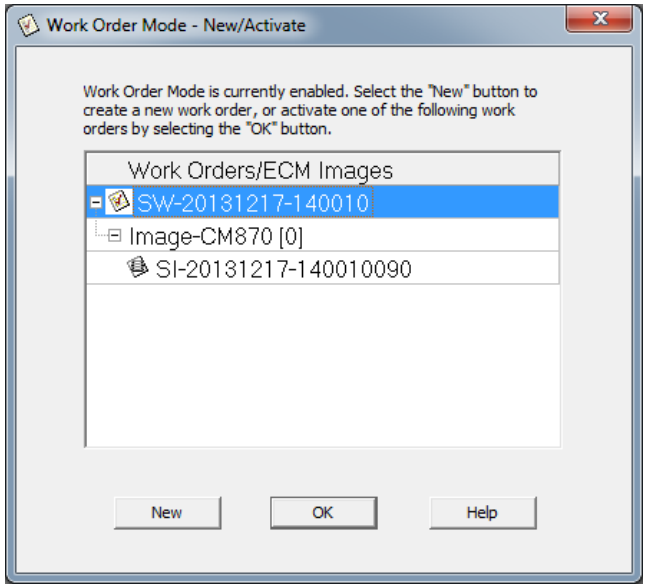
Work Orders

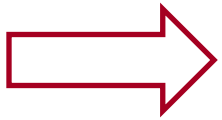
- With Work Order Mode enabled and no compatible Work Orders exist, a New Work Order dialog will be displayed after connection to the ECM
  - Enter the Work Order Number, Image Name and Select OK
  - If you do not wish to create a new Work Order, select Cancel

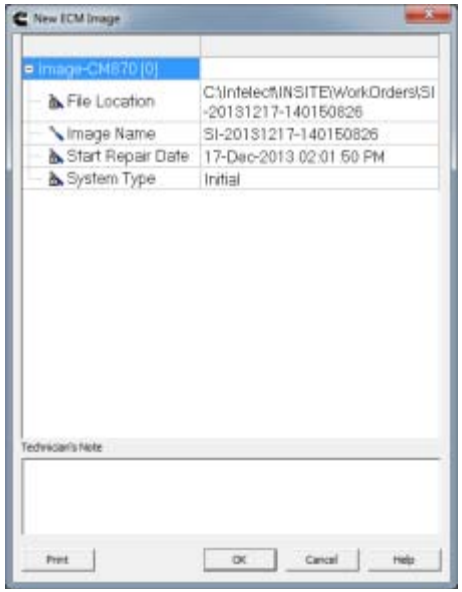


Work Orders

- With Work Order Mode enabled and compatible Work Orders exist, the New/Activate Work Order dialog will be displayed after connection to the ECM
  - Select New to create a new Work Order
  - OR: Select one of the compatible Work Orders in which to create a new Image and select OK
    - Enter the Image Name and confirm the creation by selecting OK
    - OR: Select Cancel if you do not wish to create an Image



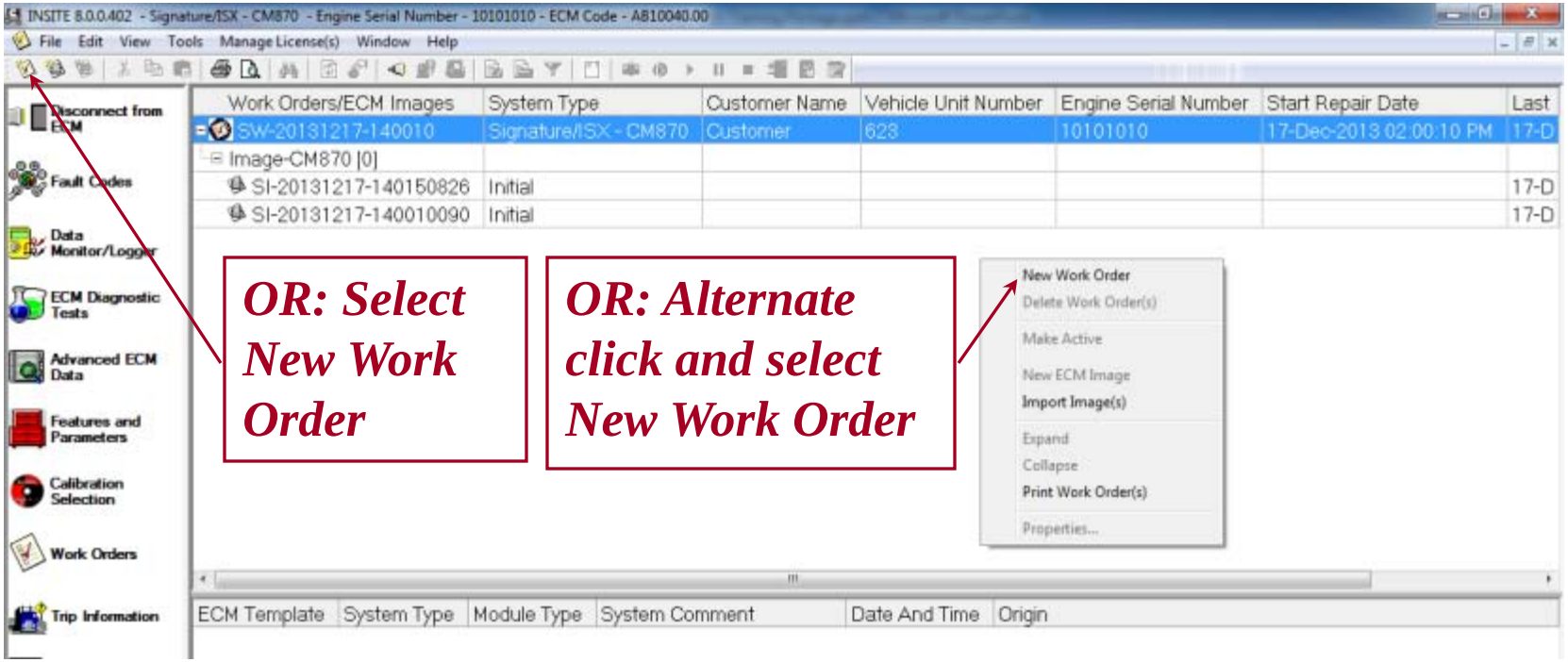




Work Orders

Manually creating New Work Orders

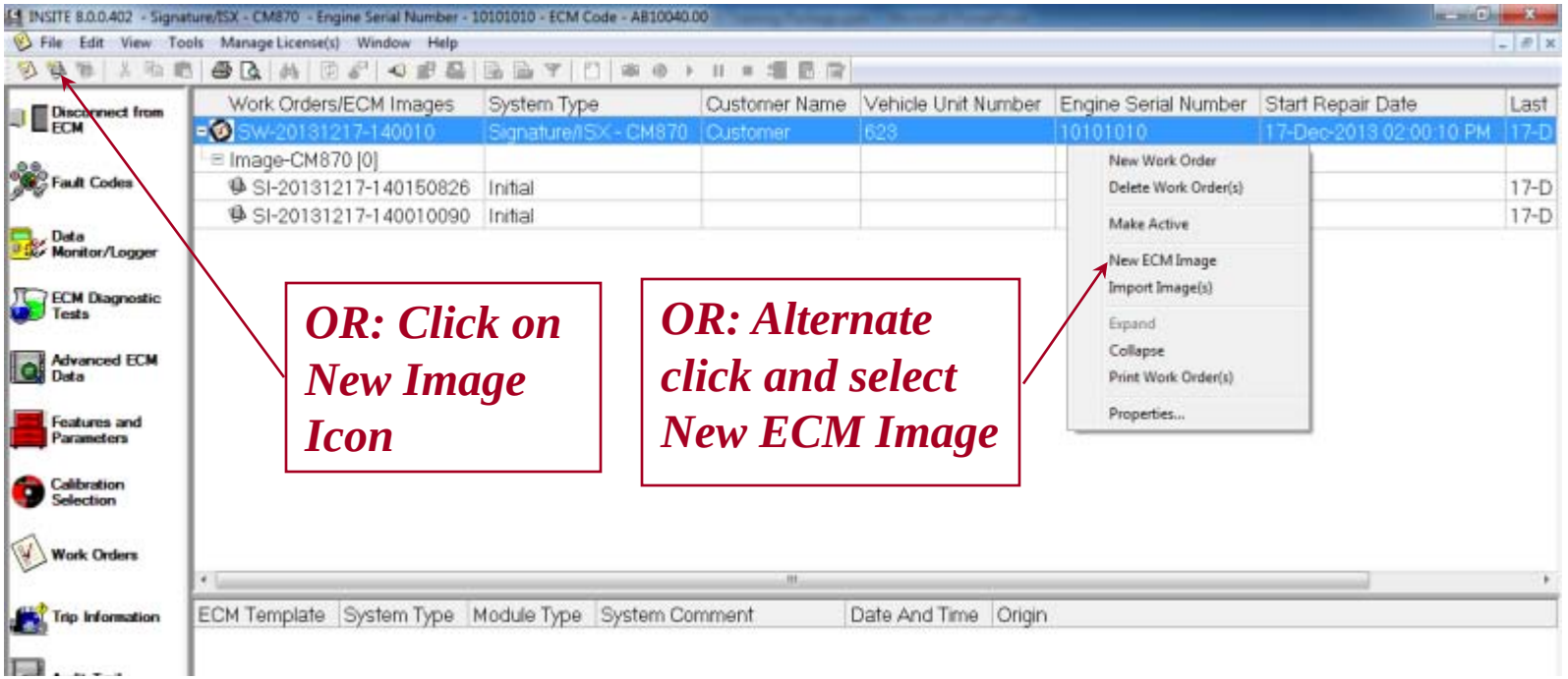
- Select File → New → Work Order…



Work Orders

Manually creating New ECM Image

- Select File → New → ECM Image…
- The new Image will be created in the Active Work Order

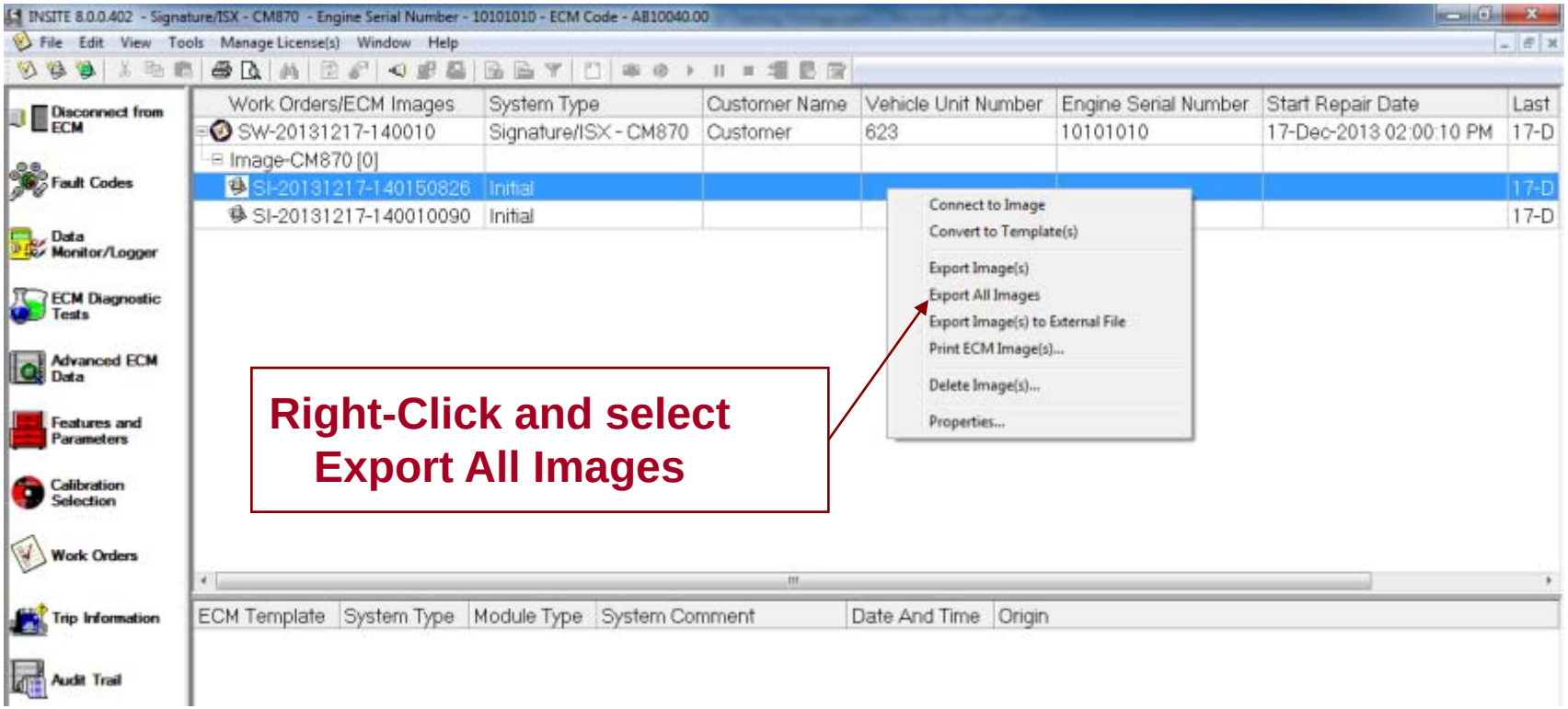


Work Orders

- Each image can be exported for use in two ways:
  - Exported as an INSITE compatible file, .eif (exported image file) to be imported by another user with INSITE
  - To an external file, “Image Name.csv” (Comma Separated Value)
    - This format can be opened with Excel, Word, Notepad, etc.

- All Work Order images can be exported using the right-click menu and selecting the ‘Export All Images’ option. Highlight the Work Order image and right-click to export all images

Work Orders


INSITE 8.0.0.402 - Signature/ISX - CM870 - Engine Serial Number - 10101010 - ECM Code - AB10040.00
File Edit View Tools Manage License(s) Window Help
Disconnect from ECM
Fault Codes
Data Monitor/Logger
ECM Diagnostic Tests
Advanced ECM Data
Features and Parameters
Calibration Selection
Work Orders
Trip Information
Audit Trail
Work Orders/ECM Images
System Type
Customer Name
Vehicle Unit Number
Engine Serial Number
Start Repair Date
Last
SW-20131217-140010
Signature/ISX - CM870
Customer
623
10101010
17-Dec-2013 02:00:10 PM
17-D
Image-CM870 [0]
SI-20131217-140150826
Initial
17-D
SI-20131217-140010090
Initial
17-D
Connect to Image
Convert to Template(s)
Export Image(s)
Export All Images
Export Image(s) to External File
Print ECM Image(s)...
Delete Image(s)...
Properties...
Right-Click and select
Export All Images
ECM Template
System Type
Module Type
System Comment
Date And Time
Origin

Work Orders

- Importing an Image
  - Alternate Click in the Work Order area and select Import Image
  - Select the Image to be imported

- Opening an Image
  - INSITE's exported ECM images (.eif) can be opened by double clicking .eif file
  - INSITE™ will open, import the image, and automatically connect to it
    - If INSITE™ is already open, the ECM image will be imported but not automatically connected
- Convert to a Template
  - Alternate Click on the Image and select Convert to Template
  - Templates provide a means of configuring multiple ECM's with the same base parameter settings

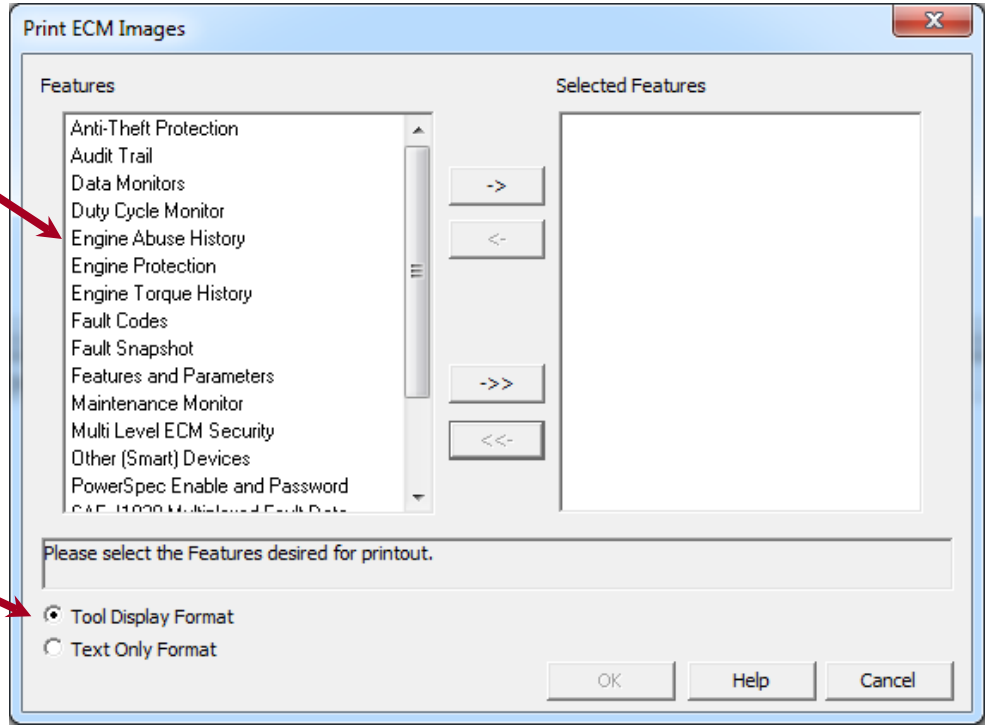
Work Orders

Printing ECM Images

- Select the ECM Image
  - Select File → Print
  - OR: Alternate right click – Print ECM Image(s)

Select single features with (- >) or all with (- >>)

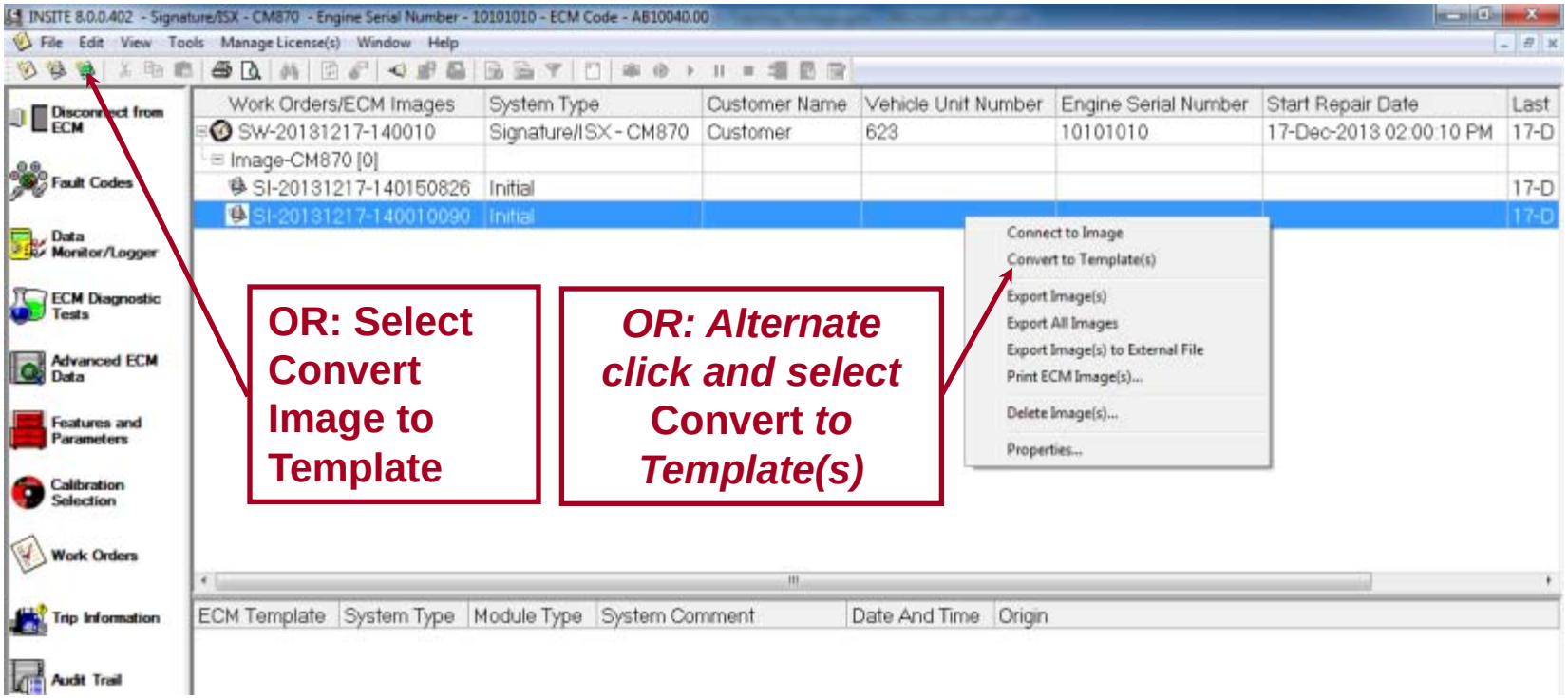
Select* Tool *Display for Graphical print or Text Only Format



Templates

Templates can be created from an ECM Image to allow transferring the same Feature and Parameter setup from that Image to multiple ECMs

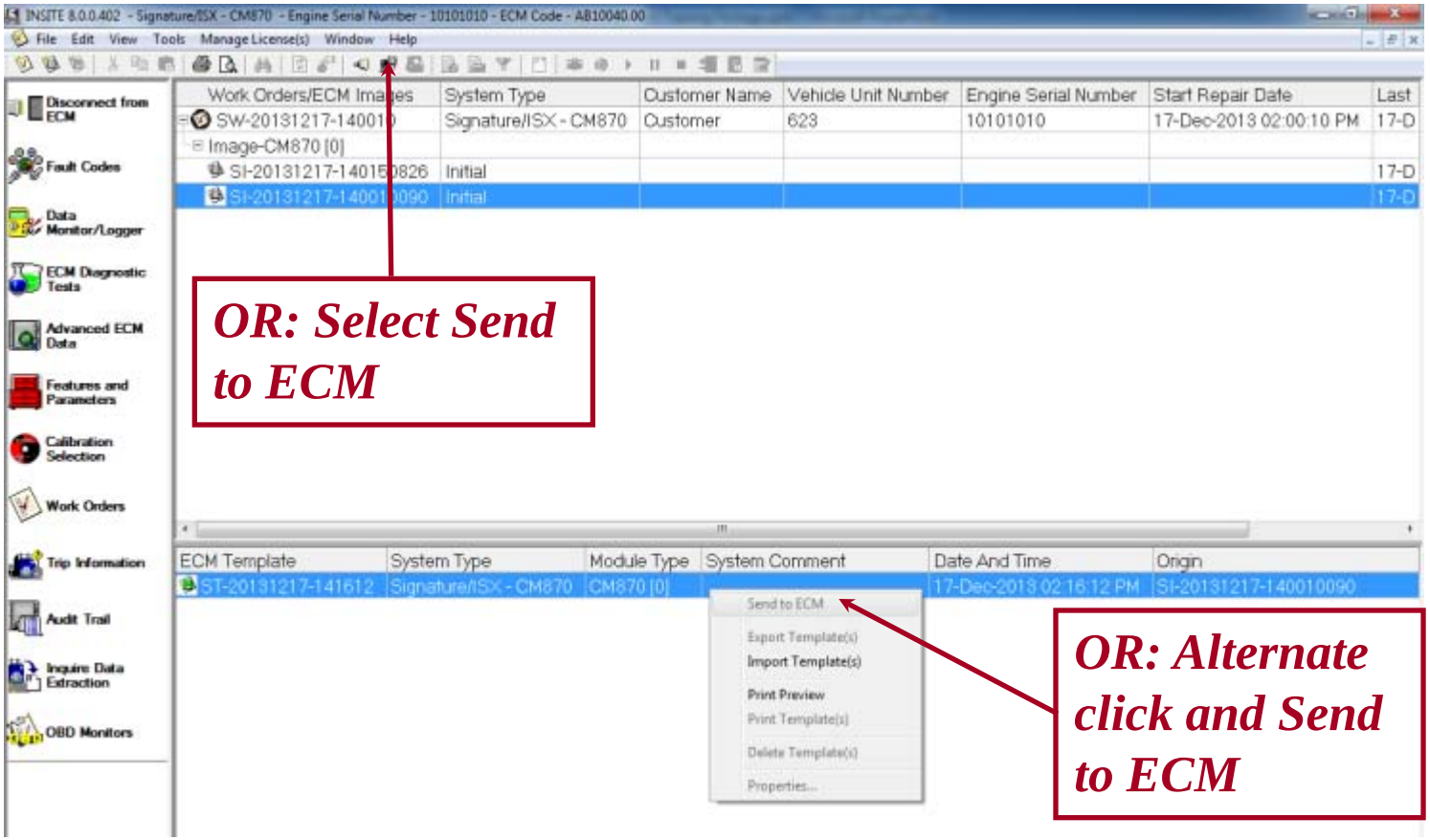
- Select Image then select File → Convert → ECM Template



Templates

To send a template to an ECM, select the Template:

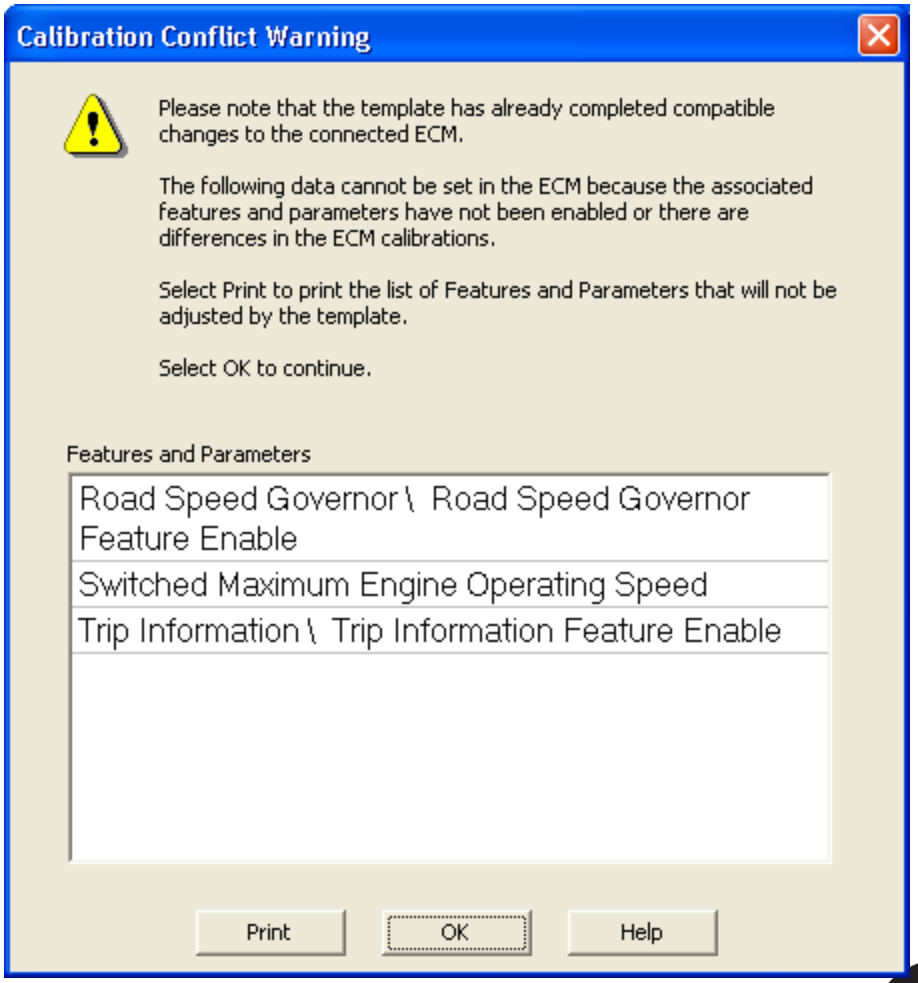
- Select File → Send To → ECM...



Templates

Template Report

- Ability to report which parameters were not able to be written to ECM
- User can use this to setup the vehicle accordingly



Work Order Wrap Up

- A Work Order is the top level identifier and can contain multiple ECM Images
- Only compatible Work Orders are displayed when connected to an ECM. All Work Orders will display when not connected
- Work Order Mode is defaulted ON and can be used to create Initial and Final Images upon Connect and Disconnect respectively
- Images can be converted to Templates to allow the Features and Parameters from that Image to be transferred to other ECMs

You have concluded this section of the training.

Please click to the next slide and continue or Click Here to return to the Table of Content.