

Diagnostic List **Cummins** (2023)

Remark:

1. ✓ : means that the system has this function
2. - : means that the system does not have this function
3. compared with the last version, the new added function is marked in red color.

Function	list
Version information	✓
Read DTC	✓
Freeze Frame Data	✓
Erase Fault Code	✓
Erase Aftertreatment Fault Code	✓

<p>Read data stream</p>	<ol style="list-style-type: none"> 1.All parameters 2.Aftertreatment 3.Aftertreatment - SCR 4.Aftertreatment - Diesel Particulate Filter 5.Aftertreatment - Diesel Particulate Filter Stationary Regeneration 6.Engine Braking 7.Engine Protection 8.ECM Information 9.Dataplate 10.Low Power/Fuel Economy 11.Sensors 12.White Smoke/Engine Stumble 13.Hard Start 14.Switches 15.Lamps 16.EGR and Turbocharger Performance 17.Stop Start 18.Transmission 19.Relays
<p>Read data stream</p>	<ol style="list-style-type: none"> 20.Driver Operation Interlock 21.Trip Fuel Report 22.OEM Security 23.OEM Domain 2 Parameters 24.Non Template parameters 25.Adjustable but non restorable parameters 26.Road Speed Governor Restriction 27.Green House Gas Idle ShutDown Parameters 28.Green House Gas Vehicle Speed Limiter Parameters 29.Other

Actuation test

- 1、 Aftertreatment Close-Coupled Catalyst Outlet Temperature History Log
- 2、 Aftertreatment Current Based Particulate Matter Sensor Regeneration Test
- 3、 Aftertreatment DEF Contamination History
- 4、 Aftertreatment DEF Doser Air Valve Override Test
- 5、 Aftertreatment DEF Multi Dosing Rate Doser Override Test
- 6、 Aftertreatment Diesel Exhaust Fluid Doser Accuracy Test
- 7、 Aftertreatment Diesel Exhaust Fluid Pump Heater Test
- 8、 Aftertreatment Diesel Exhaust Fluid System Leak Test
- 10、 Aftertreatment Diesel Exhaust Fluid System Leak Test
- 11、 Aftertreatment Diesel Particulate Filter Deep Clean Regeneration
- 12、 Aftertreatment Diesel Particulate Filter Regeneration
- 13、 Aftertreatment Diesel Particulate Filter Regeneration Analyzer
- 14、 Aftertreatment Diesel Particulate Filter Restriction Test

<p>Actuation test</p>	<ul style="list-style-type: none"> 15、 Aftertreatment Engine Out NOx Sensor Test 16、 Aftertreatment Filter DeGreening 17、 Aftertreatment Forced Mission Regeneration 18、 Aftertreatment High NOx Reset 19、 Aftertreatment Hydrocarbon Doser System Test 20、 Aftertreatment Inducement Witness Test 21、 Aftertreatment Maintenance 22、 Aftertreatment Maintenance Filter Installation 23、 Aftertreatment Max Soot Level Per Regen History Reset 24、 Aftertreatment Mileage Based DPF Ash Cleaning 25、 Aftertreatment Particulate Matter Sensor Regeneration 26、 Aftertreatment Reset Dosing Learn 27、 Aftertreatment SCR Catalyst Cold Soak Override 28、 Aftertreatment SCR Catalyst Desulphurization 29、 Aftertreatment SCR Maintenance 30、 Aftertreatment SCR Maintenance 2 31、 Aftertreatment SCR Performance Test 32、 Aftertreatment SCR System Cleaning 33、 Aftertreatment SCR System Cleaning Test 34、 Aftertreatment SCR System Health Monitor
<p>Actuation test</p>	<ul style="list-style-type: none"> 35、 Aftertreatment SCR System Health Monitor 36、 Aftertreatment SCR System Health Monitor 37、 Aftertreatment SCR System Test 38、 Aftertreatment Shutoff Valve and Injector Override Test 39、 Aftertreatment System Out NOx Sensor Test 40、 Aftertreatment Temperature Sensor Test 41、 Aftertreatment Thermal Cycle Count Reset 42、 Aftertreatment Underfloor Catalyst Outlet Temperature History Log 43、 Air Handling Performance Test 44、 Alternator Feedback Monitor 45、 Battery Pack Fan Control 46、 Centinel Operational Test 47、 Charge Throttle Actuator Test 48、 Compressor Bypass Control Valve Override Test 49、 Compressor Bypass Valve Test 50、 Cooling Fans Control Test

<p>Actuation test</p>	<ul style="list-style-type: none"> 51、 Cylinder Bank Cutout Test 52、 Cylinder Cutout Test 53、 Cylinder Performance Test 54、 Diesel Exhaust Fluid Doser Air Supply Valve Click Test 55、 Diesel Exhaust Fluid Doser Pump Air Solenoid Click Test 56、 Diesel Exhaust Fluid Doser Pump Manual Override Test 57、 Diesel Exhaust Fluid Doser Pump Override Test 58、 Diesel Exhaust Fluid Doser Pump Override Test 59、 Diesel Exhaust Fluid Doser Purge Counter 60、 Diesel Exhaust Fluid Doser System Heater Test 61、 Diesel Exhaust Fluid Doser System Heater Test 62、 Diesel Exhaust Fluid Metering Unit Click Test 63、 Diesel Exhaust Fluid Pump Filter Life Reset 64、 Diesel Exhaust Fluid Reverting Valve Test 65、 DPF Ash Reset 66、 Dual Fan Clutch Control
<p>Actuation test</p>	<ul style="list-style-type: none"> 67、 Dual Fueling Table Override 68、 Dual Snorkel Actuator Calibration 69、 Duty Cycle Monitor 70、 Duty Cycle Monitor 71、 ECM Data Extraction 72、 EFC Actuator Override Test 73、 EGR Delta Pressure Auto Zero Test 74、 EGR Valve Test 75、 Electric Fan Control 76、 Electric Fuel Lift Pump Override Test 77、 Electronic Fuel Control Actuator Test 78、 Engine Compression And Air Handling System Test 79、 Engine Fuel Supply Pump Override Test 80、 Engine Priming Pump Override Test 81、 Engine Protection Witness Test 82、 Engine State Monitor 83、 Ether Injection Reset 84、 Ether Injection Test

<p>Actuation test</p>	<ul style="list-style-type: none"> 85、 Exhaust Throttle Actuator Install and Calibration 86、 Exhaust Throttle Actuator Test 87、 Exhaust Throttle Auto Zero Test 88、 Exhaust Throttle Hysteresis Test 89、 Fan Override Test 90、 Fan Override Test 91、 Fast Idle Warmup Test 92、 Fault Acknowledge 93、 Fault Acknowledge 94、 Fuel Consumption Monitor 95、 Fuel Consumption Monitor 96、 Fuel Control Valve Test 97、 Fuel Control Valve Test 98、 Fuel Injector Control Reset 99、 Fuel Injector Life Reset 100、 Fuel Injector Performance Test
<p>Actuation test</p>	<ul style="list-style-type: none"> 101、 Fuel Injector Power Control Reset 102、 Fuel Injector Reset 103、 Fuel Level Override Test 104、 Fuel or Timing System Table Reset 105、 Fuel Pump Life Reset 106、 Fuel Pump Maintenance 107、 Fuel Shutoff Valve Override Test 108、 Fuel System Leakage Test 109、 Fuel System Leakage Test 110、 Fuel System Table Reset 111、 Gas Throttle Control Test 112、 Glow Plug System Test 113、 Heated Oxygen Sensor Test

<p>Actuation test</p>	<ul style="list-style-type: none"> 114、 High Pressure Common Rail High Pressure Test 115、 High Pressure Common Rail Injector Setup 118、 High Pressure Fuel System Actuator Override Test 119、 HPCR Fuel Pump Performance Test 120、 HPCR Fuel System Supply Capacity Test 121、 HPCR Rapid Leak Test 122、 Hybrid Engine Start Stop Override 123、 Hydrocarbon Air Shutoff Valve Override Test 124、 Hydrocarbon Fuel Shutoff Valve Override Test 125、 Hydrocarbon Injector Override Test 126、 Idle shutdown override
<p>Actuation test</p>	<ul style="list-style-type: none"> 127、 Immobilizer Installation 128、 Injector Check Valve Diagnostics Test 129、 Injector Maintenance 130、 Intake Air Heater Override 131、 Intake Throttle Actuator Test 132、 Lean Oxygen Mass Metric History Log 133、 LIN Error Counters Reset 134、 Maintenance Monitor 135、 OEM Factory Inducement Reset 136、 OEM Oil Change Monitor 137、 Open Loop Mode Lock-In Test 138、 Piezo Fuel System Conditioning 139、 Prelube Control 140、 SAE J1939 Datalink Control Test 141、 Setup for Dynamometer 142、 Shut Off Valve Solenoid Actuator Test 143、 Single Bank Cutout Test 144、 Starter Intake Air Heater Override Test 145、 Starter Lockout Relay Driver Override Test

<p>Actuation test</p>	<p>146、 Stop Start Service Inhibit 147、 Thermal Management System Battery Refrigerant Compressor Override Test 148、 Thermal Management System eHeaters Overheat Unlock 149、 Thermal Management System Manual Deaeration 150、 Turbine Bypass Valve Test 151、 Turbo Bypass Valve Electronic Actuator Calibration 152、 Turbo Bypass Valve Electronic Actuator Install and Calibrate 153、 Turbo Bypass Valve Hysteresis Test 154、 Variable Geometry Turbo 2 Actuator Test 155、 Variable Geometry Turbo Actuator Test 156、 VGT 2 Electronic Actuator Installation and Calibration 158、 VGT 2 Hysteresis Test 159、 VGT Electronic Actuator Installation and Calibration 160、 VGT Hysteresis Test 161、 xEV Battery Pack Isolation Reset 162、 xEV Derate Lamp Monitor</p>
<p>Trip Information</p>	<p>1.All Trips(Cumulative) 2.Trip Since Last Reset 3.Trip Since Last Reset Drive(Vehicle Speed > 0) 4.Trip Information Reset</p>

<p>Features and Parameters</p>	<ol style="list-style-type: none"> 1、 Accelerator Interlock 2、 Accelerator Options 3、 Adjustable Low Idle Speed 4、 AEM Trend Log 5、 Aftertreatment 6、 Aftertreatment Diesel Particulate Filter Ash Adjustment Factor 7、 Aftertreatment Diesel Particulate Filter Regeneration Inhibit Lamp 8、 Aftertreatment Mileage Based DPF Ash Cleaning Feature Enable 9、 Aftertreatment SCR Catalyst Health Management Feature Enable 10、 Aftertreatment Thermal Cycle Count Enable 11、 Air Conditioner Control 12、 Air Conditioner Switch 13、 Air Shut Off Valve 14、 Alternate Torque 15、 Alternator Failure Warning 16、 Anti-Lock Brake (ABS) Controller 17、 Automatic Boost Power 18、 Auxiliary Governor Control
<p>Features and Parameters</p>	<ol style="list-style-type: none"> 19、 Battery Fan Control 20、 Battery Power Required Lamp 21、 Boost Power 22、 Broadcasted Percent Power 23、 Centinel Oil System 24、 Charge Air Cooler Outlet Temperature Sensor 25、 Clutch Pedal Position Switch 26、 Clutch Protection 27、 Cold Idle Warmup 28、 Compressor Intake Density Torque Derate 29、 Constrained Operation 30、 Crankcase Ventilation Heater 31、 Cruise Control 32、 Cruise Control and Engine Brake Interaction 33、 Cruise Control Switch Setup 34、 Customer Constrained Operation 35、 Cyclical Load Acceptance Gain Adjust 36、 Dedicated Fault Lamps 37、 Dedicated Pulse Width Modulation Output

<p>Features and Parameters</p>	<ul style="list-style-type: none"> 38、 Diesel Exhaust Fluid Line Heater Secondary Relay 39、 Driver Reward 40、 Dual Fan Clutch Control 41、 Dual Outputs Based On Sensed Parameters 42、 Electric Fan Control Enable 43、 Electric Fuel Lift Pump 44、 Electrical System Voltage 45、 Engine Brake Control 46、 Engine Coolant Level Sensor 47、 Engine Coolant Level Sensor 2 48、 Engine Oil Level 49、 Engine Oil Pressure Sensor 50、 Engine Overload Protection 51、 Engine Priming Pump Test feature Enable 52、 Engine Protection Active 53、 Engine Rebuild Run Time 54、 Engine Speed Cruise Control 55、 Engine Start Stop Permit
<p>Features and Parameters</p>	<ul style="list-style-type: none"> 56、 Engine Warmup Protection 57、 Enhanced Auxiliary Shutdown Switch 58、 Ether Injection 59、 Fan Control 60、 Fast Idle Warmup 61、 Fault Acknowledge Switch 62、 Final Inducement Restart 63、 Frequency Accelerator Pedal or Lever 64、 Fuel Filter Restriction Indicator Switch 65、 Fuel Level Sensor 2 66、 Fuel Usage Adjustment 67、 Gear Down Protection 68、 Governor Type 69、 High NOx Reset 70、 High Soot Load Shutdown 71、 High Sulphur Protection Inhibit 72、 Hydrocarbon Injector Override Test

<p>Features and Parameters</p>	<ul style="list-style-type: none"> 73、 Idle Rampdown 74、 Idle Shutdown 75、 Immobilizer 76、 Inducement Override Switch 77、 Intake Air Heater 78、 Intermediate Speed Control 79、 J1939 Controls 80、 Load Based Acceleration Control 81、 Load Based Speed Control 82、 Load Based Speed Control - Enhanced 83、 Maintenance Monitor 84、 Multiple Unit Synchronization 85、 Natural Gas Fuel Grade
<p>Features and Parameters</p>	<ul style="list-style-type: none"> 86、 OEM Ambient Air Temperature Sensor 87、 OEM Auxiliary Pressure Sensor Fault Threshold 88、 OEM Auxiliary Switch Input 89、 OEM Auxiliary Temperature 2 90、 OEM Simple Lockout 91、 OEM Specific Oil Change Monitor Functionality Enable 92、 OEM Switch 1 93、 OEM Switch 2 94、 OEM Switch 3 95、 OEM Switch 4 96、 OEM Switch 5 97、 Oil Level Electronic Dipstick 98、 Oil Level Sensor Enhanced 99、 Parking Brake Not Set 100、 Powertrain Protection 101、 Prelube Control 102、 Primary Accelerator Pedal Or Lever 103、 PTO is active 104、 PTO is active

<p>Features and Parameters</p>	<ul style="list-style-type: none"> 105、 Rated Overspeed Protection 106、 Rated Speed Adjust 107、 Remote Accelerator Pedal or Lever 108、 Remote Start 109、 Road Speed Governor 110、 RS422 Communication 111、 SAE J1939 Multiplexing 112、 Service Brake Switch 113、 Service Brake Validation Switch 114、 Single Bank Cutout 115、 Smart Starter Control Feature Enable 116、 Smart Torque 2 117、 Starter Control 118、 Sudden Deceleration Event Settings 119、 Switched Alternate Low Idle Speed 120、 Switched Droop 121、 Switched Maximum Engine Operating Speed 122、 System ID and Dataplate
<p>Features and Parameters</p>	<ul style="list-style-type: none"> 123、 Tire Wear Adjustment 124、 Transmission Accelerator Interlock 125、 Transmission Setup 126、 Trip Information 127、 User Adjustable Fuel Economy 128、 User Adjustable Fuel Economy 129、 Variable Rate Vehicle Acceleration Management 130、 Vehicle Acceleration Management 131、 Vehicle Speed Based Device Driver A 132、 Vehicle Speed Source 133、 Water In Fuel Sensor

<p>Advanced ECM Data</p>	<ol style="list-style-type: none"> 1、 Aftertreatment Close-Coupled Catalyst Outlet Temperature History Log 2、 Aftertreatment DEF Contamination History 3、 Aftertreatment Filter DeGreening 4、 Aftertreatment Maintenance 5、 Aftertreatment Maintenance Filter Installation 6、 Aftertreatment Max Soot Level Per Regen History Reset 7、 Aftertreatment Mileage Based DPF Ash Cleaning 8、 Aftertreatment Particulate Matter Sensor Regeneration 9、 Aftertreatment Reset Dosing Learn 10、 Aftertreatment SCR Catalyst Cold Soak Override 11、 Aftertreatment SCR Maintenance 12、 Aftertreatment SCR Maintenance 2 13、 Aftertreatment SCR System Health Monitor 14、 Aftertreatment SCR System Health Monitor 15、 Aftertreatment SCR System Health Monitor 16、 Aftertreatment Thermal Cycle Count Reset 17、 Aftertreatment Underfloor Catalyst Outlet Temperature History Log 18、 Alternator Feedback Monitor
<p>Advanced ECM Data</p>	<ol style="list-style-type: none"> 19、 Diesel Exhaust Fluid Doser Purge Counter 20、 Diesel Exhaust Fluid Pump Filter Life Reset 21、 DPF Ash Reset 22、 Dual Fueling Table Override 23、 Duty Cycle Monitor 24、 Duty Cycle Monitor 25、 Ether Injection Reset 26、 Fault Acknowledge 27、 Fault Acknowledge 28、 Fuel Consumption Monitor 29、 Fuel Consumption Monitor 30、 Fuel Injector Control Reset 31、 Fuel Injector Power Control Reset 32、 Fuel Injector Reset 33、 Fuel or Timing System Table Reset 34、 Fuel Pump Maintenance 35、 Fuel System Table Reset 36、 High Pressure Common Rail Injector Setup

Advanced ECM Data	<ul style="list-style-type: none"> 37、 Hybrid Engine Start Stop Override 38、 Idle shutdown override 39、 Immobilizer Installation 40、 Injector Maintenance 41、 Lean Oxygen Mass Metric History Log 42、 LIN Error Counters Reset 43、 Maintenance Monitor 44、 OEM Factory Inducement Reset 45、 OEM Oil Change Monitor 46、 Piezo Fuel System Conditioning 47、 Prelube Control 48、 Stop Start Service Inhibit 49、 Thermal Management System eHeaters Overheat Unlock 50、 xEV Battery Pack Isolation Reset 51、 xEV Derate Lamp Monitor 52、 Turbocharger Actuator Compatibility 53、 Vehicle Classification 54、 Real Time Clock
ECM Password	✓
ECM Password Removal	✓
History or Log	✓
Audit Trail	✓
Demo Mode	✓
Display wiring diagram	✓

More parameters and configuration	✓
Expert Function	✓
Packet optimization	✓
Packet conversion	✓