D - ADJUSTMENTS

1996 ENGINE PERFORMANCE Nissan Motor Co. - On-Vehicle Adjustments

ADJUSTMENT

ENGINE MECHANICAL

Before performing any on-vehicle adjustments to fuel or ignition systems, ensure engine mechanical condition is okay.

VALVE CLEARANCE

NOTE: Engine is equipped with hydraulic lifters. No adjustments are required.

IGNITION TIMING

1. Ensure engine is at normal operating temperature. Turn ignition off. Disconnect Throttle Position (TP) sensor.
2. Start engine. Increase engine speed to 2000 RPM, 2 or 3 times, then allow engine to return to idle. Check ignition timing. See the IGNITION TIMING table. See **Fig. 1** . If ignition timing is incorrect, loosen hold-down bolt and turn distributor to adjust ignition timing.

IGNITION TIMING (Degrees BTDC @ RPM)

Application	Man. Trans.	(1) Auto. Trans.
Pathfinder	13-17 @ 650-750	13-17 @ 650-750
(1) Automatic transmission/transaxle in Neutral.		

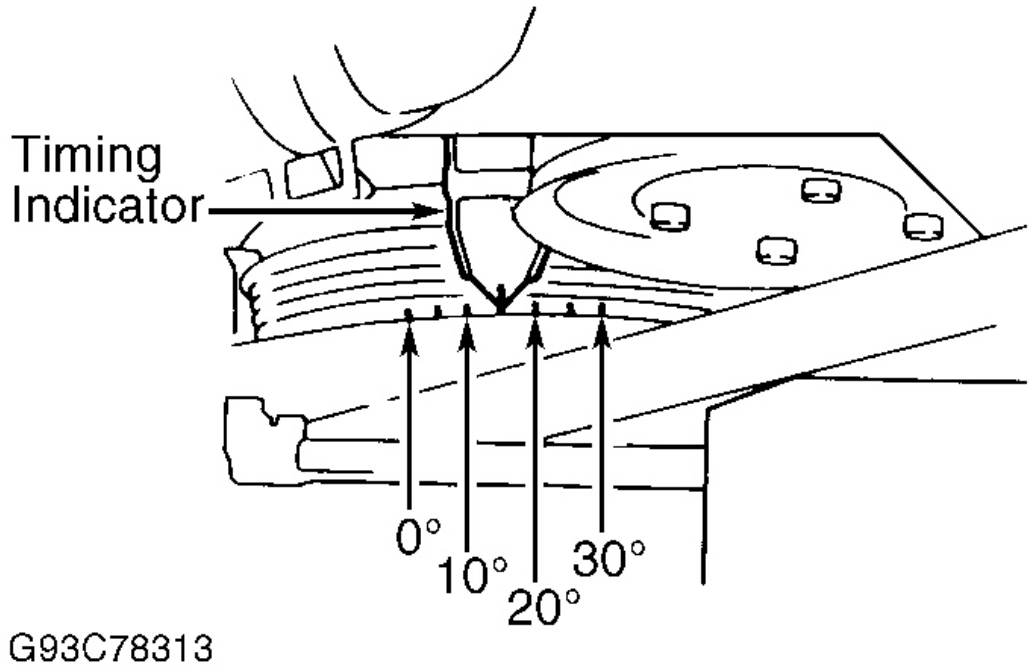

Fig. 1: Locating Ignition Timing Marks
Courtesy of NISSAN MOTOR CO., U.S.A.

IDLE SPEED

1. Start engine and warm to normal operating temperature. Turn ignition off. Disconnect Throttle Position (TP) sensor harness connector. Start engine.
2. Increase engine speed to 2000 RPM, 2 or 3 times, then allow engine to return to idle. Ensure ignition timing is set correctly. Check idle speed. See IDLE SPEED & CO LEVEL table.
3. If idle speed is incorrect, adjust idle speed by turning idle speed adjusting screw. See **Fig. 2** . With idle speed correctly set, turn ignition off. Reconnect TP sensor and recheck idle speed.

IDLE SPEED & CO LEVEL

Application	(1) Idle RPM	(2) Idle RPM	(3) CO Level
Pathfinder	(4) 700-800	(4) 650-750	.2-8.0%

(1) With Auxiliary Air Control (AAC) valve connected.

(2) With Auxiliary Air Control (AAC) valve disconnected.

(3) Measured in Self-Diagnostic Mode II.

(4) Automatic transmission/transaxle in Neutral.

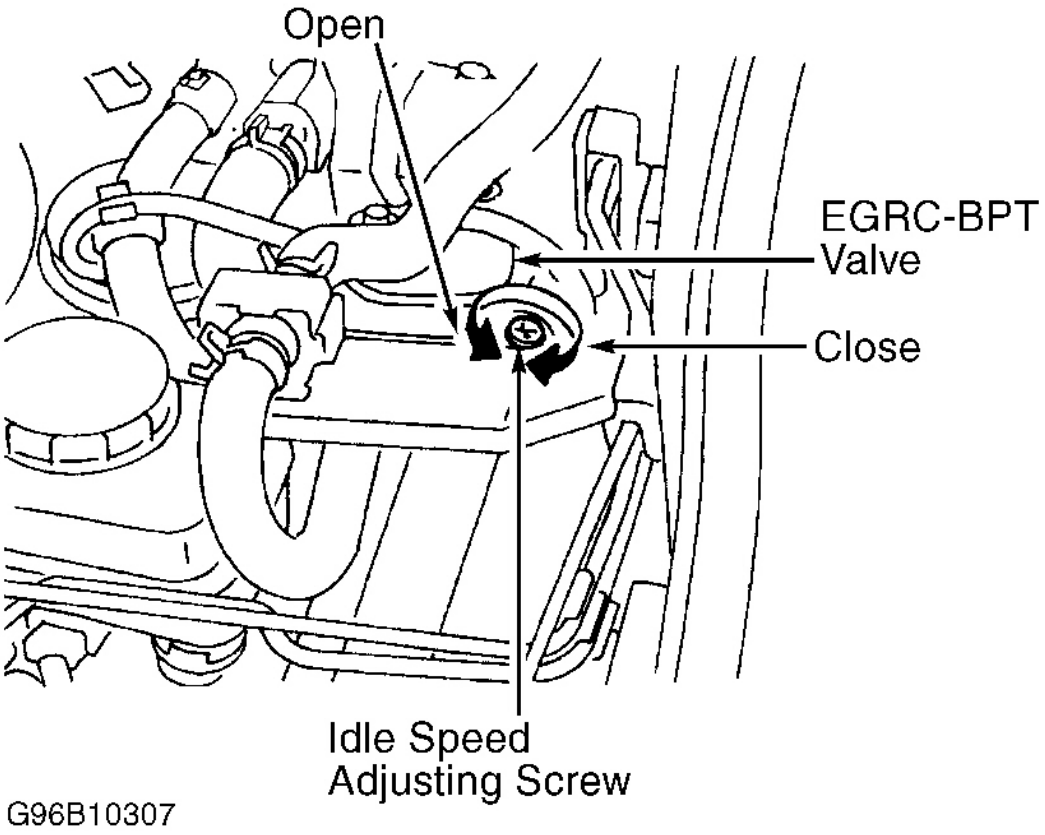

Fig. 2: Locating Idle Speed Adjusting Screw
Courtesy of NISSAN MOTOR CO., U.S.A.

IDLE MIXTURE

NOTE: Idle mixture is not adjustable.

THROTTLE POSITION (TP) SENSOR

NOTE: Faults in TP sensor circuit may set Code 43. To test system, see CODE 43 diagnostic procedure in TESTS W/CODES article.

Turn ignition off. Ensure TP sensor wiring harness connector is securely connected. Using a voltmeter, backprobe TP sensor harness connector terminals No. 2 and 3. See **Fig. 3** . Adjust TP sensor by loosening mounting bolts and rotating sensor body until output voltage is within specification. See TP SENSOR VOLTAGE table.

Fig. 3: Identifying TP Sensor Harness Connector Terminals (Typical)
Courtesy of NISSAN MOTOR CO., U.S.A.

TP SENSOR VOLTAGE (1)

Application	Voltage
Pathfinder	.30-.70
(1) Voltage measured at wiring harness side with TP sensor connected and ignition switch in the ON position.	

