

2006 Buick Lucerne CXS

2006 ENGINE Engine Mechanical - 3.8L - Lucerne

Flywheel to Torque Converter Bolt	63 N.m	46 lb ft
Fuel Injector Rail Assembly Nut	10 N.m	89 lb in
Fuel Injector Rail Stud	25 N.m	18 lb ft
Fuel Injector Sight Shield Bracket Nut	30 N.m	22 lb ft
Generator Brace Bracket Bolt	50 N.m	37 lb ft
Generator Bracket Bolt	50 N.m	37 lb ft
Heated Oxygen Sensor	42 N.m	31 lb ft
Heated Inlet Pipe Nut	25 N.m	18 lb ft
Ignition Control Module Bracket Stud	17 N.m	12 lb ft
Ignition Control Module Assembly Bracket Bolt	30 N.m	22 lb ft
Ignition Control Module Assembly Bracket Nut	50 N.m	37 lb ft
Ignition Control Module Assembly Nut	8 N.m	71 lb in
Knock Sensor	18 N.m	13 lb ft
Lower Intake Manifold Bolt	15 N.m	11 lb ft
Oil Filter	30 N.m	22 lb ft
Oil Filter Adapter Bolt		
• First Pass	15 N.m	11 lb ft
• Final Pass	50 degrees	
Oil Gallery Plug	30 N.m	22 lb ft
Oil Level Indicator Tube Stud/Nut	19 N.m	14 lb ft
Oil Level Sensor Bolt	20 N.m	15 lb ft
Oil Pan Bolt	14 N.m	125 lb in
Oil Pan Drain Plug	30 N.m	22 lb ft
Oil Pressure Sensor	16 N.m	12 lb ft
Oil Pump Cover Screw	11 N.m	98 lb in
Oil Pump Pipe and Screen Bolt	15 N.m	11 lb ft
Oil Filter Adapter Bolt	30 N.m	22 lb ft
Right Engine Mount Bracket Stud	8 N.m	71 lb in
Right Engine Mount Bracket to Engine	60 N.m	44 lb ft
Right Engine Mount to Bracket Nut	80 N.m	59 lb ft
Right Engine Mount to Frame Rail Nuts	70 N.m	52 lb ft
Spark Plug	15 N.m	11 lb ft
Starter Motor Heat Shield Bolt	30 N.m	22 lb ft
Throttle Body Bolt/Nut	10 N.m	89 lb in

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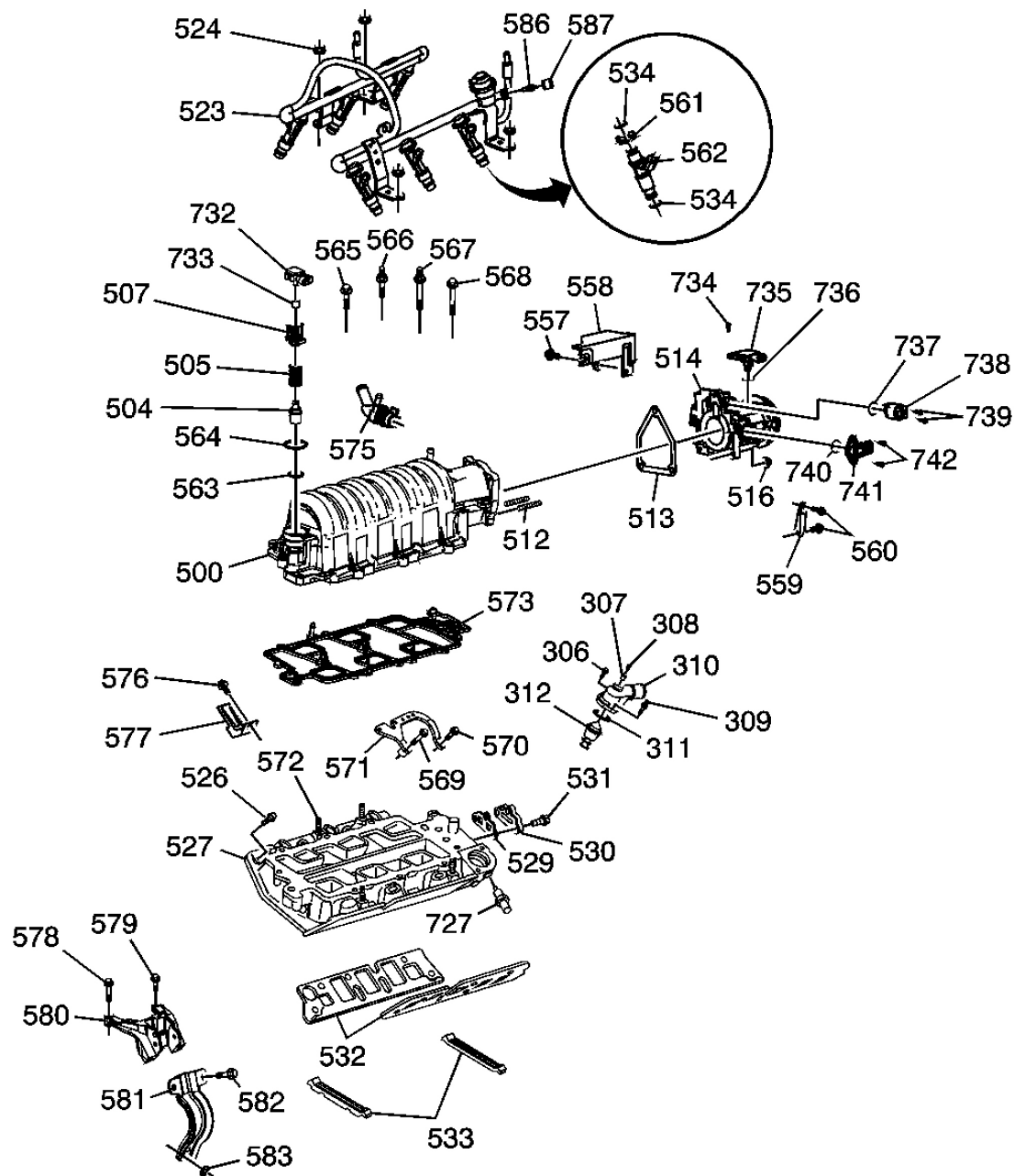


Fig. 3: Identifying Intake Manifold & Components
 Courtesy of GENERAL MOTORS CORP.

Callouts For Fig. 3

Callout	Component Name
306	Water Outlet Housing Bolt
307	Coolant Bleed Valve Fitting

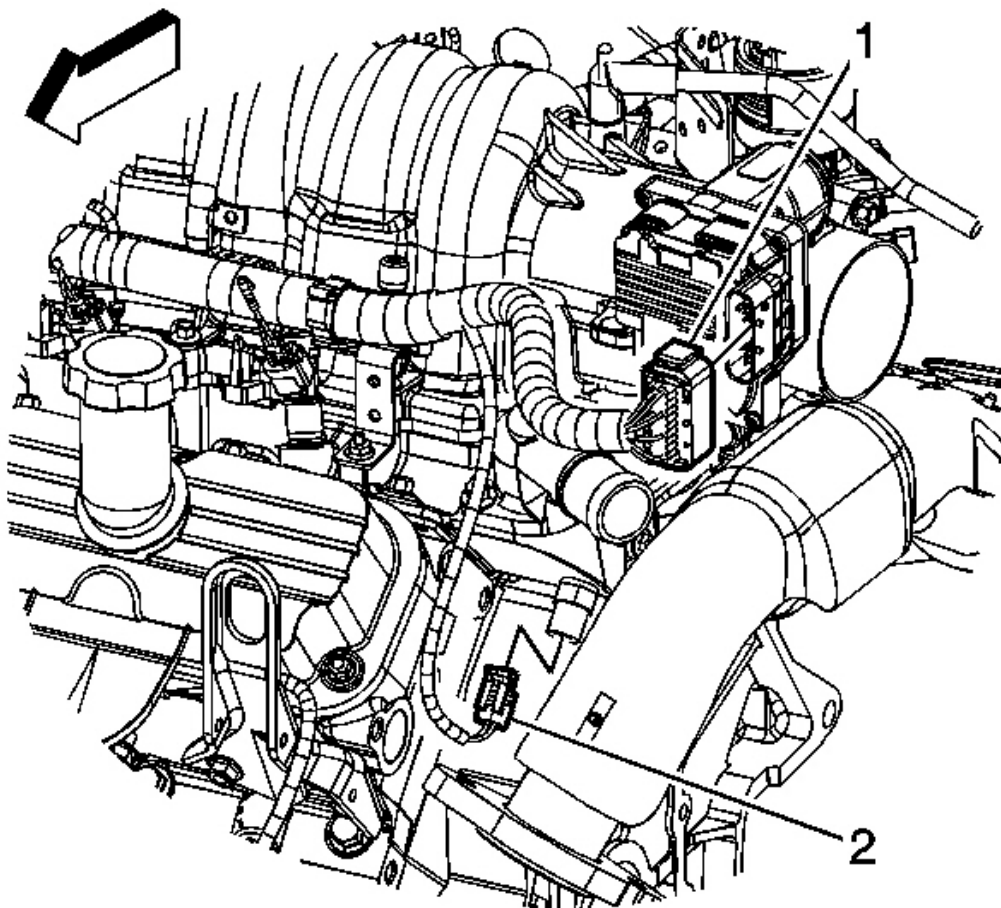


Fig. 264: Identifying Throttle Actuator Harness Connector
Courtesy of GENERAL MOTORS CORP.

57. Disconnect the engine harness electrical connector (1) from the throttle actuator.
58. Disconnect the engine harness electrical connector (2) from the engine coolant temperature (ECT) sensor.

4. Repeat this procedure for all the piston rings.

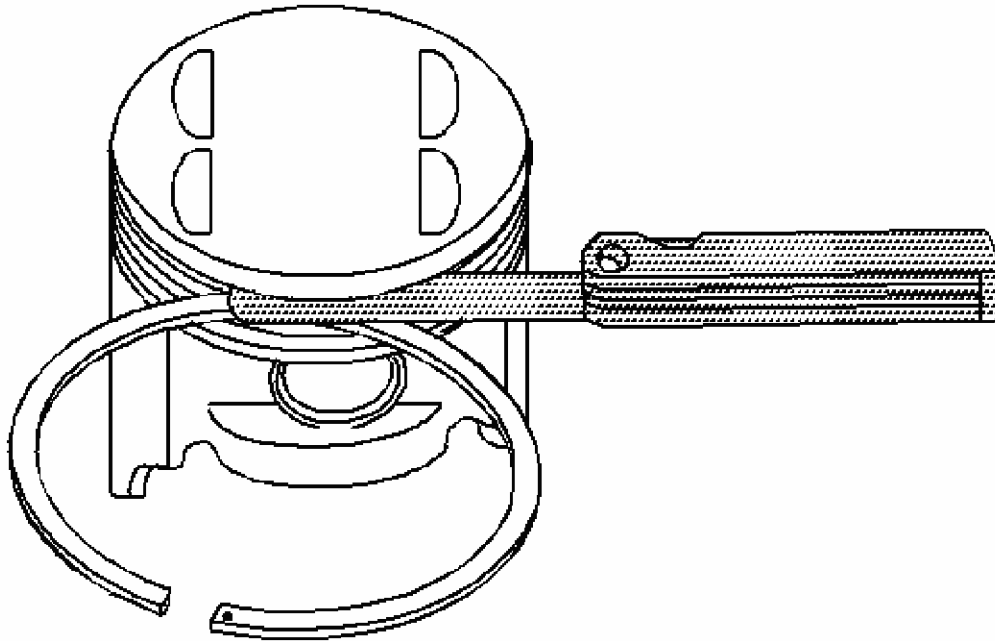
PISTON RING SIDE CLEARANCE MEASUREMENT PROCEDURE

Fig. 21: Checking Piston Ring Side Clearance
Courtesy of GENERAL MOTORS CORP.

1. Roll the piston ring entirely around the piston ring groove. If any binding is caused by the ring groove, dress the groove with a fine file. If any binding is caused by a distorted piston ring, replace the ring.
2. With the piston ring on the piston, use feeler gages to check side clearance at multiple locations.
3. Compare your measurements with those found in the **Engine Mechanical Specifications**.
4. If the clearance is greater than specifications, replace the piston rings.
5. If new piston rings do not bring the clearance within the specification, the piston must be replaced.

CONNECTING ROD CLEANING PROCEDURE

1. Clean the connecting rods in solvent.

These are some examples of symbols that may be found on the vehicle:

CAUTION POSSIBLE INJURY		LATCH BOTH LAP AND SHOULDER BELTS TO PROTECT OCCUPANT DO NOT TWIST SAFETY BELT WHEN ATTACHING		 	MASTER LIGHTING SWITCH		ENGINE COOLANT TEMP		TIRE PRESSURE		
PROTECT EYES BY SHIELDING		FASTEN SEAT BELTS		AIRBAG		TURN SIGNALS		BATTERY CHARGING SYSTEM		FUSE BOX ACCESS	
CAUSTIC BATTERY ACID COULD CAUSE BURNS		MOVE SEAT FULLY REARWARD SECURE CHILD SEAT		DO NOT INSTALL A REAR-FACING CHILD RESTRAINT IN THIS SEATING POSITION		PARKING LAMPS		BRAKE		ENGINE COOLANT FAN	
AVOID SPARKS OR FLAMES		PULL BELT OUT COMPLETELY THEN SECURE CHILD SEAT		DO NOT INSTALL A FORWARD-FACING CHILD RESTRAINT IN THIS SEATING POSITION		HAZARD WARNING FLASHER		COOLANT		FUEL	
SPARK OR FLAME COULD EXPLODE BATTERY		POWER WINDOW		DOOR LOCK UNLOCK		DAYTIME RUNNING LAMPS		ENGINE OIL PRESSURE		OWNER MANUAL	
						FOG LAMPS		ANTI-LOCK BRAKE SYSTEM		SERVICE MANUAL	

reluctor wheel (713). See **Special Tools**.

VEHICLE SPEED SENSOR RELUCTOR WHEEL ASSEMBLY (FWD ONLY)

Assembly Procedure

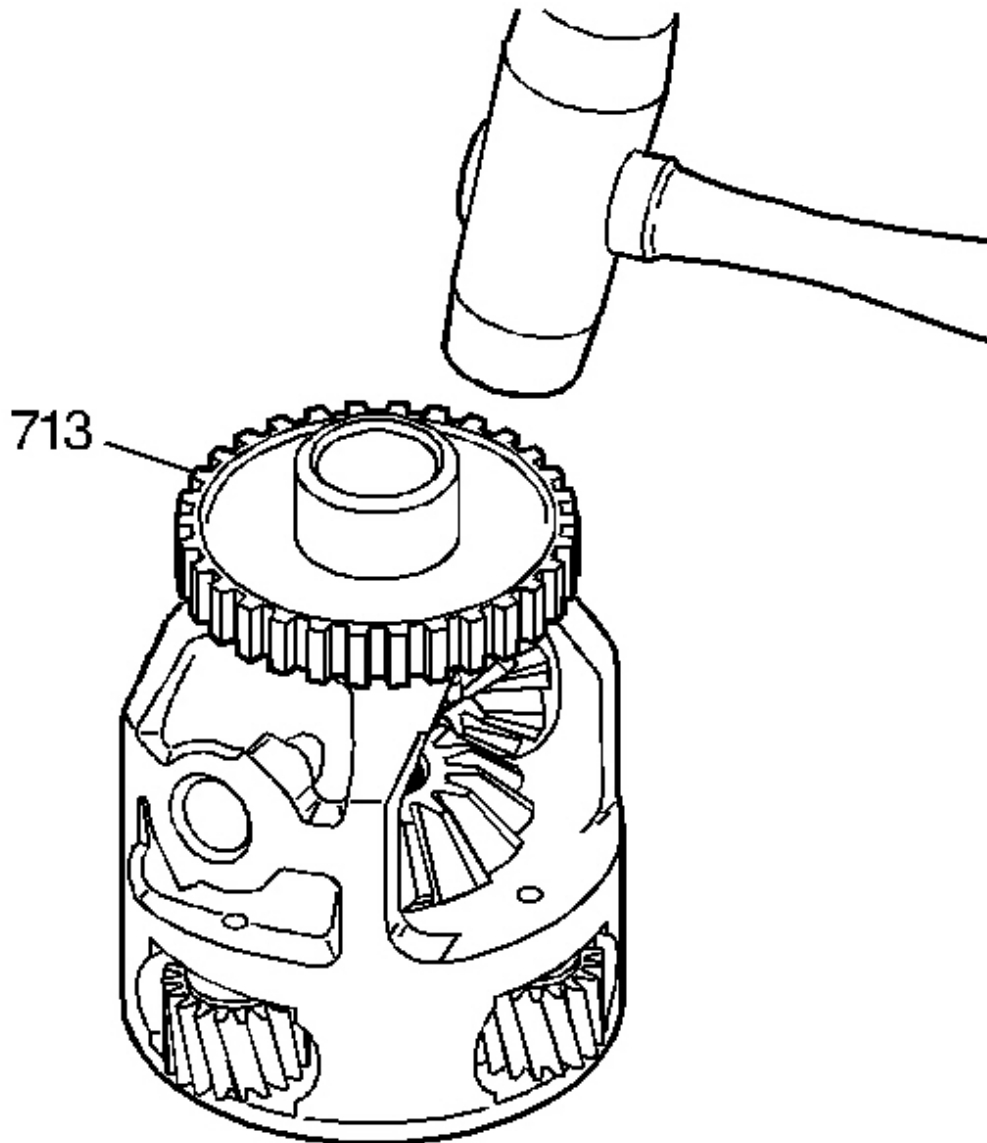


Fig. 134: Installing Vehicle Speed Sensor Reluctor Wheel

- Plugged feed holes
- Snap ring for overexpansion
- Outer surface for scoring or burning
- Reverse clutch housing checkball for damage, the checkball should move freely in the capsule.

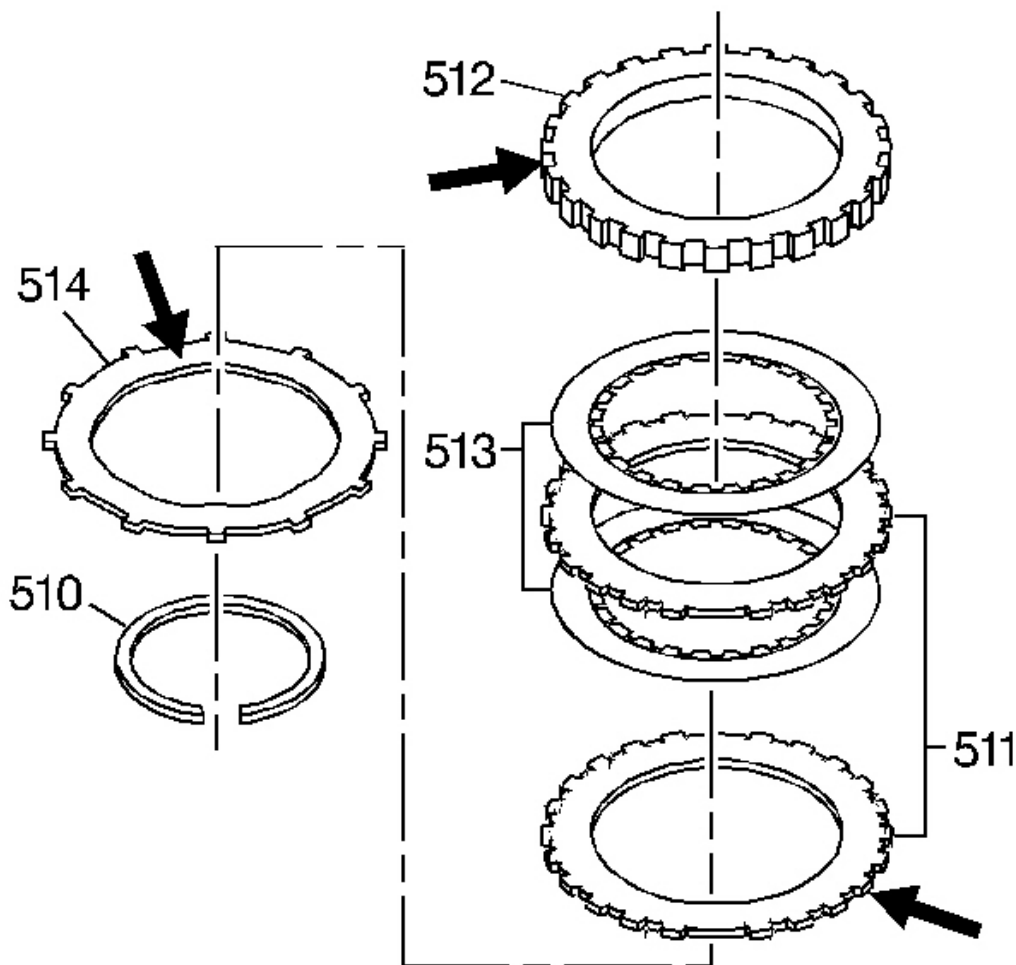


Fig. 157: View Of Reverse Plates Inspection Areas
Courtesy of GENERAL MOTORS CORP.

2. Inspect the reverse clutch steel plates (511), the backing plate (512) and the waved plate

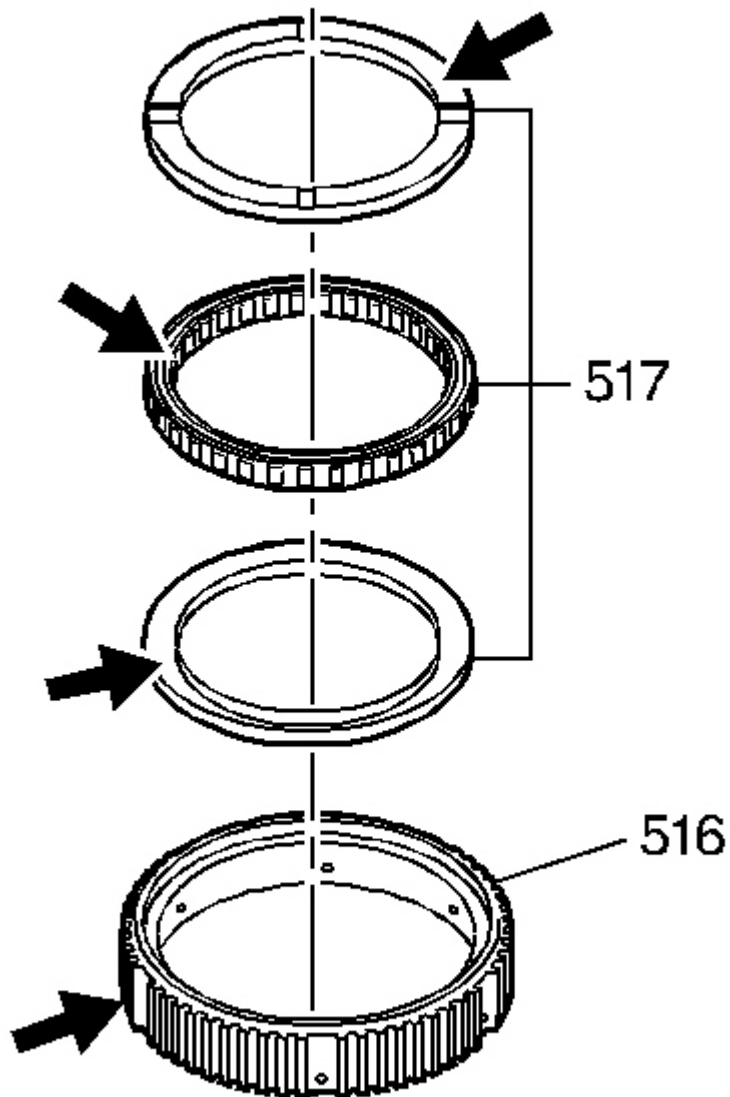


Fig. 161: Identifying Second Sprag & Races For Wear
Courtesy of GENERAL MOTORS CORP.

9. Inspect the second sprag (517) for flipped or damaged sprags. Inspect both of the second sprag races for damage.

1. Remove the intake manifold cover. Refer to **Intake Manifold Cover Replacement**.
2. Partially drain the cooling system. Refer to **Cooling System Draining and Filling (Static Fill)** or **Cooling System Draining and Filling (Vac-N-Fill)**.
3. Using **J 38185** reposition the hose clamp at the thermostat housing.
4. Remove the radiator inlet hose from the thermostat housing.

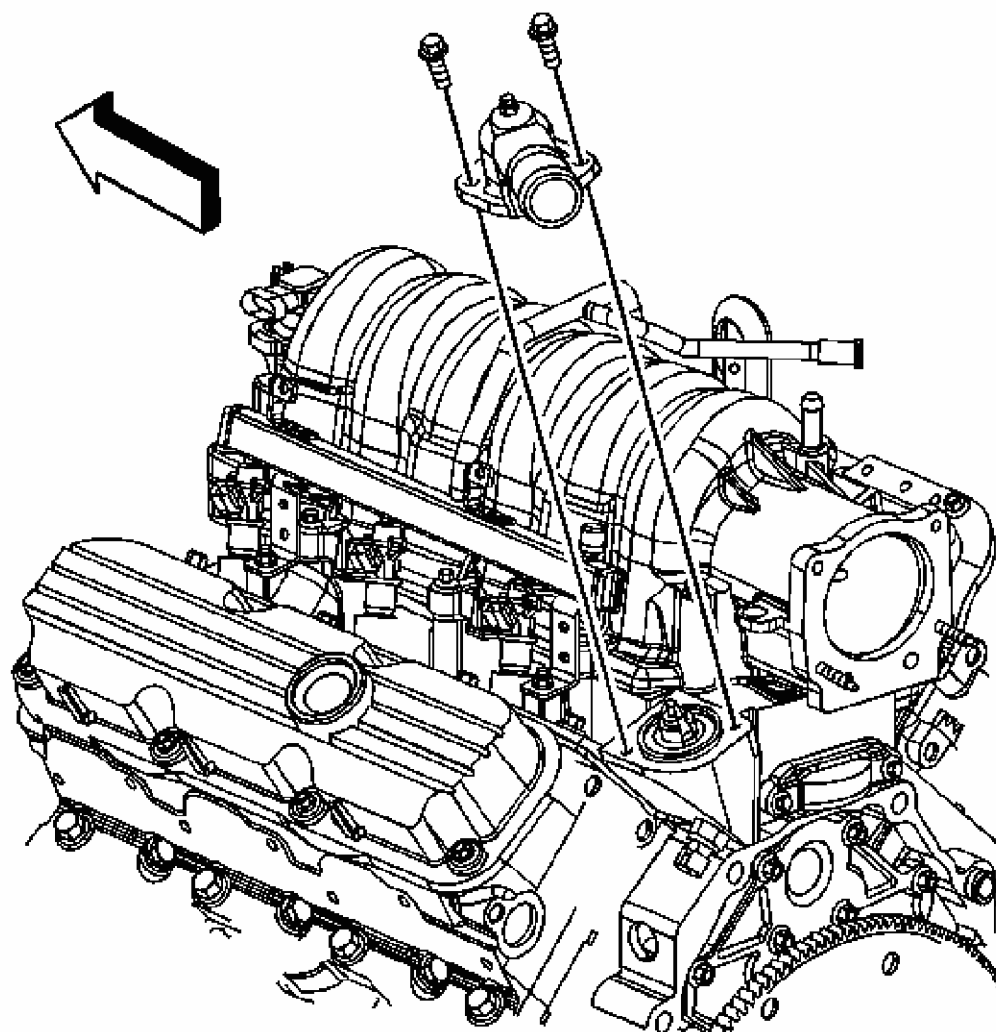
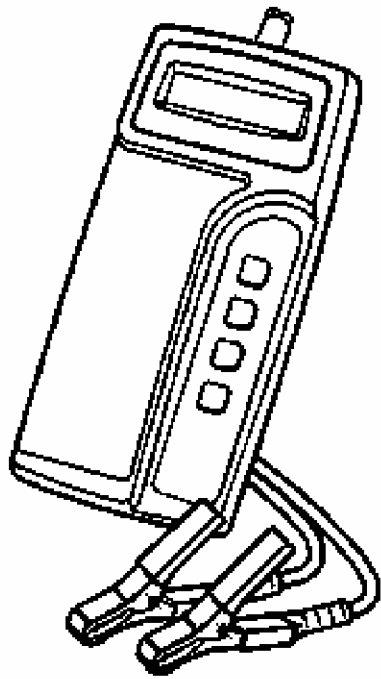


Fig. 39: Removing/Installing Thermostat Housing
Courtesy of GENERAL MOTORS CORP.

5. Remove the thermostat housing bolts and housing.

2006 Buick Lucerne CXS

2006 ENGINE Engine Electrical - Lucerne



5. Remove the left outer tie rod retaining nut.
6. Use the **J 24319-B** in order to remove the left tie rod end (1) from the steering knuckle (2).
7. Remove the exhaust manifold pipe. Refer to **Exhaust Manifold Rear Pipe Replacement (RPO LD8)** .
8. Turn the left strut completely to the left. Guide the stabilizer shaft out the left side of the vehicle between the body and the strut.

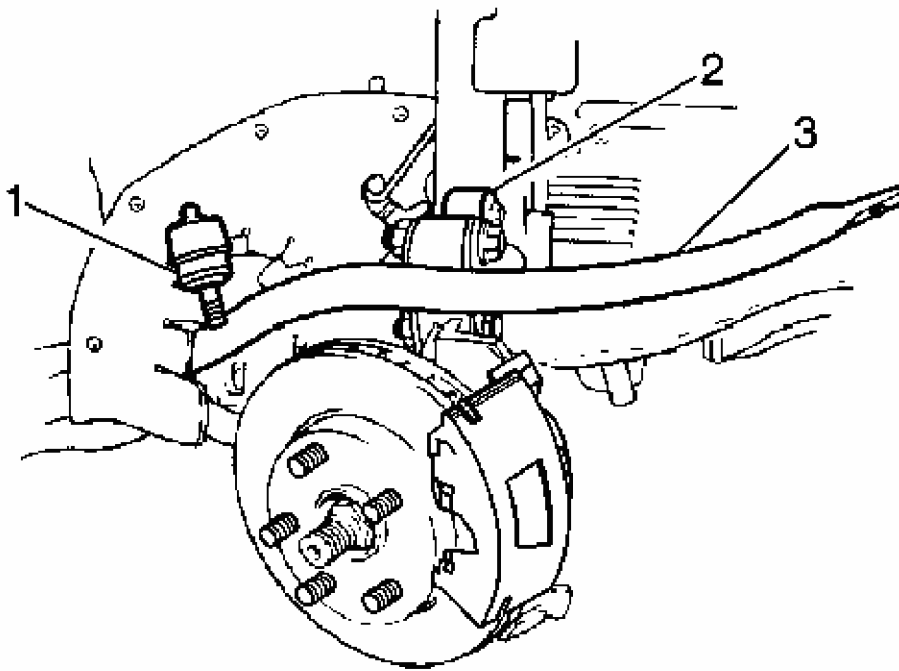


Fig. 2: Guiding Stabilizer Shaft In/Out Left Side Of Vehicle
Courtesy of GENERAL MOTORS CORP.

9. Remove the stabilizer shaft (3) from the vehicle.

Installation Procedure

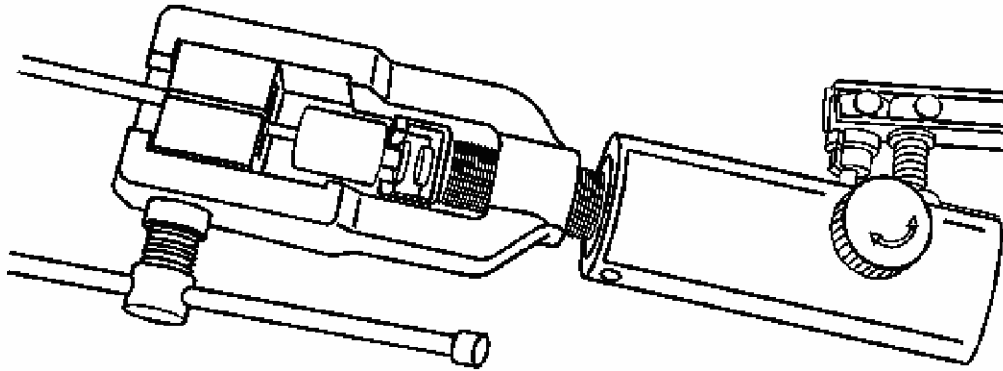


Fig. 26: Rotating J 45405 To Bottom Against Die Cage
Courtesy of GENERAL MOTORS CORP.

20. Select the appropriate forming mandrel and place into the forming ram.
21. Rotate the hydraulic fluid control valve clockwise to the closed position.
22. Rotate the body of the **J 45405** until it bottoms against the die cage. See **Special Tools**.

5. Install the brake hose retainer to the brake hose.

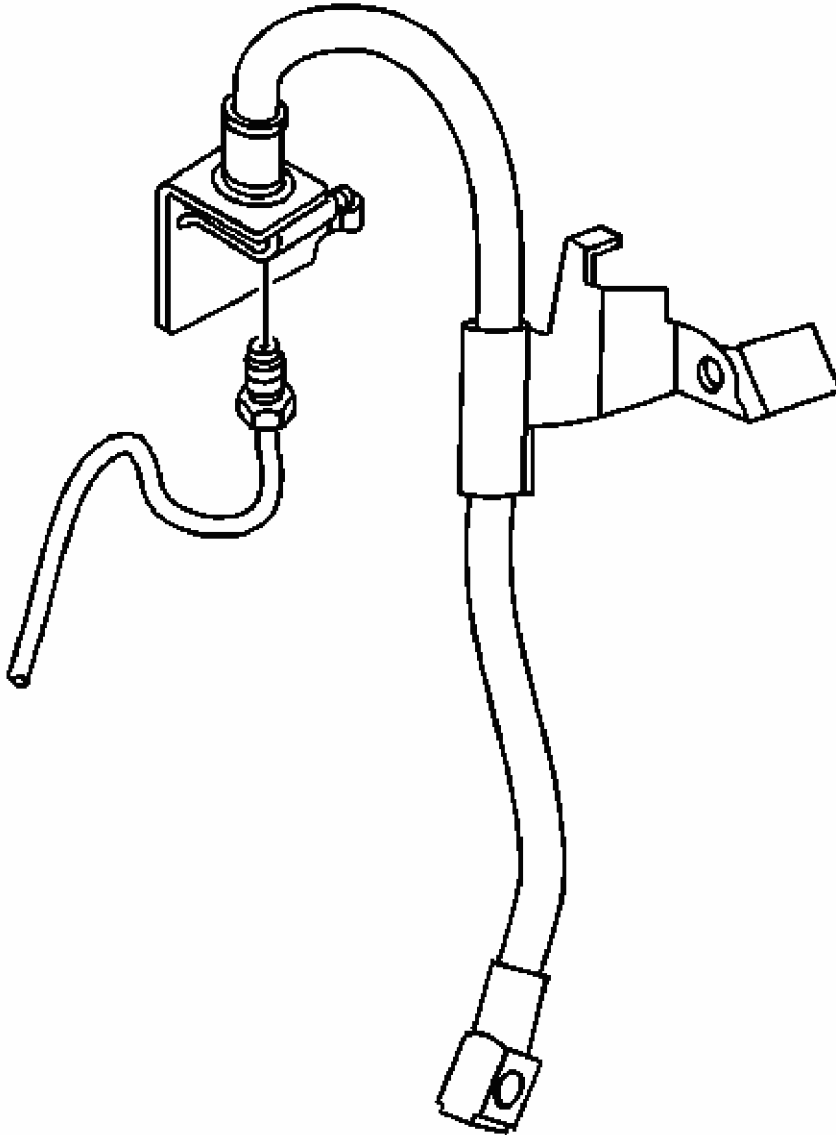


Fig. 35: Removing/Installing Brake Pipe Fitting To/From Brake Hose
Courtesy of GENERAL MOTORS CORP.

6. Remove the rubber cap or plug from the exposed brake pipe fitting end.
7. Install the brake pipe fitting to the brake hose.

Tighten: Tighten the brake pipe fitting to 15 N.m (11 lb ft).

The scan tool displays Inactive/Active. When the Heated Seat BACK/CUSHION Switch is activated, the scan tool will momentarily display the switch input to the door module as Active.

Seat Horizontal Position - Memory Data 1

The scan tool displays the volts or count values of the seat horizontal position stored in memory for driver 1.

Seat Horizontal Position - Memory Data 2

The scan tool displays the volts or count values of the seat horizontal position stored in memory for driver 2.

Seat Rear Vertical Position - Memory Data 1

The scan tool displays the volts or count values of the seat rear vertical position stored in memory for driver 1.

Seat Rear Vertical Position - Memory Data 2

The scan tool displays the volts or count values of the seat rear vertical position stored in memory for driver 2.

Seat Recline Position - Memory Data 1

The scan tool displays the volts or count values of the seat back recline position stored in memory for driver 1.

Seat Recline Position - Memory Data 2

The scan tool displays the volts or count values of the seat back recline position stored in memory for driver 2.

Software Part Number

The scan tool displays the 8 digit part number of the software incorporated into the module.

Year Module Built

The scan tool displays a 4-digit number. This number represents the year the module was built.

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2006 SYSTEM WIRING DIAGRAMS Buick - Lucerne

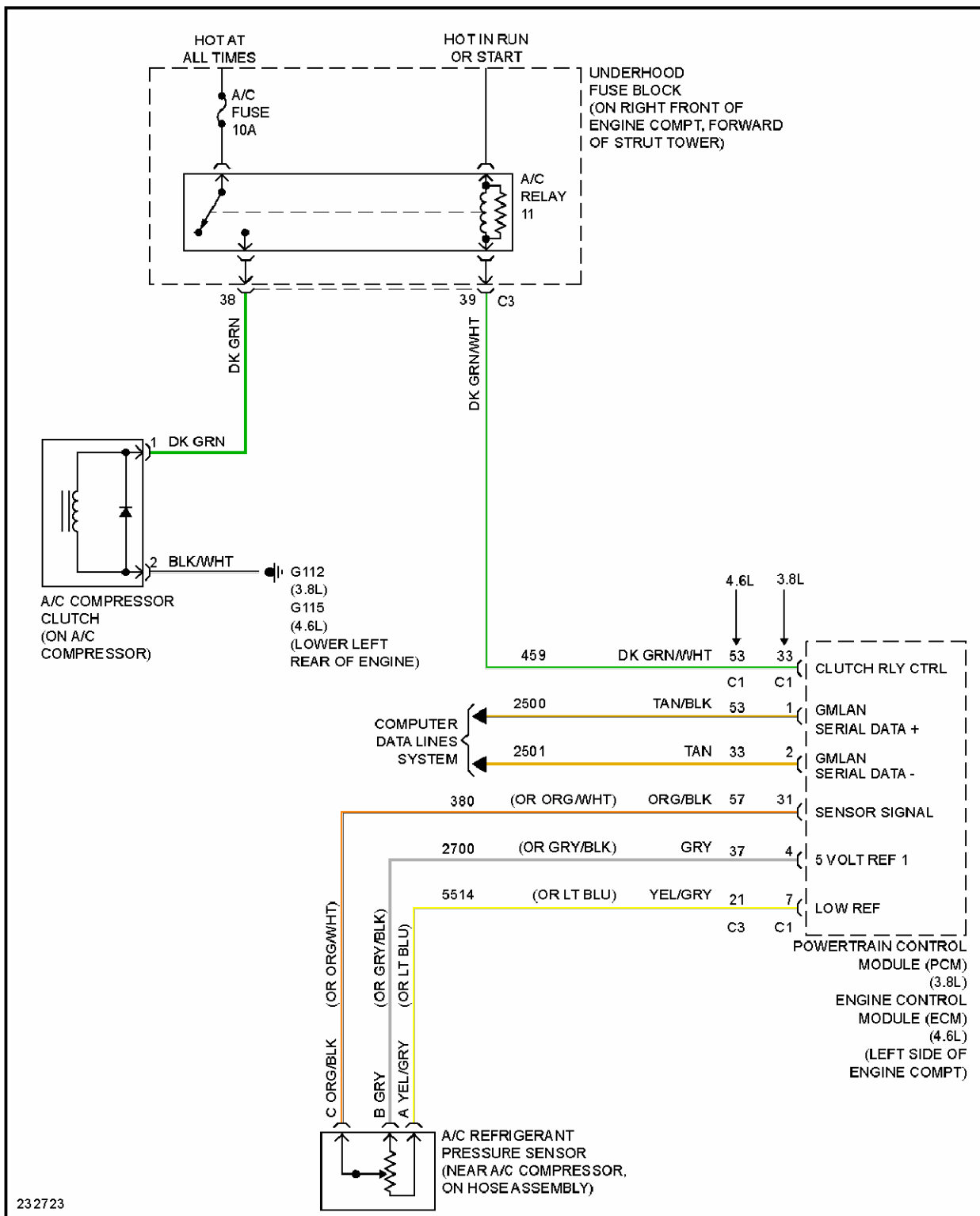


Fig. 3: Compressor Circuit