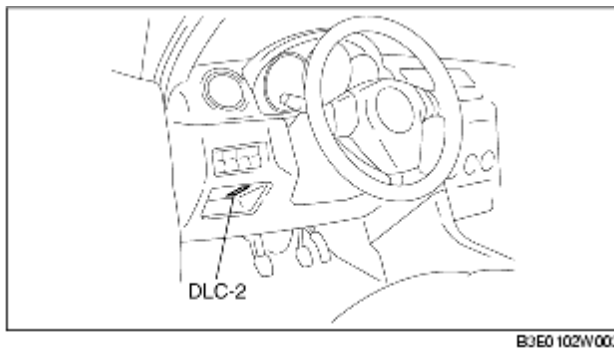


ENGINE TUNE-UP [LF]

B3E011001001W06

Engine Tune-up Preparation

1. Turn off all electrical loads.
2. Warm up the engine as follows.
 - (1) Start the engine.
 - (2) Maintain the engine speed **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 **SST** (WDS or equivalent) to the DLC-2.



Ignition Timing Inspection

Note

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

1. Verify that the ignition timing (WDS: SPARKADV PID) is within the specification using WDS or equivalent.

Ignition timing
Approx. BTDC 8°

2. 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. Verify that the idle speed (WDS: RPM PID) is within the specification using WDS or equivalent.

Idle speed

Engine speed (rpm)*1

Condition	MTX	ATX	
	Neutral position	N range	D range
No load	600-700	650-750	600-700
Electrical loads* ² ON (38-48A)	650-750	650-750	600-700
Electrical loads* ² ON (Above 48A)	700-800	700-800	670-770
A/C ON and refrigerant pressure switch (middle) OFF	700-800	650-750	650-750
A/C ON and refrigerant pressure switch (middle) ON	700-800	750-850	750-850

*1 : Excludes temporary idle speed drop just after the electrical loads are turned on.

*2 : Alternator generating current value.

Idle Mixture Inspection

1. Verify that the idle speed and ignition timing are within the specification. (See [Idle Speed Inspection.](#)) (See [Ignition Timing Inspection.](#))
2. Insert an exhaust gas analyzer to the tailpipe.
3. Verify that the CO and HC concentrations are within the regulation.