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

Repair Instructions - Off Vehicle | Document ID: 2187407

1-2-3-4 and 3-5 Reverse Clutch Overhaul

Table 1: 1-2-3-4 and 3-5 Reverse Clutch Plates Removal

 Table 2:
 1-2-3-4 Clutch Piston Removal

Table 3: 3-5 Reverse Clutch Piston Removal

Table 4: 1-2-3-4 and 3-5 Reverse Clutch Piston Seals Replacement

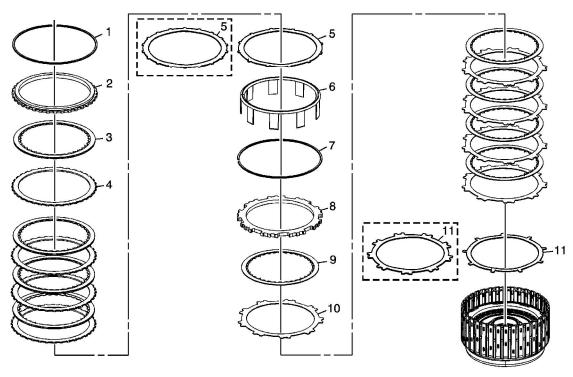
Table 5: 3-5 Reverse Clutch Piston Installation
Table 6: 1-2-3-4 Clutch Piston Installation

 Table 7:
 1-2-3-4 Clutch Plate Installation

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 3-5 and Reverse Clutch Plate Installation

Table 9: 1-2-3-4 and 3-5 Reverse Clutch Bearing Assembly Replacement

1-2-3-4 and 3-5 Reverse Clutch Plates Removal





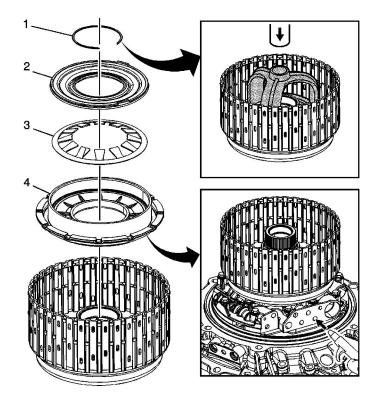
1-2-3-4 and 3-5 Reverse Clutch Plates Removal

Callout	Component Name
1	3-5 Reverse Clutch Backing Plate Retaining Ring
2	3-5 Reverse Clutch Backing Plate
3	3-5 Reverse Clutch Plate Assembly (Qty: 4)
4	3-5 Reverse Clutch Plate (Qty: 4)
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5	3-5 Reverse Clutch (Waved) Plate
6	3-5 Reverse Clutch Apply Ring
7	1-2-3-4 Clutch Backing Plate Retaining Ring
8	1-2-3-4 Clutch Backing Plate
9	1-2-3-4 Clutch Plate Assembly (Qty: 5)
10	1-2-3-4 Clutch Plate (Qty: 5)
11	1-2-3-4 Clutch (Waved) Plate

1-2-3-4 Clutch Piston Removal





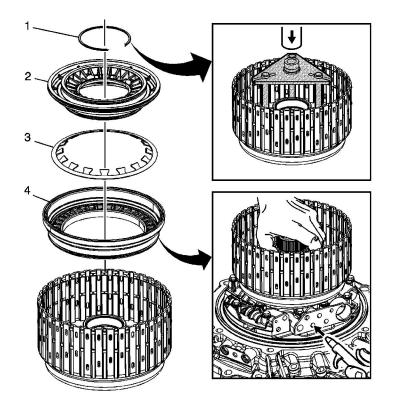
1-2-3-4 Clutch Piston Removal

Callout	Component Name
	1-2-3-4 Clutch Piston Dam Retaining Ring.
	Caution: Use care when compressing the 1-2-3-4 clutch spring and dam assembly. Compressing the dam assembly too much may damage it.
	Caution: Refer to Retaining Ring Reuse Caution in the Preface section.
	Special Tool
	<u>J 38734</u> Intermediate Spring Compressor Adapter

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2	1-2-3-4 Clutch Piston Dam Assembly
3	1-2-3-4 Clutch Spring
4	 Tip It may be necessary to apply air to the apply passage in order to remove the piston. Install the 1-2-3-4 clutch housing onto the torque converter (with fluid pump) housing assembly in order to apply air. After air is applied, it may be necessary to turn the housing assembly upside down and carefully tap the housing against a flat surface in order to release the piston.

3-5 Reverse Clutch Piston Removal





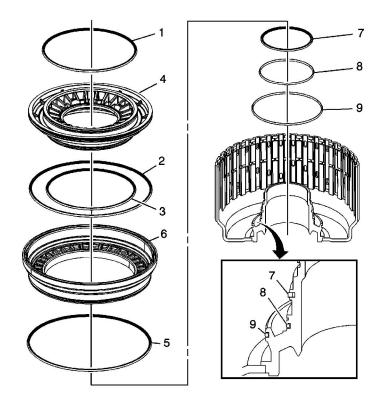
3-5 Reverse Clutch Piston Removal

Callout	Component Name	
Prelim	Preliminary Procedure	
(w 2. Ap	stall the 1-2-3-4 and 3-5 reverse clutch housing assembly onto the torque converter ith fluid pump) housing assembly. ply hand pressure on the 1-2-3-4 clutch piston housing while applying compressed to the apply passage in order to unseat the 3-5 reverse clutch piston.	
	1-2-3-4 Clutch Piston Housing Retaining Ring	

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	Caution: Refer to Retaining Ring Reuse Caution in the Preface section.
1	Special Tool
	DT 47867 Adjustable Clutch Spring Compressor
2	1-2-3-4 Clutch Piston Housing
3	3-5 Reverse Clutch Spring
	3-5 Reverse Clutch Piston
4	Tip It may be necessary to turn the housing assembly upside down and carefully tap the housing against a flat surface in order to release the piston.

1-2-3-4 and 3-5 Reverse Clutch Piston Seals Replacement





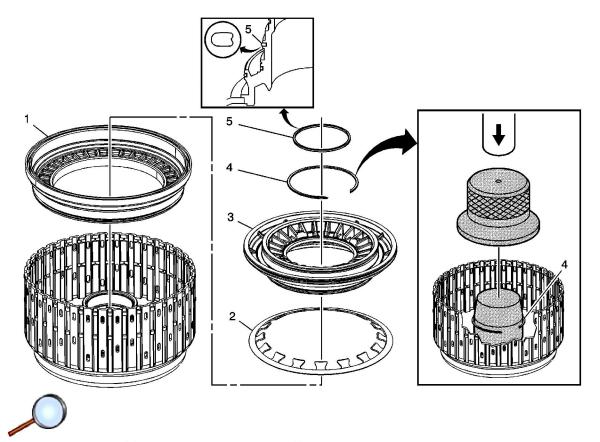
1-2-3-4 and 3-5 Reverse Clutch Piston Seals Replacement

Callout	Component Name	
Caution	Caution: Refer to Seal Reuse Caution in the Preface section.	
Prelim	inary Procedure	
Lubricate	Lubricate all seals with automatic transmission fluid (ATF) prior to installation.	
1	1-2-3-4 Clutch Piston Seal	

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2	3-5 Reverse Clutch Piston Dam (O-Ring) Seal
3	3-5 Reverse Clutch Piston Inner Seal
4	1-2-3-4 Clutch Piston Housing
5	3-5 Reverse Clutch Piston Outer Seal
6	3-5 Reverse Clutch Piston
7	1-2-3-4 Clutch Piston Inner Seal Caution: Do not install a NEW 1-2-3-4 clutch piston inner seal yet. A special tool used to install the 1-2-3-4 clutch piston housing retaining ring may damage the seal if the seal is installed prior to installing the retaining ring. Refer to 3-5 Reverse Clutch Piston Installation.
8	1-2-3-4 Clutch Piston Housing Seal
9	1-2-3-4 Clutch Piston Housing Seal

3-5 Reverse Clutch Piston Installation



3-5 Reverse Clutch Piston Installation

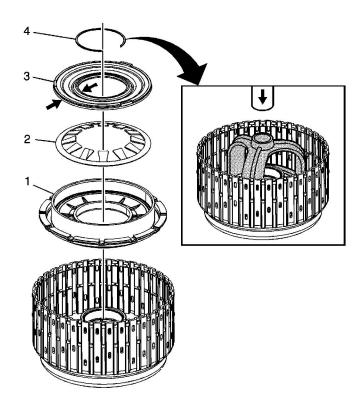
Callout	Component Name
1	3-5 Reverse Clutch Piston
2	3-5 Reverse Clutch Spring Caution: Ensure the clutch spring is centered on the piston with the tabs facing up. Failure to do so may cause damage to the clutch assembly.

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3	1-2-3-4 Clutch Piston Housing
	1-2-3-4 Clutch Piston Housing Retaining Ring
	Caution: Before using the DT 47782-2, push the retaining ring over the DT 47782-1 by hand so that the ring is positioned below the tapered area of the DT 47782-1. If the ring is positioned above the tapered area when it is being installed, the ring will become lodged between both tools and damage to the tools, retaining ring, and piston housing will result.
	Caution: Refer to Retaining Ring Reuse Caution in the Preface section.
	Caution: Push the retaining ring down over the cone until the ring seats firmly in the retaining ring groove. The retaining ring will make a distinctive click sound when it seats. Failure to properly seat the retaining ring may cause damage to the 3-5 reverse clutch assembly.
	Tip Use a screwdriver in order to verify the retaining ring is fully seated into the groove. It may appear as though the retaining ring is not fully seated, since the groove is shallow by design. However, this shallow interface is normal.
	Special Tools
	• <u>DT 47782-1</u> Retaining Ring Cone
	DT 47782-2 Retaining Ring Installer
	1-2-3-4 Clutch Piston Inner Seal
5	Caution: Install a NEW seal and orientate as shown. Failure to do so may cause internal transmission leaks and damage to the transmission.

1-2-3-4 Clutch Piston Installation

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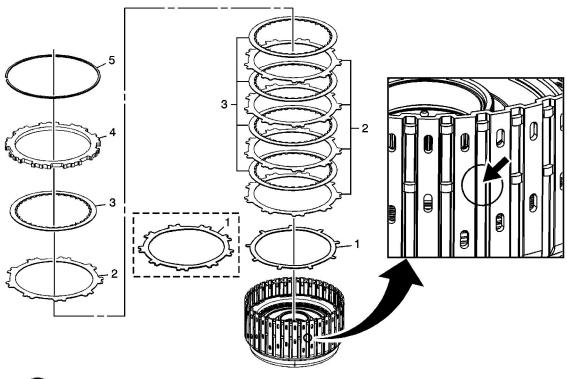


1-2-3-4 Clutch Piston Installation

Callout	Component Name
1	1-2-3-4 Clutch Piston
11	1-2-3-4 Clutch Spring
	Caution: Ensure the clutch spring is centered on the piston with the tabs facing up. Failure to do so may cause damage to the clutch assembly.
	1-2-3-4 Clutch Piston Dam Assembly
11	Tip Lubricate the inner and outer surfaces of the dam assembly with ATF in order to ease installation into the piston. Install the tabs facing up.
4	1-2-3-4 Clutch Piston Dam Retaining Ring
	Caution: Use care when compressing the 1-2-3-4 clutch spring and dam assembly. Compressing the dam assembly too much may damage it.
	Caution: Refer to Retaining Ring Reuse Caution in the Preface section.
	Special Tool
	J 38734 Intermediate Spring Compressor Adapter

1-2-3-4 Clutch Plate Installation

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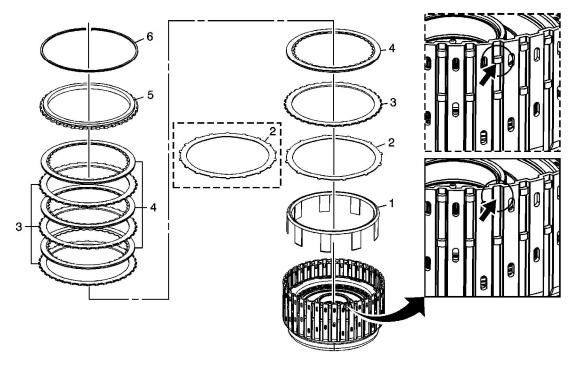
1-2-3-4 Clutch Plate Installation

Callout	Component Name
1	1-2-3-4 Clutch (Waved) Plate
ı	Caution: To avoid damaging the seal, first place J 46624-1 with the small chamfer end facing up and leave in place for at least 60 seconds.
	1-2-3-4 Clutch Plate (Qty: 5)
	Caution: Ensure all clutch plates are centered in the housing. When installing the first steel clutch plate, ensure an opening between the external splines is centered over the missing snap ring groove punch in the housing. Align the external splines of each remaining steel clutch plate with the first steel clutch plate. Failure to do so may cause damage to the clutch assembly.
3	1-2-3-4 Clutch Plate Assembly (Qty: 5)
	1-2-3-4 Clutch Backing Plate
	Caution: Align the external splines of the backing plate with the external splines of the steel clutch plates. Failure to do so may cause damage to the clutch assembly.
	1-2-3-4 Clutch Backing Plate Retaining Ring
5	Caution: Depending on the housing configuration, align the retaining ring gap with the missing snap ring groove punch in the housing or the offset punch in the housing. Failure to do so may cause damage to the clutch assembly.
	Tip

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After the retaining ring is installed, determine clutch piston travel in order to verify if the correct selective retaining ring is being used. Refer to 1-2-3-4 Clutch Backing Plate Retaining Ring Measurement.

3-5 and Reverse Clutch Plate Installation





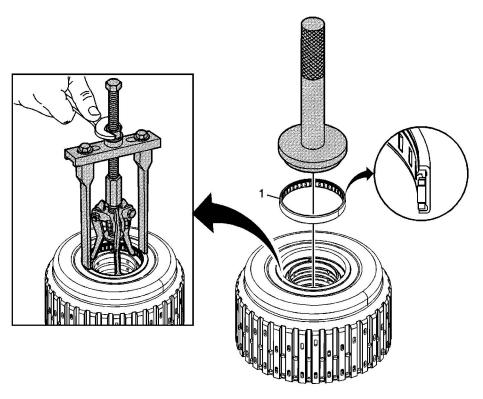
3-5 and Reverse Clutch Plate Installation

Callout	Component Name
1	3-5 Reverse Clutch Apply Ring Caution: Ensure apply ring legs are positioned into the 3-5 reverse clutch piston. Failure to do so may cause damage to the 3-5 reverse clutch assembly.
2	3-5 Reverse Clutch (Waved) Plate
3	3-5 Reverse Clutch Plate (Qty: 4)
4	3-5 Reverse Clutch Plate Assembly (Qty: 4)
5	3-5 Reverse Clutch Backing Plate
6	3-5 Reverse Clutch Backing Plate Retaining Ring Caution: Depending on the housing configuration, align the retaining ring gap with the missing snap ring groove punch in the housing or the offset punch in the housing. Failure to do so may cause damage to the clutch assembly. Tip After the retaining ring is installed, determine clutch piston travel in order to verify

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if the correct selective retaining ring is being used. Refer to 3-5 Reverse Clutch Backing Plate Retaining Ring Measurement.

1-2-3-4 and 3-5 Reverse Clutch Bearing Assembly Replacement





1-2-3-4 and 3-5 Reverse Clutch Bearing Assembly Replacement

1-2-3-4 and 3-5 Reverse Clutch Bearing Assembly Replacement		
Callout	Component Name	
	3-5 Reverse Clutch Bearing	
	Caution: Install the NEW bearing assembly with the seal side up. Improper installation of the bearing may cause damage to the transmission.	
	Caution: Do not reuse the bearing. Install a NEW bearing. Reusing an old bearing may cause damage to the transmission.	
1	Specification Install the bearing flush to 0.3 mm below the thrust surface.	
	Special Tools	
	• <u>DT 47865</u> Bearing Remover	
	• <u>DT 47866</u> Bearing Installer	
	• <u>J 8092</u> Driver Handle	
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• <u>J 45124</u> Removal Bridge