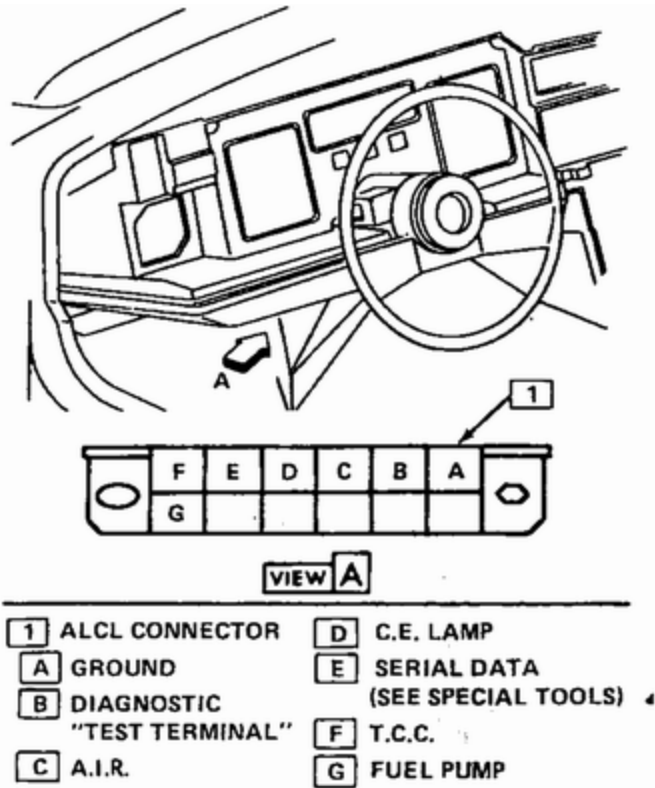


Pulling Codes on your Corvette without a code reader

1981-Present OBD I & OBD II



2.5 A typical Assembly Line Communications Link (ALCL) connector - the two terminals you will be concerned with are the A (ground) and B (diagnostic) terminals

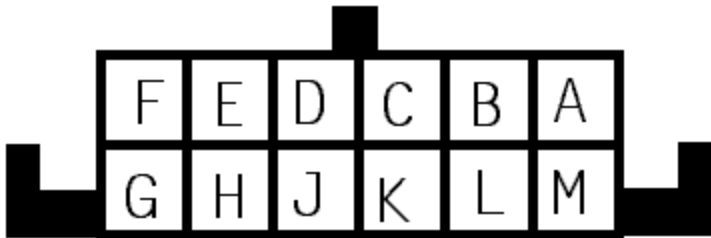
ALDL 201 (OBD I)

1981 Corvette (L81) models have a very simple computerized ignition timing system. There is very little diagnostic information available with these cars. The GM shop manual is recommended for this vehicle. The ALDL connector is under the center console ash tray.

1982 Corvette (L83 Crossfire) models had a more detailed ECM, much like later vehicles. The location of the ALDL connector is under the center console ash tray. The diagnosis is more simplified, but similar to later vehicles.

From 1984 until the end of the 1993 model year a 12 pin ALDL was used. After that, a 16 pin ALDL connector was used. The 1994 and 1995 model year still used the OBD-I system even though they have 16 pin connectors. The 16 pin connector in the 1996 C4 is used for the much more complex OBD-II system and a scan tool is required to discover the OBD-II system's secrets.

For the '84- end of '93, 12 pins:



Pin "B" is the diagnostic enable pin and pin "A" is ground. Grounding pin "B" to enable the diagnostic readout of the ECM/PCM.

To recover the codes, short pins "A" and "B" together using a small section of electrical wire or paper clip.

With the ignition turned OFF, short pins "A" and "B" on the ALDL.

Turn IGN ON (but not to RUN).

The "Check Engine" light (early C4s) or "SYS" light (later C4s) will flash a Code 12 (a single flash followed by two flashes) and will repeat three times (Flash (pause) Flash Flash (long pause), Flash (pause) Flash Flash (long pause), Flash (pause) Flash Flash (long pause)).

Code 12 is a delimiter or marker code to show where the error code string begins and ends.

After the three Code 12 flashes, you will either get an error code (or codes) or you will get another string of Code 12 flashes if there are no trouble codes stored.

All codes are repeated three times with a long pause between each code group (36 or Flash Flash Flash pause followed by six flashes, repeated three times, folowed by a long pause with any additional codes stored then flashed).

The "Check Engine/System" light on with engine running means the condition(s) are currently present. If the light is not on during RUN operation, the limits were exceeded at some point in time and the event was recorded in memory, but the reading has since returned to the normal operating range.

Remember to remove the shorting device from the connector after you have read the codes.

Clearing the Codes

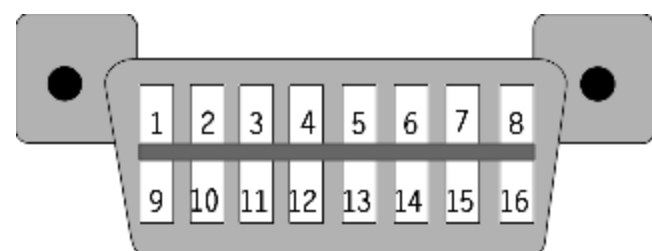
To clear the codes from memory, remove the negative battery cable for a minimum of 10 seconds.

Disconnecting the battery will clear all stored codes and any stored memory (radio button presets, clock, trip odometer, average gas mileage memory, power seats). Your ECM/PCM computer will also have to relearn timing/mixture/exhaust emissions.

Make absolutely certain the ignition key is turned OFF. If you connect the battery with the ignition switch ON, you can destroy the ECM/PCM module.

For 1994 and later models, you will need to recover the codes using a special procedure involving the speedometer and the odometer as explained in the service manual or use a special diagnostic device known as a scan tool.

For the '94 - '95, 16 pins (but still OBD I):



Beginning in 1994, you short pin "12" to pin "4" and once again turn the ignition switch to "On" without starting the engine.

The speedometer will display any codes using the same protocol as the 1990-1993 model but there are some changes in the designation for the modules plus additional modules are added:

Module "1" is still the CCM module.

Module "4" is now called the PCM module (Powertrain Control Module) because automatic transmission computer control was added to Engine Control Module in 1994.

Module 7 (on the 1996 model only) is the RTD module. (This is the Real Time Dampening module which replaced the Selective Ride Control module in 1996).

Module 9 is the ABS/ASR module number from 1994 through 1996.

Finally, Module "A", the DERM (Dynamic Energy Control Module --- the air bag control module) will be requested to show any codes.

Just like the 1990-1993 display, you read the codes on the speedometer and read the module number on the trip odometer.

Again, you can cause the codes to repeat by turning the ignition off for five seconds and then back on.

Turn the ignition off and remove the short to restore normal operation.

1996 to 2004 Corvette (OBD II): This should also work for 2005 and up.

Turn IGN ON, ENG OFF.

ON DIC, Press RESET button to clear any warning messages.

Press and hold OPTIONS.

While holding OPTIONS, press FUEL four times within 10 sec.

Go into an AUTOMATIC mode to shows all parameters: PCM-TCS-RTD-BCM-IPC-RADIO-HVAC-LDCM-RDCM-SCM-RFA. If there are no problems, you will see "NO MORE CODES" on the ICP display.

The computer displays two kinds of codes, CURRENT and HISTORY, designated "C" or "H". A CURRENT code indicates a malfunction is present in the system whose module is displaying data. A HISTORY code indicates a past problem.

When the screen displays MANUAL DIAGNOSTICS, select the desired module by pressing the OPTIONS button to go forward or the TRIP button to go back. Press GAUGES to go forward or FUEL to go back.

To exit the diagnostic mode at any time, press E/M. If you want to erase or CLEAR codes, press RESET.