

2004 Mazda Truck MPV V6-3.0L DOHC

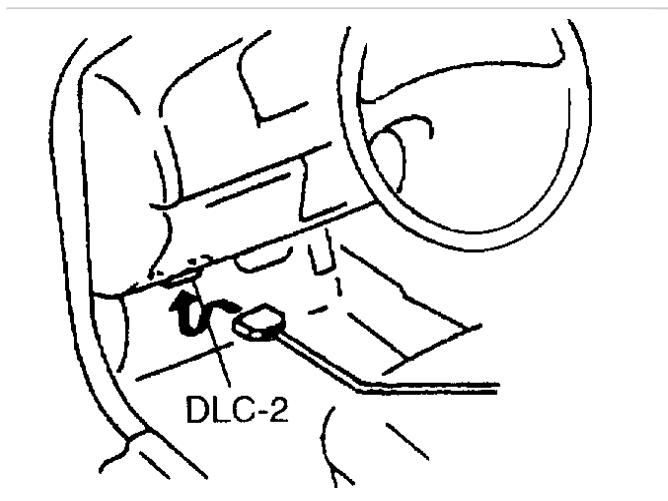
Vehicle > Powertrain Management > Tune-up and Engine Performance Checks > Testing and Inspection

COMPONENT TESTS AND GENERAL DIAGNOSTICS

ENGINE TUNE-UP

Engine Tune-up Preparation

1. Turn off the electrical loads.
2. Warm up the engine as follows.
 1. Start the engine.
 2. Maintain the engine speed at **2,500 - 3,000 rpm** until the cooling fans start to operate.
 3. Release the accelerator pedal.
 4. Wait until the cooling fans stop.



3. Connect the WDS or equivalent to the DLC-2.

Ignition Timing Inspection

Note:

- ^ Ignition timing is not adjustable.
- ^ Ignition timing verification requires WDS or equivalent.

1. Perform "Engine Tune-up Preparation".
2. Verify that the ignition timing (WDS: SPARKADV PID) is within the specification using WDS or equivalent.
Ignition timing **Approximately BTDC 10°**
3. Verify that ignition timing advances when the engine speed increases gradually.

Idle Speed Inspection

Note:

- ^ Idle speed is not adjustable.
- ^ Idle speed verification requires WDS or equivalent.

1. Perform "Engine Tune-up Preparation".
2. Verify that the idle speed (WDS: RPM PID) is within the specification using WDS or equivalent.

Specification

Load condition	Idle-up speed (rpm)
No load	650—750
E/L ON *1	650—750
P/S operating	700—800
A/C ON	670—770

*1: Blower motor is operating at high speed. Headlight switch is turned on. Rear window defroster switch is turned on. Cooling fans are operating.

Idle Mixture Inspection

1. Perform "Engine Tune-up Preparation".
2. Verify that the idle speed and ignition timing are within the specification.
3. Insert an exhaust gas analyzer to the tailpipe.
4. Verify that the CO and HC concentrations are within the specified limits.
 - ^ If not within the specified limits, inspect the following:
 - On-board diagnostic system.
 - HO2S
 - Intake manifold vacuum.
 - Fuel line pressure.
 - Ignition timing control.
 - ^ If the systems and devices are normal, replace the TWC. .