

Paccar MX13 EPA13 - Fault Code list

<https://www.truck-freeworkshop.com/paccar/>

P0016 = Camshaft speed signal - Not corresponding with engine position
P0017 = Crankshaft speed signal - Not corresponding with engine position
P0045 = VTG turbo charger actuator - End position error or internal error
P0046 = VTG turbo charger actuator position - Reference error
P0049 = Turbo speed - Higher than overspeed limit
P0069 = Inlet air pressure in inlet manifold - Data erratic, intermittent or incorrect at ignition on
P006B = Exhaust gas pressure after BPV - Data erratic, intermittent or incorrect at ignition on
P006C = Inlet air pressure before compressor - Data erratic, intermittent or incorrect at ignition on
P0072 = Ambient temperature - Voltage too low or short circuit to ground on ECU (D420) pin (C78)
P0073 = Ambient temperature - Voltage too high or short circuit to supply on ECU (D420) pin (C78)
P0087 = Fuel pressure - Data valid but too low, Most severe
P0088 = Fuel pressure - Data valid but too high
P0093 = Engine rail pressure - Sudden pressure drop
P0094 = Common rail pump unit control - Incorrect
P0095 = Intercooler temperature - Data erratic, intermittent, or incorrect at ignition on
P0097 = Intercooler temperature - Voltage too low or short circuit to ground on ECU (D420) pin (C17)
P0098 = Intercooler temperature - Voltage too high or short circuit to supply on ECU (D420) pin (C17)
P009A = Ambient temperature - Data erratic, intermittent, or incorrect
P009F = Common rail pressure release valve - Malfunction detected during check
P00B7 = Coolant pump speed - Data valid but too low, when high speed is requested
P00BA = Engine rail pressure - Data valid but too low, moderately severe
P0107 = Inlet air pressure in inlet manifold - Voltage too low or short circuit to ground on ECU (D420) pin (A51)
P0108 = Inlet air pressure in inlet manifold - Voltage too high or short circuit to supply on ECU (D420) pin (A51)
P0110 = Inlet air temperature in inlet manifold - Data erratic, intermittent or incorrect at ignition on
P0112 = Inlet air temperature in inlet manifold - Voltage too low or short circuit to ground on ECU (D420) pin (A43)
P0113 = Inlet air temperature in inlet manifold - Voltage too high or short circuit to supply on ECU (D420) pin (A43)
P0115 = Engine coolant temperature - Data erratic, intermittent, or incorrect at ignition key on
P0117 = Engine coolant temperature - Voltage too low or short circuit to ground on ECU (D420) pin (A58)
P0118 = Engine coolant temperature - Voltage too high or short circuit to supply on ECU (D420) pin (A58)
P011A = Coolant pump speed - Stalled pump detected
P0121 = Accelerator pedal - Sticking pedal
P0127 = Intercooler temperature - Data valid but too high, most severe
P0135 = Lambda sensor heater - Current too low or open circuit on ECU (D420) pin (C46)
P0148 = Fuel injection control - Malfunction detected
P0149 = Fuel injection control - Malfunction detected
P0168 = Fuel temperature - Data valid but too high, most severe
P0180 = Fuel temperature - Data erratic, intermittent, or incorrect at ignition on
P0182 = Fuel temperature - Voltage too low or short circuit to ground on ECU (D420) pin (A42)

P0183 = Fuel temperature - Voltage too high or short circuit to supply on ECU (D420) pin (A42)
P0192 = Engine rail pressure - Voltage too low or short circuit to ground on ECU (D420) pin (A52)
P0193 = Engine rail pressure - Voltage too high or short circuit to supply on ECU (D420) pin (A52)
P0195 = Engine oil temperature - Data erratic, intermittent, or incorrect at ignition key on
P0197 = Engine oil temperature - Voltage too low or short circuit to ground on ECU (D420) pin (C16)
P0198 = Engine oil temperature - Voltage too high or short circuit to supply on ECU (D420) pin (C16)
P0201 = Common rail pump unit 1 - Current too low or open circuit on ECU (D420) pin (A26) or pin (A25)
P0205 = Common rail pump unit 2 - Current too low or open circuit on ECU (D420) pin (A27) or pin (A28)
P0216 = Fuel injection control - Malfunction detected
P0217 = Engine coolant temperature - Data valid but too high, most severe
P0219 = Engine speed - Data valid but too high
P0221 = CAN communication - Message (EEC2) out of range, Remote accelerator pedal position
P0261 = Common rail pump unit 1 - Voltage too low or short circuit to ground on ECU (D420) pin (A25)
P0262 = Common rail pump unit 1 - Voltage too high or short circuit to supply on ECU (D420) pin (A25)
P0263 = Cylinder 1 - Torque contribution too low
P0266 = Cylinder 2 - Torque contribution too low
P0269 = Cylinder 3 - Torque contribution too low
P0272 = Cylinder 4 - Torque contribution too low
P0273 = Common rail pump unit 2 - Voltage too low or short circuit to ground on ECU (D420) pin (A28)
P0274 = Common rail pump unit 2 - Voltage too high or short circuit to supply on ECU (D420) pin (A28)
P0275 = Cylinder 5 - Torque contribution too low
P0278 = Cylinder 6 - Torque contribution too low
P0298 = Engine oil temperature - Data valid but too high, most severe
P0301 = Cylinder 1 - Contribution too low or misfire
P0302 = Cylinder 2 - Contribution too low or misfire
P0303 = Cylinder 3 - Contribution too low or misfire
P0304 = Cylinder 4 - Contribution too low or misfire
P0305 = Cylinder 5 - Contribution too low or misfire
P0306 = Cylinder 6 - Contribution too low or misfire
P0315 = Cylinder unbalance - Detected
P0335 = Crankshaft speed signal - Disturbed or no signal during engine operation
P0340 = Camshaft speed signal - Disturbed or no signal during engine operation
P0341 = Camshaft speed signal - Out of range during engine operation
P0407 = EGR pressure difference - Voltage too low or short circuit to ground on ECU (D420) pin (C80)
P0408 = EGR pressure difference - Voltage too high or short circuit to supply on ECU (D420) pin (C80)
P040B = EGR temperature - Data erratic, intermittent, or incorrect at ignition on
P040C = EGR temperature - Voltage too low or short circuit to ground on ECU (D420) pin (C9)
P040D = EGR temperature - Voltage too high or short circuit to supply on ECU (D420) pin (C9)
P0471 = Exhaust gas pressure before turbine - Data erratic, intermittent or incorrect at ignition on
P0472 = Exhaust gas pressure before turbine - Voltage too low or short circuit to ground on ECU (D420) pin (C83)
P0473 = Exhaust gas pressure before turbine - Voltage too high or short circuit to supply on ECU (D420) pin (C83)
P047C = Exhaust gas pressure after BPV - Voltage too low or short circuit to ground on ECU (D420) pin (C81)
P047D = Exhaust gas pressure after BPV - Voltage too high or short circuit to supply on ECU (D420) pin (C81)
P0480 = Electronically controlled fan - Current too low or open circuit on ECU (D420) pin (C74)
P0486 = EGR pressure difference - Data erratic, intermittent, or incorrect at ignition on
P0493 = Fan speed control - Incorrect

P0501 = Vehicle speed sensor - Data erratic, intermittent, or incorrect
P0502 = Vehicle speed sensor - Voltage too low or short circuit to ground on ECU (D420) pin (B40)
P0503 = Vehicle speed sensor - Out of range
P0513 = Immobilizer - Not matched
P0522 = Engine oil pressure - Voltage too low or short circuit to ground on ECU (D420) pin (C84)
P0523 = Engine oil pressure - Voltage too high or short circuit to supply on ECU (D420) pin (C84)
P0524 = Engine oil pressure - Data valid but too low, most severe
P0527 = Electronically controlled fan - Voltage too high or short circuit to supply on ECU (D420) pin (C8)
P0528 = Electronically controlled fan - Voltage too low or short circuit to ground on ECU (D420) pin (C8)
P0541 = Grid heater - Voltage too low or short circuit to ground on ECU (D420) pin (C72)
P0542 = Grid heater - Voltage too high or short circuit to supply on ECU (D420) pin (C72) or pin (C49)
P0543 = Grid heater - Current too low or open circuit on ECU (D420) pin (C72)
P0562 = PCI ECU power supply - Data valid but too low on ECU (D420) pin (B60) or pin (B61) or pin (B62)
P0563 = PCI ECU power supply - Data valid but too high on ECU (D420) pin (B60) or pin (B61) or pin (B62)
P0567 = CAN communication - Message (CCVS) out of range, Cruise Control Resume switch from vehicle control system
P0568 = CAN communication - Message (CCVS) out of range, Cruise Control Set Switch from vehicle control system
P0571 = CAN communication - Message (CCVS) out of range, Brake switch from vehicle control system
P060A = PCI ECU - Internal error
P060C = Internal ECU injector power generation - Malfunction
P061B = Fuel injection control - Malfunction
P062A = Common rail pump unit control - Incorrect
P062B = Internal ECU injector power generation - Voltage too high
P062D = Internal ECU injector power generation - Voltage too low
P0640 = Grid heater relay - Voltage too high or short circuit to supply
P064F = Fuel injection control - Malfunction
P0650 = Malfunction Indicator Lamp (MIL) - Current too low or open circuit on ECU (D420) pin (B23)
P0666 = Internal ECU temperature - Data erratic, intermittent, or incorrect at ignition on
P0668 = Internal ECU temperature - Internal error
P0669 = Internal ECU temperature - Internal error
P0685 = PCI ECU - Short circuit to ground on ECU (D420) pin (B3)
P0691 = Electronically controlled fan - Voltage too low or short circuit to ground on ECU (D420) pin (C74)
P0692 = Electronically controlled fan - Voltage too high or short circuit to supply on ECU (D420) pin (C74)
P0698 = PCI ECU 5V sensor supply - Voltage too low or short circuit to ground
P0699 = PCI ECU 5V sensor supply - Voltage too high or short circuit to supply
P06AD = Internal ECU temperature - Internal error
P06AE = Internal ECU temperature - Internal error
P0703 = CAN communication - Message (EBC1) out of range, EBS brake switch from brake system
P081C = CAN communication - Message (CCVS_VIC) out of range, Park Brake Switch from vehicle control system
P0830 = Clutch input signal - Data erratic, intermittent or incorrect
P0833 = CAN communication - Message (CCVS) out of range, clutch switch from vehicle control system
P0865 = CAN communication - Message (PROPB_AST) rate too low from transmission system
P0A1F = PCI ECU power supply - Data valid but too low
P101C = BPV position - Incorrect
P101D = BPV position - Incorrect
P101E = BPV actuator position - Unable to reach target
P101F = BPV actuator current - Data valid but too high
P1020 = BPV actuator - Internal error

P1021 = BPV actuator - CAN communication error
P1022 = BPV actuator - Internal error
P1023 = BPV actuator temperature - Data valid but too high
P1024 = BPV actuator power supply - Incorrect
P1025 = BPV actuator position - Malfunction on sensor
P1026 = BPV actuator - Out of calibration
P102A = Temperature after BPV - Voltage too high or short circuit to supply on ECU (D420) pin (C11)
P102B = Temperature after BPV - Voltage too low or short circuit to ground on ECU (D420) pin (C11)
P102C = VTG turbo charger turbine - Malfunction
P102F = BPV actuator temperature - Data erratic, intermittent, or incorrect at ignition on
P1030 = EGR temperature - Data erratic, intermittent, or incorrect at ignition on
P1032 = Vehicle speed sensor - Data erratic, intermittent, or incorrect at ignition key on
P1039 = Exhaust gas pressure after BPV - Data valid but too high
P103C = EGR control - Unable to reach target
P1040 = Exhaust gas pressure after BPV - Data valid but too low
P1042 = VTG turbocharger control - Incorrect
P104B = Inlet air pressure in inlet manifold - Data valid but too high
P104C = Inlet air pressure in inlet manifold - Data valid but too low
P104D = Exhaust gas pressure before turbine - Data valid but too high
P104E = Exhaust gas pressure before turbine - Data valid but too low during engine braking
P1048 = VTG turbo charger actuator, position Incorrect
P1049 = VTG turbo charger actuator, position Incorrect
P1050 = Exhaust gas pressure after BPV - Data erratic, intermittent or incorrect
P1051 = Grid heater - Data erratic, intermittent, or incorrect
P1053 = Speed functions off switch - Data erratic, intermittent, or incorrect
P1054 = Downhill speed control switches - Data erratic, intermittent or incorrect
P1055 = Retarder switches - Data erratic, intermittent, or incorrect
P1057 = Exhaust gas pressure before turbine - Data valid but too low
P1062 = Cruise control switches - Data erratic, intermittent, or incorrect
P1086 = Engine rail pressure - Increase too slow
P1087 = Fuel pressure - Data valid but too low, moderately severe
P1088 = Engine rail pressure - Data valid but too high
P1089 = Engine rail pressure - Data valid but too high
P1090 = Engine rail pressure - Data valid but too high
P1091 = Engine rail pressure - Data erratic, intermittent, or incorrect
P109C = Common rail pressure release valve - Current too low or open circuit on ECU (D420) pin (C4)
P109D = Common rail pressure release valve - Current too high on ECU (D420) pin (C4)
P1105 = Engine protection system - Approaching engine shutdown
P1106 = Engine protection system - Power derate active
P1110 = Intercooler efficiency - Too low
P1115 = Engine coolant temperature - Data valid but too high, moderately severe
P1122 = Cruise control brake signal - Data erratic, intermittent, or incorrect
P1127 = Intercooler temperature - Data valid but too high, moderately severe
P1128 = Inlet air temperature in inlet manifold - Data valid but too high
P1133 = Lambda sensor heater - Voltage too high or short circuit to supply on ECU (D420) pin (C46)
P1134 = Lambda sensor heater - Voltage too low or short circuit to ground on ECU (D420) pin (C46)
P1135 = Lambda sensor heater - Voltage too high or short circuit to supply on ECU (D420) pin (C46)
P1136 = Lambda sensor heater - Voltage too low or short circuit to ground on ECU (D420) pin (C46)
P1137 = Lambda sensor heater power supply - Incorrect
P1138 = Lambda sensor heater - Voltage too low or short circuit to ground on ECU (D420) pin (C46)

P1139 = Lambda sensor calibration - Malfunction
P113A = Lambda sensor temperature - Unable to reach target
P113B = Lambda sensor controller - Incorrect
P1158 = Wheel speed, front axle, left - Data erratic, intermittent or incorrect
P1159 = Wheel speed, front axle, right - Data erratic, intermittent or incorrect
P1160 = Wheel speed, rear axle, left - Data erratic, intermittent or incorrect
P1161 = Wheel speed, rear axle, right - Data erratic, intermittent or incorrect
P1162 = CAN communication - Message (TCO1) out of range, vehicle speed from tachograph
P1163 = CAN communication - Message (TCO1) out of range, vehicle speed from transmission system
P1167 = Fuel temperature - Data valid but too high, least severe
P1168 = Fuel temperature - Data valid but too high, moderately severe
P1180 = Fuel temperature - Data valid but too high, moderately severe
P1191 = Fuel filter - Clogged
P1194 = Fuel filter - Very clogged
P1195 = Engine rail pressure - Data erratic, intermittent, or incorrect at ignition on
P1196 = Engine rail pressure - Data erratic, intermittent, or incorrect at ignition on
P1201 = Injector solenoid valve cylinder 1 - Current too low or open circuit on ECU (D420) pin (A1) and/or pin (A2)
P1202 = Injector solenoid valve cylinder 1 - Short circuit between ECU (D420) pin (A1) and pin (A2)
P1203 = Injector solenoid valve cylinder 1 - Voltage too low or short circuit to ground on ECU (D420) pin (A1)
P1204 = Injector solenoid valve cylinder 1 - Voltage too high or short circuit to supply on ECU (D420) pin (A1)
P1205 = Injector solenoid valve cylinder 5 - Current too low or open circuit on ECU (D420) pin (A3) and/or pin (A4)
P1206 = Injector solenoid valve cylinder 5 - Short circuit between ECU (D420) pin (A3) and pin (A4)
P1207 = Injector solenoid valve cylinder 5 - Voltage too low or short circuit to ground on ECU (D420) pin (A4)
P1208 = Injector solenoid valve cylinder 5 - Voltage too high or short circuit to supply on ECU (D420) pin (A4)
P1209 = Injector solenoid valve cylinder 3 - Current too low or open circuit on ECU (D420) pin (A5) and/or pin (A6)
P1210 = Injector solenoid valve cylinder 3 - Short circuit between ECU (D420) pin (A5) and pin (A6)
P1211 = Injector solenoid valve cylinder 3 - Voltage too low or short circuit to ground on ECU (D420) pin (A5)
P1212 = Injector solenoid valve cylinder 3 - Voltage too high or short circuit to supply on ECU (D420) pin (A5)
P1213 = Injector solenoid valve cylinder 6 - Current too low or open circuit on ECU (D420) pin (A7) and/or pin (A8)
P1214 = Injector solenoid valve cylinder 6 - Short circuit between ECU (D420) pin (A7) and pin (A8)
P1215 = Injector solenoid valve cylinder 6 - Voltage too low or short circuit to ground on ECU (D420) pin (A8)
P1216 = Injector solenoid valve cylinder 6 - Voltage too high or short circuit to supply on ECU (D420) pin (A8)
P1217 = Injector solenoid valve cylinder 2 - Current too low or open circuit on ECU (D420) pin (A9) and/or pin (A10)
P1218 = Injector solenoid valve cylinder 2 - Short circuit between ECU (D420) pin (A9) and pin (A10)
P1219 = Injector solenoid valve cylinder 2 - Voltage too low or short circuit to ground on ECU (D420) pin (A9)
P1220 = Injector solenoid valve cylinder 2 - Voltage too high or short circuit to supply on ECU (D420) pin

(A9)

P1221 = Injector solenoid valve cylinder 4 - Current too low or open circuit on ECU (D420) pin (A11) and/or pin (A12)

P1222 = Injector solenoid valve cylinder 4 - Short circuit between ECU (D420) pin (A11) and pin (A12)

P1223 = Injector solenoid valve cylinder 4 - Voltage too low or short circuit to ground on ECU (D420) pin (A12)

P1224 = Injector solenoid valve cylinder 4 - Voltage too high or short circuit to supply on ECU (D420) pin (A12)

P1225 = Injector solenoid valve cylinder 1, 2, or 3 - Voltage too low or short circuit to ground on ECU (D420) pin (A2) or pin (A10) or pin (A6)

P1226 = Injector solenoid valve cylinder 1, 2, or 3 - Voltage too high or short circuit to supply on ECU (D420) pin (A2) or pin (A10) or pin (A6)

P1227 = Injector solenoid valve cylinder 4, 5, or 6 - Voltage too low or short circuit to ground on ECU (D420) pin (A11) or pin (A3) or pin (A7)

P1228 = Injector solenoid valve cylinder 4, 5, or 6 - Voltage too high or short circuit to supply on ECU (D420) pin (A11) or pin (A3) or pin (A7)

P1230 = Common rail pump unit 1 - Short circuit between ECU (D420) pin (A25) and pin (A26)

P1234 = Common rail pump unit 2 - Short circuit between ECU (D420) pin (A27) and pin (A28)

P1235 = Turbo speed - Data erratic, intermittent, or incorrect

P1263 = Cylinder 1 - Torque contribution too high

P1266 = Cylinder 2 - Torque contribution too high

P1269 = Cylinder 3 - Torque contribution too high

P1272 = Cylinder 4 - Torque contribution too high

P1275 = Cylinder 5 - Torque contribution too high

P1278 = Cylinder 6 - Torque contribution too high

P127A = EGR pressure difference - Data valid but too low

P127B = EGR pressure difference - Data valid but too high

P127C = EGR pressure difference - Data valid but too high

P128E = Engine rail pressure control - Incorrect

P128F = Engine rail pressure control - Incorrect

P1298 = Engine oil temperature - Data valid but too high, moderately severe

P1335 = Crankshaft speed signal - Disturbed or no signal during engine start

P1336 = Crankshaft speed signal - Out of range during engine start

P1340 = Camshaft speed signal - Disturbed or no signal during engine start

P1341 = Camshaft speed signal - Out of range during engine start

P1350 = VTG turbo charger actuator power supply - Internal error

P1351 = VTG turbo charger actuator - Internal error

P1352 = VTG turbocharger actuator learning - Malfunction detected

P1354 = VTG turbocharger actuator power supply - Data valid but too low, least severe

P1356 = VTG turbo charger actuator temperature - Data valid but too high

P1400 = EGR mass flow - Estimated EGR rate too high

P1401 = Crankcase air pressure - Voltage too high or short circuit to supply on ECU (D420) pin (C5)

P1402 = Crankcase air pressure - Voltage too low or short circuit to ground on ECU (D420) pin (C5)

P1403 = Crankcase air pressure - Data erratic, intermittent or incorrect at ignition on

P1404 = Crankcase air pressure - Data erratic, intermittent or incorrect at ignition on

P1407 = Crankcase air pressure - Leakage detected

P1408 = Crankcase air pressure - Data valid but too high, Moderately severe

P1409 = EGR pressure - Data valid but too high

P140A = Crankcase ventilation module rotor speed - Data valid but too high

P140E = Crankcase ventilation module rotor speed - Data valid but too low, most severe

P1458 = EGR temperature - Data erratic, intermittent, or incorrect
P1480 = EGR valve module position - Unable to reach target
P1481 = EGR valve module current - Data valid but too high
P1482 = EGR valve module - Internal error
P1483 = EGR valve module - CAN communication error
P1484 = EGR valve module - Internal error
P1485 = EGR valve module temperature - Data valid but too high
P1486 = EGR valve module power supply - Incorrect
P1487 = EGR valve module position - Malfunction on sensor
P1488 = EGR valve module - Out of calibration
P1489 = EGR valve - Stuck closed
P1490 = EGR valve - Stuck open
P1495 = Engine protection system - Power derate active
P1496 = EGR - Shut-off
P1497 = EGR valve position - Incorrect
P1498 = EGR valve position - Incorrect
P1501 = Vehicle speed sensor - Current too low or open circuit on ECU (D420) pin (B40)
P1502 = Vehicle speed sensor - Data erratic, intermittent or incorrect
P1503 = Vehicle speed sensor - Voltage too high or short circuit to supply on ECU (D420) pin (B40)
P1504 = Vehicle speed sensor - Data erratic, intermittent or incorrect
P1505 = Vehicle speed sensor - Frequency out of range
P150F = Engine oil level - Data valid but too low, moderately severe
P1514 = Aftertreatment system - DEF dosing malfunction detected
P1516 = Aftertreatment system - Malfunction detected
P1517 = Aftertreatment system - DEF quality malfunction detected
P1518 = Aftertreatment system - Engine torque derate active
P1519 = Aftertreatment system - DEF level low
P151A = Aftertreatment system - Vehicle speed limitation active
P151B = Aftertreatment system - Upcoming vehicle speed limitation warning
P151C = Aftertreatment system - DEF level too low
P151D = Aftertreatment system - DEF level very low
P151E = Aftertreatment system - DEF tank empty
P1524 = Engine oil pressure - Data valid but too low, moderately severe
P1526 = CAN communication - Message (CM1) out of range, requested percent fan speed from vehicle control system
P153B = Crankcase ventilation module rotor speed - Data valid but too low, least severe
P153C = Crankcase ventilation module rotor speed - Data valid but too high
P1560 = Coolant level - Data valid but too low, moderately severe
P1563 = PCI ECU power supply - Data valid but too low, most severe
P1564 = Fuel pressure - Data erratic, intermittent, or incorrect at ignition on
P1568 = Coolant pump clutch 1 - Short circuit to ground
P1569 = Coolant pump clutch 1 - Short circuit to supply
P156A = Coolant pump clutch 1 - Current too low or open circuit
P156B = Coolant pump clutch 2 - Short circuit to ground
P156C = Coolant pump clutch 2 - Short circuit to supply
P156D = Coolant pump clutch 2 - Current too low or open circuit
P156E = Vehicle speed sensor - Voltage too low or short circuit to ground on ECU (D420) pin (B12)
P156F = Vehicle speed sensor - Voltage too high or short circuit to supply on ECU (D420) pin (B12)
P1570 = Engine oil temperature - Data erratic, intermittent, or incorrect during engine warm-up
P1571 = Engine oil temperature - Data erratic, intermittent, or incorrect

P1572 = Inlet air temperature after compressor - Data erratic, intermittent, or incorrect
P1573 = Inlet air temperature in inlet manifold - Data valid but too high
P1574 = Exhaust gas pressure before turbine - Data erratic, intermittent or incorrect
P1580 = Turbo speed - Data valid but too high, Most severe
P1581 = Turbo speed - Data valid but too low, Most severe
P1601 = PCI ECU software - Internal error
P1602 = PCI ECU software - Internal error
P160A = PCI ECU - Internal error
P1644 = PCI ECU 5V sensor supply - Voltage too high or short circuit to supply
P1645 = PCI ECU 5V sensor supply - Voltage too low or short circuit to ground
P1650 = Red warning - Short circuit to ground or open circuit on ECU (D420) pin (B8)
P1652 = Red warning - Short circuit to supply on ECU (D420) pin (B8)
P1653 = Yellow warning - Short circuit to ground or open circuit on ECU (D420) pin (B4)
P1655 = Yellow warning - Short circuit to supply on ECU (D420) pin (B4)
P1658 = PCI ECU - Internal error
P1674 = PCI ECU software - Internal error
P1675 = PCI ECU software - Internal error
P1676 = PCI ECU software - Internal error
P1677 = PCI ECU software - Internal error
P1678 = PCI ECU software - Internal error
P1679 = PCI ECU - Internal error
P1681 = PCI ECU - Internal error
P1682 = Engine oil level - Current too low or open circuit on ECU (D420) pin (B35)
P1687 = Starter motor - Voltage too high or short circuit to supply on ECU (D420) pin (B16)
P1688 = Starter motor - Voltage too low or short circuit to ground on ECU (D420) pin (B16)
P1693 = Cold starting aid - Voltage too high or short circuit to supply on ECU (D420) pin (C72) or pin (C49)
P1694 = Cold starting aid - Voltage too low or short circuit to ground on ECU (D420) pin (C72) or pin (C49)
P1704 = Lambda - Data erratic, intermittent, or incorrect during overrun
P1705 = Lambda response rate - Too low
P1706 = Lambda response rate - Too high
P1707 = Lambda - Data valid but too low
P1708 = Lambda - Data valid but too high
P1709 = Lambda - Data valid but too low during overrun
P170A = Lambda - Data valid but too low, most severe
P170B = Lambda - Data valid but too high, most severe
P170C = NOx sensor before catalyst response - Data erratic, intermittent, or incorrect during overrun
P170D = NOx sensor before catalyst response - Incorrect
P170E = NOx sensor before catalyst response - Incorrect
P170F = NOx before catalyst - Data valid but too high during overrun
P1710 = NOx before catalyst - Data valid but too low
P1711 = NOx before catalyst - Data valid but too high
P1717 = Temperature after BPV - Data erratic, intermittent, or incorrect
P1718 = EGR mass flow - Data valid but too high
P1719 = EGR mass flow - Data valid but too low
P171B = EGR flow response - Decrease too slow
P171C = EGR flow response - Increase too slow
P171E = Air mass flow - Data valid but too high
P1722 = BPV control - Data erratic, intermittent, or incorrect

P1723 = Exhaust gas pressure before turbine - Data valid but too low
P1724 = Exhaust gas pressure before turbine - Data valid but too high
P1727 = VTG turbocharger control - Data erratic, intermittent, or incorrect
P1751 = Malfunction Indicator Lamp (MIL) - Voltage too high or short circuit to supply on ECU (D420) pin (B23)
P1863 = CAN communication - Message (PROPB_AST) out of range, Maneuvering Mode from transmission system
P1866 = Exhaust gas pressure before turbine - Data valid but too high
P1867 = Temperature after BPV - Data valid but too high
P1868 = Ambient temperature - Data valid but too high
P1869 = Fuel temperature - Data valid but too low
P1870 = Crankcase air pressure - Data valid but too low
P1871 = Pressure before turbo (humidity sensor) - Data valid but too low
P1872 = Pressure before turbo (humidity sensor) - Data valid but too high
P1874 = Temperature before turbo (humidity sensor) - Data valid but too high
P1876 = Ambient pressure - Data valid but too high
P2104 = Engine protection system - Warning active
P2147 = Common rail pump unit 1 - Voltage too low or short circuit to ground on ECU (D420) pin (A26)
P2148 = Common rail pump unit 1 - Voltage too high or short circuit to supply on ECU (D420) pin (A26)
P2150 = Common rail pump unit 2 - Voltage too low or short circuit to ground on ECU (D420) pin (A27)
P2151 = Common rail pump unit 2 - Voltage too high or short circuit to supply on ECU (D420) pin (A27)
P2181 = Engine coolant temperature - Does not match engine operating conditions
P2183 = Engine coolant temperature - Data erratic, intermittent, or incorrect
P2199 = Inlet air temperature before compressor - Data erratic, intermittent or incorrect at ignition on
P2226 = Internal ECU ambient pressure - Data erratic, intermittent, or incorrect at ignition on
P2228 = Internal ECU ambient pressure - Malfunction
P2229 = Internal ECU ambient pressure - Malfunction
P222C = Internal ECU ambient pressure - Internal error
P222D = Internal ECU ambient pressure - Internal error
P2237 = Lambda - Open circuit on ECU (D420) pin (C45)
P2238 = Lambda - Current too low on ECU (D420) pin (C45)
P2239 = Lambda - Current too high on ECU (D420) pin (C45)
P2266 = Water in fuel - Voltage too low or short circuit to ground on ECU (D420) pin (A49)
P2275 = Water in fuel - Voltage too high or short circuit to supply on ECU (D420) pin (A49)
P228C = Engine rail pressure control - Incorrect
P228D = Engine rail pressure control - Incorrect
P228E = Engine rail pressure control - Incorrect
P228F = Engine rail pressure control - Incorrect
P2294 = Common rail pressure release valve - Open circuit on ECU (D420) pin (C4) or pin (C26)
P2295 = Common rail pressure release valve - Voltage too low or short circuit to ground on ECU (D420) pin (C4)
P2296 = Common rail pressure release valve - Voltage too high or short circuit to supply on ECU (D420) pin (C4)
P229A = Common rail pressure release valve current - Too high
P229B = Common rail pressure release valve current - Too low
P229C = Common rail pressure release valve current - Data valid but too low
P229D = Common rail pressure release valve current - Data valid but too high
P2457 = EGR temperature - Data valid but too high, most severe
P2458 = CAN communication - Message (CM1) out of range, DPF regeneration switch from vehicle control system

P2459 = CAN communication - Message (CM1) out of range, DPF regeneration switch from vehicle control system

P250A = Engine oil level - Data valid but too low, least severe

P250B = Engine oil level - Data erratic, intermittent or incorrect at ignition on

P250C = Engine oil level - Voltage too low or short circuit to ground on ECU (D420) pin (B35)

P250D = Engine oil level - Open circuit on ECU (D420) pin (B35)

P250E = Engine oil level - Unlikely, difference too high

P250F = Engine oil level - Data valid but too low, most severe

P252F = Engine oil level - Data valid but too high, moderately severe

P253B = CAN communication - Message (PTO) out of range, Engine PTO governor set switch

P2541 = Fuel pressure - Voltage too low or short circuit to ground on ECU (D420) pin (A50)

P2542 = Fuel pressure - Voltage too high or short circuit to supply on ECU (D420) pin (A50)

P2558 = Coolant level 1 - Voltage too low or short circuit to ground on ECU (D420) pin (C7)

P2559 = Coolant level 1 - Voltage too high or short circuit to supply on ECU (D420) pin (C7)

P2560 = Coolant level - Data valid but too low, most severe

P2563 = VTG turbo charger actuator position - No or too slow movement

P2579 = Turbo speed - Abnormal rate of change

P2580 = Turbo speed - Data valid but too low, Least severe

P2581 = Turbo speed - Data valid but too high, Least severe

P2600 = Coolant pump - Open circuit on ECU (D420) pin (C75)

P2603 = Coolant pump speed - Data valid but too high

P2604 = Coolant pump - Voltage too high or short circuit to supply on ECU (D420) pin (C75)

P2605 = Coolant pump - Voltage too low or short circuit to ground on ECU (D420) pin (C75)

P2609 = Grid heater relay - Current too low or open circuit

P262B = PCI ECU power supply - Open circuit on ECU (D420) pin (B43)

P268A = Fuel injection control - Incorrect

P3003 = PCI ECU power supply - Data valid but too high

P30B3 = CAN communication - Message (AT1IG1) rate too low from NOx sensor before catalyst

P3100 = Coolant pump speed - Data valid but too high when low speed is requested

P3101 = Coolant pump speed - Data valid but too low when low speed is requested

P3405 = Engine brake solenoid valve cylinder 1 - Current too low or open circuit on ECU (D420) pin (A17)

P3407 = Engine brake solenoid valve cylinder 1 - Voltage too low or short circuit to ground on ECU (D420) pin (A17)

P3408 = Engine brake solenoid valve cylinder 1 - Voltage too high or short circuit to supply on ECU (D420) pin (A17)

P3413 = Engine brake solenoid valve cylinder 2 - Current too low or open circuit on ECU (D420) pin (A16)

P3415 = Engine brake solenoid valve cylinder 2 - Voltage too low or short circuit to ground on ECU (D420) pin (A16)

P3416 = Engine brake solenoid valve cylinder 2 - Voltage too high or short circuit to supply on ECU (D420) pin (A16)

P3421 = Engine brake solenoid valve cylinder 3 - Current too low or open circuit on ECU (D420) pin (A24)

P3423 = Engine brake solenoid valve cylinder 3 - Voltage too low or short circuit to ground on ECU (D420) pin (A24)

P3424 = Engine brake solenoid valve cylinder 3 - Voltage too high or short circuit to supply on ECU (D420) pin (A24)

P3429 = Engine brake solenoid valve cylinder 4 - Current too low or open circuit on ECU (D420) pin (A21)

P3431 = Engine brake solenoid valve cylinder 4 - Voltage too low or short circuit to ground on ECU (D420) pin (A21)

P3432 = Engine brake solenoid valve cylinder 4 - Voltage too high or short circuit to supply on ECU (D420) pin (A21)

P3437 = Engine brake solenoid valve cylinder 5 - Current too low or open circuit on ECU (D420) pin (A13)
P3439 = Engine brake solenoid valve cylinder 5 - Voltage too low or short circuit to ground on ECU (D420) pin (A13)
P3440 = Engine brake solenoid valve cylinder 5 - Voltage too high or short circuit to supply on ECU (D420) pin (A13)
P3445 = Engine brake solenoid valve cylinder 6 - Current too low or open circuit on ECU (D420) pin (A20)
P3447 = Engine brake solenoid valve cylinder 6 - Voltage too low or short circuit to ground on ECU (D420) pin (A20)
P3448 = Engine brake solenoid valve cylinder 6 - Voltage too high or short circuit to supply on ECU (D420) pin (A20)
P3750 = Exhaust gas temperature before DOC - Voltage too high or short circuit to supply
P3751 = Exhaust gas temperature before DOC - Voltage too low or short circuit to ground
P3752 = Exhaust gas temperature before DOC - Unlikely, not changing during operation
P3753 = Exhaust gas temperature before DPF - Voltage too high or short circuit to supply
P3754 = Exhaust gas temperature before DPF - Voltage too low or short circuit to ground
P3755 = Exhaust gas temperature before DPF - Data erratic, intermittent, or incorrect, not changing during operation
P3756 = Exhaust gas temperature after DPF - Voltage too high or short circuit to supply
P3757 = Exhaust gas temperature after DPF - Voltage too low or short circuit to ground
P3758 = Exhaust gas temperature after DPF - Data erratic, intermittent, or incorrect
P3759 = Heater element particle sensor high side - Short circuit to supply
P3760 = Heater element particle sensor high side - Short circuit to ground
P3761 = Particle matter sensor - Reactivation too long
P3762 = DPF differential pressure - Voltage too high or short circuit to supply on ECU (D374) pin (A70)
P3763 = DPF differential pressure - Voltage too low or short circuit to ground on ECU (D374) pin (A70)
P3764 = DPF differential pressure - Data erratic, intermittent, or incorrect
P3765 = DPF differential pressure - Data erratic, intermittent, or incorrect
P3766 = DPF pressure - Voltage too high or short circuit to supply on ECU (D374) pin (B32)
P3767 = DPF pressure - Voltage too low or short circuit to ground on ECU (D374) pin (B32)
P3768 = DPF outlet pressure - Data erratic, intermittent, or incorrect at ignition key on or during operation on ECU (D374) pin (B32)
P3769 = DPF outlet pressure - Data erratic, intermittent, or incorrect at ignition key on or during operation on ECU (D374) pin (B32)
P3770 = DPF outlet pressure - Data erratic, intermittent, or incorrect at ignition key on or during operation on ECU (D374) pin (B32)
P3771 = Particle matter sensor - Voltage too high or short circuit to supply
P3772 = Particle matter sensor - Voltage too low or short circuit to ground
P3773 = SCR catalyst efficiency - Compensation level too high
P3774 = SCR catalyst efficiency - Compensation level too high
P3776 = Diesel Oxidation Catalyst (DOC) efficiency - Data valid but too low
P3777 = SCR catalyst - Compensation level too high
P3778 = Diesel Oxidation Catalyst (DOC) - Not detected
P3779 = Exhaust gas temperature before DPF - Data valid but too high, least severe
P3780 = Exhaust gas temperature before DPF - Data valid but too high, most severe
P3781 = Exhaust gas temperature before DOC - Data valid but too high, moderately severe
P3782 = Exhaust gas temperature before DPF - Data valid but too high, moderately severe
P3783 = Diesel Oxidation Catalyst (DOC) - Data valid but too high, moderately severe
P3786 = Diesel Oxidation Catalyst (DOC) compensation level - Too high
P3787 = Fuel dosing module - Used up all compensation
P3788 = DPF filtration efficiency - Data valid but too low, moderately severe

P3789 = Exhaust gas temperature after DPF - Data valid but too high, most severe
P3790 = Diesel Particulate Filter (DPF) - Not detected
P3791 = Diesel Particulate Filter (DPF) - Too frequent regeneration
P3792 = Exhaust gas temperature after DPF - Data valid but too high, least severe
P3793 = Exhaust gas temperature after DPF - Data valid but too high, moderately severe
P3794 = Diesel Particulate Filter (DPF) - Differential pressure too high level, least severe
P3795 = Exhaust gas temperature after DPF - Data valid but too high, moderately severe
P3796 = Diesel Particulate Filter (DPF) - Soot level, most severe
P3797 = Diesel Particulate Filter (DPF) - Soot level, least severe
P3798 = Diesel Particulate Filter (DPF) - Soot level, moderately severe
P3799 = Exhaust gas temperature before turbine - Insufficient for DPF regeneration
P3800 = Diesel Particulate Filter (DPF) - Regeneration completed but insufficient
P3801 = DPF regeneration switch - Used in soot level 1 or higher
P3802 = Diesel Particulate Filter (DPF) - Filter severely damaged
P3803 = Heater element particle matter sensor low side - Short circuit to supply
P3804 = DPF regeneration switch - Timer-based regeneration inhibit
P3805 = DPF active regeneration - Unable to perform due to system timeout
P3806 = DPF regeneration switch - Data erratic, intermittent or incorrect
P3807 = Diesel Particulate Filter (DPF) - Stationary regeneration aborted due to poor regeneration efficiency
P3808 = Exhaust gas temperature before SCR catalyst - Voltage too high or short circuit to supply
P3809 = Exhaust gas temperature before SCR catalyst - Voltage too low or short circuit to ground
P3810 = Exhaust gas temperature before SCR catalyst - Temperature difference
P3812 = Exhaust gas temperature after SCR catalyst - Voltage too high or short circuit to supply
P3813 = Exhaust gas temperature after SCR catalyst - Voltage too low or short circuit to ground
P3814 = Exhaust gas temperature after SCR catalyst - Data erratic, intermittent, or incorrect
P3816 = Exhaust gas temperature before SCR catalyst - Data erratic, intermittent, or incorrect
P3817 = Exhaust gas temperature after SCR catalyst - Data valid but too high, most severe
P3818 = SCR catalyst conversion efficiency - Too low
P3819 = SCR catalyst efficiency - Degraded
P3820 = Pump module - Dosing system degradation malfunction
P3821 = NH3 sensor - Degraded
P3822 = DEF quality - DEF concentration too low
P3824 = DEF quality - DEF concentration too high
P3825 = Exhaust gas temperature before SCR catalyst - Data valid but too high, moderately severe
P3826 = Exhaust gas temperature after SCR catalyst - Data valid but too high, moderately severe
P3827 = Exhaust gas temperature before SCR catalyst - Data valid but too high, most severe
P3828 = Exhaust gas temperature after SCR catalyst - Data valid but too high, most severe
P3829 = DEF temperature/ level sensor - Persist not valid
P3830 = SCR catalyst - Not detected
P3831 = Fuel shutoff valve - Voltage too low or short circuit to ground on ECU (D374) pin (B07)
P3832 = Fuel shut-off valve - Short circuit to supply or open circuit on ECU (D374) pin (B07)
P3833 = Fuel dosing valve - Current too low or open circuit on ECU (D374) pin (A05) or pin (A29)
P3834 = Fuel shutoff valve - Data erratic, intermittent, or incorrect on ECU (D374) pin (B07)
P3835 = Fuel shutoff valve - Not responding or out of adjustment on ECU (D374) pin (B07)
P3836 = Fuel dosing valve - Leakage detected
P3837 = Intake module fuel pressure - Data valid but too low, least severe
P3838 = Intake module fuel pressure - Data erratic, intermittent, or incorrect, not changing during operation on ECU (D374) pin (A72)
P3839 = Fuel pressure fuel intake module - Voltage too high or short circuit to supply on ECU (D374) pin

(A72)

P3840 = Fuel pressure fuel intake module - Voltage too low or short circuit to ground on ECU (D374) pin (A72)

P3841 = Air shutoff valve - Stuck in closed position

P3842 = Air shutoff valve - Voltage too low or short circuit to ground on ECU (D374) pin (A32)

P3843 = Air shut-off valve - Short circuit to supply or open circuit on ECU (D374) pin (A32)

P3844 = DEF dosing valve - Current too low or open circuit on ECU (D374) pin (A77) or pin (A53)

P3845 = Pump module reverting valve - Voltage too low or short circuit to ground on ECU (D374) pin (B34)

P3846 = Pump module reverting valve - Short circuit to supply or open circuit on ECU (D374) pin (B34)

P3847 = Pump module pressure - Voltage too high or short circuit to supply on ECU (D374) pin (B45)

P3848 = Pump module pressure - Voltage too low or short circuit to ground on ECU (D374) pin (B45)

P3849 = Pump module temperature - Malfunction on sensor

P3850 = Pump module temperature - Malfunction on sensor

P3851 = Pump module temperature - Malfunction on sensor

P3852 = Pump module temperature - Malfunction on sensor

P3853 = Pump module - Failed to thaw

P3854 = Pump module temperature - Malfunction on sensor

P3855 = Pump module temperature - Malfunction on sensor

P3856 = DEF pressure - Data valid but too high

P3857 = DEF pressure - Data valid but too low

P3858 = Pump module - Pressure stabilization failed

P3859 = DEF dosing valve - Not responding or out of adjustment

P3860 = Pump module temperature - Malfunction on sensor

P3861 = Pump module temperature - Malfunction on sensor

P3862 = CAN communication - timeout from aftertreatment system

P3863 = NOx sensor before catalyst power supply - Incorrect

P3864 = NOx sensor before catalyst - Short circuit or open circuit

P3865 = NOx sensor before catalyst - Short circuit or open circuit

P3866 = CAN communication - Message (AT1IGC1) timeout from NOx sensor before catalyst

P3867 = Heater element NOx sensor before catalyst performance - Malfunction

P3868 = Heater element NOx sensor before catalyst - Warm-up failed

P3869 = NOx sensor before catalyst - Short circuit or open circuit

P3870 = NOx sensor before catalyst - Power supply not correct

P3871 = CAN communication - Message (AT1IGC1) timeout from NOx sensor before catalyst

P3872 = CAN communication - Message timeout from SCR exhaust gas temperature sensors ECU

P3873 = CAN communication - Message (AT1IGC1) timeout from NOx sensor before catalyst

P3874 = CAN communication - Message timeout from DOC/DPF temperature sensors ECU

P3875 = EAS-3 ECU - Data lost due to incorrect power down

P3876 = EAS-3 ECU - Internal error

P3877 = NOx sensor before catalyst - Persist, not valid

P3878 = Hydrocarbon storage - Level too high

P3879 = Hydrocarbon storage - Level too high

P3880 = Hydrocarbon storage - Drive off malfunction

P3881 = NOx sensor before catalyst power supply - Incorrect

P3882 = EAS-3 ECU - Voltage too high or short circuit to supply on ECU (D374) pin (A32)

P3883 = EAS-3 ECU - Voltage too low or short circuit to ground on ECU (D374) pin (A32)

P3884 = EAS-3 ECU power supply DEF pressure sensor - Voltage too high or short circuit to supply on ECU (D374) pin (B57)

P3885 = EAS-3 ECU power supply DEF pressure sensor - Voltage too low or short circuit to ground on

ECU (D374) pin (B57)

P3886 = EAS-3 ECU power supply DOC/DPF pressure sensor - Voltage too high or short circuit to supply on ECU (D374) pin (B42)

P3887 = EAS-3 ECU power supply DOC/DPF pressure sensor - Voltage too low or short circuit to ground on ECU (D374) pin (B42)

P3888 = EAS-3 ECU power supply fuel intake module - Voltage too high or short circuit to supply on ECU (D374) pin (A89)

P3889 = EAS-3 ECU power supply fuel intake module - Voltage too low or short circuit to ground on ECU (D374) pin (A89)

P3890 = Tank heater valve - Short circuit to supply or open circuit on ECU (D374) pin (B47)

P3891 = Tank heater valve - Voltage too low or short circuit to ground on ECU (D374) pin (B47)

P3892 = DEF tank temperature - Not increased when commanded

P3893 = DEF level - Short circuit to supply or open circuit on ECU (D374) pin (B58)

P3894 = DEF level - Voltage too low or short circuit to ground on ECU (D374) pin (B58)

P3895 = DEF temperature/level sensor - Short circuit to supply or open circuit on ECU (D374) pin (A22)

P3896 = Heater element particle sensor low side - Short circuit to ground

P3898 = DEF tank heating - Failed to thaw

P3899 = DEF temperature/level sensor - Data erratic, intermittent, or incorrect

P3900 = DEF temperature/level sensor - Voltage too low or short circuit to ground on ECU (D374) pin (A22)

P3901 = Pump module - Data erratic, intermittent or incorrect

P3902 = Pump module heater relay - Voltage too low or short circuit to ground on ECU (D374) pin (B33)

P3903 = Pump module heater relay - Short circuit to supply or open circuit on ECU (D374) pin (B33)

P3904 = Pump module - Voltage too low or short circuit to ground on ECU (D374) pin (B48)

P3905 = Pump module - Voltage too high or short circuit to supply on ECU (D374) pin (B48)

P3906 = Pump module temperature - Malfunction on sensor

P3907 = Pump module temperature - Malfunction on sensor

P3908 = Pump module temperature - Malfunction on sensor

P3909 = Pump module heater - Voltage too high or short circuit to supply

P3910 = Pump module heater - Voltage too low or short circuit to ground

P3911 = Pump module reverting valve - Malfunction

P3912 = Pump module - Unable to prime

P3913 = NOx sensor after catalyst - Data not rational, drifted low

P3914 = NOx sensor after catalyst - Data not rational, drifted high

P3915 = Heater element NOx sensor after catalyst - Warm-up failed

P3916 = NOx sensor after catalyst - Data erratic, intermittent, or incorrect

P3917 = Heater element NOx sensor after catalyst - Malfunction

P3918 = NOx sensor after catalyst - NOx signal malfunction

P3919 = DEF quality - Fluid type unknown from DEF quality sensor

P3920 = DEF quality sensor - Temperature difference too high

P3921 = CAN communication - timeout from NOx sensor after catalyst

P3922 = NOx sensor after catalyst - Value not changing when expected

P3923 = NOx sensor after catalyst power supply - Interrupted

P3924 = NOx sensor after catalyst - Out of calibration

P3927 = Heater element NOx sensor after catalyst performance - Malfunction

P3928 = NOx sensor after catalyst - Data not rational, drifted high

P3929 = NOx sensor after catalyst - Persist, not valid

P3931 = DEF quality sensor ECU - Internal error

P3932 = DEF quality sensor temperature - Voltage too high or short circuit to supply

P3933 = DEF quality sensor temperature - Voltage too low or short circuit to ground

P3934 = DEF quality sensor concentration - Voltage too high or short circuit to supply
P3935 = DEF quality sensor concentration - Voltage too low or short circuit to ground
P3936 = DEF quality sensor ECU - temperature too high
P3937 = DEF quality - Persist, not valid
P3938 = Tank heater valve - Stuck in open position
P3940 = CAN communication - Message time-out from DEF tank level sensor
P3941 = DEF tank level sensor - Internal error
P3942 = Exhaust gas temperature sensors DPF - Voltage too high or short circuit to supply
P3943 = Exhaust gas temperature sensors DPF - Voltage too low or short circuit to ground
P3944 = Exhaust gas temperature DPF - Data valid but too high
P3945 = CAN communication - timeout from DOC/DPF temperature sensors ECU
P3946 = Exhaust gas temperature sensors SCR - Voltage too high or short circuit to supply
P3947 = Exhaust gas temperature sensors SCR - Voltage too low or short circuit to ground
P3948 = Exhaust gas temperature sensors SCR - Data valid but too high
P3949 = CAN communication - timeout from SCR exhaust gas temperature sensors ECU
P3950 = Heater element NH3 sensor - Malfunction
P3950 = DEF quality - Out of calibration
P3951 = Heater element NH3 sensor - Malfunction
P3951 = CAN communication - Message rate too low from DEF quality sensor
P3952 = Heater element NH3 sensor - Malfunction
P3952 = DPF filtration efficiency - Data valid but too low
P3953 = Heater element NH3 sensor - Malfunction
P3953 = Diesel Particulate Filter (DPF) - Soot rate too high
P3954 = Heater element NH3 sensor - Malfunction
P3954 = Particle matter sensor - Power supply intermittent
P3955 = Heater element NH3 sensor - Malfunction
P3955 = Heater element particle matter sensor - Power consumption too high
P3956 = Heater element NH3 sensor - Malfunction
P3956 = Heater element particle matter sensor - Power consumption too high
P3957 = Heater element NH3 sensor - Malfunction
P3957 = Heater element particle matter sensor - Power consumption too low
P3958 = NH3 sensor internal trim resistor - Malfunction
P3958 = Particle matter sensor - Reactivation failed
P3959 = NH3 sensor internal trim resistor - Malfunction
P3959 = Particle matter sensor - Persist, not valid
P3960 = NH3 sensor - Internal error
P3960 = CAN communication - Message rate too low from particle matter sensor
P3961 = NH3 sensor - Internal error
P3961 = Sensor circuit particle matter sensor - Short circuit to supply
P3962 = NH3 sensor - Internal error
P3962 = Sensor circuit particle matter sensor - Short circuit to ground
P3963 = CAN communication - timeout from NH3 sensor
P3963 = Heater element particle matter sensor - Open circuit
P3964 = NH3 sensor - Internal error
P3964 = Sensor circuit particle matter sensor - Voltage out of range
P3965 = NH3 sensor - Internal error
P3965 = Sensor circuit particle matter sensor - Voltage too high
P3966 = NH3 sensor - Internal error
P3966 = DEF quality sensor - Temperature error
P3967 = NH3 sensor - Internal error

P3967 = CAN communication - Message rate too low from DEF tank temperature sensor
P3968 = NH3 sensor - Internal error
P3968 = DEF tank temperature - Out of calibration
P3969 = NH3 sensor - Internal error
P3970 = NH3 sensor power supply - Interrupted
P3970 = NOx sensor after catalyst - O2 sensor error
P3971 = Heater element NH3 sensor - Failed to maintain the operating temperature
P3971 = NOx sensor after catalyst O2 concentration too high
P3972 = Heater element NH3 sensor - Failed to maintain the operating temperature
P3972 = NOx sensor after catalyst O2 concentration too low
P3973 = Heater element NH3 sensor - Heating failed during warm-up
P3973 = NOx sensor after catalyst - O2 reacting too slow
P3974 = NH3 sensor - Signal incorrect
P3974 = NOx sensor after catalyst - Tampering detected
P3975 = Line heater relay - Voltage too high or short circuit to supply on ECU (D374) pin (A08)
P3976 = Line heater relay - Voltage too low or short circuit to ground on ECU (D374) pin (A08)
P3977 = Heater element DEF inlet pipe - Short circuit to ground or open circuit on ECU (D374) pin (A04)
P3978 = Heater element DEF inlet pipe - Short circuit to supply on ECU (D374) pin (A04)
P3979 = Heater element DEF return pipe - Short circuit to ground or open circuit on ECU (D374) pin (A52)
P3980 = Heater element DEF return pipe - Short circuit to supply on ECU (D374) pin (A52)
P3982 = Exhaust gas temperature sensors SCR power supply - Interrupted
P3983 = Exhaust gas temperature sensor before SCR catalyst - Sensor has been tampered with
P3984 = CAN communication - timeout from vehicle control system
P3985 = Pump module power supply - Voltage too high on ECU (D374) pin (B46)
P3986 = Pump module power supply - Voltage too low on ECU (D374) pin (B46)
P3987 = Exhaust gas temperature sensors DPF - Internal error
P3988 = Exhaust gas temperature sensors SCR - Internal error
P3989 = NH3 sensor - Value not changing when expected
P3989 = Particle matter sensor - No detection of hot exhaust gases
P3990 = Exhaust gas temperature sensors DPF power supply - Interrupted
P3991 = DOC/DPF temperature sensors ECU - Software verification incorrect
P3992 = SCR exhaust gas temperature sensors ECU - Software verification incorrect
P3993 = Heater element DEF pressure pipe - Short circuit to ground or open circuit on ECU (D374) pin (A28)
P3994 = Heater element DEF pressure pipe - Short circuit to supply on ECU (D374) pin (A28)
P3995 = Fuel shutoff valve orifice - Plugged
P3996 = DEF flow - Too low
P3997 = DEF quality - Incorrect
U0011 = CAN communication - Hardware or software malfunction on V-CAN2
U0101 = CAN communication - Message (ETC1) rate too low from transmission system
U0103 = CAN communication - Message (ETC2) rate too low from transmission system
U0104 = CAN communication - Message (CCVS) rate too low from vehicle control system
U0105 = CAN communication - Message (TESTRUN_INFO) rate too low from aftertreatment system
U0106 = CAN communication - Message (CCVS_EBS) rate too low from brake system
U0120 = CAN communication - Message (ETC7) rate too low from transmission system
U0129 = CAN communication - Message (EBC1) rate too low from brake system
U0133 = CAN communication - Message (VDC1) rate too low from brake system
U0141 = CAN communication - Message (TCO1) rate too low from tachograph
U0143 = CAN communication - Message (EEC2) rate too low

U0155 = CAN communication - Message (PROBA_BBM_to_Eng) rate too low from Body Builder Module
U0156 = CAN communication - Message (PROPB VIC) rate too low from vehicle control system
U0157 = CAN communication - Message (AMB) rate too low from vehicle control system
U0404 = CAN communication - Message (ETC2) out of range, selected gear from transmission system
U1011 = CAN communication - Hardware or software malfunction on E-CAN
U1013 = CAN communication - Message (A1DOC) out of range, DOC intake gas temperature from aftertreatment system
U1014 = CAN communication - Hardware or software malfunction on V-CAN1
U1015 = CAN communication - Hardware or software malfunction on A-CAN
U1016 = CAN communication - Message (A1DOC) rate too low from aftertreatment system
U1048 = VTG turbo charger actuator, position Incorrect
U1049 = VTG turbo charger actuator, position Incorrect
U104C = VTG turbo charger actuator - CAN communication error
U1069 = Inlet air pressure before compressor - Data erratic, intermittent or incorrect
U1070 = CAN communication - Message (AMB) out of range, ambient temperature from vehicle control system
U1071 = Inlet air humidity before compressor - Data erratic, intermittent or incorrect
U1073 = Humidity sensor - CAN communication error, message rate too low
U1074 = Inlet air temperature before compressor - Data erratic, intermittent or incorrect
U1104 = CAN communication - Message (ACC1) rate too low from Advanced Emergency Braking System
U1105 = CAN communication - Message (PROBA_BBM_to_Eng) out of range, engine stop from Body Builder Module
U1110 = CAN communication - Message (RC_DR) rate too low from retarder system
U1112 = CAN communication - Message (SCR1) rate too low from aftertreatment system
U1114 = CAN communication - Message (AT1T1I) rate too low, DEF tank information from aftertreatment system
U1118 = CAN communication - Message (EXH_GAS_CORR) out of range, NOx after SCR reading stable from aftertreatment system
U111A = CAN communication - Message (EXH_GAS_CORR) out of range, engine out NOx reading stable from aftertreatment system
U111B = CAN communication - Message (EXH_GAS_CORR) out of range, engine out O2 percentage corrected from aftertreatment system
U111C = CAN communication - Message (EXH_GAS_CORR) out of range, engine out NOx corrected from aftertreatment system
U111D = CAN communication - Message (EXH_GAS_CORR) rate too low from aftertreatment system
U1120 = CAN communication - Message (TSC1_BE) rate too low from brake system
U1122 = CAN communication - Message (TSC1_TE) rate too low from transmission system
U1124 = CAN communication - Message (TSC1_VE) rate too low from vehicle control system
U1126 = CAN communication - Message (TSC1_SE) rate too low from Body Builder Module
U112A = CAN communication - Message (ACM) rate too low from aftertreatment system
U112C = CAN communication - Message (AT1FC1) out of range, Fuel Rate from aftertreatment system
U112D = CAN communication - Message (AT1FC1) rate too low from aftertreatment system
U112F = CAN communication - Message (AT1HI) out of range, total fuel used from aftertreatment system
U1130 = CAN communication - Message (AT1HI) out of range, distance between active DPF regenerations from aftertreatment system
U1132 = CAN communication - Message (CM1) rate too low from vehicle control system
U1134 = CAN communication - Message (A1SCRDSR2) rate too low from aftertreatment system
U1136 = CAN communication - Message (HRW) rate too low from brake system
U1137 = CAN communication - Message (A1SCRDSI2) out of range, DEF pipe heater 4 state from

aftertreatment system

U1138 = CAN communication - Message (TSC_AE) rate too low from brake system

U113A = CAN communication - Message (AT1HI) rate too low from aftertreatment system

U113C = CAN communication - Message (A1SCRDSI2) out of range, DEF pipe heater 1 state from aftertreatment system

U113D = CAN communication - Message (A1SCRDSI2) rate too low

U113F = CAN communication - Message (A1SCREGT) out of range, SCR catalyst outlet gas temperature from aftertreatment system

U1144 = CAN communication - Message (TD) rate too low from tachograph

U1145 = CAN communication - Message (A1SCRRSI) rate too low

U1147 = CAN communication - Message (A1SCRRSI) rate too low from aftertreatment system

U1149 = CAN communication - Message (DCUST1) rate too low from aftertreatment system

U114A = CAN communication - Message (A1SCREGT) rate too low from aftertreatment system

U114D = CAN communication - Message (A1SCRDSI1) rate too low from aftertreatment system

U1150 = CAN communication - Message (EBC1) rate too low from brake system

U1154 = CAN communication - Message (B) rate too low from brake system

U1159 = VTG turbo charger actuator - CAN communication error, message rate too low

U1160 = VTG turbo charger actuator position - Data erratic, intermittent, or incorrect

U1161 = CAN communication - Message (A1SCRAI2) rate too low from aftertreatment system

U1163 = CAN communication - Message (A1SCRAI2) out of range, SCR intermediate NH3 from aftertreatment system

U1164 = CAN communication - Message (A1SCRAI2) out of range, SCR intermediate NH3 reading stable from aftertreatment system

U1165 = CAN communication - Message (AT1S) rate too low from aftertreatment system

U1167 = CAN communication - Message (AT1S) out of range, Soot load percent from aftertreatment system

U1168 = CAN communication - Message (DPFC1) rate too low from aftertreatment system

U1179 = CAN communication - Message (PROPB_VIC) out of range

U117A = CAN communication - Message (A1SCREGT2) rate too low from aftertreatment system

U117C = CAN communication - Message (A1SCREGT2) out of range, intermediate gas temperature from aftertreatment system

U1184 = CAN communication - Message (CCVS) out of range, Cruise Control enable switch from vehicle control system

U1188 = CAN communication - Message (EBC2) out of range, front axle speed from brake system

U1190 = CAN communication - Message (ERC1_DR) rate too low from retarder system

U1194 = CAN communication - Message (DD) rate too low from vehicle control system

U1198 = CAN communication - Message (EBC2) rate too low from brake system

U1208 = CAN communication - Message (PTO) rate too low from vehicle control system

U1404 = CAN communication - Message (ETC2) out of range, current gear from transmission system

U1406 = CAN communication - Message (ACC1) out of range, Adaptive Cruise Control mode from Advanced Emergency Braking System

U1407 = CAN communication - Message (ACC1) out of range, Adaptive Cruise Control set speed from Advanced Emergency Braking System

U1408 = VTG turbocharger actuator status - Data erratic, intermittent, or incorrect

U1409 = VTG turbo charger actuator state - Data erratic, intermittent or incorrect

U140A = VTG turbocharger actuator effort - Data erratic, intermittent, or incorrect

U142F = CAN communication - Message (ACM_to_Eng) out of range, estimated pre-DOC pressure from aftertreatment system

U1501 = CAN communication - Message (TCO1) out of range, output shaft speed from tachograph

U1502 = CAN communication - Message (TCO1) out of range, vehicle speed from tachograph

U153B = CAN communication - Message (PTO) out of range, engine PTO resume switch

U1544 = CAN communication - Message (ERC1_DR) out of range, retarder torque actual percent from retarder system

U1545 = CAN communication - Message (ERC1_DR) out of range, driver's demand retarder - Percent torque from retarder system

U1546 = CAN communication - Message (ERC1_DR) out of range, intended retarder percent torque from retarder system

U1547 = CAN communication - Message (ERC1_DR) out of range, retarder selection, non-engine from retarder system

U1548 = CAN communication - Message (ETC1) out of range, Transmission output shaft speed from transmission system

U1549 = CAN communication - Message (ETC1) out of range, Transmission torque converter lockup engaged from transmission system

U1550 = CAN communication - Message (RC_DR) out of range, reference retarder torque from retarder system

U1551 = CAN communication - Message (VDC1) out of range, rollover protection active (brake) from brake system

U1552 = CAN communication - Message (VDC1) out of range, rollover protection active (engine) from brake system

U1553 = CAN communication - Message (VDC1) out of range, yaw control active (brake) from brake system

U1554 = CAN communication - Message (VDC1) out of range, yaw control active (engine) from brake system

U1562 = CAN communication - Message (ACM_Limits) out of range, turbine outlet flow low target request from aftertreatment system

U1563 = CAN communication - Message (ACM_Limits) out of range, turbine outlet flow low limit request from aftertreatment system

U1564 = CAN communication - Message (ACM_Limits) out of range, turbine outlet temperature low target request from aftertreatment system

U1565 = CAN communication - Message (ACM_Limits) out of range, turbine outlet temperature upper limit request from aftertreatment system

U1566 = CAN communication - Message (ACM_LIMITS) rate too low from aftertreatment system

U1571 = EGR valve module - CAN communication error, message rate too low

U1572 = EGR valve module state - Data erratic, intermittent, or incorrect

U1573 = EGR valve module position - Data erratic, intermittent, or incorrect

U1574 = EGR valve module temperature - Data erratic, intermittent, or incorrect

U1575 = EGR valve module effort - Data erratic, intermittent, or incorrect

U1577 = BPV actuator - CAN communication error, message rate too low

U1578 = BPV actuator effort - Data erratic, intermittent, or incorrect

U1579 = BPV actuator position - Data erratic, intermittent, or incorrect

U157A = BPV actuator state - Data erratic, intermittent, or incorrect

U157B = BPV actuator temperature - Data erratic, intermittent, or incorrect

U1700 = CAN communication - Message (AT1T1I) out of range, DEF tank level from aftertreatment system

U1702 = CAN communication - Message (AT1T1I) out of range, DEF tank heating on ECU () pin ()

U1703 = Remote pedal - Voltage too low or short circuit to ground

U1711 = CAN communication - Message (AT1IMG) rate too low from aftertreatment system

U1716 = CAN communication - Message (AT1OG2) rate too low from aftertreatment system

U1721 = CAN communication - Message (VEP1) rate too low from aftertreatment system

U1726 = CAN communication - Message (AT1GP) rate too low from aftertreatment system

U1728 = CAN communication - Message (AT1OG1) rate too low from aftertreatment system
U1730 = CAN communication - Message (AT1OG1) out of range, SCR outlet NOx from aftertreatment system
U177B = Accelerator pedal 1 - Voltage too high or short circuit to supply on ECU (D420) pin (B41)
U177C = Accelerator pedal 1 - Voltage too low or short circuit to ground on ECU (D420) pin (B41)
U177D = Accelerator pedal 1 duty cycle - Data valid but too high on ECU (D420) pin (B41)
U177E = Accelerator pedal 1 duty cycle - Data valid but too low on ECU (D420) pin (B41)
U177F = Accelerator pedal 1 frequency - Data valid but too high on ECU (D420) pin (B41)
U1780 = CAN communication - Message (TSC1 yye) rate too low
U1781 = CAN communication - Message (TSC_PE) rate too low
U1782 = Fan drive - CAN communication error, message rate too low
U1784 = Fan speed - CAN communication error, message out of range
U1785 = CAN communication - Message (PROPB_EST) rate too low from retarder system
U1787 = CAN communication - Message (PROPB_EST) out of range, coolant temperature from retarder system
U1788 = CAN communication - Message (PROPB_EST) not available, coolant temperature from retarder system
U1789 = CAN communication - Message (PROBA_BBM_to_Eng) out of range, Starter Interrupt from Body Builder Module
U178A = CAN communication - Message (PROBA_BBM_to_Eng) out of range, ESC enable from Body Builder Module
U178B = CAN communication - Message (PROBA_BBM_to_Eng) out of range, ESC resume or set from Body Builder Module
U178C = CAN communication - Message (PROBA_BBM_to_Eng) out of range, ESC n variable from Body Builder Module
U178D = CAN communication - Message (PROBA_BBM_to_Eng) out of range, ESC n variable from Body Builder Module
U178E = CAN communication - Message (PROBA_BBM_to_Eng) out of range, application speed limiter switch 1 from Body Builder Module
U178F = CAN communication - Message (PROBA_BBM_to_Eng) out of range, ESC n2 from Body Builder Module
U1790 = CAN communication - Message (PROBA_BBM_to_Eng) out of range, ESC n3 from Body Builder Module
U1791 = CAN communication - Message (PROBA_BBM_to_Eng) out of range, application speed limiter switch 2 from Body Builder Module
U1792 = CAN communication - Message (PROBA_BBM_to_Eng) out of range, throttle integration switch from Body Builder Module
U1793 = CAN communication - Message (PROPB_AST) out of range, clutch switch from transmission system
U1794 = CAN communication - Message (PROPB_AST) not available, clutch percent torque from transmission system
U1798 = CAN communication - Message (EBC1) out of range, engine retarder selection from brake system
U1799 = CAN communication - Message (TSC1 yye) data error
U179A = CAN communication - Message (TSC1_SE) data error from Body Builder Module
U179B = CAN communication - Message (TSC1_TE) data error from transmission system
U179C = CAN communication - Message (TSC1_VE) data error from vehicle control system
U179D = CAN communication - Message (TSC1 xxe) data error
U179E = CAN communication - Message (TSC1 xxe) rate too low
U179F = CAN communication - Message (TSC1 HCE) rate too low from aftertreatment system

U17A0 = Accelerator pedal 1 frequency - Data valid but too low on ECU (D420) pin (B41)
U17A1 = Accelerator pedal 2 - Voltage too high or short circuit to supply on ECU (D420) pin (B45)
U17A2 = Accelerator pedal 2 - Voltage too low or short circuit to ground on ECU (D420) pin (B45)
U17A3 = Accelerator pedal 2 duty cycle - Data valid but too high on ECU (D420) pin (B45)
U17A4 = Accelerator pedal 2 duty cycle - Data valid but too low on ECU (D420) pin (B45)
U17A5 = Accelerator pedal 2 frequency - Data valid but too high on ECU (D420) pin (B45)
U17A6 = Accelerator pedal 2 frequency - Data valid but too low on ECU (D420) pin (B45)
U17A7 = Accelerator pedal - Sensor 1 and 2 synchronization malfunction
U17A8 = Accelerator pedal - Malfunction
U17A9 = Accelerator pedal operation - Data erratic, intermittent or incorrect
U17B0 = Water in fuel drain control - Short circuit to supply on ECU (D420) pin (A40)
U17B1 = Water in fuel drain control - Short circuit to ground on ECU (D420) pin (A40)
U17B3 = Water in fuel drain control - Short circuit to supply on ECU (D420) pin (A37)
U17B4 = Water in fuel drain control - Short circuit to ground on ECU (D420) pin (A37)
U17B5 = Water in fuel drain control - Current too low or open circuit on ECU (D420) pin (A37)
U17B6 = CAN communication - Message (TSC1_AE) data error from brake system
U17B7 = CAN communication - Message (TSC1_BE) data error from brake system
U17B8 = CAN communication - Message (TSC1_HCE) data error from aftertreatment system
U17B9 = CAN communication - Message (TSC1_PE) data error
U17BA = VTG turbo charger actuator temperature - Data erratic, intermittent, or incorrect at ignition on
U17C4 = CAN communication - Message (TSC1_ACXR) rate too low
U17C5 = CAN communication - Message (TSC1_AXR) rate too low
U17C6 = CAN communication - Message (TSC1_DXR) rate too low from retarder system
U17C7 = CAN communication - Message (TSC1_TXR) rate too low from transmission system
U17C8 = CAN communication - Message (TSC1_VXR) rate too low
U17C9 = CAN communication - Message (TSC1_SXR) rate too low
U17CA = CAN communication - Message (TSC1_AXCR) message checksum
U17CB = CAN communication - Message (TSC1_AXR) message count from brake system
U17CC = CAN communication - Message (TSC1_DXR) message count from retarder system
U17CD = CAN communication - Message (TSC1_TXR) message count from transmission system
U17CE = CAN communication - Message (TSC1_VXR) message count
U17CF = CAN communication - Message (TSC1_SXR) message count
U17D0 = CAN communication - Message (TSC1_AXCR) message checksum
U17D1 = CAN communication - Message (TSC1_AXR) message checksum from brake system
U17D2 = CAN communication - Message (TSC1_DXR) message checksum from retarder system
U17D3 = CAN communication - Message (TSC1_TXR) message checksum from transmission system
U17D4 = CAN communication - Message (TSC1_VXR) message checksum
U17D5 = CAN communication - Message (TSC1_SXR) message checksum
U17E4 = Remote pedal - Voltage too high or short circuit to supply
U1802 = VTG turbocharger actuator power supply - Data valid but too high
U1803 = CAN communication - Message (ACC1) out of range, Forward Collision Warning from Advanced Emergency Braking System
U1805 = CAN communication - Message (ACC2) rate too low from vehicle control system
U1806 = CAN communication - Message (ACM_to_Eng) out of range, soot level from aftertreatment system
U180A = CAN communication - Message (PTO) out of range, PTO governor state
U180B = CAN communication - Message (CCVS_VIC) out of range, cruise control pause switch from vehicle control system
U180C = CAN communication - Message (CVW) out of range, gross combination vehicle weight from brake system

U180E = CAN communication - Message (CVW) rate too low from brake system

U1810 = CAN communication - Message (EAS_EI_AECD) rate too low from aftertreatment system

U1812 = CAN communication - Message (EAS_SYS_INFO) rate too low from aftertreatment system

U1813 = CAN communication - Message (EBC1_EBS) out of range, ASR engine control active from brake system

U1814 = CAN communication - Message (EBC1_CECU) out of range, ASR brake control active from brake system

U1815 = CAN communication - Message (EBC2) out of range, relative speed, front axle, left wheel from brake system

U1816 = CAN communication - Message (EBC2) out of range, relative speed, front axle, right wheel from brake system

U1817 = CAN communication - Message (ETC1) not available, Transmission Shift In Process from transmission system

U1818 = CAN communication - Message (ETC1) out of range, transmission shift in process from transmission system

U1819 = CAN communication - Message (ETC1) not available, engine momentary overspeed enable from transmission system

U181A = CAN communication - Message (ETC1) out of range, engine momentary overspeed enable from transmission system

U181B = CAN communication - Message (ETC1) not available, progressive shift disable from transmission system

U181C = CAN communication - Message (ETC1) out of range, progressive shift disable from transmission system

U181D = CAN communication - Message (ETC7) not available, transmission engine crank enable from transmission system

U181E = CAN communication - Message (ETC7) out of range, transmission engine crank enable from transmission system

U181F = CAN communication - Message (PROPB_SW) out of range, cruise control set plus switch from steering wheel switches

U1820 = CAN communication - Message (PROPB_SW) out of range, cruise control resume min switch from steering wheel switches

U1821 = CAN communication - Message (PROPB_SW) out of range, speed functions off switch from steering wheel switches

U1822 = CAN communication - Message (PROPB_SW) out of range, Downhill Speed Control Set Plus Switch from steering wheel switches

U1823 = CAN communication - Message (PROPB_SW) out of range, Downhill Speed Control Resume Min Switch from steering wheel switches

U1824 = CAN communication - Message (PROPB_SW) out of range, Variable Speed Limiter Set Switch from steering wheel switches

U1825 = CAN communication - Message (PROPB_SW) rate too low from steering wheel switches

U1826 = CAN communication - Message (PROPB_VIC) not available, estimated engine parasitic losses from vehicle control system

U1827 = CAN communication - Message (PROPB_VIC) out of range, estimated engine parasitic losses from vehicle control system

U1828 = CAN communication - Message (PROPB_VIC) not available, secondary retarder switch from vehicle control system

U182A = CAN communication - Message (PROPB_VIC) out of range, secondary retarder switch from vehicle control system

U182C = CAN communication - Message (PROPB_VIC) out of range, km/h, miles/h switch from vehicle control system

U182E = CAN communication - Message (PROPB_VIC) not available, primary retarder by stalk on from vehicle control system

U1830 = CAN communication - Message (PROPB_VIC) out of range, primary retarder by stalk off from vehicle control system

U1831 = CAN communication - Message (PROPB_VIC) not available, primary retarder by foot on from vehicle control system

U1832 = CAN communication - Message (PROPB_VIC) out of range, primary retarder by foot on from vehicle control system

U1833 = CAN communication - Message (PROPB_VIC) out of range, requested percent coolant pump speed from vehicle control system

U1835 = VTG turbo charger actuator - CAN communication error, message rate too low

U1836 = CAN communication - Message (PTO) out of range, engine remote PTO governor variable speed control switch

U1837 = CAN communication - Message (PTO) out of range, engine remote PTO governor preprogrammed speed control switch

U1838 = CAN communication - Message (PTO) out of range, engine PTO governor enable switch

U1839 = CAN communication - Message (PTO) out of range, Remote PTO governor preprogrammed speed control switch #2

U183B = CAN communication - Message (TCFG2) out of range, transmission torque limit from transmission system

U183C = CAN communication - Message (TRF1) out of range, transmission oil temperature from transmission system

U183E = CAN communication - Message (TRF1) rate too low from transmission system

U183F = CAN communication - Message (VDC1) out of range, VDC brake light request from brake system

U1841 = CAN communication - Message (VDC2) rate too low from brake system

U1843 = CAN communication - Message (VDHR) rate too low from tachograph

U1844 = CAN communication - Message (AIR1) out of range, air compressor status from air supply system

U1846 = CAN communication - Message (AIR1) rate too low from air supply system

U1847 = PCI ECU software verification - Incorrect

U1848 = EAS-3 ECU software verification - Incorrect

U1849 = NOx sensor before catalyst software verification - Incorrect

U184B = CAN communication - Message (TESTINHB_INF) rate too high from aftertreatment system

U184D = CAN communication - PCI ECU cannot start up communication

U184E = CAN communication - Message (PROPB_SW) not available, speed functions off switch from steering wheel switches

U1850 = NOx sensor after catalyst software verification - Incorrect

U1851 = NH3 sensor software verification - Incorrect

U1852 = VTG turbocharger actuator software verification - Incorrect

U1853 = EGR valve module software verification - Incorrect

U1854 = BPV actuator software verification - Incorrect

U1855 = Catalytic convertor temperature sensors ECU software verification - Incorrect

U1856 = DOC/DPF temperature sensors ECU software verification - Incorrect

U1857 = Humidity sensor software verification - Incorrect

U185A = CAN communication - Message (A1DEFI) rate too low from aftertreatment system

U185C = CAN communication - Message (A1DEFI) out of range, DEF property from aftertreatment system

U185E = CAN communication - Message (EPSI) rate too low from aftertreatment system

U185F = CAN communication - Message (EPSI) out of range, particulate sensor from aftertreatment system

U186F = CAN communication - Message (PROPB_SW) not available, variable speed limiter set switch from steering wheel switches

U1870 = CAN communication - Message (PROPB_CECU) rate too low from vehicle control system

U1872 = CAN communication - Message (PROPB_CECU) out of range, soft-top speed limiter switch from vehicle control system

U1873 = CAN communication - Message (ETC1) out of range, gear engaged from transmission system

U1874 = CAN communication - Message (ETC2) out of range, transmission actual gear ratio from transmission system

U1875 = CAN communication - Message (VDC1) out of range, VDC brake light request from brake system

U1876 = CAN communication - Message (AIR1) out of range, air pressure circuit 1 from air supply system

U1877 = CAN communication - Message (AIR1) out of range, air pressure circuit 2 from air supply system

U1878 = CAN communication - Message (VEP4) out of range, Power Electronics Carrier remaining charge from vehicle control system

U1879 = CAN communication - Message (A1SCREGT) out of range, Exhaust gas temperature before SCR catalyst from aftertreatment system

U1880 = CAN communication - Message (VDC2) out of range, longitudinal acceleration from brake system

U1890 = CAN communication - Message (EBC1) out of range, Anti-lock Braking (ABS) active from brake system

U1891 = CAN communication - Message (EBC1) data not correct or available, Anti-lock Braking (ABS) active from brake system