

1 P0087 P0087 - Rail pressure low during cranking Sensor Connection. Remove the Sensor - Check for oxidation - rust, clean and fit it properly again. Visually check sensor. Check if there are any physical damages or improper fittings. If there are any Replace the Sensor - Rail assembly ECU connection. 1) Key off
 2) Remove the ECU Connector
 3) Connect ECU connector Properly
 4) Key on and Read the faults Check the electrical continuity and insulation of the lines of all the sensors supplied by vext1 and vext2. Perform necessary repair in case of any line problem If the problem still persists, Replace the Sensor rail assembly If the problem still persists. Replace the ECU

2 P0088 P0088 - Rail pressure error (over pressure) Perform diagnostics on the IMV (Fault chart of P0251). In case of electrical problem perform necessary repairs Perform the diagnostics on the HP sensor to find faults P0192 and P0193. Do necessary repairs if the problem is with HP sensor Check the LP circuit. Refer LP check procedure. Perform the necessary repairs in case of any problem Check the HP circuit. Refer HP check procedure. Perform necessary repairs in case of any problem Check the Injector. Perform necessary repairs in case of any problem Check the HP pump. Perform necessary repairs in case of any problem If the problem still persists. Replace the ECU

3 P0101 P0101 - AMF plausibility fault Check is electrical fault for AMF sensor present. If present, follow sensor check procedure check air inlet circuit. Check for tightness of clips, clogging, inverted assembly If problem persists, replace AMF sensor

4 P0102 P0102 - AMF sensor fault - signal Low Sensor Connection. Remove the Sensor - Check for oxidation - rust, clean and fit it properly again. ECU connection. 1) Key off
 2) Remove the ECU Connector
 3) Connect ECU connector Properly
 4) Key on and Read the faults Check for Electrical Isolation. 1) Check electrical open circuit
 2) Check for electrical short circuit
 3) Check for any Terminal back out in sensor or connector pins If problem still persists. Replace AMF sensor If problem still persists. Replace ECU

5 P0103 P0103 - AMS sensor fault - signal High Sensor Connection. Remove the Sensor - Check for oxidation - rust, clean and fit it properly again. ECU connection. 1) Key off
 2) Remove the ECU Connector
 3) Connect ECU connector Properly
 4) Key on and Read the faults Check for Electrical Isolation. 1) Check electrical open circuit
 2) Check for electrical short circuit
 3) Check for any Terminal back out in sensor or connector pins If problem still persists. Replace AMF sensor If problem still persists. Replace ECU

6 P0104 AMF sensor - after air filter - gradient fault Check is electrical fault for AMF sensor present. If present, follow sensor check procedure Check air inlet circuit. Check for tightness of clips, clogging, inverted assembly If problem persists, replace AMF sensor

7 P0107 P0107 - Atmospheric Pressure signal - low Replace the ECU

8 P0108 P0108 - Atmospheric Pressure signal - High Replace the ECU

9 P0109 P0109 - Atmospheric pressure sensor - electrical fault Replace the ECU

10 P1100 P1100 - AMF sensor VEXT fault Sensor Connection. Remove the Sensor - Check for oxidation - rust, clean and fit it properly again. ECU connection. 1) Key off
 2) Remove the ECU Connector
 3) Connect ECU connector Properly

4) Key on and Read the faults Check for Electrical Isolation. 1) Check electrical open circuit
 2) Check for electrical short circuit
 3) Check for any Terminal back out in sensor or connector pins If problem still persists. Replace AMF sensor If problem still persists. Replace ECU

11 P0112 P0112 - Air Temperature Signal Low check for vext 1 fault or If P0110 is present. Disconnect the sensors supplied by VEXT one by one and check if fault disappears. If the fault no longer appears then the sensor which is removed is faulty, If the fault still persists after changing all sensors than check Electrical continuity and SC in all resp sensors Sensor Connection. Remove the Sensor - Check for oxidation - rust, clean and fit it properly again. Sensor Characteristics. Measure Voltage (5v) & Resistance at sensor terminals, If not ok Replace sensor Check ECU Connection. 1) Key off

2) Remove the ECU Connector 3) Connect ECU connector Properly
4) Key on and Read the faults Check for Electrical Isolation. 1)Check electrical open circuit
2) Check for electrical short circuit 3) Check for any Terminal back out in sensor or connector pins If the problem still persists. Replace the ECU

12 P0113 P0113 - Air Temperature signal High check for vext 1 fault or If P0110 is present. Disconnect the sensors supplied by VEXT one by one and check if fault disappears.If the fault no longer appears then the sensor which is removed is faulty.If the fault still persists after changing all sensors than check Electrical continuity and SC in all resp sensors Sensor Connection. Remove the Sensor - Check for oxidation - rust, clean and fit it properly again. Sensor Characteristics.Measure Voltage (5v) & Resistance at sensor terminals,If not ok Replace sensor Check ECU Connection. 1) Key off
2) Remove the ECU Connector 3) Connect ECU connector Properly
4) Key on and Read the faults Check for Electrical Isolation. 1)Check electrical open circuit
2) Check for electrical short circuit 3) Check for any Terminal back out in sensor or connector pins If the problem still persists. Replace the ECU

13 P0115 P0115 - Coolant Temperature Signal - Generic Check whether fault code P1115 is present ! First deal with fault codes P1115, P0117, P0118 (Refer Diagnostic tree in group coolant temperature signal -1) Sensor Connection. Remove the Sensor - Check for oxidation - rust, clean and fit it properly again. Sensor Characteristics. Measure Resistance at sensor terminals,If not ok Replace sensor Check ECU Connection.
1) Key off 2) Remove the ECU Connector 3) Connect ECU connector Properly
4) Key on and Read the faults 1)Check electrical open circuit
2) Check for electrical short circuit 3) Check for any Terminal back out . If any electrical isolation is found do the necessary repair If still the problem persists, Replace the ECU

14 P0116 P0116 - Coolant Temperature Signal - Plausibility Check whether fault code P1115 is present ! First deal with fault codes P1115, P0117, P0118 (Refer Diagnostic tree in group coolant temperature signal -1) Sensor Connection. Remove the Sensor - Check for oxidation - rust, clean and fit it properly again. Sensor Characteristics. Measure Resistance at sensor terminals,If not ok Replace sensor Check ECU Connection.
1) Key off 2) Remove the ECU Connector
3) Connect ECU connector Properly 4) Key on and Read the faults 1)Check electrical open circuit
2) Check for electrical short circuit
3) Check for any Terminal back out . If any electrical isolation is found do the necessary repair If still the problem persists, Replace the ECU

15 P0117 P0117 - Coolant temperature Signal - low check for vext 1 fault or If P0115 is present. Disconnect the sensors supplied by VEXT one by one and check if fault disappears.If the fault no longer appears then the sensor which is removed is faulty.If the fault still persists after changing all sensors than check Electrical continuity and SC in all resp sensors Sensor Connection. Remove the Sensor - Check for oxidation - rust, clean and fit it properly again. Sensor Characteristics. Measure Voltage (5v) & Resistance at sensor terminals,If not ok Replace sensor Check ECU Connection. 1) Key off
2) Remove the ECU Connector 3) Connect ECU connector Properly
4) Key on and Read the faults Check for Electrical Isolation. 1)Check electrical open circuit
2) Check for electrical short circuit 3) Check for any Terminal back out in sensor or connector pins Replace ECU. If fault pertains still change the ECU

16 P0118 P0118 - Coolant temperature signal - High check for vext 1 fault or If P0115 is present. Disconnect the sensors supplied by VEXT one by one and check if fault disappears.If the fault no longer appears then the sensor which is removed is faulty.If the fault still persists after changing all sensors than check Electrical continuity and SC in all resp sensors Sensor Connection. Remove the Sensor - Check for oxidation - rust, clean and fit it properly again. Sensor Characteristics. Measure Voltage (5v) & Resistance at sensor terminals,If not ok Replace sensor Check ECU Connection. 1) Key off
2) Remove the ECU Connector 3) Connect ECU connector Properly
4) Key on and Read the faults Check for Electrical Isolation. 1)Check electrical open circuit
2) Check for electrical short circuit 3) Check for any Terminal back out in sensor or connector pins Replace ECU. If fault pertains still change the ECU

17 P0119 P0119 - Coolant temperature signal - GRAD check for vext 1 fault or If P0115 is present. Disconnect the sensors supplied by VEXT one by one and check if fault disappears.If the fault no longer appears then the sensor which is removed is faulty.If the fault still persists after changing all sensors than check Electrical continuity and SC in all resp sensors Sensor Connection. Remove the Sensor - Check for

oxidation - rust, clean and fit it properly again. Sensor Characteristics. Measure Voltage (5v) & Resistance at sensor terminals, If not ok Replace sensor Check ECU Connection.

- 1) Key off
- 2) Remove the ECU Connector
- 3) Connect ECU connector Properly
- 4) Key on and Read the faults Check for Electrical Isolation.
- 1) Check electrical open circuit
- 2) Check for electrical short circuit
- 3) Check for any Terminal

back out in sensor or connector pins Replace ECU. If fault pertains still change the ECU

18 P0120 P0120 - Limp Home Mode activated

Deal with all faults present with

the "LIMP HOME" . IMV drive fault, Pedal limp fault, Pedal stuck fault, vext2 fault, p_1_nvm fault,

water-in-fuel

19 P0122 P0122 - Pedal sensor Track1 signal - low Check for vext 1 fault or If P1120 is present. Disconnect the sensors supplied by VEXT one by one and check if fault disappears. If the fault no longer appears then the sensor which is removed is faulty, If the fault still persists after changing all sensors than check Electrical continuity and SC in all resp sensors Sensor Connection. Remove the Sensor - Check for oxidation - rust,

clean and fit it properly again. Intermediate connector. Remove Intermediate connector between EMS harness and vehicle wiring harness. Check for terminal back out. Do necessary repairs reconnect and check the

fault. Visually check sensor. If there are any physical damages replace the sensor and read the errors Check ECU Connection.

- 1) Key off
- 2) Remove the ECU Connector
- 3) Connect ECU connector Properly
- 4) Key on and Read the faults Check for Electrical Isolation.
- 1) Check electrical open circuit
- 2) Check for electrical short circuit
- 3) Check for any Terminal back out in sensor or connector

pins Replace the sensor. Replace the sensor and ensure fault vanishes with new sensor If fault pertains still change the ECU

20 P0123 P0123 - Pedal sensor track 1 signal - High Check for vext 1 fault or If P0120 is present. Disconnect the sensors supplied by VEXT one by one and check if fault disappears. If the fault no longer appears then the sensor which is removed is faulty, If the fault still persists after changing all sensors than check Electrical continuity and SC in all resp sensors Sensor Connection. Remove the Sensor - Check for oxidation - rust,

clean and fit it properly again. Intermediate connector. Remove Intermediate connector between EMS harness and vehicle wiring harness. Check for terminal back out. Do necessary repairs reconnect and check the

fault. Visually check sensor. If there are any physical damages replace the sensor and read the errors Check ECU Connection.

- 1) Key off
- 2) Remove the ECU Connector
- 3) Connect ECU connector Properly
- 4) Key on and Read the faults Check for Electrical Isolation.
- 1) Check electrical open circuit
- 2) Check for electrical short circuit
- 3) Check for any Terminal back out in sensor or connector

pins Replace the sensor. Replace the sensor and ensure fault vanishes with new sensor If fault pertains still change the ECU

21 P0182 P0182 - Fuel temperature signal - low check for vext 1 fault or If P1180 is present. Disconnect the sensors supplied by VEXT one by one and check if fault disappears. If the fault no longer appears then the sensor which is removed is faulty, If the fault still persists after changing all sensors than check Electrical continuity and SC in all resp sensors Sensor Connection. Remove the Sensor - Check for oxidation - rust,

clean and fit it properly again. Sensor Characteristics. Measure Voltage (5v) & Resistance at sensor terminals, If not ok Replace sensor Check ECU Connection.

- 1) Key off
- 2) Remove the ECU Connector
- 3) Connect ECU connector Properly
- 4) Key on and Read the faults Check for Electrical Isolation.
- 1) Check electrical open circuit
- 2) Check for electrical short circuit
- 3) Check for any Terminal back

out in sensor or connector pins Replace ECU. If fault pertains still change the ECU

22 P0183 P0183 - Fuel temperature signal - High check for vext 1 fault or If P0180 is present. Disconnect the sensors supplied by VEXT one by one and check if fault disappears. If the fault no longer appears then the sensor which is removed is faulty, If the fault still persists after changing all sensors than check Electrical continuity and SC in all resp sensors Sensor Connection. Remove the Sensor - Check for oxidation - rust,

clean and fit it properly again. Sensor Characteristics. Measure Voltage (5v) & Resistance at sensor terminals, If not ok Replace sensor Check ECU Connection.

- 1) Key off
- 2) Remove the ECU Connector
- 3) Connect ECU connector Properly
- 4) Key on and Read the faults Check for Electrical Isolation.
- 1) Check electrical open circuit
- 2) Check for electrical short circuit
- 3) Check for any Terminal back

out in sensor or connector pins Replace ECU. If fault pertains still change the ECU

23 P0192 P0192 - Rail pressure signal - low check for vext 1 fault or If P1190 is present. Disconnect the

sensors supplied by VEXT one by one and check if fault disappears. If the fault no longer appears then the sensor which is removed is faulty. If the fault still persists after changing all sensors then check Electrical continuity and SC in all resp sensors Check the high pressure circuit for Leak. Check for leak individually in rail, Hp pipes. Replace the part on any leaks detected. Sensor Connection. Remove the Sensor - Check for oxidation - rust, clean and fit it properly again. Visually check sensor. If there are any physical damages replace the sensor - rail assembly and read the errors Check ECU Connection.

1) Key off
2) Remove the ECU Connector 3) Connect ECU connector
Properly 4) Key on and Read the faults Check for Electrical Isolation. 1) Check electrical
open circuit 2) Check for electrical short circuit 3)
Check for any Terminal back out in sensor or connector pins Problem still persists !. Replace the sensor - Rail
assembly and check for faults. Problem still persists! Replace the ECU

24 P0193 P0193 - Rail pressure signal - High check for vext 1 fault or If P1190 is present. Disconnect the sensors supplied by VEXT one by one and check if fault disappears. If the fault no longer appears then the sensor which is removed is faulty. If the fault still persists after changing all sensors then check Electrical continuity and SC in all resp sensors Check the high pressure circuit for Leak. Check for leak individually in rail, Hp pipes. Replace the part on any leaks detected. Sensor Connection. Remove the Sensor - Check for oxidation - rust, clean and fit it properly again. Visually check sensor. If there are any physical damages replace the sensor - rail assembly and read the errors Check ECU Connection.

1) Key off
2) Remove the ECU Connector 3) Connect ECU connector
Properly 4) Key on and Read the faults Check for Electrical Isolation. 1) Check electrical
open circuit 2) Check for electrical short circuit 3)
Check for any Terminal back out in sensor or connector pins Problem still persists !. Replace the sensor - Rail
assembly and check for faults. Problem still persists! Replace the ECU

25 P0194 P0194 - Rail pressure signal - Pressure Drop check for vext 1 fault or If P1190 is present. Disconnect the sensors supplied by VEXT one by one and check if fault disappears. If the fault no longer appears then the sensor which is removed is faulty. If the fault still persists after changing all sensors then check Electrical continuity and SC in all resp sensors Check the high pressure circuit for Leak. Check for leak individually in rail, Hp pipes. Replace the part on any leaks detected. Sensor Connection. Remove the Sensor - Check for oxidation - rust, clean and fit it properly again. Visually check sensor. If there are any physical damages replace the sensor - rail assembly and read the errors Check ECU Connection.

1)
Key off 2) Remove the ECU Connector 3) Connect ECU
connector Properly 4) Key on and Read the faults Check for Electrical Isolation. 1) Check
electrical open circuit 2) Check for electrical short circuit
3) Check for any Terminal back out in sensor or connector pins Problem still persists !. Replace the sensor -
Rail assembly and check for faults. Problem still persists! Replace the ECU

26 P0201 P0201 - Cylinder no.1 Injector - open circuit Switch off the
ignition. wait for ten seconds. Remove the injector connector check the connection. Connect it properly again.
The problem should vanish after the reconnection. Note: Limit the number

of times injector connection is disconnected Check the electrical continuity between the two injector
terminals using a multimeter. If the continuity is not there then replace the respective injector with proper
care and precaution. Write new Injector I2C values into ECU Check ECU Connection. 1)

Key off 2) Remove the ECU Connector 3) Connect ECU
connector Properly 4) Key on and Read the faults 1) Check electrical open circuit
2) Check for electrical short circuit 3) Check for any Terminal back
out in sensor or connector pins. If any electrical isolation is found replace the wiring harness and check for
the fault If the problem still persists. Replace the Injector and check if the problem is solved. Write new
Injector I2C values into ECU If the problem still persists. Replace the ECU and check if the problem is
solved

27 P0202 P0202 - Cylinder no.2 Injector - open circuit Switch off the ignition. wait for ten seconds. Remove
the injector connector check the connection. Connect it properly again. The problem should vanish after the
reconnection. Note: Limit the number of times injector connection is

disconnected Check the electrical continuity between the two injector terminals using a multimeter. If the
continuity is not there then replace the respective injector with proper care and precaution. Write new Injector
I2C values into ECU Check ECU Connection. 1) Key off 2)

Remove the ECU Connector 3) Connect ECU connector Properly 4) Key on
and Read the faults 1) Check electrical open circuit 2) Check for electrical short

circuit 3) Check for any Terminal back out in sensor or connector pins. If any electrical isolation is found replace the wiring harness and check for the fault If the problem still persists. Replace the Injector and check if the problem is solved. Write new Injector I2C values into ECU If the problem still persists. Replace the ECU and check if the problem is solved

28 P0203 P0203 - Cylinder no.3 Injector - open circuit Switch off the ignition.wait for ten seconds.Remove the injector connector check the connection.Connect it properly again. The problem should vanish after the reconnection.
Note: Limit the number of times injector connection is disconnected Check the electrical continuity between the two injector terminals using a multimeter. If the continuity is not there then replace the respective injector with proper care and precaution. Write new Injector I2C values into ECU Check ECU Connection.

1) Key off 2)
Remove the ECU Connector 3) Connect ECU connector Properly 4) Key on
and Read the faults 1) Check electrical open circuit 2) Check for electrical short circuit

3) Check for any Terminal back out in sensor or connector pins. If any electrical isolation is found replace the wiring harness and check for the fault If the problem still persists. Replace the Injector and check if the problem is solved. Write new Injector I2C values into ECU If the problem still persists. Replace the ECU and check if the problem is solved

29 P0204 P0204 - Cylinder no.4 Injector - open circuit Switch off the ignition.wait for ten seconds.Remove the injector connector check the connection.Connect it properly again. The problem should vanish after the reconnection.
Note: Limit the number of times injector connection is disconnected Check the electrical continuity between the two injector terminals using a multimeter. If the continuity is not there then replace the respective injector with proper care and precaution. Write new Injector I2C values into ECU Check ECU Connection.

1) Key off 2)
Remove the ECU Connector 3) Connect ECU connector Properly 4) Key on
and Read the faults 1) Check electrical open circuit 2) Check for electrical short circuit

3) Check for any Terminal back out in sensor or connector pins. If any electrical isolation is found replace the wiring harness and check for the fault If the problem still persists. Replace the Injector and check if the problem is solved. Write new Injector I2C values into ECU If the problem still persists. Replace the ECU and check if the problem is solved If problem persists, replace wiring harness If problem persists replace ECU

30 P0216 P0216 - current too high on Bank 1 Check injector connections for open or short circuit Disconnect injectors and key on. If problem still present check wiring harness connections If fault dissapears, clear memory and reconnect injectors one by one If problem appears on connecting any injector, replace injector If problem repeats, perform previous steps on other injectors Check ECU Connection.

1) Key off
2) Remove the ECU Connector 3) Connect ECU connector Properly
4) Key on and Read the faults 1) Check electrical open circuit
2) Check for electrical short circuit 3) Check for any Terminal back out in sensor or connector pins. If any electrical isolation is found replace the wiring harness and check for the fault

31 P0222 P0222 - Pedal sensor Track2 signal - low Check for vext 1 fault or If P1120 is present. Disconnect the sensors supplied by VEXT one by one and check if fault disappears.If the fault no longer appears then the sensor which is removed is faulty,If the fault still persists after changing all sensor Sensor Connection. Remove the Sensor - Check for oxidation - rust, clean and fit it properly again. Intermediate connector. Remove Intemediate connector between EMS harness and vehicle wiring harness.Check for terminal back out.Do necessary repairs reconnect and check the fault. Visually check sensor. If there are any physical damages replace the sensor and read the errors Check ECU Connection.

1) Key off
2) Remove the ECU Connector 3) Connect ECU connector Properly
4) Key on and Read the faults Check for Electrical Isolation. 1)Check electrical open circuit
2) Check for electrical short circuit 3) Check for any Terminal back out in sensor or connector pins Replace the sensor. Replace the sensor and ensure fault vanishes with new sensor Replace the ECU. If fault pertains still change the ECU

32 P0223 P0223 - Pedal sensor track 2 signal - High Check for vext 1 fault or If P1120 is present. Disconnect the sensors supplied by VEXT one by one and check if fault disappears.If the fault no longer appears then the sensor which is removed is faulty,If the fault still persists after changing all sensor Sensor Connection. Remove the Sensor - Check for oxidation - rust, clean and fit it properly again. Intermediate connector. Remove Intemediate connector between EMS harness and vehicle wiring harness.Check for terminal back out.Do necessary repairs reconnect and check the fault. Visually check sensor. If there are any physical

damages replace the sensor and read the errors Check ECU Connection.

1) Key off

2) Remove the ECU Connector

3) Connect ECU connector Properly

4) Key on and Read the faults Check for Electrical Isolation.

1)Check electrical open circuit

2) Check for electrical short circuit

3) Check for any

Terminal back out in sensor or connector pins Replace the sensor. Replace the sensor and ensure fault

vanishes with new sensor Replace the ECU. If fault pertains still change the ECU

33 P0236 P0236 - Boost Pressure Plausibility Sensor Connection. Remove the Sensor - Check for oxidation - rust, clean and fit it properly again. Visually check sensor. If there are any physical damages replace the sensor and read the errors Check ECU Connection.

1) Key off

2) Remove the ECU Connector

3) Connect ECU connector Properly

4)

Key on and Read the faults 1)Check electrical open circuit

2) Check for electrical short circuit

circuit 3) Check for any Terminal back out . If any electrical isolation is found do the

necessary repair If problem still persists, Replace the Sensor If problem still persists, Replace the ECU

34 P0237 P0237 - Boost Pressure Signal - low check for vext 1 fault or If P0105 is present. Disconnect the sensors supplied by VEXT one by one and check if fault disappears.If the fault no longer appears then the

sensor which is removed is faulty,If the fault still persists after changing all sensors than check Electrical

continuity and SC in all resp sensors check air inlet circuit. Check for tightness of clips, clogging, inverted

assembly Check sensor connection. Remove the Sensor - Check for oxidation - rust, clean and fit it properly again. Visually check sensor. If there are any physical damages. Replace the sensor and read the

errors. Check ECU Connection.

1) Key off

2) Remove the

ECU Connector

3) Connect ECU connector Properly

4) Key on and Read

the faults Check for Electrical Isolation.

1)Check electrical open circuit

2)

Check for electrical short circuit

3) Check for any Terminal back out in sensor or

connector pins If the problem still persists. Replace the sensor and ensure fault vanishes with new sensor If

the problem still persists. Change the ECU

35 P0238 P0238 - Boost Pressure Signal - High check for vext 1 fault or If P0105 is present. Disconnect the sensors supplied by VEXT one by one and check if fault disappears.If the fault no longer appears then the

sensor which is removed is faulty,If the fault still persists after changing all sensors than check Electrical

continuity and SC in all resp sensors check air inlet circuit. Check for tightness of clips, clogging, inverted

assembly Check sensor connection. Remove the Sensor - Check for oxidation - rust, clean and fit it properly again. Visually check sensor. If there are any physical damages. Replace the sensor and read the

errors. Check ECU Connection.

1) Key off

2) Remove the

ECU Connector

3) Connect ECU connector Properly

4) Key on and Read

the faults Check for Electrical Isolation.

1)Check electrical open circuit

2)

Check for electrical short circuit

3) Check for any Terminal back out in sensor or

connector pins If the problem still persists. Replace the sensor and ensure fault vanishes with new sensor If

the problem still persists. Change the ECU

36 P0245 P0245 - VGT drive short to Ground Check actuator connection. Remove and check for oxidation of damage. If so do necessary repair 1)Check electrical open circuit

2) Check for

electrical short circuit

3) Check for any Terminal back out . If any electrical isolation is found

do the necessary repair Check ECU Connection.

1) Key off

2) Remove the ECU Connector

3) Connect ECU connector Properly

4) Key

on and Read the faults If problem persists replace actuator If problem persists, Replace ECU

37 P0246 P0246 - VGT drive short to Vbatt Check actuator connection. Remove and check for oxidation of damage. If so do necessary repair 1)Check electrical open circuit

2) Check for

electrical short circuit

3) Check for any Terminal back out . If any electrical isolation is found

do the necessary repair Check ECU Connection.

1) Key off

2) Remove the ECU Connector

3) Connect ECU connector Properly

4) Key

on and Read the faults If problem persists replace actuator If problem persists, Replace ECU

38 P0251 P0251 - IMV drive - short circuit Check the IMV connection. Remove the IMV connector and fit it again,Check for loose connection or connector broken.Rectify if loose connection.Change wiring harness if the connector is broken. Check ECU Connection.

1) Key off

2) Remove the ECU Connector

3) Connect ECU connector Properly

4) Key on and Read the faults Check for Electrical Isolation.

1)Check electrical open circuit

2) Check for electrical short circuit

3) Check for any

Terminal back out in sensor or connector pins Replace the IMV. Replace the IMV and ensure fault vanishes

with new sensor Replace the ECU. If fault pertains still change the ECU

39 P0253 P0253 - IMV drive - short circuit to ground Check the IMV connection. Remove the IMV connector and fit it again, Check for loose connection or connector broken. Rectify if loose connection. Change wiring harness if the connector is broken. Check ECU Connection.

- 1) Key off
- 2) Remove the ECU Connector
- 3) Connect ECU connector Properly
- 4) Key on and Read the faults Check for Electrical Isolation.
- 1) Check electrical open circuit
- 2) Check for electrical short circuit
- 3) Check for any

Terminal back out in sensor or connector pins Replace the IMV. Replace the IMV and ensure fault vanishes with new sensor Replace the ECU. If fault pertains still change the ECU

40 P0255 P0255 - IMV drive - open circuit. Check the IMV connection. Remove the IMV connector and fit it again, Check for loose connection or connector broken. Rectify if loose connection. Change wiring harness if the connector is broken. Check ECU Connection.

- 1) Key off
- 2) Remove the ECU Connector
- 3) Connect ECU connector Properly
- 4) Key on and Read the faults Check for Electrical Isolation.
- 1) Check electrical open circuit
- 2) Check for electrical short circuit
- 3) Check for any Terminal back out in

sensor or connector pins Replace the IMV. Replace the IMV and ensure fault vanishes with new sensor Replace the ECU. If fault pertains still change the ECU

41 P0263 P0263 - Cylinder 1 Combustion imbalance Check the cylinder for leaks. Perform necessary repairs Check the inlet ducts. If the inlet ducts are clogged, clean the inlet ducts and check the EGR operation Check tappet condition & valve setting. Perform the necessary repairs in case of any problem Check the pressure checking fault section for the injector diagnostics. Replace if the Injector is faulty Still the problem persists! Change the ECU

42 P0266 P0266 - Cylinder 2 combustion imbalance Check the cylinder for leaks. Perform necessary repairs Check the inlet ducts. If the inlet ducts are clogged, clean the inlet ducts and check the EGR operation Check tappet condition & valve setting. Perform the necessary repairs in case of any problem Check the pressure checking fault section for the injector diagnostics. Replace if the Injector is faulty Still the problem persists! Change the ECU

43 P0269 P0269 - Cylinder 3 combustion imbalance Check the cylinder for leaks. Perform necessary repairs Check the inlet ducts. If the inlet ducts are clogged, clean the inlet ducts and check the EGR operation Check tappet condition & valve setting. Perform the necessary repairs in case of any problem Check the pressure checking fault section for the injector diagnostics. Replace if the Injector is faulty Still the problem persists! Change the ECU

44 P0272 P0272 - Cylinder 4 combustion imbalance Check the cylinder for leaks. Perform necessary repairs Check the inlet ducts. If the inlet ducts are clogged, clean the inlet ducts and check the EGR operation Check tappet condition & valve setting. Perform the necessary repairs in case of any problem Check the pressure checking fault section for the injector diagnostics. Replace if the Injector is faulty Still the problem persists! Change the ECU

45 P0299 P0299 - Boost control error Check boost sensor connection. Remove and check for oxidation of damage. If so do necessary repair Check correct connection of boost pressure VSV. Should not be connected to EGR VSV controller Check ECU Connection.

- 1) Key off
- 2) Remove the ECU Connector
- 3) Connect ECU connector Properly
- 4) Key on and Read the faults Check boost leakage. Check tightness of hoses and connections Check blockage in air inlet circuit - inlet manifold, airfilter. If blockage is noticed, rectify Check turbocharger. If found faulty replace

46 P0325 P0325 - Accelerometer - No signal when idling Sensor Connection . Remove the Sensor connection. connect again and ensure proper fitment. Sensor fitment. Check the tightening torque and the direction of sensor fitment Check ECU Connection.

- 1) Key off
- 2) Remove the ECU Connector
- 3) Connect ECU connector Properly
- 4) Key on and Read the faults 1) Check electrical open circuit
- 2) Check for electrical short circuit
- 3) Check for any Terminal back out. If any electrical isolation is found do the necessary repair. If problem still persists. Replace the Sensor If problem still persists. Check the ECU

47 P0335 P0335 - Engine Speed Signal- loss of signal Sensor Connection. Remove the Sensor connection. connect again and ensure proper fitment. Check ECU Connection.

- 1) Key off
- 2) Remove the ECU Connector
- 3) Connect ECU connector Properly
- 4) Key on and Read the faults 1) Check electrical open circuit
- 2) Check for electrical short circuit
- 3) Check for any Terminal

back out . If any electrical isolation is found do the necessary repair Check for metallic particles/burr in sensor tip and flywheel teeth. Clean the sensor and flywheel If problem still persists. Replace the Sensor If problem still persists. Check the Target If problem still persists. Replace the ECU

48 P0336 P0336 - Engine Speed Signal - loss of gap Sensor Connection. Remove the Sensor

connection.connect again and ensure proper fittment. Check ECU Connection. 1) Key off

2) Remove the ECU Connector 3) Connect ECU connector

Properly 4) Key on and Read the faults 1)Check electrical open circuit

2) Check for electrical short circuit 3) Check for any Terminal back out . If any

electrical isolation is found do the necessary repair Check for metallic particles/burr in sensor tip and flywheel teeth. Clean the sensor and flywheel If problem still persists. Replace the Sensor If problem still persists. Check the Target If problem still persists. Replace the ECU

49 P0337 P0337 - Engine Speed Signal - Engine stalled Sensor Connection. Remove the Sensor

connection.connect again and ensure proper fittment. Check ECU Connection. 1) Key off

2) Remove the ECU Connector 3) Connect ECU connector

Properly 4) Key on and Read the faults 1)Check electrical open circuit

2) Check for electrical short circuit 3) Check for any Terminal back out . If any

electrical isolation is found do the necessary repair Check for metallic particles/burr in sensor tip and flywheel teeth. Clean the sensor and flywheel If problem still persists. Replace the Sensor If problem still persists. Check the Target If problem still persists. Replace the ECU

50 P0340 P0340 - Cam shaft signal - loss of signal Sensor Connection. Remove the Sensor - Check for oxidation - rust, clean and fit it properly again. Visually check sensor. If there are any physical damages replace the sensor and read the errors Check ECU Connection. 1) Key off

2) Remove the ECU Connector 3) Connect ECU connector Properly

4) Key on and Read the faults 1)Check electrical open circuit 2) Check for electrical short circuit

3) Check for any Terminal back out . If any electrical isolation is found do the necessary repair If problem still persists. Check the Target,If target is the problem Replace it Check the setting of the timing/pump. If the timing is not proper adjust the timing If problem still persists. Replace the ECU

51 P0341 P0341 - Cam Shaft signal - Synchronisation Sensor Connection. Remove the Sensor -

Check for oxidation - rust, clean and fit it properly again. Visually check sensor. If there are any physical damages replace the sensor and read the errors Check ECU Connection. 1) Key off

2) Remove the ECU Connector 3) Connect ECU connector Properly

4) Key on and Read the faults 1)Check electrical open circuit 2) Check for electrical short circuit

3) Check for any Terminal back out . If any electrical isolation is found do the necessary repair If problem still persists. Check the Target,If target is the problem Replace it Check the setting of the timing/pump. If the timing is not proper adjust the timing If problem still persists. Replace the ECU

52 P0371 P0371 - Engine speed signal - too early Sensor Connection. Remove the Sensor - connect again and ensure proper fittment. Check ECU Connection. 1) Key off

2) Remove the ECU Connector 3) Connect ECU connector Properly 4) Key

on and Read the faults 1) Check electrical open circuit 2) Check for electrical short circuit

3) Check for any Terminal back out in sensor or connector pins. If any electrical isolation is found do the necessary repair Check crank sensor to flywheel air gap to be between 0.7 to 1.3 mm. In case of any deviation do corrective action. If problem still persists. Replace the Sensor If problem still persists. Replace the ECU

53 P0372 P0372 - Engine speed signal - loss of teeth Sensor Connection. Remove the Sensor - Check for oxidation - rust, clean and fit it properly again. Check ECU Connection. 1) Key off

2) Remove the ECU Connector 3) Connect ECU connector Properly

4) Key on and Read the faults 1)Check electrical open circuit 2) Check for electrical short circuit

3) Check for any Terminal back out . If any electrical isolation is found do the necessary repair If problem still persists. Replace the Sensor If problem still persists. Check the Target If problem still persists. Replace the ECU

54 P0380 P0380 - glowplug driver fault (module) Check connection of glowplug relay. If connection problem, do necessary repair Check ECU Connection. 1) Key off

2) Remove the ECU Connector 3) Connect ECU connector Properly 4)

Key on and Read the faults 1)Check electrical open circuit 2) Check for electrical

short circuit 3) Check for any Terminal back out in connector pins. If any electrical isolation is found repair the wiring harness and check for the fault If problem persists, replace glowplug relay If problem persists, Replace ECU

55 P0400 P0400 - EGR Air error Check for EGR electrical fault P1405. If present, rectify the fault Vacuum hose connections. Check correct and proper connections of vacuum hose to modulator/VSV and EGR valve Vacuum hose condition. Check vacuum hose for pinching, bending or leakage and rectify Check correctness of software - progressive or on-off EGR software corresponding to vehicle. If found to mismatch with vehicle configuration, replace with correct ECU Check blockage in air inlet circuit - inlet manifold, airfilter. If blockage is noticed, rectify If problem still persists. Replace modulator / VSV If problem still persists. Replace EGR valve If problem still persists. Replace AMF sensor If problem still persists, check vacuum pump efficiency

56 P0489 P0489 - EGR solenoid valve control - OC SC- Check the EGR vacuum solenoid valve connection. Perform the necessary repairs if the problem is with the connection 1)Check electrical open circuit 2) Check for electrical short circuit 3) Check for any Terminal back out in Injector or connector pins. If any electrical isolation is found replace the wiring harness and check for the fault Check ECU Connection. 1) Key off

2) Remove the ECU Connector 3) Connect ECU connector Properly 4) Key on and Read the faults If problem still persists. Replace Modulator / VSV If the problem still persists, Replace the ECU

57 P0490 P0490 - EGR solenoid valve control - SC+ Check the EGR vacuum solenoid valve connection. Perform the necessary repairs if the problem is with the connection 1)Check electrical open circuit 2) Check for electrical short circuit 3) Check for any Terminal back out in Injector or connector pins. If any electrical isolation is found replace the wiring harness and check for the fault Check ECU Connection. 1) Key off 2) Remove the ECU Connector

3) Connect ECU connector Properly 4) Key on and Read the faults If problem still persists. Replace Modulator / VSV If the problem still persists, Replace the ECU

58 P0500 P0500 - Vehicle speed signal - Generic Confirm vehicle speed is displayed in dash board. If not check continuity from Vehicle speed sensor to dashboard If electrical continuity is Ok. Replace vehicle speed sensor If problem persists. Replace Cluster If vehicle speed is displayed in dashboard. check electrical connection between dashboard and ECU Remove intermediate connector, check pin connection, oxidation or rust. If found to have problem, rectify If problem still persists. Replace ECU

59 P0501 P0501 -Vehicle speed signal - Plausibility Confirm vehicle speed is displayed in dash board. If not check continuity from Vehicle speed sensor to dashboard If electrical continuity is Ok. Replace vehicle speed sensor If problem persists. Replace Cluster If vehicle speed is displayed in dashboard. check electrical connection between dashboard and ECU Remove intermediate connector, check pin connection, oxidation or rust. If found to have problem, rectify If problem still persists. Replace ECU

60 P0502 P0502 -Vehicle speed signal loss Confirm vehicle speed is displayed in dash board. If not check continuity from Vehicle speed sensor to dashboard If electrical continuity is Ok. Replace vehicle speed sensor If problem persists. Replace Cluster If vehicle speed is displayed in dashboard. check electrical connection between dashboard and ECU Remove intermediate connector, check pin connection, oxidation or rust. If found to have problem, rectify If problem still persists. Replace ECU

61 P0503 P0503 - Vehicle speed signal - excessive Confirm vehicle speed is displayed in dash board. If not check continuity from Vehicle speed sensor to dashboard If electrical continuity is Ok. Replace vehicle speed sensor If problem persists. Replace Cluster If vehicle speed is displayed in dashboard. check electrical connection between dashboard and ECU Remove intermediate connector, check pin connection, oxidation or rust. If found to have problem, rectify If problem still persists. Replace ECU

62 P0562 P0562 - Battery Voltage Signal - Low Check the battery voltage with the ignition switch on. If the voltage is too low then recharge the battery Check whether the battery terminal's are connected properly and they are tight. If not proper do the necessary repair Check ECU Connection. 1) Key off 2) Remove the ECU Connector 3) Connect ECU connector Properly 4) Key on and Read the faults Check the charging circuit. In case of any problems in charging do the necessary repair If problem still persists, Replace the ECU

63 P0563 P0563 - Battery Voltage Signal - High Check the battery voltage with the ignition switch on. If the voltage is too low then recharge the battery Check whether the battery terminal's are connected properly and they are tight. If not proper do the necessary repair Check ECU Connection. 1) Key off

2) Remove the ECU Connector 3) Connect ECU connector

Properly 4) Key on and Read the faults Check the charging circuit. In case of any problems in charging do the necessary repair If problem still persists, Replace the ECU

64 P0571 P0571 - Brake switch sensor-Brake pedal - signal error Check switch connection. If connection problem, do necessary rectification Check 12V switch supply. Check continuity and corresponding fuse Check contact functionality. If contact problem do necessary repair. Otherwise replace brake switch Check ECU Connection.

1) Key off 2) Remove the ECU Connector 3) Connect ECU connector Properly 4) Key on and Read the faults 1)Check electrical open circuit 2) Check for electrical short circuit 3) Check for any Terminal back out in connector pins. If any electrical isolation is found repair the wiring harness and check for the fault If the problem still persists, Replace the ECU

65 P0606 P0606 - Watch dog - ECU Reset Check the ECU Earth. Check whether the ECU earth is proper.(Check star washer, check whether the earthing is not fully covered by Body paint) If Problem persists, Replace the ECU

66 P0642 P0642 - 5v sensor supply(vext 1) - low Check the connection of sensors supplied by vext 1 and vext 2 (air flow meter, boost pressure sensor, boost temperature sensor, pedal sensor, cam sensor) . Check the individual connection. Correct in case of any problem. Sensor Connection. Remove the Sensor - Check for oxidation - rust, clean and fit it properly again. Check ECU Connection.

1) Key off 2) Remove the ECU Connector 3) Connect ECU connector Properly 4) Key on and Read the faults Check the electrical continuity and insulation of the lines of all the sensors supplied by vext1 and vext2. Perform necessary repair in case of any line problem Apply the diagnostic charts to the sensors supplied by vext1 and vext2

67 P0643 P0643 - 5v sensor supply(vext 1) - high Check the connection of sensors supplied by vext 1 and vext 2 (air flow meter, boost pressure sensor, boost temperature sensor, pedal sensor, cam sensor) . Check the individual connection. Correct in case of any problem. Sensor Connection. Remove the Sensor - Check for oxidation - rust, clean and fit it properly again. Check ECU Connection.

1) Key off 2) Remove the ECU Connector 3) Connect ECU connector Properly 4) Key on and Read the faults Check the electrical continuity and insulation of the lines of all the sensors supplied by vext1 and vext2. Perform necessary repair in case of any line problem Apply the diagnostic charts to the sensors supplied by vext1 and vext2

68 P0646 P0646 - Air conditioning relay control - short circuit to ground Check the compressor control relay connection. If there is some problem in the connection perform the necessary repair. Check ECU Connection.

1) Key off 2) Remove the ECU Connector 3) Connect ECU connector Properly 4) Key on and Read the faults 1)Check electrical open circuit 2) Check for electrical short circuit 3) Check for any Terminal back out in Injector or connector pins. If any electrical isolation is found repair the wiring harness and check for the fault If the problem persists. Replace the relay and start the actuator test If the problem still persists, Replace the ECU

69 P0647 P0647 - Air conditioning relay control - short circuit Check the compressor control relay connection. If there is some problem in the connection perform the necessary repair. Check ECU Connection.

1) Key off 2) Remove the ECU Connector 3) Connect ECU connector Properly 4) Key on and Read the faults 1)Check electrical open circuit 2) Check for electrical short circuit 3) Check for any Terminal back out in Injector or connector pins. If any electrical isolation is found repair the wiring harness and check for the fault If the problem persists. Replace the relay and start the actuator test If the problem still persists, Replace the ECU

70 P0650 P0650 - MI lamp fault 1)Check electrical open circuit 2) Check for electrical short circuit 3) Check for any Terminal back out in connector pins. If any electrical isolation is found repair the wiring harness and check for the fault Check ECU Connection.

1) Key off 2) Remove the ECU Connector 3) Connect ECU connector Properly 4) Key on and Read the faults Check instrument cluster

71 P0652 P0652 - 5v sensor supply (vext 1) - low Check the connection of sensors supplied by vext 1 and vext 2 (air flow meter, boost pressure sensor, boost temperature sensor, pedal sensor, cam sensor) . Check the individual connection. Correct in case of any problem. Sensor Connection. Remove the Sensor - Check for oxidation - rust, clean and fit it properly again. Check ECU Connection.

1) Key off 2) Remove the ECU Connector 3) Connect ECU connector Properly

4) Key on and Read the faults Check the electrical continuity and insulation of the lines of all the sensors supplied by vext1 and vext2. Perform necessary repair in case of any line problem Apply the diagnostic charts to the sensors supplied by vext1 and vext2

72 P0653 P0653 - 5v sensor supply (vext 2) - high Check the connection of sensors supplied by vext 1 and vext 2 (air flow meter, boost pressure sensor, boost temperature sensor, pedal sensor, cam sensor) . Check the individual connection. Correct in case of any problem. Sensor Connection. Remove the Sensor - Check for oxidation - rust, clean and fit it properly again. Check ECU Connection. 1) Key off

2) Remove the ECU Connector

3) Connect ECU connector Properly

4) Key on and Read the faults Check the electrical continuity and insulation of the lines of all the sensors supplied by vext1 and vext2. Perform necessary repair in case of any line problem Apply the diagnostic charts to the sensors supplied by vext1 and vext2

73 P0685 P685 - ECU supply control - Relay Stuck Check the connection of the supply relay. Perform necessary repairs Check ECU Connection. 1) Key off 2)

Remove the ECU Connector

3) Connect ECU connector Properly

4) Key on

and Read the faults 1) Check electrical open circuit

2) Check for electrical short circuit

3) Check for any Terminal back out in sensor or connector pins. If any electrical isolation is found do the necessary repair If problem still persists. Replace the Relay If problem still persists. Replace the ECU

74 P0691 P0691 - Low speedfan control - short circuit to earth Check the fan control relay connection. If there is some problem in the connection perform the necessary repair. Check ECU Connection.

1) Key off

2) Remove the ECU Connector

3) Connect

ECU connector Properly

4) Key on and Read the faults 1)Check electrical open circuit

2) Check for electrical short circuit

3) Check for any Terminal back out in

connector pins. If any electrical isolation is found repair the wiring harness and check for the fault If the problem persists. Replace the relay and start the actuator test If the problem still persists. Replace the ECU

75 P0692 P0692 - Low speed fan control - short circuit Check the fan control relay connection. If there is some problem in the connection perform the necessary repair. Check ECU Connection. 1)

Key off

2) Remove the ECU Connector

3) Connect ECU

connector Properly

4) Key on and Read the faults 1)Check electrical open circuit

2) Check for electrical short circuit

3) Check for any Terminal back out in connector

pins. If any electrical isolation is found repair the wiring harness and check for the fault If the problem persists. Replace the relay and start the actuator test If the problem still persists. Replace the ECU

76 P0693 P0693 - Electrical fan drive fault - short to ground Check the fan control relay connection. If there is some problem in the connection perform the necessary repair. Check ECU Connection. 1)

Key off

2) Remove the ECU Connector

3) Connect ECU

connector Properly

4) Key on and Read the faults 1)Check electrical open circuit

2) Check for electrical short circuit

3) Check for any Terminal back out in connector

pins. If any electrical isolation is found repair the wiring harness and check for the fault If the problem persists. Replace the relay and start the actuator test If the problem still persists. Replace the ECU

77 P0694 P0694 - Electrical fan drive fault - short circuit Check the fan control relay connection. If there is some problem in the connection perform the necessary repair. Check ECU Connection. 1)

Key off

2) Remove the ECU Connector

3) Connect ECU

connector Properly

4) Key on and Read the faults 1)Check electrical open circuit

2) Check for electrical short circuit

3) Check for any Terminal back out in connector

pins. If any electrical isolation is found repair the wiring harness and check for the fault If the problem persists. Replace the relay and start the actuator test If the problem still persists. Replace the ECU

78 P0698 P0698 - 2