

D - ADJUSTMENTS

1994 Mitsubishi 3000GT

1994 ENGINE PERFORMANCE

Chrysler Corp./Mitsubishi On-Vehicle Adjustments

Dodge; Stealth

Mitsubishi; 3000GT

ENGINE MECHANICAL

Before performing any on-vehicle adjustments to fuel or ignition system, ensure engine mechanical condition is okay (i.e. engine compression).

CHECKING HYDRAULIC VALVE LIFTERS

1) Warm engine to normal operating temperature. Remove valve cover. Position cylinder No. 1 at TDC on compression stroke. Check intake rockers on cylinders No. 1, 5 and 6. Check exhaust rockers on cylinders No. 1, 2 and 3.

2) Push downward on end of rocker arm above lash adjuster. Rotate crankshaft 360 degrees. Check intake rockers on cylinders No. 2, 3 and 4. Check exhaust rockers on cylinders No. 4, 5 and 6. If lash adjuster is normal, it will feel solid.

3) If lash adjuster moves downward easily when pushed, replace adjuster. If lash adjuster feels soft or spongy, air has probably entered lash adjuster. If this occurs, check engine oil level. If engine oil level is okay, check oil screen and oil screen gasket for damage.

4) After repairing cause of air leak, warm engine to operating temperature. Drive vehicle at low speed for approximately 5 minutes. Turn engine off for a few minutes.

5) Restart engine and drive at low speed for approximately 5 minutes. Repeat this step several times for about one hour. This helps remove air from engine oil.

IGNITION TIMING

NOTE: Perform all adjustments with engine at normal operating temperature, cooling fan and accessories off, transmission in Park or Neutral, and front wheels in straight-ahead position.

NOTE: Adjustment of ignition timing cannot be performed on vehicles equipped with Distributorless Ignition Systems (DIS). If ignition timing is not within specification, see CRANKSHAFT POSITION SENSOR in I - SYSTEM/COMPONENT TESTS article in the ENGINE PERFORMANCE Section.

1) Locate ignition timing adjustment connector. See IGNITION TIMING ADJUSTMENT CONNECTOR LOCATION table. Connect jumper wire between ignition timing adjustment connector and ground. Check ignition basic timing.

2) If ignition basic timing is not within specification, loosen distributor and rotate to adjust timing if necessary. See IGNITION TIMING SPECIFICATIONS table. Remove jumper wire from ignition timing adjustment connector.

IGNITION TIMING SPECIFICATIONS TABLE (Degrees BTDC @ RPM)

Application	(1) Basic	(2) (3) Actual
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All Models 2-8 @ 600-800 15 @ 600-800

- (1) - With ignition timing adjustment connector grounded or vacuum hose (farthest from distributor) disconnected.
- (2) - With ignition timing adjustment connector ungrounded or vacuum hose (farthest from distributor) connected. Ignition timing may fluctuate.
- (3) - If vehicle altitude is more than 2300 ft. above sea level, actual timing may be advanced (5 degrees).

NOTE: Ignition timing adjustment connector is either round or oval with protective cover. Connector is either Black or Brown and is secured to harness with colored transparent tape.

IGNITION TIMING ADJUSTMENT CONNECTOR LOCATION TABLE

Application	(1) (2) Wire Color	Location
All Models	Black/Green	(3)
<ul style="list-style-type: none">(1) - Remove waterproof female connector (if equipped) for access to wire.(2) - Ground connector at wire end for basic timing adjustment.(3) - On main wiring harness, near master cylinder reservoir on firewall, near strut tower.		

IDLE SPEED & MIXTURE

NOTE: Perform adjustments with engine at normal operating temperature, cooling fan and accessories off, transmission in Park or Neutral, and front wheels in straight-ahead position.

CURB (SLOW) IDLE SPEED

NOTE: Curb idle speed is controlled by Idle Air Control (IAC) motor. Adjustment is usually not necessary. For curb idle speed specifications, see IDLE SPEED SPECIFICATIONS table under BASIC IDLE SPEED.

1) Check ignition timing and adjust if necessary. See IGNITION TIMING. Run engine at 2000-3000 RPM for more than 5 seconds. Allow engine to idle for 2 minutes. Check curb idle speed.

2) If curb idle speed is not within specification, check IAC system. See I - SYSTEM/COMPONENT TESTS article in the ENGINE PERFORMANCE Section. If IAC system is okay, adjust basic idle speed. See BASIC IDLE SPEED.

BASIC IDLE SPEED

NOTE: ALWAYS check TPS adjustment after adjusting basic idle speed. See THROTTLE POSITION SENSOR (TPS).

NOTE: For Data Link Connector (DLC) location, see G - TESTS W/CODES article in the ENGINE PERFORMANCE Section.

NOTE: Ensure vehicle is at normal operating temperature with all

lights, cooling fan and accessories off. Shift transmission into Neutral or Park position.

1) Insert paper clip or appropriate probe into tachometer connector. See TACHOMETER CONNECTOR LOCATION table. Connect a primary voltage detecting type tachometer to paper clip.

2) On all models with 16-pin DLC connector, connect a jumper wire between data link terminal No. 1 and vehicle ground. See Fig. 2. On all models with 12-pin DLC connector, connect a jumper wire between data link connector terminal No. 10 and vehicle ground. See Fig. 1.

3) Connect a jumper wire between ignition timing adjustment connector and vehicle ground. See IGNITION TIMING ADJUSTMENT CONNECTOR LOCATION table under IGNITION TIMING.

4) Start and run engine at idle. Check basic idle speed. See IDLE SPEED SPECIFICATIONS table. If idle speed is not within specification, turn engine speed adjusting screw until correct engine speed is obtained. See Fig. 3. Access to speed adjusting screw is obtained by removing rubber plug on throttle body.

5) If idle speed cannot be lowered by turning engine speed adjusting screw, determine if fixed speed adjusting screw (stop screw contacting throttle lever) has been adjusted. See FIXED SPEED ADJUSTING SCREW for procedure.

6) After all adjustments are verified correct, possible cause of incorrect idle speed is deterioration of fast idle air control motor. Throttle valve must be replaced to correct symptom. Disconnect jumper wires and recheck idle speed.

TACHOMETER CONNECTOR LOCATION TABLE

Application	Type	Location
All Models	3-Pin	(1), (2)
(1) - On SOHC, backprobe double wire portion of connector to noise filter (White/Black wire) behind intake plenum, near ignition coil.		
(2) - On DOHC, blue connector (Black/White wire) below wiper motor.		

IDLE SPEED SPECIFICATIONS TABLE

Application	Curb Idle	Basic Idle
All Models	600-800	600-800

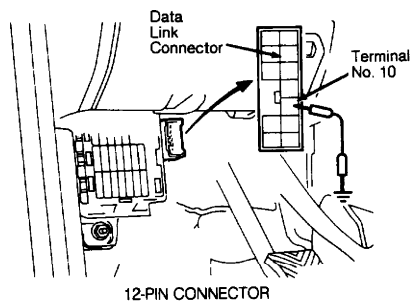
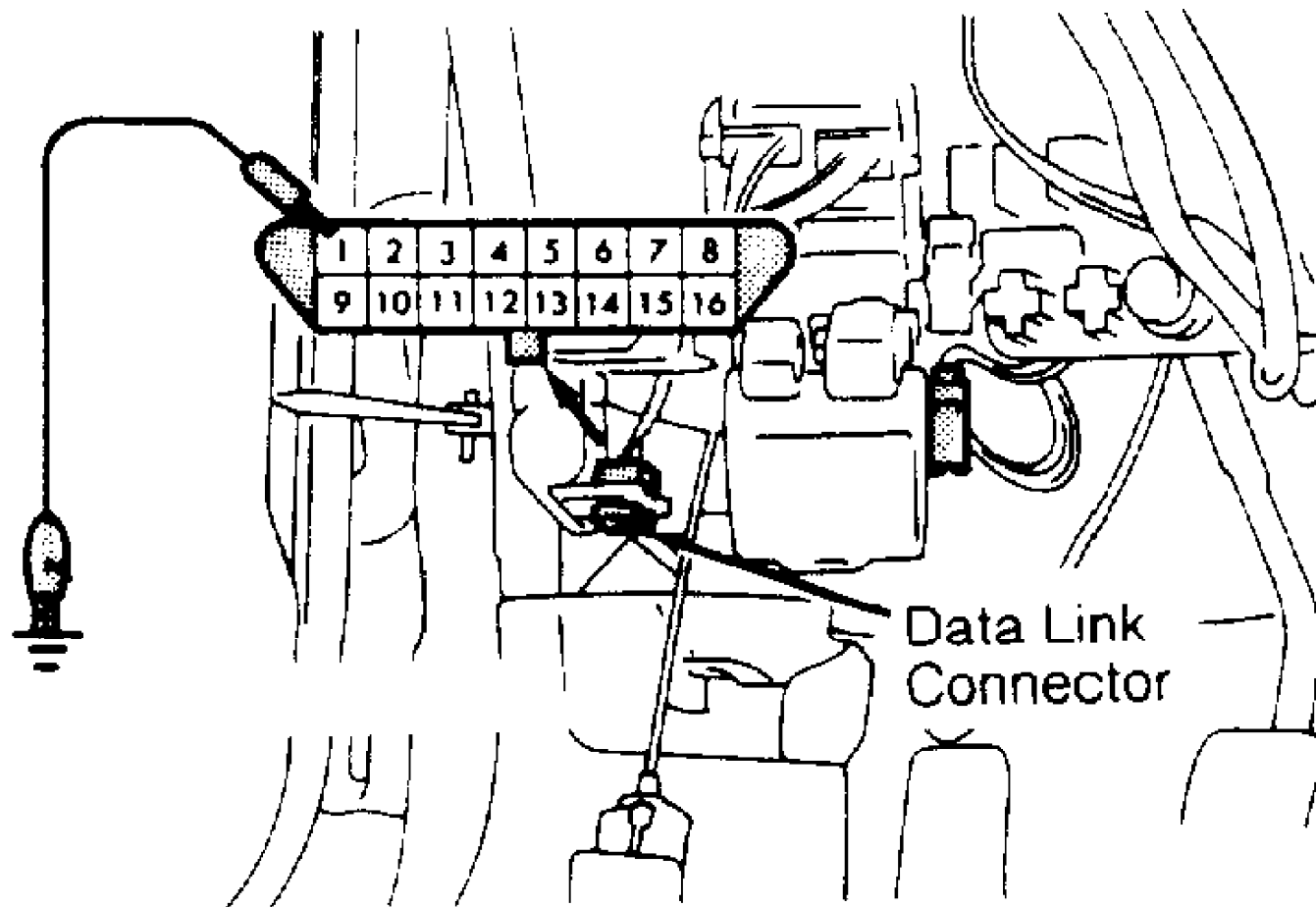


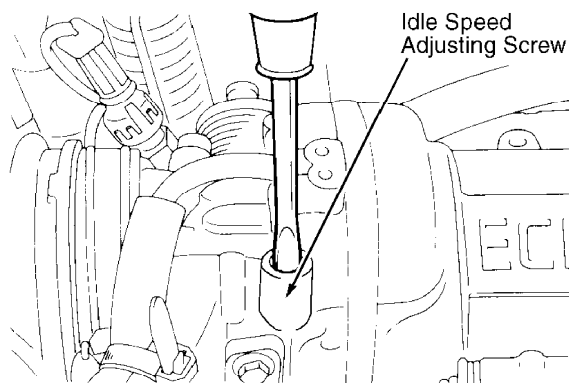
Fig. 1: Locating Data Link 12-Pin Connector (Typical)
Courtesy of Mitsubishi Motor Sales of America.



16-PIN CONNECTOR

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Fig. 2: Locating Data Link 16-Pin Connector (Typical)
 Courtesy of Mitsubishi Motor Sales of America.



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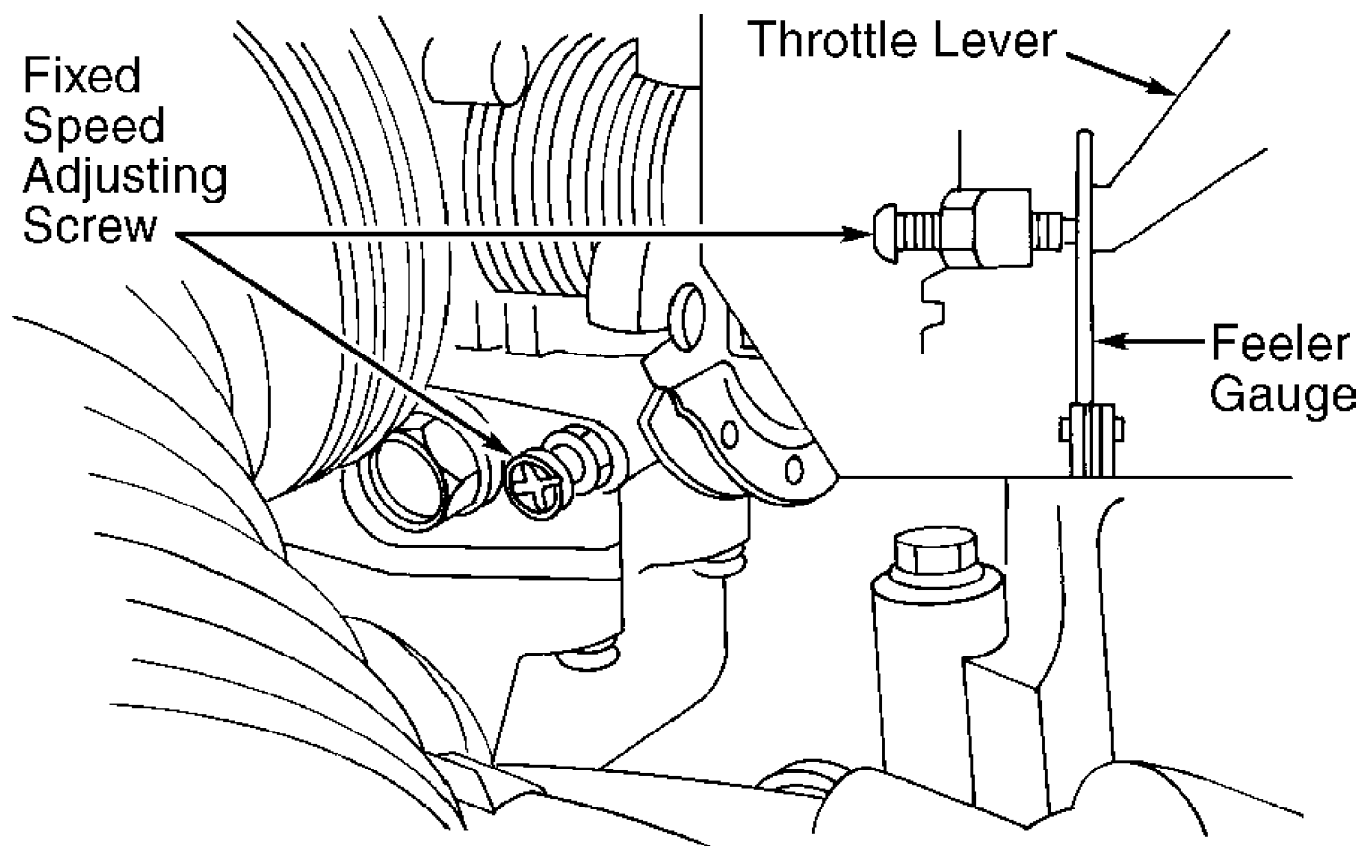
Fig. 3: Adjusting Idle Speed (Typical)
 Courtesy of Mitsubishi Motor Sales of America.

FIXED SPEED ADJUSTING SCREW

NOTE: Fixed Speed Adjusting Screw (FSAS) is preset by manufacturer and usually does not require adjustment. Only adjust FSAS if other adjustment procedures require it, or if manufacturer's original setting has been changed.

1) Loosen throttle cable. Loosen FSAS lock nut. See Fig. 4. Turn FSAS counterclockwise until throttle valve is fully closed. Turn FSAS clockwise until throttle valve begins to open. Turn FSAS clockwise 1 1/4 turns after throttle valve begins to open.

2) Tighten lock nut while holding FSAS in position. Adjust throttle cable. Adjust basic idle speed. See BASIC IDLE SPEED under IDLE SPEED & MIXTURE. Adjust throttle position sensor. See THROTTLE POSITION SENSOR (TPS).



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Fig. 4: Adjusting Fixed Speed Adjusting Screw (Typical)
Courtesy of Mitsubishi Motor Sales of America.

IDLE MIXTURE

NOTE: Idle mixture is computer controlled on fuel injected engines and is nonadjustable. CO level should not exceed .5%. HC level should not exceed 100 ppm. If mixture levels exceed limits, see G - TESTS W/CODES article in the ENGINE PERFORMANCE Section.

THROTTLE POSITION SENSOR (TPS)

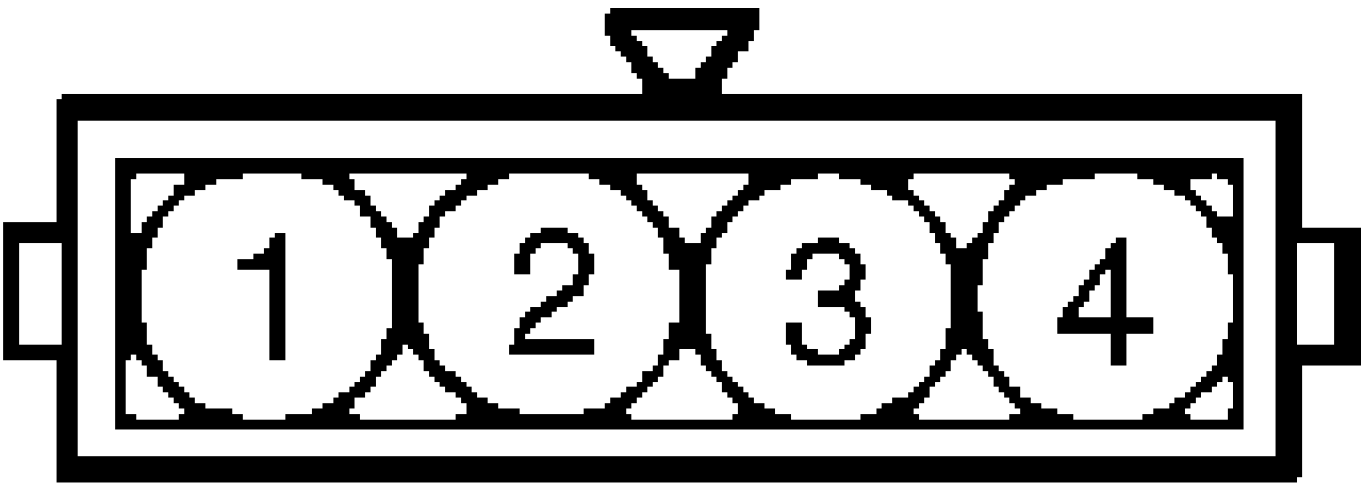
TPS ADJUSTMENT

NOTE: Ensure basic idle speed is set to specification before adjusting TPS. See BASIC IDLE SPEED under IDLE SPEED & MIXTURE. Perform all adjustments with engine at normal operating temperature, front wheels in straight-ahead position, cooling fan and all accessories off, and transmission in Park or Neutral.

TPS SPECIFICATIONS TABLE

Application	(1) Volts
All Models4-1.0
(1) - At idle.	

- 1) Disconnect TPS connector. Using external ohmmeter, measure resistance between TPS terminals No. 3 and 4. See Fig. 5. Insert .025" (.65 mm) feeler gauge between fixed speed adjusting screw and throttle lever.
- 2) Loosen TPS mounting screws and rotate TPS fully clockwise. Ensure there is continuity between terminals No. 3 and 4. Rotate TPS counterclockwise until there is no continuity and tighten screws. Install Test Harness (MB991348) between TPS and harness connector.
- 3) Turn ignition on. Using external voltmeter, measure TPS output voltage between terminals No. 2 and 4. See TPS SPECIFICATIONS table. If voltage is not within specification, check harness and sensor. See I - SYSTEM/COMPONENT TESTS article in the ENGINE PERFORMANCE Section.



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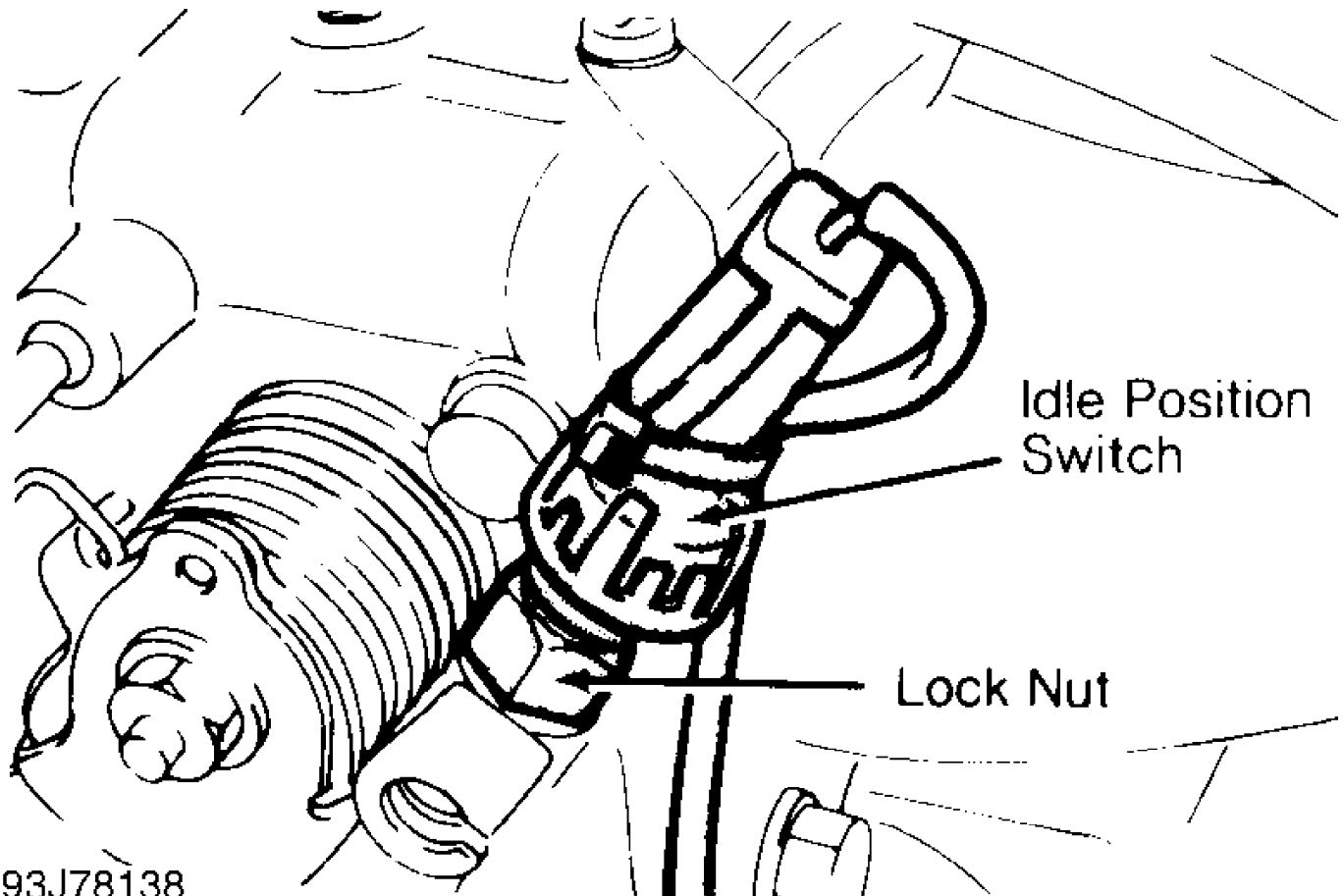
Fig. 5: Identifying TPS Connector
Courtesy of Mitsubishi Motor Sales of America.

IDLE POSITION SWITCH

NOTE: Idle position switch is preset by manufacturer. Adjustment is usually not necessary. If other procedures require adjustment of idle position switch or if switch setting has

been changed, adjust switch as follows.

Idle position switch is incorporated into IAC motor and is automatically adjusted when TPS is adjusted. See TPS ADJUSTMENT.



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Fig. 6: Adjusting Idle Position Switch
Courtesy of Mitsubishi Motor Sales of America.