

DIESEL HEAVY VEHICLE

INTERNATIONAL

VERSION: v7.64

SYSTEM COVERAGE:

Engine

1. MWM Euro III
2. MWM Euro IV
3. 3 Box I6(1994 - 1997)
4. 3 Box V8(1994 - 1997)
5. DLC I6(1998-2004)
6. DLC V8(1998-2004)
7. DLCII I6(2004-2006)
8. DLCII V6(2005-2006)
9. DLCII V8(2002-2006)
10. MaxxForce 5 (2007 - 2009)
11. MaxxForce 7 (2007 - 2009)
12. MaxxForce 7 (2010 - 2012)
13. MaxxForce 7 (2013 -)
14. MaxxForce 11/13 (2008 - 2009)
15. MaxxForce 11/13 (2010 - 2012)
16. MaxxForce 13 (2013)
17. MaxxForce 15 (2011 - 2012)
18. MaxxForce DT/9/10 (2007 - 2009)
19. MaxxForce DT/9/10 (2010 - 2012)
20. MaxxForce DT/9/10 (2013 -)
21. N13 SCR (2013 -)

22. N9/N10 SCR (2014 -)

23. International A26 (2017-)

Transmission

1. Allison Transmission

Instrument cluster

1. Instrument cluster 1
2. Instrument cluster 2

Basic functions:

1. Read ECU Information
2. Read Fault Code
3. Erase Fault Code
4. Live Data
5. Actuation Test

Special functions:

1. Transmission Setup
2. Engine Warn Protection System
3. Road Speed limiting/Cruise Control
4. PTO
5. Greardown Protection
6. Speedo,Tire,Axle Setup
7. Progressive Shift
8. Engine Brake
9. Driver Rewards
10. Idle Shutdown Timer
11. Engine Fan
12. Powertrain Protection

13. Momentary Road Speed Limiting
14. Customer Password
15. Service Interval
16. Service Diagnostic Resets
17. Coolant System Flush
18. VGT Full Travel Learn(Engineering Access Only)
19. Injector Quantity Adjustment(Software Access Only)
20. MAF Sensor Calibration
21. PM Sensor Calibration(Engineering Access Only)

VOLVO

VERISON: v7.63

Basic functions:

1. Read ECU Information
2. Read Fault Code
3. Erase Fault Code
4. Live Data

J1708 (Old models)

Actuation Test:

1. Injector Cut Out,Manual
2. Cylinder Compression,Test
3. Learned Data Reset
4. Oil Pressure Test(During Cranking)
5. Cylinder Balancing,Test
6. Draining Water in the Fuel,Test
7. Engine Brake Function,Test

8. Diesel Particulate Filter Service Regeneration
9. Warm-Hold Function Test
10. Exhaust Aftertreatment Diagnostics
11. Function Monitoring Parameters,Reset
12. SCR, Diesel Exhaust Fluid, Crystal Sublimation
13. SCR System, Test
14. SCR System Drain, Test
15. Actuator By-Pass Valve, Test
16. Exhaust Aftertreatment System Logged Data
17. Electrically Controlled Engine Cooling Fan(FC),Test
18. Exhaust Gas Recirculation, Function Test
19. Fuel Supply Pressure, Check
20. Fuel Consumption, Check
21. Power Consuming Equipment,Fuel Volume,Check
22. Test Drive, Response
23. Preheat, Test
24. Sensor Values History
25. Boost Pressure, Test Drive
26. Intake and Exhaust Systems, Checks
27. Sensor Values, Monitoring
28. Transmission Speed Sensor,Test
29. Oil Sensor Signals, Test
30. Vehicle Inclination Sensor, Test
31. Clutch Wear Check Test
32. Clutch Drag, Test
33. Range Cylinder, Test
34. Split Cylinder, Test
35. Gear Selector Cylinder 2/3, Test

36. Gear Selector Cylinder 1/Reverse, Test
37. PWM valves clutch test
38. Solenoid valves test
39. Gears, Test
40. 40010-3-Clutch Cylinder test
41. Activate ABS valve test
42. Brake pads test
43. ESP Function Switching On and Off Test
44. TCS Function Shut off Test
45. Solenoid control valves ABS test
46. Foot brake valve test
47. Gauge Checks, Instrument Cluster
48. Instrument Cluster, Test
49. Accelerator Pedal, Test
50. Control Auxiliary Brake Test
51. Air Dryer Solenoid Valves Test
52. Ignition Switch Test
53. Cruise control test
54. Idle Shutdown Function Check
55. Pneumatic System Status
56. 17073-3-Service Alert System,Configuration and Reports
57. Pressure Sensor,Test
58. Level Sensor Test
59. Solenoid Valves, Test
60. Rear axle steering control valve test
61. Intermittent Wiper Test
62. Pressure Setting Retarder Test
63. PWM Valve Retarder,Test

Calibration functions:

- 1. Variable Geometry Turbo, Calibration**
2. 40010-3-Clutch Cylinder test
3. 40070-3-Transmission and Clutch,Pulling Position,Calibration(VOLOV Trunck FL)
4. 40070-3-Transmission and Clutch,Pulling Position,Calibration
5. 40084-3-Clutch Stroke Length and Wear,Calibration
6. 40104-3-Transmission,Calibration
7. 40053-3-Clutch Engagement Point,Calibration
8. 50007-3-Brake pad wear sensor front axle,calibration
9. 50018-3-Brake pad wear sensor rear axle,calibration
10. 59358-3-Steering angle sensor,calibration
11. 59361-3-Steering yaw rate,calibration
12. 59377-3-Reinitiate learned parameters,calibration
- 13. 38252-3-Fuel level gauge, calibration**
- 14. 38253-3-Oil pressure gauge, calibration**
- 15. 38254-3-Coolant temperature gauge, calibration**
- 16. 38255-3-Intake manifold pressure gauge, calibration**
- 17. Telematics control unit,reset(Volvo Construction Equipment)**
- 18. 17073-3-Service Alert System,Configuration and Reports**
- 19. 56185-3-Air Dryer Setting Resetting,Calibration**
20. 72911-3-Level sensor,calibration(one axle)
21. 72881-3-Level sensor,calibration
22. 64235-3-Steering Angle Seneor,Steering Gear/Hydraulic Cylinder,Calibrating
23. 2589-07-03-02-SCR SCRT Freeze Monitor,Calibration

Special functions:

1. Parameter.Programming

J1939(500K)

Actuation Test:

1. Fuel pressure
2. Fuel consumption,checks
3. Injector cut out,manual
4. Injector Function
5. Cylinder balancing reset
6. Cylinder compression
7. Oil pressure test(during cranking)
8. Boost pressure,test drive
9. Response,test drive
10. Intake and Exhaust system,checks
11. Warm hold function
12. Exhaust Gas Rescirculation Function
13. Variable Geometry Turbo Function
14. Piston cooling valve
15. Exhaust Aftertreatment System,Service Regeneration
16. Nox conversion
17. Exhaust Aftertreatment Diagnostics
18. Aftertreatment diagnostic active test
19. After-treatment fuel injector dosing test(extended)
20. After-treatment fuel injector dosing test(reduced)
21. Retarder control valve
22. Retarder PWM valve
23. SCR system diagnostic test(with injection)-->
24. Aftertreatment selective catalytic reduction(SCR)system
25. SCR system drain

26. SCR system,forced heating
27. Clutch wear checks
28. Clutch Drag
29. PWM Valves Clutch Activation
30. Solenoid valve,transmission brake(Input shaft brakeCountershaft brake)
31. Clutch cylinder
32. Range cylinder
33. Split cylinder
34. Gear selector cylinder 2/3
35. Gear selector cylinder 1/Reverse
36. PWM valves clutch
37. Transmission speed sensor
38. Pressure sensor
39. Brake Pads
40. Start ABS valve,test
41. Rear wheels control valve
42. Wheel speed sensor
43. ECU, electronically controlled hydraulic axle input/output status
44. Idle Shutdown Function Check
45. Service Alert System,Configuration and Reports
46. Starting gear selection,readout
47. APM status
48. Pneumatic system status

Special functions:

1. Injector Codes
2. Function parameters reset
- 3. Max Engine Speed when Stationary**

4. **Customer Road Speed Limit**
5. **Road Speed Limit, Legislated**
6. SCR Freeze Monitor
7. Retarder valve calibration
8. **40104-3 Gearbox calibration**
9. **40070-3 Gearbox, clutch, engagement point calibration**
10. Reinitialize the read parameters
11. **Steering angle sensor calibration**
12. **Yaw rate sensor calibration**
13. **Rear axle active steering calibration**
14. **Air dryer calibration**
15. **Rain sensor calibration**
16. **Level sensor calibration**

MACK

VERSION: v7.63

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7. Engine Brake Function,Test
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9. Warm-Hold Function Test
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11. Function Monitoring Parameters,Reset
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13. SCR System, Test
14. SCR System Drain, Test
15. Actuator By-Pass Valve, Test
16. Exhaust Aftertreatment System Logged Data
17. Electrically Controlled Engine Cooling Fan(FC),Test
18. Exhaust Gas Recirculation, Function Test
19. Fuel Supply Pressure, Check
20. Fuel Consumption, Check
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25. Boost Pressure, Test Drive
26. Intake and Exhaust Systems, Checks
27. Sensor Values, Monitoring
28. Transmission Speed Sensor,Test
29. Oil Sensor Signals, Test
30. Vehicle Inclination Sensor, Test
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Special functions:

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J1939(500K)

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2. Fuel consumption,checks
3. Injector cut out,manual
4. Injector Function
5. Cylinder balancing reset
6. Cylinder compression
7. Oil pressure test(during cranking)
8. Boost pressure,test drive
9. Response,test drive
10. Intake and Exhaust system,checks
11. Warm hold function
12. Exhaust Gas Rescirculation Function
13. Variable Geometry Turbo Function
14. Piston cooling valve
15. Exhaust Aftertreatment System,Service Regeneration
16. Nox conversion
17. Exhaust Aftertreatment Diagnostics
18. Aftertreatment diagnostic active test
19. After-treatment fuel injector dosing test(extended)
20. After-treatment fuel injector dosing test(reduced)
21. Retarder control valve

22. Retarder PWM valve
24. Aftertreatment selective catalytic reduction(SCR)system
25. SCR system drain
26. SCR system,forced heating
- 27. Clutch wear checks**
28. Clutch Drag
29. PWM Valves Clutch Activation
30. Solenoid valve,transmission brake(Input shaft brakeCountershaft brake)
- 31. Clutch cylinder**
- 32. Range cylinder**
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- 35. Gear selector cylinder 1/Reverse**
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37. Transmission speed sensor
38. Pressure sensor
39. Brake Pads
40. Start ABS valve,test
41. Rear wheels control valve
42. Wheel speed sensor
43. ECU, electronically controlled hydraulic axle input/output status
44. Idle Shutdown Function Check
- 45. Service Alert System,Configuration and Reports**
46. Starting gear selection,readout
47. APM status
48. Pneumatic system status

Special functions:

1. Injector Codes
2. Function parameters reset
- 3. Max Engine Speed when Stationary**
- 4. Customer Road Speed Limit**
- 5. Road Speed Limit, Legislated**
6. SCR Freeze Monitor
7. Retarder valve calibration
- 8. 40104-3 Gearbox calibration**
- 9. 40070-3 Gearbox, clutch, engagement point calibration**
- 10. Reinitialize the read parameters**
- 11. Steering angle sensor calibration**
- 12. Yaw rate sensor calibration**
- 13. Rear axle active steering calibration**
- 14. Air dryer calibration**
- 15. Rain sensor calibration**
- 16. Level sensor calibration**

DIESEL ENGINE

CUMMINS

VERSION: V8.56

SYSTEM COVERAGE:

1. Cummins EU IV / V / VI diesel engines
2. Cummins EU III diesel engines

Basic functions:

1. Read ECU Information

2. Read Fault Code
3. Erase Fault Code
4. Freeze Frame Data
5. Read Data Stream

Action test

1. Aftertreatment Current Based Particulate Matter Sensor Regeneration Test
2. Aftertreatment Diesel Exhaust Fluid Pump Heater Test
3. Aftertreatment Diesel Exhaust Fluid System Leak Test
4. Aftertreatment Diesel Particulate Filter Regeneration
5. Aftertreatment High NOx Reset
6. Aftertreatment SCR Catalyst Desulphurization
7. Aftertreatment SCR Catalyst Health Management
8. Aftertreatment SCR Performance Test
9. Aftertreatment Shutoff Valve and Injector Override Test
10. Aftertreatment Temperature Sensor Test
11. Agility Fuel Level Override Test
12. Agility Solenoid Actuator Test
13. Centinel Operational Test
14. Cylinder Cutout Test
15. Diesel Exhaust Fluid Doser Pump Air Solenoid Click Test
16. Diesel Exhaust Fluid Doser Pump Override Test
17. Diesel Exhaust Fluid Doser System Heater Test
18. Dual Fan Clutch Test
19. EFC Actuator Override Test
20. EGR Valve Test
21. Electric Fuel Lift Pump Override Test
22. Engine Protection Witness Test

23. Engine Priming Pump Test
24. Engine State Monitor
25. Fan Override Test
26. Fast Idle Warmup Test
27. Fuel Injector Performance Test
28. Fuel System Leakage Test
29. Gas Throttle Control Test
30. Heated Oxygen Sensor Test
31. Injector Check Valve Diagnostics Test
32. Intake Air Heater Override
33. Power Generation Tuning Test
34. SAE J1939 Datalink Control Test
35. Setup for Dynamometer
36. Starter Lockout Relay Driver Override Test
37. VGT Electronic Actuator Installation and Calibration
38. VGT Hysteresis Test

Features and Parameters:

1. System ID and Dataplate
2. Accelerator Interlock
3. Accelerator Options
4. Adjustable Low Idle Speed
5. AEM Trend Log
6. Aftertreatment
7. Aftertreatment Diesel Particulate Filter Regeneration Inhibit Lamp
8. Air Conditioner Control
9. Air Conditioner Switch
10. Air Shut Off Valve

11. Alternate Torque
12. Alternator Failure Warning
13. Anti-Lock Brake (ABS) Controller
14. Automatic Boost Power
15. Auxiliary Governor Control
16. Battery Power Required Lamp
17. Boost Power
18. Broadcasted Percent Power
19. Centinel Oil System
20. Charge Air Cooler Outlet Temperature Sensor
21. Clutch Pedal Position Switch
22. Clutch Protection
23. Cold Idle Warmup
24. Constrained Operation
25. Compressor Intake Density Torque Derate
26. Crankcase Ventilation Heater
27. Cruise Control
28. Cruise Control and Engine Brake Interaction
29. Customer Constrained Operation
30. Cyclical Load Acceptance Gain Adjust
31. Dedicated Fault Lamps
32. Dedicated Pulse Width Modulation Output
33. Driver Reward
34. Dual Fan Clutch Control
35. Dual Outputs Based On Sensed Parameters
36. Electric Fuel Lift Pump
37. Electrical System Voltage
38. Engine Brake Control

39. Engine Coolant Level Sensor
40. Engine Coolant Level Sensor 2
41. Engine Oil Level
42. Engine Oil Pressure Sensor
43. Engine Overload Protection
44. Engine Protection
45. Engine Rebuild Run Time
46. Engine Speed Cruise Control
47. Engine Start Stop Permit
48. Engine Warmup Protection
49. Enhanced Auxiliary Shutdown Switch
50. Ether Injection Enable
51. Fan Control
52. Fan Control Trim Extension
53. Fault Acknowledge Switch Enable
54. Fast Idle Warmup
55. Final Inducement Restart
56. Frequency Accelerator Pedal or Lever
57. Fuel Filter Restriction Indicator Switch
58. Fuel Grade Enable
59. Fuel Level Sensor 2
60. Fuel Usage Adjustment
61. Gear Down Protection
62. Governor Type
63. High NOx Reset
64. High Pressure Common Rail Injector Setup Enable
65. High Soot Load Shutdown
66. High Sulphur Protection Inhibit

67. Idle Rampdown
68. Idle Shutdown
69. Immobilizer
70. Inducement Override Switch
71. Intake Air Heater
72. Intermediate Speed Control
73. J1939 Controls
74. Load Based Acceleration Control
75. Load Based Speed Control
76. Load Based Speed Control - Enhanced
77. Maintenance Monitor
78. Multi Function Switch Enable
79. Multiple Unit Synchronization
80. OEM Ambient Air Temperature Sensor
81. OEM Auxiliary Pressure Sensor Fault Threshold
82. OEM Auxiliary Switch Input
83. OEM Auxiliary Temperature 2
84. OEM Simple Lockout
85. OEM Switch 1
86. OEM Switch 2
87. OEM Switch 3
88. OEM Switch 4
89. OEM Switch 5
90. Oil Level Electronic Dipstick
91. Oil Level Sensor Enhanced
92. Parking Brake Switch
93. Powertrain Protection
94. Primary Accelerator Pedal Or Lever

95. PTO
96. Rated Overspeed Protection
97. Rated Speed Adjust
98. Remote Accelerator Pedal or Lever
99. Remote Start
100. Road Speed Governor
101. RS422 Communication
102. SAE J1939 Multiplexing
103. Service Brake Switch
104. Service Brake Validation Switch
105. Single Bank Cutout
106. Smart Torque 2
107. Starter Lockout
108. Starter Control
109. Sudden Deceleration Event Settings
110. Switched Alternate Low Idle Speed
111. Switched Droop
112. Switched Maximum Engine Operating Speed
113. Tire Wear Adjustment
114. Transmission Accelerator Interlock
115. Transmission Setup
116. Trip Information
117. User Adjustable Fuel Economy
118. Variable Rate Vehicle Acceleration Management
119. Vehicle Acceleration Management
120. Vehicle Speed Based Device Driver A
121. Vehicle Speed Based Driver B
122. Vehicle Speed Sensor Anti-Tampering

123. Vehicle Speed Source

124. Water In Fuel Sensor

125. Aftertreatment Ash Adjustment Factor

Advanced ECM Data:

1. Aftertreatment Maintenance
2. Aftertreatment Maintenance Filter Installation
3. Aftertreatment Particulate Matter Sensor Regeneration
4. Aftertreatment SCR Catalyst Cold Soak Override
5. Aftertreatment Filter DeGreening
6. Aftertreatment Max Soot Level Per Regen History Reset
7. Diesel Exhaust Fluid Doser Purge Counter
8. Duty Cycle Monitor
9. Fuel Consumption Monitor
10. Fuel System Table Reset
11. Fuel Injector Reset
12. Fuel Injector Power Control Reset
13. High Pressure Common Rail Injector Setup
14. Hybrid Engine Start Stop Override
15. Idle Shutdown Override
16. Immobilizer Installation
17. Maintenance Monitor
18. Turbocharger Actuator Compatibility
19. Vehicle Classification

Audit Trail

History or Log

ECM Password:

1. ECM Password
2. **ECM Password Removal**

DETROIT

VERSION: v6.36

SYSTEM COVERAGE:

1. DDDL7 (EPA07 and EPA10 engines)
2. DDDL6 (EPA04 and earlier engines)
3. DD13/DD15
4. Series 60(6067HG6E)
5. Series 60(6067HV6E)
6. Series 60(6067MK60)
7. MBE 900(904)
8. MBE 900(924)
9. MBE 900(906)
10. MBE 900(926)
11. MBE 4000(457)
12. MBE 4000(460)
13. OM 501(6)
14. OM 502(8)
15. Series 60
16. Series 55
17. Series 50
18. Series 30
19. V92 RH rotation

20. V92 LH rotation
21. V149 RH rotation(6)
22. V149 LH rotation(6)
23. V149 RH rotation
24. V149 LH rotation
25. I71 RH rotation
26. I71 LH rotation
27. V71 RH rotation
28. V71 LH rotation
29. V2000 RH rotation
30. V4000 RH rotation
31. V4000 LH rotation
32. Vitas Motori
33. V53 LH rotation
34. V53 RH rotation
- 35. Common Powertrain Module(CPC302T)(500K)**
- 36. Motor Control Module(MCM21T)(500K)**
- 37. Aftertreatment Control Module(ACM21T)(500K)**
- 38. Transmission Control Module(TCM01T)(500K)**

Basic functions:

1. Read ECU Information
2. Read Fault Code
3. Erase Fault Code
4. Read Data Stream

Special functions:

1. Fuel Economy

2. Speed Limiter
3. PTO
4. Progressive shift
5. Optimized Idle
6. Inputs and Outputs
7. Idle and PTO Shutdown
8. Cruise Control
9. Engine Brake Config
10. Engine Protection
11. Fan
12. Fleet Management
- 13. Transmission**
- 14. Communication**
- 15. Vehicle Parameters I**
- 16. Common Limiters**
- 17. Surge Damp**
- 18. Limiters LIM0 and LIM1**
- 19. Limiters AC and LIM2**
- 20. PTO Control on PTO and CC pin**
- 21. Vehicle Speed Sensor**
- 22. Analog Outputs**
- 23. Engine Brake**
- 24. Accelerator Pedal**
- 25. Optimized Idle**
- 26. Inputs**
- 27. Relay 3 and 4**
- 28. Cruise Control**
- 29. Relay 1 and Starter Lockout**

- 30. Idle and PTO Shutdown**
- 31. Engine Protection Shutdown**
- 32. Automatic Fan Activation**
- 33. Remote Accelerator Pedal**
- 34. Droop Control Mode**
- 35. Limiters II**
- 36. Vehicle Parameters**
- 37. Engine Configuration**
- 38. Coolant Level Sensor**
- 39. Digital Outputs**
- 40. Vehicle Speed Governor**
- 41. Diesel Particulate Filter**
- 42. Soft Cruise**
- 43. Predictive Cruise Control**
- 44. Inactive Shutdown**
- 45. Release GVC-CAN data received**
- 46. Vehicle model**
- 47. Vehicle class**
- 48. Vehicle brand**
- 49. Exhaust gas class**
- 50. ABS Type**
- 51. transmission model family**
- 52. EAPU mounted**
- 53. EZS mounted**
- 54. Halt brake mounted**
- 55. PSM mounted**
- 56. SCA mounted**
- 57. SCH mounted**

- 58. VPDU mounted
- 59. CGW mounted
- 60. Entire parameter concept
- 61. Enable Condition Ignition Status
- 62. Injector Codes
- 63. Transmission
- 64. Optimized Idle
- 65. Cruise Control
- 66. DPF System
- 67. DPF Ash Accumulator
- 68. Write VIN
- 69. Engine Serial Number
- 70. Service Routines
- 71. Configure Passwords
- 72. Injector calibration
- 73. Injector response time
- 74. Cylinder Test
- 75. CAN configuration
- 76. Proportional valves

PACCAR

VERSION: v5.22

SYSTEM COVERAGE:

1. 9-Pin Deutsch – TYPE I GENERAL Connector (PCI / EAS-3)
2. 9-Pin Deutsch – TYPE II GREEN Connector (PCI / EAS-4)

Basic functions:

1. Read ECU Information
2. Read Fault Code
3. Erase Fault Code
4. Read Data Stream

Actuation test & Special Function:

1. 9-Pin Deutsch – TYPE I **GENERAL** Connector (PCI / EAS-3):

- 1) Cut-out the injectors
- 2) Activate the MX Engine Brake**
- 3) Activate the red engine warning**
- 4) Activate the yellow engine warning**
- 5) Activate the Malfunction Indicator Lamp**
- 6) Enable or disable the engine idle shutdown timer**
- 7) Disable the DEF derate**
- 8) Reset the common rail pressure release valve**
- 9) Read CAL-ID and CVN**
- 10) Regenerate the DPF**
- 11) Activate the air shutoff valve**
- 12) Activate the fuel dosing valve**
- 13) Activate the DEF pipe heaters**
- 14) Activate the DEF pump heater**
- 15) Activate the DEF tank heater valve**
- 16) Activate the DEF reverting valve**
- 17) Install a new DPF**
- 18) Install a cleaned DPF**
- 19) Install and calibrate the VTG turbocharger actuator**
- 20) Change the injector codes

2. 9-Pin Deutsch – TYPE II GREEN Connector (PCI / EAS-4):

- 1) Cut-out the injectors**
- 2) Diagnose the turbo actuator**
- 3) Check if the common rail pressure release valve is stuck in closed position**
- 4) Activate the MX Engine Brake**
- 5) Activate the red engine warning**
- 6) Activate the yellow engine warning**
- 7) Activate the Malfunction Indicator Lamp**
- 8) Regenerate the DPF**
- 9) Activate the mobile regeneration trigger(engineer level)**
- 10) Activate the air shutoff valve**
- 11) Activate the fuel dosing valve**
- 12) Check delivery fuel dosing valve**
- 13) Check leakage fuel dosing valve**
- 14) Check the fuel shutoff valve**
- 15) Check the particulate matter sensor**
- 16) Check the DEF pump module pressure and DEF output**
- 17) Prime the system with the DEF pump**
- 18) Activate the DEF pipe heaters**
- 19) Activate the DEF tank heater valve**
- 20) Enable or disable the engine idle shutdown timer**
- 21) Disable the EGR derate**
- 22) Install and calibrate the VTG turbocharger actuator**
- 23) Enable regeneration after aftertreatment system repair**
- 24) Disable the DEF derate**
- 25) Change the injector codes**
- 26) Reset the common rail pressure release valve**
- 27) Read CAL-ID and CVN**

28) Reset the soot level

29) Install a new DPF

30) Install a cleaned DPF

ABS + TRANSMISSIONS

ALLISON (T)

VERSION: v5.38

SYSTEM COVERAGE:

1. 1000/2000 Product Families(4th Generation)
2. 3000/4000 Product Families(4th Generation)
3. 1000/2000 Product Families(5th Generation)
4. 3000/4000 Product Families(5th Generation)
5. 1000/2000 Product Families(Pre-4th Generation)
6. CEC3-5610,6610,8610,9610,9810
7. TC10
8. WTEC II
9. WTEC III

Basic functions:

1. Read ECU Information
2. Read Fault Code
3. Erase Fault Code
4. Read Data Stream
5. Actuation Test

Actuation Test:

1. Clutch Test Enabled
2. Solenoid Test
3. Reset Adaptive Shift Parameters
4. Reset Fast Adaptive
5. Reset Throttle Calibration
6. Lamp Tests
7. Reset Auto-Detect
8. Reset Auto-Detect Retarder
9. Reset SEM Auto-Select
10. Reset Prognostics Information

Special functions:

Input wires:

1. Input-Secondary Mode
2. Input-Secondary Mode
3. Input-Auxiliary Function Range Inhibit
4. Input-Auxiliary Function Range Inhibit
5. Input-PTO Enable
6. Input-PTO Enable
7. Input-Engine Brake Enable and Pre-Select Request 1
8. Input-Engine Brake Enable and Pre-Select Request 1
9. Input-Auto Neutral Single Input
10. Input-Auto Neutral Single Input
11. Input-Lock Up Pump Mode(FTPM)
12. Input-Lock Up Pump Mode(FTPM)
13. Input-Reverse Enable
14. Input-Reverse Enable

15. Input-Kickdown Switch
16. Input-Kickdown Switch
17. Input-Reverse Inhibit With Preselect Request
18. Input-Reverse Inhibit With Preselect Request
19. Input-Service Brake Status Inverted
20. Input-Service Brake Status Inverted
21. Input-Service Brake Status Non-Inverted
22. Input-Service Brake Status Non-Inverted
23. Input-4WD Transfer Case Low
24. Input-4WD Transfer Case Low
25. Input-Grade Braking Disable
26. Input-Grade Braking Disable
27. Input-Overdrive Disable
28. Input-Overdrive Disable
29. Input-ABS Active
30. Input-ABS Active
31. Input-Retarder Enable
32. Input-Retarder Enable
33. Input-Low Traction Mode
34. Input-Pump Pack Enable
35. Input-Pump Pack Enable
36. Input-RELS
37. Input-Engine Brake and Pre-select Request 2
38. Input-Shift Selector Transition(SST)
39. Input-Shift Selector Transition w/2nd Schedule
40. Input-Aux Function Range Inhibit 1 Special
41. Input-Aux Function Range Inhibit 2 Special
42. Input-Direct Hold

43. Input-Selector Display Blanking
44. Input-Auxiliary Hold
45. Input-Direction Change Enable
46. Input-Auto 2 to 1 Pre-select
47. Input-D1 Selection
48. Input-Auto Neutral Dual Input
49. Input-Automatic Neutral
50. Input-Two Speed Axle Enable
51. Input-Two Speed Axle Monitor
52. Input-Max Range Hold
53. Input-Manual Lockup
54. Input-Manual Lockup Enable
55. Input-Quick to Neutral Oil Field Pump
56. Input-Differential Clutch Request
57. Input-Neutral Very Low Request
58. Input-Brake Based Automatic Neutral
59. Input-Preselect Request
60. Input-High N/V 1
61. Input-High N/V 2
62. Input-Auto Neutral Single Input W/S S Override
63. Input-Idle Start/Stop Input 1
64. Input-Idle Start/Stop Input 2
65. Input-2nd Gear Start

Output wires:

1. Output-PTO Enable
2. Output-PTO Enable
3. Output-Engine Brake Enable-Inverted

4. Output-Engine Brake Enable - Non-Inverted
5. Output-Engine Brake Enable - Non-Inverted
6. Output-Range Indicator
7. Output-Range Indicator
8. Output-Output Speed Indicator A
9. Output-Output Speed Indicator A
10. Output-Retarder Indicator
11. Output-Retarder Indicator
12. Output-Sump Temp Indicator
13. Output-Sump Temp Indicator
14. Output-Secondary Mode Indicator
15. Output-Secondary Mode Indicator
16. Output-Range Inhibit Indicator-RLL
17. Output-Range Inhibit Indicator-RLL
18. Output-ABS Indicator
19. Output-Overdrive Disable Indicator
20. Output-Low Traction Indicator
21. Output-Two Speed Axle Indicator
22. Output-Lockup Indicator
23. Output-Output Speed Indicator B
24. Output-Engine Overspeed Indicator
25. Output-PTO Overspeed Indicator
26. Output-Differential Clutch Indicator
27. Output-Neutral Indicator for PTO
28. Output-Strip Selector Range Indicator
29. Output-T-Case 4WD Low Indicator

Reprogramming CMCs:

1. PTO Enable
2. Automatic Neutral for PTO
3. Engine Brake and Pre-Select Request
4. Output Speed Indicator A
5. Brake Based Automatic Neutral
6. Preselect Request
7. Prognostics
8. VAC

Customer Modifiable Constant:

1. Automatic Neutral Engage
2. PTO Enable
3. Engine Brake and Pre-Select Request
4. Range Indicator
5. Output Speed Indicator A
6. Engine Overspeed Indicator
7. Oil Level Sensor
8. Retarder Parameters
9. Two Speed Axle Enabled
10. Neutral Indicator for PTO
11. Primary Mode
12. Secondary Mode
13. Shift Selectors
14. Pump Mode
15. Alternate Gear Start
16. Inhibits
17. Preselect Request
18. Prognostics

19. LBSS

EATON

VERISON: v5.11

J1708 数据

Basic functions:

1. Read ECU Information
2. Read Fault Code
3. Erase Fault Code
4. Live Data

Actuation Test:

1. Driver Interface Type Calibration
2. Hybrid Park Pawl (T-Handle) Calibration
3. Hybrid Clutch Service Utility
4. Grade Sensor Calibration
5. Grade Sensor Calibration

Special Function:

Product Configuration

1. Product Identification
2. Configuration

BENDIX (T)

VERSION: v5.13

SYSTEM COVERAGE:

1. EC-17

2. EC-30
3. EC-60
4. A18
5. ABS U1x
6. ABS2x
7. AutoVue3G
8. EC-30T
9. EC-80
10. FLC20
11. MC-30
12. SDP
13. TABS6
14. TABS6 MV
15. TABS6 MV MC
16. TABS6 Advanced 5v CAN
17. TABS6 Adv MC 5v CAN
18. TPMS
19. Tractor Lift Axle ABS
20. VORAD VS400/DIU
21. VS500
22. Wingman

Basic functions:

1. Read ECU Information
2. Read Fault Code
3. Erase Fault Code
4. Read Data Stream
5. Actuation Test

Special functions:

1. Controller Configuration
2. Reset ABS Controller
3. Dyno Mode
- 4. Tire Size**
- 5. SPTAC Calibration**

WABCO (A)

VERSION: v5.92

SYSTEM COVERAGE:

1. Tractor ABS Diagnosis
2. Hydraulic ABS Diagnosis
3. ECAS Bus A
4. Trailer RSS Diagnosis
5. Trailer ABS Diagnosis
6. Pneumatic ABS(J1939)
- 7. ST Hydr J1939**
- 8. Air Suspension(Wabco ECAS)**

Basic functions:

1. Read ECU Information
2. Read Fault Code
3. Erase Fault Code
4. Live Data
5. Actuation Test

Special functions:

1. **Netobook**
2. **Lift Axle**
3. **Utility/reset ECU**
4. **Utility/engineering data**
5. **End of Line(EOL)/system checked bit**

ZF (T)

VERSION: v5.02

SYSTEM COVERAGE:

1. FreedomLine TransSoft Diagnostics
2. **SureShift Diagnostics**

Basic functions:

1. Read ECU Information
2. Read Fault Code
3. Erase Fault Code
4. Live Data
5. Actuation Test

Special functions:

1. **Change the transaxle speed ratio**
2. **Active engine braking**
3. **Reset shift counter to 0**
4. **Read parameters**
5. **Setting parameters**

Haldex

VERSION: v5.00

Basic functions:

- 1.Read ECU Information
- 2.Read Fault Code
- 3.Erase Fault Code
- 4.Actuation Test

Wabash

VERSION: v5.00

Basic functions:

- 1.Read ECU Information
- 2.Read Fault Code
- 3.Erase Fault Code
- 4.Actuation Test

Special functions:

1. Trailer Unit Number
2. Trailer VIN

AGRICULTURAL MECHINERY

JOHN DEERE

VERSION: v7.26

SYSTEM COVERAGE:

1. ECU - Yanmar Controller
2. ECU - Level B1
3. ECU - Level D1
4. ECU - Engine Level 0
5. ECU - Engine Level 1
6. ECU - Engine Level 3
7. ECU - Engine Level 4
8. ECU - Engine Level 6
9. ECU - Engine Level 8
10. ECU - Engine Level 9
11. ECU - Engine Level 11
12. ECU - Engine Level 12
13. ECU - Engine Level 14
14. ECU - Engine Level 15
15. ECU - Engine Level 16
16. ECU - Engine Level 17
17. ECU - Engine Level 18
18. ECU - Engine Level 21
19. ECU - Engine Level 22
20. ECU - Engine Level 23
21. ECU - Engine Level 24
22. ECU - Engine Level 25

23. ECU - Engine Level 32
24. ECU - Engine Level 33
25. ECU - Engine Level 34
26. Other system (J1939 OBD)

Basic functions:

1. Read ECU Information
2. Read Fault Code
3. Erase Fault Code
4. Read Data Stream

Actuation test & Special Function:

- 1. Air_Throttle_Actuator_Recalibration**
- 2. AT_Latched_DTC**
- 3. Communication_Error_Test**
- 4. Compression_Mem**
- 5. Compression_Test**
- 6. Control_Unit_Information**
7. Cylinder_Bits_Cutout_Procedure
8. Cylinder_Cutout_Test
- 9. Cylinder_Misfire_Test**
- 10. EGR_Valve_Clean_Test**
- 11. EGR_Valve_Recalibration**
- 12. EGRIT4_Valve_Recalibration_Test**
- 13. Engine_Fan_Speed_Change_Test**
- 14. Engine_Hourmeter**
- 15. Engine_Speed_Change_Test**
- 16. Harness_Diagnostic_Mode_Test**

- 17. Injector_Calibration**
- 18. injector_calibration_nocheck**
- 19. Injector_Cleaning_Test**
- 20. Injector_Cutout_Test**
21. Service_DPF_Regen
22. Service_Regen_NoSoot
- 23. Spark_Cutout_Test**
- 24. UEGO_Sensor_Calibration**
- 25. VGT_Learn_Value_Reset**
- 26. YANMAR_Actuator_Test**
- 27. Yanmar_Control Unit Information**
28. YANMAR_Cylinder Cutout_Test
- 29. YANMAR_Engine Hour Meter_Test**
- 30. Yanmar_PRV_Procedure**
- 31. Yanmar Injector Calibration Procedure**
- 32. YANMAR Pump Calibration Procedure**
33. YANMAR Service Regeneration Procedure_Recovery

CATERPILLAR

VERSION: v7.62

SYSTEM COVERAGE:

A: CAT ATA

B: CAT CDL

C: CAT J1939

A: ATA

Basic functions:

1. Read ECU Information
2. Read Fault Code
3. Read Data Stream
4. Actuation Test

Special functions:

Group 1:

1. Configuration group 1
2. Machine optional components
3. Auxiliary hydraulic optional component configuration
4. Control input installation
5. Driving speed shift parameters
6. Throttle knob engine speed
7. Throttle knob hydraulic power percentage
8. Recommended maintenance intervals

Group 2:

1. Configuration
2. Injector data
3. Cylinder cutoff functions

Group 3:

1. Selected Engine Rating
2. ECM Identification Parameters
3. Security Access Parameters
4. Vehicle Speed Parameters
5. Cruise Control Parameters
6. Idle Parameters(Old PTO)
7. Dedicated PTO Parameters
8. Engine/Gear Parameters
9. Timer Parameters
10. Smart Idle Parameters
11. Engine Monitoring Parameters
12. Trip Parameters
13. Vehicle Activity Report parameters
14. Driver Reward
15. Input Selections
16. Output Selections
17. Data Link Parameters
18. System Settings

B: CDL

1. Read ECU Information
2. Read Fault Code
3. Erase Fault Code
4. Read Data Stream
5. Actuation Test (Injector solenoid valve test)
6. Special Function (Vehicle Speed Parameters, Idle Parameters, Timer Parameters)
7. Injecot codes(Read and write)
8. Transmission Configuration
9. Hydraulic Configurations
10. Valve Calibration Currents
11. FNR Shifter Sensor Calibration
12. Brake touch up pressure calibra(Manual)
13. Monitor Throttle Position Sensor
14. Pump and Motor Solenoid Calibration
15. Bucket solenoid calibraiton
16. Control Lever Calibrations
17. Neutralization setpoint adjustment.
18. Maintenance Paramerters
19. PLM installation Parameters
20. PLM Report Configuration Parameters
21. System Settings
22. Digital Input Configuration
23. fuel system verification test
24. Fuel Rail Pump Solenoid
25. Injector Solenoid Test
26. override paramter

27. Wiggle Test

C:J1939

1. Read ECU Information
2. Read Fault Code
3. Erase Fault Code
4. Read Data Stream
5. Actuation Test (Injector solenoid valve test)
6. Special Function (Vehicle Speed Parameters, Idle Parameters, Timer Parameters)
7. Injecot codes(Read\write\swap)