## **Readiness Code Resetting Procedure (Generic Drive Cycle)**

### **Readiness Monitors and Drive Cycles**

"Readiness Monitors" are indicators that demonstrate whether or not emission system components are being monitored (checked) by the OBD-II system. If a monitor is set to "Ready" the monitor is checking its assigned component and, if no DTC's are present, the vehicle should pass an emissions test.

**NOTE:** If the appropriate number of Readiness Monitors (codes) are not flagged as "Ready", in most cases, the vehicle can not pass an emissions test. See State and Federal Laws.

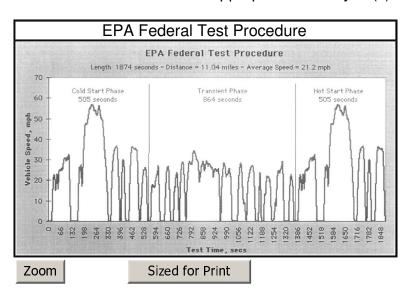
The status of all readiness monitors is reset to "Not Ready" :

Each time DTC's are cleared.

The battery is disconnected.

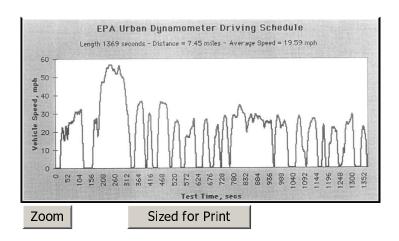
The ECM is disconnected.

The status of all readiness monitors is reset to "Ready": After DTC's are cleared and the appropriate drive cycle(s) is successfully completed.



Manufacturers are required to validate monitors during the first 23 minutes (1372 seconds) of the Federal Test Procedure Drive Cycle.

EPA Urban Dynamometer Driving Schedule



Completing the Drive Cycle successfully one (1) time should reset most drive cycle monitors to a "Ready" status. However, there are "two trip" monitors, which require that the drive cycle be successfully completed two (2) times, to achieve a "Ready" status. Furthermore, systems which use averaging, may require the drive cycle to be completed more than 2 times.

Verify the status of the readiness monitors with the appropriate function of your scan tool.

**NOTE:** Certain vehicles have known OBD-II Readiness issues. Please be sure to review TSB's for special circumstances and or exceptions to readiness monitor resetting procedures.

#### **Before Beginning the Drive Cycle**

Check the status of the Readiness Monitors, check for DTC's, correct faults, clear DTC's before beginning the Drive Cycle.

#### **Begin Drive Cycle**

The vehicle should be driven approximately 7.5 miles within a period of approx. 23 minutes (1372 seconds) from a cold start. However, due to manufacture variations, it is necessary to perform only as much of the Drive Cycle as is necessary to reset the required monitors to a "Ready" status. Operate the throttle smoothly to obtain best results. **Do not shut the engine off** during the drive cycle.

**CAUTION:** Obey all traffic laws and drive in a safe manner!

**NOTE:** Extreme driving conditioning such as very high/low temperatures, rough roads and high altitudes may prevent some monitors from attaining a "Ready" status.

Step (Engine Cold) Start engine, idle 20 seconds. Accelerate gradually and drive at 20-25 mph for 1 minute, varying speed.

Step Accelerate gradually to 32 mph within 35 seconds. Decelerate to 0 mph in 10

2 seconds. Idle for 40 seconds. Accelerate at part throttle to 25 mph in 10 seconds. Cruise at 17-25 mph for Step 15 seconds. Accelerate gradually to 57 mph in 45 seconds. Cruise at 50-56 mph for 1 minute. Decelerate gradually to 0 mph in 40 seconds. Idle for 15 seconds. Accelerate at part throttle to 36 mph and maintain for 10 seconds. Decelerate Step to 0 mph in 15 seconds. Idle for 5 seconds. Accelerate to 30 mph and back to 0 mph within 30 seconds. Idle for 20 Step seconds. Accelerate to 36 mph in 20 seconds. Drive at 35 mph for 20 seconds. Step Decelerate to 0 mph in 15 seconds. Idle 5 seconds. Step Accelerate gradually to 26 mph and decelerate to 0 within 40 seconds. Idle 15 seconds. Step Accelerate to 27 mph in 40 seconds. Decelerate to 0 mph in 10 seconds. Idle 25 seconds. Step Accelerate to 26 mph in 15 seconds, maintain speed for 10 seconds, decelerate to 0 mph in 10 seconds. Idle 15 seconds. Accelerate to 23 mph in 20 seconds, decelerate to 0.5 mph in 10 seconds (no Step 10 complete stop). Accelerate to 28 mph and back to 0 mph (momentary stop 1 second) within 35 seconds. Step Accelerate gradually to 34 mph in 45 seconds. Vary speed between 34 and 19 mph for 2 minutes. Decelerate from 25 to 0 mph in 25 seconds. Idle for 5 11 seconds. Accelerate to 29 mph in 15 seconds, decelerate gradually to 0 mph in 45 Step seconds. Idle for 30 seconds. 12 Step Accelerate gradually to 28 mph and back to 0 mph (momentary stop 1 second) within 50 seconds. Accelerate gradually to 27 mph and back to 0 mph 13 within 55 seconds. Idle for 15 seconds. Accelerate to 24 mph and back to 0 mph within 18 seconds. Idle for 10 Step

seconds. Accelerate gradually to 22 mph and back to 0 mph within 50

Accelerate to 23 mph and back to 0 mph within 30 seconds. Idle for 10

Repeat steps 1 - 16 once again. Recheck the status of the "Readiness"

Accelerate gradually to 30 mph within 50 seconds. Decelerate to 0 mph in 10

14

Step 15

Step 16

Step

17

seconds.

Monitors".

seconds. Idle for 8 seconds.

seconds. Idle for 25 seconds.

**NOTE:** Remember, clearing DTC's or interrupting power to the <u>ECM</u> after the readiness monitors have been reset to "**Ready**" will require that the Drive Cycle be repeated.

Completing the Drive Cycle successfully one (1) time should reset most drive cycle monitors to a "Ready" status. However, there are "two trip" monitors, which require that the drive cycle be successfully completed two (2) times, to achieve a "Ready" status. Furthermore, systems which use averaging, may require the drive cycle to be completed more than 2 times. It is necessary to perform only as much of the Drive Cycle as is necessary to reset the required monitors to a "Ready" status.

# **End Drive Cycle**