## Códigos do Módulo OBDII - Cherokee's - Luz de "Check Engine"

A partir de informações do manual de serviço das Cherokee's, o método abaixo serve para se obter os códigos de erro de todos os veículos da linha Cherokee que possuem o modulo de injeção do tipo 0BD-II.

Este método é um truque para se obter os cádigos de erro sem o uso de um scanner específico.



Módulo ECU - OBD-II

## Antes de executar este método, deverá ser prestado atenção aos seguintes detalhes:

- 1) Freio de mão deverá estar puxado (luz indicativa "Brake" no painel ligada"
- 2) Os códigos serão mostrados no odômetro
- 4) Quando o módulo indicar algum tipo de falha grave, o modo"Limp In" poderá ser ativado, o que significa que o veículo poderá funcionar, porém com dados de configuração padrão, afim de compensar o erro de algum sensor, possibilitando rodar com o carro até que seja providenciado o conserto. Um sintoma disso é o não funcionamento da 3ª ou 4ª Marcha em veículos equipados com câmbio automático.

Coloque a chave na ignição e aperte o botão de reset do odômetro, gire então a chave de ignição até a posição RUN, mantendo pressionado o botão de reset, soltando-o logo em seguida.

O odômetro irá mostrar 1111111 até 999999 e então irá mostrar o número de série do veículo. Após isso, serão mostrados os códigos de erro (que poderão começar com a letra P).

Este método é válido para veículos Cherokee a partir de 1996 com módulo OBD-II com indicação digital no odômetro.

## Códigos de Erro:

- 11 No ignition reference signal detected during cranking OR timing belt skipped one or more teeth; OR loss of either camshaft or crankshaft position sensor.
- 12 Battery or computer recently disconnected
- 13 MAP sensor or vacuum line may not be working
- 14 MAP sensor voltage below .16V or over 4.96V
- 15 No speed/distance sensor signal
- 16 Loss of battery voltage detected with engine running
- 17 Engine stays cool too long (bad thermostat or coolant sensor?)

OR

- 17 (1985 turbo only): knock sensor circuit
- 21 Oxygen sensor signal doesn't change (stays at 4.3-4.5V). Probably bad oxygen sensor
- 22 Coolant sensor signal out of range May have been disconnected to set timing
- 23 Incoming air temperature sensor may be bad
- 24 Throttle position sensor over 4.96V
- 25 Automatic Idle Speed (AIS) motor driver circuit shorted or target idle not reached
- 26 Peak injector circuit voltage has not been reached (need to **check** computer signals, voltage reg, injectors)
- 27 Injector circuit isn't switching when it's told to (TBI)
- OR (MPI) injector circuit #1 not switching right
- OR (turbo) injector circuit #2 not switching right
- OR (all 1990-) injector output driver not responding
- **check** computer, connections
- 31 Bad evaporator purge solenoid circuit or driver
- 32 (1984 only) power loss/limited lamp or circuit

OR

32 EGR gases not working (1988) - check vacuum, valve

OR

- 32 (1990-92) computer didn't see change in air/'fuel ratio when EGR activated **check** valve, vacuum lines, and EGR electrical
- 33 Air conditioning clutch relay circuit open or shorted (may be in the wide-open-throttle cutoff circuit or normal on early 80's models if you don't have air conditioning)
- 34 (1984-86) EGR solenoid circuit shorted or open

OR

- 34 (1987-1991) speed control shorted or open
- 35 Cooling fan relay circuit open or shorted

OR

- 35 idle switch motor fault check connections
- 36 (turbo only) Wastegate control circuit open or shorted
- 37 Shift indicator light failure, 5-speed

OR

part throttle lock/unlock solenoid driver circuit (87-89)

OR

solenoid coil circuit (85-87 Turbo only)

OR

Trans temperature sensor voltage low (1995 and on)

- 41 Alternator field control circuit open or shorted
- 42 Automatic shutdown relay circuit open or shorted

OR

42 Fuel pump relay control circuit

OR

42 Fuel level unit - no change over miles

OR

- 42 Z1 voltage missing when autoshutdown circuit energized (The Z1 voltage is the voltage of the circuits fed by the autoshutdown relay. This typically includes fuel pump and switched-battery feed to the ignition coil)
- 43 Peak primary coil current not achieved with max dwell time

OR

43 Cylinder misfire

OR

- 43 Problem in power module to logic module interface
- 44 No FJ2 voltage present at logic board

OR

44 Logic module self-diagnostics indicate problem

OR

- 44 Battery temperature out of range
- 45 Turbo boost limit exceeded (engine was shut down by logic module)
- 46 Battery voltage too high during charging or charging system voltage too low
- 47 Battery voltage too low and alternator output too low
- 51 Oxygen sensor stuck at lean position (this may be tripped by a bad MAP sensor system causing a rich condition. If you get hot rough idle and stalling, especially on deceleration, accompanied by flooded engine and difficulty restarting, that can be a bad MAP sensor causing the O2 sensor to try to compensate. If you get poor cold driveability, stumbling and bucking, and acceptable warm driving with poor gas mileage (a drop of 10 mpg or more), that is usually the O2 sensor.

OR

- 51 Internal logic module fault ('84 turbo only).
- 52 Oxygen sensor stuck at rich position

OR

- 52 Internal logic module fault ('84 turbo only)
- 53 Logic module internal problem
- 54 No sync pickup signal during engine rotation (turbo only)

OR

- 54 Internal logic module fault ('84 turbo only) or camshaft sensor/distributor timing
- 55 End of codes
- 61 "Baro" sensor open or shorted
- 62 EMR mileage cannot be stored in EEPROM
- 62 PCM failure SRI mile not stored
- 63 Controller cannot write to EEPROM
- 64 Catalytic converter efficiency failure
- 65 Power steering switch failure

Newer model Computer codes (OBDII)

- 30 Sensor heater relay problem
- 36 Sensor heater relay problem
- 106 MAP sensor voltage out of range detected at startup
- 107 MAP sensor voltage too low
- 108 MAP sensor voltage too high
- 112 Intake air temperature sensor voltage low
- 113 Intake air (charge) temperature sensor voltage high
- 116 Coolant temparature sensor reading doesn't make sense
- 117 Engine coolant temperature sensor voltage low
- 118 Engine coolant temperature sensor voltage high
- 121 Throttle position sensor and MAP sensor disagree with each other
- 122 Throttle position sensor voltage low
- 123 Throttle position sensor voltage high
- 125 Taking too long to reach proper operating temparature and switch to energy-efficient mode
- 130 Sensor heater relay problem
- 131 Oxygen sensor seems to be shorted out or broken
- 147 Oxygen sensor heater element not working properly (this device helps to reduce emissions more quickly)
- 151 Oxygen sensor voltage problem short circuit to ground?
- 152 Oxygen sensor voltage problem short circuit to active 12V?
- 153 Oxygen sensor response too slow
- 154 Oxygen sensor does not show either a rich or lean condition may need replacement
- 155 Oxygen sensor heater element not working properly (this device helps to reduce emissions more quickly)
- 157 Oxygen sensor voltage problem short circuit to ground?
- 158 Oxygen sensor voltage problem short circuit to active 12V?
- 159 Oxygen sensor response too slow
- 160 Oxygen sensor does not show either a rich or lean condition may need replacement
- 161 Oxygen sensor heater element not working properly (this device helps to reduce emissions more quickly)
- 171 The oxygen sensor is saying that the system air/fuel mix is far too lean (too much fuel is being added as a correction).
- 172 The oxygen sensor is saying that the system air/fuel mix is far too rich (too much air is being added as a correction).
- 174 The oxygen sensor is saying that the system air/fuel mix is far too lean (too much fuel is being added as a correction).
- 175 The oxygen sensor is saying that the system air/fuel mix is far too rich (too much air is being added as a correction).
- 176 Flex fuel sensor can't be seen
- 178 Flex fuel sensor problem
- 179 Flex fuel sensor problem
- 182 Compressed natural gas temperature sensor problem
- 183 Compressed natural gas temperature sensor problem
- 201 Injector #1 control circuit problem (open or shorted)

- 202 Injector #2 control circuit problem (open or shorted)
- 203 Injector #3 control circuit problem (open or shorted)
- 204 Injector #4 control circuit problem (open or shorted)
- 205 Injector #5 control circuit problem (open or shorted)
- 206 Injector #6 control circuit problem (open or shorted)
- 207 Injector #7 control circuit problem (open or shorted)
- 208 Injector #8 control circuit problem (open or shorted)
- 300 Misfire detected in multiple cylinders.
- 301 Misfire detected in cylinder #1.
- 302 Misfire detected in cylinder #2.
- 303 Misfire detected in cylinder #3.
- 304 Misfire detected in cylinder #4.
- 305 Misfire detected in cylinder #5.
- 306 Misfire detected in cylinder #6.
- 307 Misfire detected in cylinder #7
- 308 Misfire detected in cylinder #8.
- 320 Crankshaft position sensor reference signal cannot be found while the engine is cranking.
- 325 Knock sensor (#1) signal is wrong.
- 330 Knock sensor (#2) signal is wrong.
- 340 No camshaft signal being received by the computer
- 350 A coil is drawing too much current.
- 351 Coil #1 is not reaching peak current at the right time
- 352 Coil #2 is not reaching peak current at the right time
- 353 Coil #3 is not reaching peak current at the right time
- 354 Coil #4 is not reaching peak current at the right time
- 355 Coil #5 is not reaching peak current at the right time
- 356 Coil #6 is not reaching peak current at the right time 357 Coil #7 is not reaching peak current at the right time
- 358 Coil #8 is not reaching peak current at the right time
- 401 A required change in air/fuel mixture was not detected during diagnostic test.
- 403 An problem was detected in the EGR solenoid control circuit.
- 404 The EGR sensor's reported position makes no sense
- 405 EGR position sensor voltage wrong.
- 406 EGR position sensor voltage wrong.
- 412 The secondary air solenoid control circuit seems bad (this is used for the aspirator).
- 420 The catalyst seems inefficient (#1).
- 432 The catalyst seems inefficient (#2).
- 441 Evaporative purge flow system not working properly
- 442 A leak has been detected in the evaporative system!
- 443 Evaporative purge flow system solenoid not working properly
- 455 A large leak has been detected in the evaporative system!
- 456 A small leak has been detected in the evaporative system!
- 460 The fuel level sender is not reporting any change over a long distance. Something seems wrong.
- 461 The fuel level sender is not reporting any change over a long time. Something seems wrong.

- 462 Fuel level sender voltage wrong.
- 463 Fuel level sender voltage wrong.
- 500 Haven't heard from the speed sensor lately.
- 505 The idle speed air control motor doesn't seem to be working correctly.
- 522 Oil pressure sensor problems
- 523 Oil pressure sensor problems
- 551 The power steering switch may not be working. (Neons: high pressure is showing up at high speed)
- 600 Oh-oh! The coprocessors aren't talking to each other within the computer!
- 601 Internal computer error!
- 604 Internal computer error! (RAM check)
- 605 Internal computer error! (ROM)
- 615 Starter relay circuit problem
- 622 Generator field control problem
- 645 A/C clutch relay circuit problem.
- 700 The automatic transmission computer or Aisin computer has a problem ask it what's going on. I don't know.
- 703 Brake switch circuit information seems wrong.
- 711 Based on the transmission temperature and its operations, it looks like the transmission temperature sensor's gone bad.
- 712 Transmission fluid temperature sensor voltage wrong.
- 713 Transmission fluid temperature sensor voltage wrong.
- 720 The Output Shaft Speed Sensor doesn't match the reported vehicle speed.
- 740 The engine's running faster than it should for these speeds, so I think thetorque convertor clutch lock-up system is bad
- 743 Torque converter clutch (part throttle unlock) solenoid circuit problem shift solenoid C electrical fault
- 748 Governor Pressure Solenoid circuit problem (Transmission relay circuit problem in Jeep RE transmissions)
- 751 Overdrive override switch has been pressed for over five minutes. Just thought you should know.
- 753 Overdrive solenoid control circuit problem (transmission relay circuit in Jeep RE transmissions.)
- 756 Shift solenoid B (2-3) fault
- 783 The overdrive solenoid can't go from 3rd gear to the overdrive gear.
- 801 Transmission reverse gear lockout solenoid circuit problem!
- 833 Problem with the clutch-released switch circuit?
- 1192 Inlet air temperature sensor voltage is wrong
- 1193 Inlet air temperature sensor voltage is wrong
- 1194 Oxygen sensor heater performance is faulty
- 1195 Oxygen sensor is slow
- 1196 The oxygen sensor switched too slowly (bank 2).
- 1197 The oxygen sensor switched too slowly (bank 1).
- 1198 Radiator coolant temperature sensor voltage is wrong.
- 1199 Radiator coolant temperature sensor voltage is wrong.
- 1281 The engine is staying cold too long check your thermostat.
- 1282 The fuel pump relay circuit seems to be having a problem.

- 1288 The intake manifold short runner tuning valve circuit seems to be having a problem.
- 1289 There's a problem in the manifold tuning valve solenoid control circuit.
- 1290 Compressed natural gas system pressure is too high
- 1291 The heated air intake sensor does not seem to be working.
- 1292 Natural gas pressure sensor issue
- 1293 Natural gas pressure sensor issue
- 1294 Can't get to target engine speed, check for vacuum leaks and idle speed motor issues.
- 1295 The throttle position sensor doesn't seem to be getting enough electricity.
- 1296 The MAP sensor doesn't seem to be getting enough electricity.
- 1297 The MAP sensor doesn't change its reading when the engine is running!
- 1298 During wide-open throttle, the engine runs lean.
- 1299 MAP Sensor and Throttle Position Sensor signals don't match, **check** for a vacuum leak.
- 1388 Auto shutdown relay circuit problems?
- 1389 No Z1 or Z2 voltage seen by the computer when the auto shutdown relay is used.
- 1390 Cam and crank signals don't match did the timing belt skip a tooth?
- 1391 Sometimes, I can't see the crank or cam sensor signal.
- 1398 I can see the Crank Sensor's signal when I prepare for Misfire Diagnostics. Try replacing it.
- 1399 Problem in the Wait to Start Lamp circuit (diesels only?)
- 1403 EGR position sensor not getting (enough) voltage.
- 1476 Too little secondary air injection during aspirator test.
- 1477 Too much secondary air injection during aspirator test.
- 1478 Battery temperature sensor voltage wrong.
- 1479 Transmission fan relay circuit problems?
- 1480 PCV solenoid circuit problems?
- 1481 Transmission RPM pulse generator signal for misfire detection seems wrong.
- 1482 Catalyst temperature sensor circuit shorted low.
- 1483 Catalyst temperature sensor circuit shorted high.
- 1484 The catalyst seems to be overheating!
- 1485 Air injection solenoid circuit problems.
- 1486 Pinched or blocked hose in the evaporative hose system.
- 1487 Control circuit of the #2 high-speed radiator fan control relay is having problems.
- 1488 Auxiliary 5-volt sensor feed is too low.
- 1489 High speed radiator fan control circuit problem.
- 1490 Low speed radiator fan control circuit problem.
- 1491 Radiator fan control circuit problem (may be solid state relays as well as other circuits).
- 1492 Ambient or battery temperature sensor voltage wrong
- 1493 Ambient or battery temperature sensor voltage wrong
- 1494 Leak Detection Pump (LDP) pressure switch problem electrical or the pump itself.
- 1495 Leak Detection Pump (LDP) pressure switch problem the solenoid circuit.
- 1496 Sensor feed is below an acceptable limit. (under 4v for 4 seconds should be 5v).
- 1498 High speed radiator fan control circuit problem. (#3 control relay)
- 1594 Voltage too high in charging system.
- 1595 Speed control vacuum or vent solenoid control circuits shorted or lost.
- 1596 Speed control switch always high

- 1597 Speed control switch always low
- 1598 A/C pressure sensor voltage high
- 1599 A/C pressure sensor voltage low
- 1681 No messages received from the cluster control module (dashboard computer).
- 1682 Charging system doesn't seem to be working well. Check alternator, etc.
- 1683 Speed control servo power control circuit problem.
- 1684 The battery has been disconnected within the last 50 starts.
- 1685 Invalid key received from the Smart Key Immobilizer Module.
- 1686 No messages received from the Smart Key Immobilizer Module.
- 1687 No messages received from the Mechanical Instrument Cluster module.
- 1 693 The companion engine control module has shown a fault.
- 1694 No messages received from the powertrain control module-Aisin transmission.
- 1695 No messages received from the body control module.
- 1696 Unsuccessful attempt to write to an EEPROM location!
- 1697 Unsuccessful attempt to update Service Reminder Indicator (SRI or EMR) mileage!
- 1698 No messages received from the electronic transmission control module or the Aisin transmission controller.
- 1719 Transmission 2-3 gear lockout solenoid control circuit problem.
- 1740 Either the tcc solenoid or overdrive solenoid systems doesn't seem to be making much sense.
- 1756 Transmission control pressure not equal to target. (Mid pressure problem)
- 1757 Transmission control pressure not equal to target. (Zero pressure problem)
- 1762 The Governor Pressure Sensor input was too high or too low for 3 consecutive park/neutral calibrations.
- 1763 The Governor Pressure Sensor input is too high
- 1764 The Governor Pressure Sensor input is too low.
- 1765 Open or short in the Transmission Relay control circuit.
- 1899 The Park/Neutral switch seems to be stuck!