

MDS Diagnostics



DG TECHNOLOGIES
Vehicle Network Solutions

A military software application designed specifically to support preventative maintenance and diagnostic activities on Mine Resistant Ambush Protection (MRAP) vehicles.

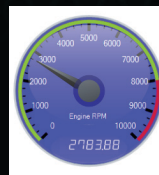
MRAP Variants Supported: **Caiman** • **MaxxPro**

Provides access to the vehicle network to manage diagnostic activities and preventative maintenance measures required during routine check ups.

Benefits

- User friendly interface
 - Graphing
 - Analog or digital Signal Slide Scale
 - Gauging
 - Detail Display
- Diagnostic displays can be used on any available signal in any combination to display parameter information
- Gauge screen can be configured by the technician to meet diagnostic session needs

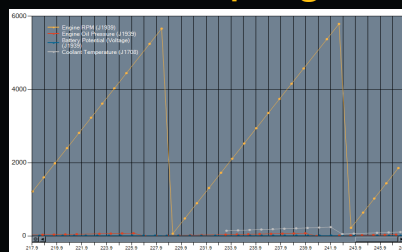
Signal Gauge



Analog or Digital Signal Slide Scale



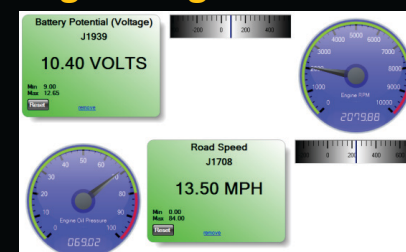
Parameter Graphing Chart



Signal Detail Panel

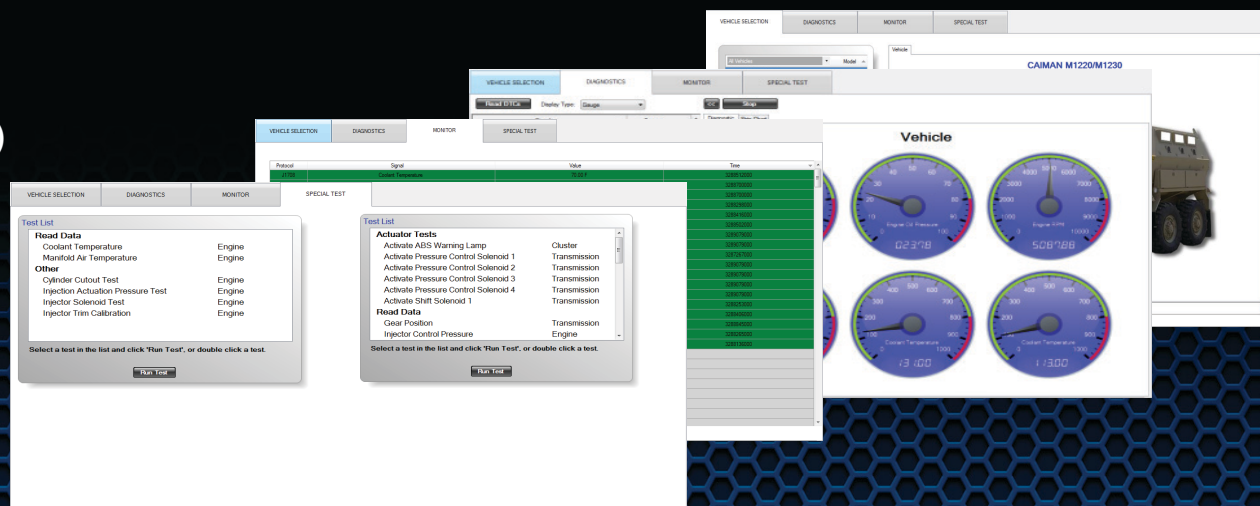


Gauge Configuration Screen



Functions

- Display and clear Diagnostics Trouble Codes (DTCs)
- Monitor dynamic vehicle parameters
- Display vehicle component information
- Cylinder cutout testing
- Injector buzz testing
- Injector pressure testing
- Solenoid activation
- Cluster control and component activation



Features



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Bi-directional controls for the following OEM components:

- Caterpillar
- Navistar
- Allison

Caterpillar (C-7 & C-9 engines)

- Cylinder Cut-out Test
- Injector Actuation Pressure Test
- Injector Solenoid Test
- Injector Trim Calibration Test
- Manifold Air Temperature Test
- Coolant Temperature

Allison Transmission

- Activate Pressure Control Solenoids (1 – 4)
- Activate Shift Solenoid
- Gear Position

Injection Actuation Pressure Test	Result
Please make sure the engine is on	
Step Up Step Down	
	Engine Speed 1349 RPM
	Injection Actuation Pressure 2191 PSI
	Injection Actuation Output 37 %
	Desired Injection Actuation Pressure 2175 PSI
Stop Close	

Cylinder Cutout Test	Result
Engine Speed 912 RPM	
Engine Coolant Temperature 179 Deg F	
Injector Actuation Pressure 2256 PSI	
Fuel Rate 22.0900 mm3	
Cool Fan On	
Vehicle Speed 0 MPH	
Brake Pedal Not Pressed	
Transmission in Neutral	
Throttle Position 2.9 %	
Progress 5%	
Stop Close	

International Engine (Read Data)

- Injector Control Pressure
- Intake Air Temperature Signal Voltage
- Intake Manifold Boost Pressure
- Manifold Absolute Pressure Signal Voltage
- Injector Balance Test
- Injector Test

Cluster (Set Gauges)

- Activate 12V gauge
- Activate Engine Coolant Temperature Gauge
- Activate Engine Oil Pressure Gauge
- Activate Fuel Level Gauge
- Activate Primary Air Pressure Gauge
- Activate Secondary Air Pressure Gauge
- Active Speedometer
- Activate Tachometer

Injector Trim Calibration	
Select a cylinder to run the trim calibration on:	
☐ Cylinder 1	SN 3B117706723A
☒ Cylinder 2	SN 3B1177102210
☐ Cylinder 3	SN 3B117707270B
☐ Cylinder 4	SN 3B117707300B
☐ Cylinder 5	SN 3B117709343B
☐ Cylinder 6	SN 3B11770897DB
Enter the 4 digit confirmation code located on the injector:	
File selected:	
Select Trim File	
Start Close	

Injector Solenoid Test	Result
1. Please make sure the ignition is on and the engine is off	
2. Select a cylinder(s) to run the test on	
Cylinder	
☐ 1	
☒ 2	
☐ 3	
☒ 4	
☐ 5	
☐ 6	
	INJ 1 - Powered OK
	INJ 2 - Cutout OK
	INJ 3 - Powered OK
	INJ 4 - Cutout OK
	INJ 5 - Powered OK
	INJ 6 - Powered OK
Stop Close	