Can I check if my vehicle's monitors are "ready"?

If for some reason the check engine light is turned off by disconnecting the battery or the technician cleared the codes, the following may be helpful to determine whether your monitors are reading ready and the vehicle is ready for a retest. Some vehicle owner's manuals provide information on how a vehicle owner can determine if the OBD system is ready for emissions checking by performing a certain procedure. Visit www.ohioecheck.org for detailed procedures from Ford/Lincoln/Mercury, Jeep/Chrysler/Dodge, and Honda/Acura owner's manuals.

Based on these owner's manuals, to check for readiness, turn the ignition switch to the ON position, but do not crank or start the engine. The check engine light may light solidly then either turn off, remain illuminated or blink multiple times. If the check engine light blinks multiple times, the readiness codes are not likely set. If the light stays on or turns off, the readiness codes are likely set. Note that when the engine is started, the check engine light should turn off unless there are emissions control problems.

How can I get my vehicle's monitors to become "ready"?

If your vehicle has recently been repaired or the battery was recently replaced or disconnected, the vehicle's monitors are not likely ready. Ask your technician if they can make sure that your vehicle's monitors are ready before bringing the vehicle to E✓Check. The technician may be able to complete the drive cycle to ensure the monitors are ready. Note, the mechanic may charge an additional fee for this service.

Automobile manufacturers have various strategies for readying the vehicle's monitors. For this reason, we cannot give you a simple list of instructions. Drive cycles are a combination of highway driving, stop and go driving, idling, and for some vehicles an overnight cool-down period.

In most cases it is possible for the vehicle owner to complete the drive cycle.

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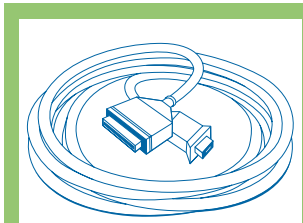
- Drive the vehicle for approximately one week under normal driving conditions including highway and city driving. The newer the vehicle the less time it should take.
- Check your vehicle's owner's manual, contact your local dealership or visit www.ohioecheck.org for information on drive cycles.

Failing to complete the drive cycle can cause the vehicle to be rejected during the retest if monitors are not set to ready. If the monitors are not ready, they have not run their diagnostic check of the vehicle's system and the OBD test cannot be completed.

The E✓Check OBD Test Process:

1. The vehicle's engine will be turned off and an inspector will attach test equipment to the vehicle's OBD diagnostic connector.
2. The inspector will turn the key to illuminate the dashboard lights to verify the MIL works and does not remain on while the vehicle is running.
3. The test equipment will attempt to communicate with your vehicle and look for emission-related DTC that are stored in the vehicle's computer memory and check the vehicle's monitor status.
4. The engine will be shut off and OBD connector will be unplugged.
5. The driver receives the vehicle's test results.



The OBD II hand-held reader device plugs directly into a vehicle's on-board computer to quickly check the status of the emissions system.

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Ohio E✓Check
Vehicle Emissions Testing Program

REV. 8-7-2012

Ohio E✓Check OBD II

THE ON-BOARD DIAGNOSTICS VEHICLE EMISSIONS TEST

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For more information, scan this QR code with your smartphone to visit our website. Our new website provides details on the specific type of tests that are performed at each location along with driving directions from your current location.

FOR MORE INFORMATION:
1.800.CAR.TEST
www.ohioecheck.org
www.ohioecheck.info

Understanding on-board diagnostics

Though modern vehicles are getting cleaner due to newer computer engine management technology and emission control components, motor vehicles are still the largest source of toxic and smog-forming air pollution in Ohio. Despite enhancements to motor vehicles, emissions are only low when the emission control systems are working properly. When the engine is not running as efficiently as possible, performance is lost, fuel is wasted and air emissions increase.

What is OBD?

On-board diagnostic (OBD) computer systems were developed by vehicle manufacturers and the federal government to help technicians diagnose and service the computerized engine management systems of modern vehicles. The federal Clean Air Act Amendments of 1990 required that all 1996 and newer vehicles use a more advanced OBD system. This second computer generation OBD or OBD II, monitors vehicle conditions and components that are related to vehicle emissions. OBD can detect a malfunction or deterioration of certain engine components and power train systems before the driver realizes there is a problem. This sophisticated system serves as an advanced warning of potential engine damage and increased air pollution emissions.

What are the typical reasons for the vehicle's OBD to fail E✓Check?

Your vehicle will fail the OBD E✓Check for the following reasons:

- The Malfunction Indicator Lamp (MIL) is illuminated while the vehicle's engine is running.
- The MIL does not illuminate with the key on and engine off. This can indicate either a failed OBD system or a burned out light bulb.
- The OBD diagnostic connector is damaged, missing or inaccessible.

How does the driver know there is a problem?

When the OBD system determines that a problem exists, a corresponding "Diagnostic Trouble Code" (DTC) is stored in the computer memory. This DTC or fault code generally indicates which system or engine component might be causing the problem. However, at times the code may be a result of a secondary issue affecting that code so additional diagnosis by the technician will generally be needed to isolate the exact problem and identify the proper repair. If the OBD system detects a problem that may cause the vehicle's emissions to exceed one and a half times their original federal standards, the Malfunction Indicator Lamp (MIL) is illuminated.

The MIL is a dashboard light indicating "Check Engine" or "Service Engine Soon" that informs the driver that a problem has been detected and vehicle service is needed. By law, this dashboard light can only be used to indicate an actual emissions problem. It cannot be used, for example, as a reminder for regularly scheduled maintenance (this task is done by other indicator lights).

At a repair shop, a service technician can retrieve the stored DTC from the computer memory using a computer "Scan Tool". By using this information, the technician can diagnose the problem and make the proper repair.

Are emissions-related repairs covered by a warranty?

Federal law requires that the emission control systems on 1996 and newer model year vehicles be warrantied for a minimum of two years or 24,000 miles. Warranty coverage for the catalytic converter, the electronic emissions control unit or computer (ECU), and the OBD computer is extended to eight years or 80,000 miles. Many automakers provide extended warranty coverage beyond that required by law. Consult your vehicle's warranty documents or your dealer for more information.

What do monitors have to do with OBD?

The OBD system is made up of monitors. An OBD monitor is a computer test or series of computer tests used to determine operational status of an emission control device or system. Most vehicles have 5 to 7 monitors but some have up to 11. When certain criteria are met, the monitors are activated to test their respective emission control device or system and thus be ready to deliver information. The vehicle performs the self-diagnostic computer test when the vehicle is driven. The monitor will detect when an emission control device or system has failed and then the check engine light will turn on.

What to do with your check engine light?

If possible do not disconnect the battery or have the technician clear the codes during repairs. This will turn the check engine light off and you will not know when the monitors are reading ready for a follow up test. You want to receive your repaired vehicle with the check engine light on, unless the technician had to disconnect the battery to make the repair.

If the check engine light was able to remain on after the vehicle is repaired, the vehicle will then need to be driven through its drive cycle to rerun the monitors (if the correct repairs are made) and the computer will turn the light off. When the light goes off then you know when to take the vehicle in for another OBD II test.

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Vehicle Emissions Testing Program