THROTTLE POSITION SENSOR INSTALLATION ROCHESTER CLOSED LOOP CARBURETORS

REMOVAL INSTRUCTIONS

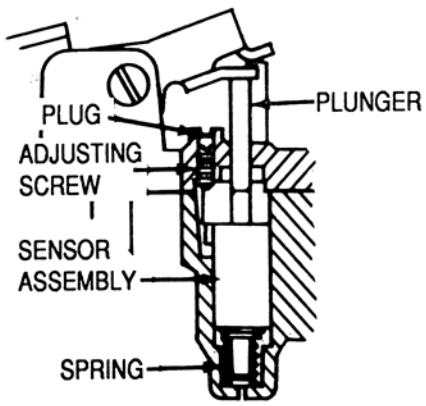
1. Remove air horn and gasket following normal service procedures. Discard old gasket.
2. Push up on bottom of electrical connector to remove TPS and connector assembly from float bowl.
3. Remove sensor adjusting spring from bottom of TPS well in float bowl.

INSTALLATION INSTRUCTIONS

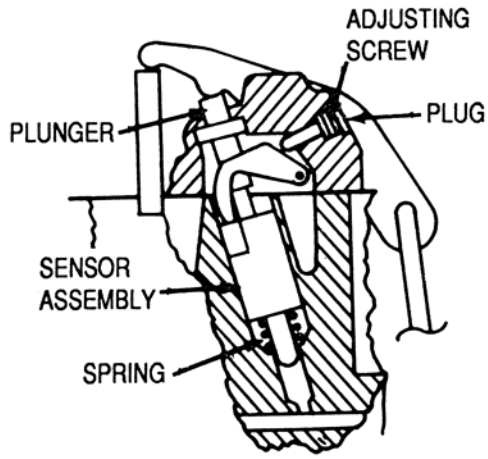
1. Install new TPS adjusting spring in bottom of well in float bowl.
2. Install replacement TPS and connector in float bowl by aligning groove in connector with slot in float bowl casting. Push down on connector and sensor so that wires and connector are below casting surfaces.
3. Prior to installation of air horn to float bowl, push TPS actuator plunger through seal in air horn casting. Seal pressure should hold plunger in place. Be sure adjustment screw or adjustment lever is properly seated on TPS body during air horn installation on float bowl.
4. Using new gasket, install air horn on float bowl using normal service procedures. **NOTICE: The plug covering the TPS adjusting screw is used to provide a tamper resistant design. This is a critical adjustment that must be performed accurately to ensure proper vehicle performance and control of emissions.**

ON CAR ADJUSTMENT

1. Using a .078" (5/64") drill bit, drill hole in plug covering TPS adjusting screw. **CAUTION: Use care in drilling to prevent damage to adjusting screw head.** (Drill approximately 1/16" to 1/8" in aluminum type plug.) Using a small slide hammer or equivalent, remove plug.
2. Disconnect the TPS connector and jumper all three sensor terminals to their harness connections. NOTE: Jumpers are made using .093" Molex terminals on #16, #18 or #20 wire, six to eight inches long. Use three jumpers with male terminals on one end and female on the other end.
3. Check chart for proper throttle position and voltage setting. Using a small screw driver or Allen wrench, remove the adjusting screw and apply thread lock to screw threads. Connect a 10 megohm digital voltmeter to the center and bottom terminals of TPS.
4. With key on and engine and A/C off, reinstall TPS adjusting screw and quickly adjust to obtain specified TPS voltage.
5. Turn off ignition key.
6. Install new plug over TPS adjusting screw, driving plug in until flush with casting.
7. Disconnect test equipment and jumper leads. Reconnect all wiring connectors on vehicle.



Throttle Position Sensor
Varajet (E2SE)



Throttle Position Sensor
Dualjet (E2ME)
Quadrajet (E4ME, E4MC)

GM THROTTLE POSITION SENSOR SETTINGS (CARBURETOR)

Year	Engine	Throttle Position	Voltage Setting
4 Cylinder			
1982	112[G] (1.8L)	ISC Retracted at Slow Idle	.26V
	122[B] (2.0L)	ISC Retracted at Slow Idle	.26V
1983	112[O] (1.8L)	Idle	.45-1.25V
6 Cylinder			
1980	231[3] (3.8L) Regal	High Step Fast Idle Cam	1.07V
	231[3] (3.8L) Riviera	High Step Fast Idle Cam	1.17V
1981	173[X][Z] (2.8L)	Stopped at Curb Idle	.51V
	229[K] (3.8L)	ISC Retracted at Slow Idle	.41V
	231[A] (3.8L)	High Step Fast Idle Cam	.97V
	231[A] (3.8L) Turbo	High Step Fast Idle Cam	1.30V
	231[E][3] (3.8L) Turbo	High Step Fast Idle Cam	1.12V
	252[4] (4.1L)	Stopped at Idle	.56V
1982	173[B][I][X][Z] (2.8L)	Idle	.26V
	181[E] (3.0L)	ISC Retracted at Slow Idle	.52V
	229[K] (3.8L)	ISC Retracted at Slow Idle	.36V
	231[A] (3.8L)	High Step Fast Idle Cam	.77V
	231[G] (3.8L) Turbo	High Step Fast Idle Cam	1.28V
	231[3] (3.8L) Turbo	High Step Fast Idle Cam	1.28V
	252[4] (4.1L)	High Step Fast Idle Cam	.97V
1983	173[B][I][L][X][Z] (2.8L)	Idle	.26V
	181[E] (3.0L)	ISC Retracted (Minimum)	.42V
	229[9] (3.8L)	ISC Retracted (Minimum)	.51V
	231[A] (3.8L)	High Step Fast Idle Cam	.77V
	231[8] (3.8L) Turbo	High Step Fast Idle Cam	.77V
	252[4] (4.1L)	High Step Fast Idle Cam	.97V
1984	173[B][I][Z] (2.8L)	Idle	.26V
	173[X] (2.8L)	Idle	.31V
	181[E] (3.0L) Chevrolet, Oldsmobile	ISC Retracted at Slow Idle	.42V
	181[E] (3.0L) 3-Spd Buick, Pontiac	ISC Retracted at Slow Idle	.57V
	181[E] (3.0L) 4-Spd Buick, Pontiac	ISC Retracted at Slow Idle	.65V
	229[9] (3.8L)	Idle	.36V
	231[A] (3.8L) Buick Pontiac	High Step Fast Idle Cam	.46V
	231[A] (3.8L) Chevrolet, Oldsmobile	High Step Fast Idle Cam	.39V
	252[4] (4.1L)	High Step Fast Idle Cam	.46V
1985	173[B] (2.8L)	Idle	.26V
	173[X] (2.8L)	Idle	.30V
	181[E] (3.0L) 3-Speed	Idle, ISC Retracted	.57V
	181[E] (3.0L) 4-Speed	Idle	.60V
	231[A] (3.8L)	Idle, ISC Retracted	.46V
	262[N] (4.3L)	Idle	.25V
1986	173[X] (2.8L)	Idle	.30V
	181[E] (3.0L) - Delta 88	Idle	.40V
	181[E] (3.0L) - All Others	Idle	.55V
	231[A] (3.8L)	Idle	.46V
	262[N] (4.3L)	Idle	.25V
1987	231[A] (3.8L)	Idle, ISC Retracted	.46V

Year	Engine	Throttle Position	Voltage Setting
8 Cylinder			
1980	305[H] (5.0L)	Idle w/Anti-Dieseling Solenoid Disconnected	.37V
	350[R] (5.7L)	Idle	.27V
	368[6] (6.0L)	Idle	.14V
1981	260[F] (4.3L)	Stopped at Idle	.46V
	265[S] (4.3L)	ISC Retracted at Slow Idle	.41V
	267[J] (4.4L)	Stopped at Idle	.51V
	301[T] (4.9L) Turbo	ISC Retracted at Slow Idle	.40V
	301[W] (4.9L) Non-Turbo w/ESC	At 2000 RPM	1.00V
	301[W] (4.9L) Non-Turbo w/o ESC	ISC Retracted at Slow Idle	.35V
	305[H] (5.0L)	Stopped at Idle	.56V
	307[Y] (5.0L)	Stopped at Idle	.46V
	350[L] (5.7L)	Stopped at Idle	.56V
	350[6] (5.7L)	Idle	.56V
1982	260[8] (4.3L)	Stopped at Idle	.46V
	267[J] (4.4L)	Stopped at Idle	.51V
	305[H] (5.0L)	Stopped at Idle	.51V
	307[Y] (5.0L)	Stopped at Idle	.46V
	350[L] (5.7L)	Stopped at Idle	.51V
1983	305[F] (5.0L)	Idle	.51V
	305[H] (5.0L)	Idle	.51V
	307[Y] (5.0L)	ISC Retracted	.46V
	350[L] (5.7L)	Idle	.40V
1984	305[F] (5.0L)	Idle	.41V
	305[G][H] (5.0L)	Idle	.48V
	307[Y][9] (5.0L)	Idle	.41V
	368[6] (6.0L)	Idle	.45-.55V
1985	305[F] (5.0L)	Idle	.41V
	305[G][H] (5.0L)	Idle	.48V
	307[Y][9] (5.0L)	Idle	.40V
	350[6] (5.7L)	Idle	.48V
1986	305[F] (5.0L)	Idle	.41V
	305[G][H] (5.0L)	Curb Idle	.46V
	305, 307 (5.0L)	Idle	.50-.58V
	307[Y] (5.0L)	ILC Retracted, Trans in Drive	.41V
	307[9] (5.0L) Carb #17086190	ILC Retracted, Trans in Drive	.41V
	307[9] (5,0L) Exc. Carb #17086190	ILC Retracted, Trans in Drive	.46V
	350 (5.7L)	Idle	.50-.58V
1987	305[G][H] (5.0L)	Curb Idle	.41V
	307[Y][9] (5.0L)	Curb Idle	.41V
	350[8] (5.7L)	Curb Idle	.41V
1988	307[Y] (5.0L)	ILC Retracted, Trans in Drive	.41V
1989	307[Y] (5.0L)	ILC Retracted, Trans in Drive	.41V