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2009 Pontiac G8 | G8 Service Manual | Transmission | Automatic Transmission - 6L50/6L80/6L90 |

Repair Instructions - Off Vehicle | Document ID: 2074467

Control Valve Body Assembly Assemble

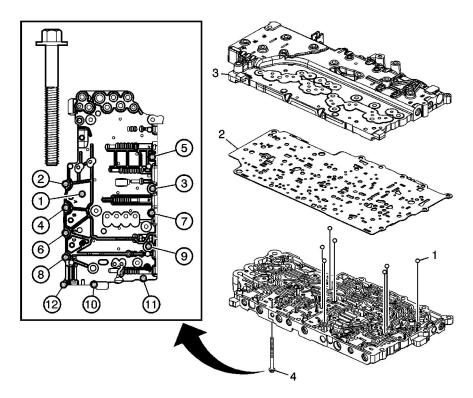
 Table 1:
 Upper to Lower Control Valve Body Assembly Assemble

Table 2: Filter Plate Installation

Table 3: Control Solenoid Valve Assembly Installation
 Table 4: Manual Shift Shaft Position Switch Installation
 Table 5: Valve Body, Control Solenoid Torque Sequence

Table 6: Control Solenoid Valve Assembly Contact Gap InspectionTable 7: Input and Output Speed Sensor Assembly Installation

Upper to Lower Control Valve Body Assembly Assemble





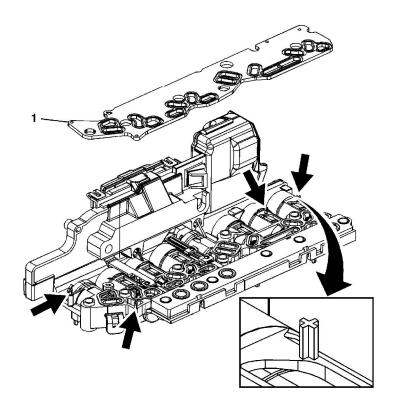
Upper to Lower Control Valve Body Assembly Assemble

| Callout | Component Name |
|---------|---|
| | Control Valve Body Ball Check Valve (Qty: 7) |
| | Caution: Do not use any type of grease or other material to hold the check ball valves in place during assembly. Grease will cause the valves to not operate properly, resulting in damage to the transmission. |
| | Tip © 2013 General Motors Corporation. All rights reserved. |

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| | Refer to Ball Check Valve Locations. |
|---|--|
| | Control Valve Body Spacer (w/Gasket) Plate Assembly |
| 2 | Caution: Do not use the old spacer plate. Install a NEW spacer plate. Reusing an old spacer plate may cause internal transmission leaks and transmission damage. |
| | Control Valve Lower Body Assembly |
| 3 | Tip Turn the valve body assembly over after installing to upper body. |
| | Bolt M5 x 36 (Qty: 12) |
| | Caution: Refer to Fastener Caution in the Preface section. |
| 4 | Procedure |
| | Tighten the bolts in the sequence shown. |
| | Tighten 8 N·m (71 lb in). |

Filter Plate Installation





Filter Plate Installation

| Callout | Component Name |
|---------|----------------|
| | |

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Filter Plate Assembly

Caution: Use care when handling the control valve body assembly. If dropped, damage to the control solenoid valve body assembly internal components, including the transmission control module (TCM), may result.

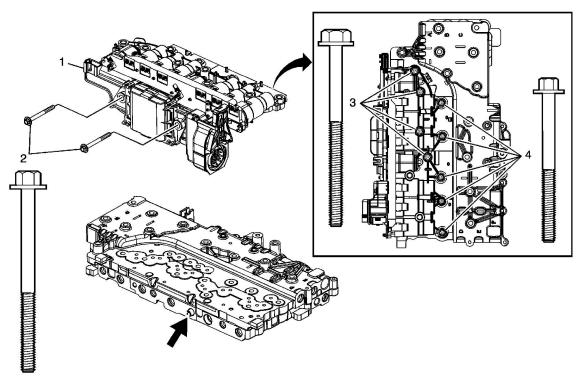
1

Caution: Discard the filter plate. Replace with a NEW filter plate. Reusing an old filter plate may cause damage to the control solenoid valve assembly.

Tip

Use care when removing or installing the filter plate assembly. However, if a retaining tab is broken or missing, do not replace the control solenoid valve assembly. The filter plate assembly can still be adequately aligned.

Control Solenoid Valve Assembly Installation





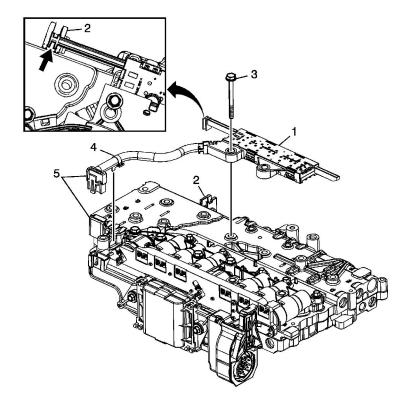
Control Solenoid Valve Assembly Installation

| Callout | Component Name |
|---------|--|
| | Control Solenoid (w/Body and TCM) Valve Assembly |
| 11 | Tip Note the locator pin on the control valve lower body assembly while aligning the control solenoid valve assembly. |
| | Bolt M5 x 53 (Qty: 2) |

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| 2 | Tip Hand tighten only. | |
|---|--|--|
| 3 | Bolt M5 x 55 (Qty: 4) Tip Hand tighten only. | |
| 4 | Bolt M5 x 45 (Qty: 5) Tip Hand tighten only. | |

Manual Shift Shaft Position Switch Installation





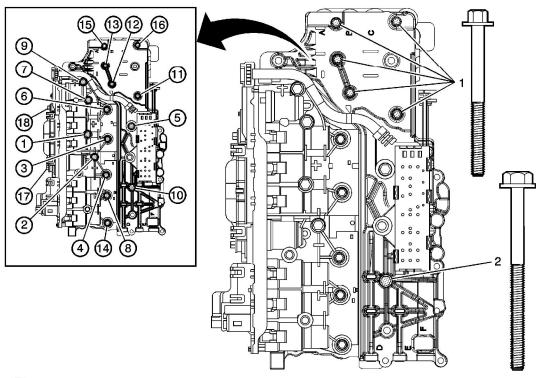
Manual Shift Shaft Position Switch Installation

| Callout | Component Name |
|---------|--|
| 1 | A/Trans Manual Shift Shaft Position Switch Assembly |
| 2 | Manual Valve Link Tip Align the switch activator slide with the manual valve link. |
| 3 | Bolt M5 x 55 Tip Hand tighten only. |

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| 4 | A/Trans Manual Shift Shaft Position Switch Harness Clip Tip The wiring harness clip on the manual shift shaft position switch does not need to be replaced if damaged or missing. The clip functions only as a manufacturing assembly aid to keep the harness clear during an automated bolt installation process. If the clip is damaged, simply remove and discard. |
|---|--|
| 5 | A/Trans Manual Shift Shaft Position Switch Electrical Connector Tip Connect and lock the manual shift shaft position switch electrical connector to the control solenoid valve assembly. |

Valve Body, Control Solenoid Torque Sequence





Valve Body, Control Solenoid Torque Sequence

Callout Component Name

Caution: Bolt torque sequencing is critical to the proper function of the control solenoid valve assembly. Failure to follow the required sequencing may result in transmission malfunction.

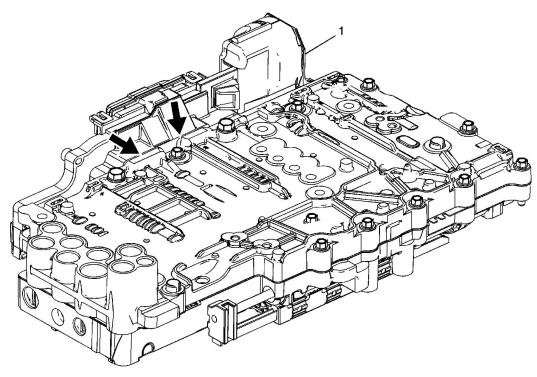
Preliminary Procedure

- 1. Hand tighten the last 6 bolts before final torque sequence.
- 2. The 2 "heat sink" bolts must be tightened last.

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| 1 | Bolts M5 x 45 (Qty: 5) |
|---|---|
| | Bolt M5 x 55 |
| | Caution: Refer to <u>Fastener Caution</u> in the Preface section. |
| 2 | Procedure |
| | Tighten all 18 bolts in the sequence shown. |
| | Tighten 8 N·m (71 lb in). |

Control Solenoid Valve Assembly Contact Gap Inspection



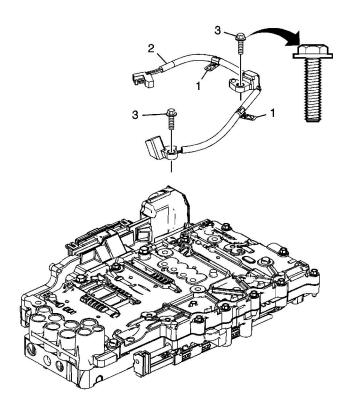


Control Solenoid Valve Assembly Contact Gap Inspection

| Callout | Component Name |
|---------|---|
| 4 | Control Solenoid (w/Body and TCM) Valve Assembly Tip |
| | Inspect the contact area between the "heat sink" area of the control solenoid valve assembly and the valve body. There should be no visible gap. If a gap exists, loosen all 18 bolts and retighten in the required sequence. |

Input and Output Speed Sensor Assembly Installation

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Input and Output Speed Sensor Assembly Installation

| Callout | Component Name |
|---------|--|
| | A/Trans Input and Output Speed Sensor Wiring Harness Clip (Qty: 2) |
| 1 | |
| | Tip |
| | Inspect the 2 wiring harness clips for damage. Replace if damaged. |
| 2 | A/Trans Input and Output Speed Sensor Assembly |
| | Bolt M6 x 20 (Qty: 2) |
| 3 | Caution: Refer to <u>Fastener Caution</u> in the Preface section. |
| | Tighten |
| | 12 N·m (106 lb in) |