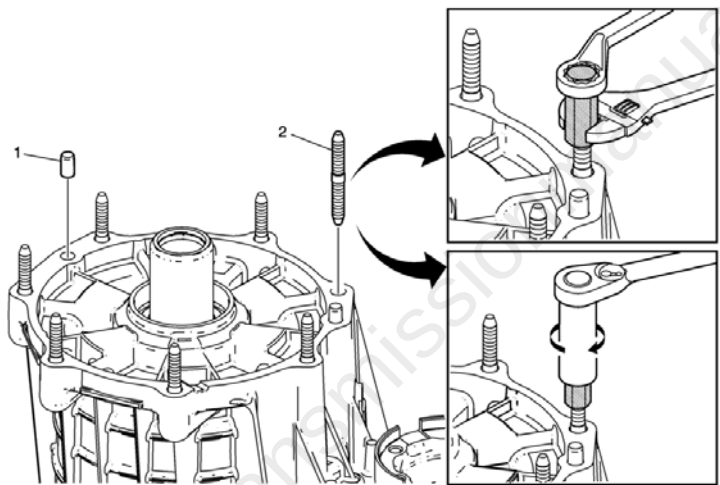


2013 Chevrolet Colorado

Submodel: | Engine Type: | Liters:
Fuel Delivery: | Fuel:

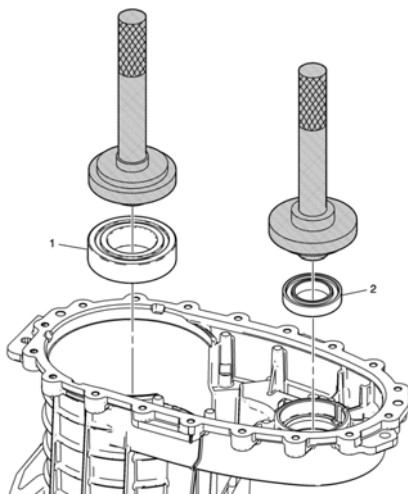
Table 1:	Transfer Case Stud Installation
Table 2:	Input Shaft Bearing and Front Output Shaft Front Bearing Installation
Table 3:	Front Output Shaft Flange Installation
Table 4:	High/Low Planetary Carrier Assembly, Front Output Shaft, and Planetary Carrier Internal Gear Installation
Table 5:	Shift Cam Assembly Installation
Table 6:	High/Low Shift Fork, Oil Pump Assembly, and Rear Output Shaft Installation
Table 7:	Drive Chain and Sprockets Installation
Table 8:	Two/Four Wheel Drive Synchronizer Hub and Two/Four Shift Fork Installation
Table 9:	Rear Output Shaft Rear Bearing Installation
Table 10:	Front Output Shaft Rear Bearing Installation
Table 11:	Two/Four Wheel Drive Clutch Coil and Cam Shaft Detent Lever Seal Installation
Table 12:	Transfer Case Rear Half Installation
Table 13:	Rear Output Shaft Seal and Bushing Installation
Table 14:	Input Shaft Seal Installation
Table 15:	Oil Fill and Drain Plug, Vent Hose Connector, Two/Four Wheel Drive Actuator, and Speed Sensor Installation
Table 16:	Transfer Case Holding Fixture Removal
Table 17:	Transfer Case Vibration Dampener Installation
Table 18:	Transfer Case Shield Installation

Transfer Case Stud Installation



Transfer Case Stud Installation

Callout	Component Name
1	Transfer Case Stud – Transmission Interface Transfer Case Stud Caution: Refer to Fastener Caution. Note: Apply sealant P/N 12346004 (10953480 Canadian) to the stud threads before installation. Apply threadlock only to the threads on the end of the stud that will be installed into the transfer case front half.
2	Procedure 1. Install <i>DT 49308</i> installer onto the stud. 2. Rotate the bolt until it contacts the top of the stud. 3. Install a deep socket over both the head of the bolt and the long nut and tighten the stud to specification. 4. Loosen the long nut and remove the tool from the stud. 5. Inspect the studs for the proper installation height. A properly installed stud should protrude from the face of the case 40 mm (1.58 in). Tighten 12 Y (106 lb in) Special Tools <i>DT 49308</i> Stud Installer For equivalent regional tools, refer to Special Tools.



Input Shaft Bearing and Front Output Shaft Front Bearing Installation

Callout

Component Name

Input Shaft Bearing

Note: Use the large end of the tool to install the bearing.

Special Tools

1

- DT 50633 Bearing Installer
- GE 8092 Driver Handle

For equivalent regional tools, refer to Special Tools.

Front Output Shaft Front Bearing

Note: Use the small end of the tool to install the bearing.

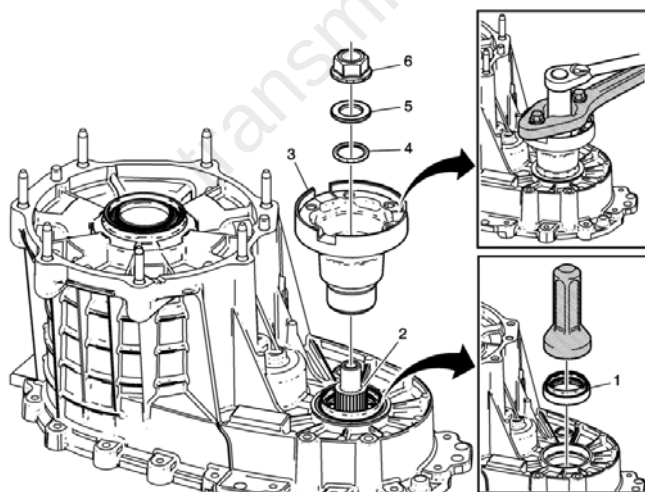
Special Tools

2

- DT 50633 Bearing Installer
- GE 8092 Driver Handle

For equivalent regional tools, refer to Special Tools.

[Front Output Shaft Flange Installation](#)



Front Output Shaft Flange Installation

Callout

Component Name

Front Output Shaft Seal

Special Tools

1

- J 42738 Seal Installer
- DT 08814-20 Flange Retaining Bolt

For equivalent regional tools, refer to Special Tools.

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

- | | |
|---|----------------------------------|
| 2 | Front Output Shaft |
| 3 | Front Output Shaft Flange |
| 4 | Front Output Shaft Flange Seal |
| 5 | Front Output Shaft Flange Washer |
| | Front Output Shaft Flange Nut |

Note:

- Apply threadlock P/N 89021297 (Canadian 10953488) to the threads of the nut.
- Use the *J 08614-A* holder and remover to hold the flange while tightening the nut.

- | | |
|---|----------------|
| 6 | Tighten |
|---|----------------|

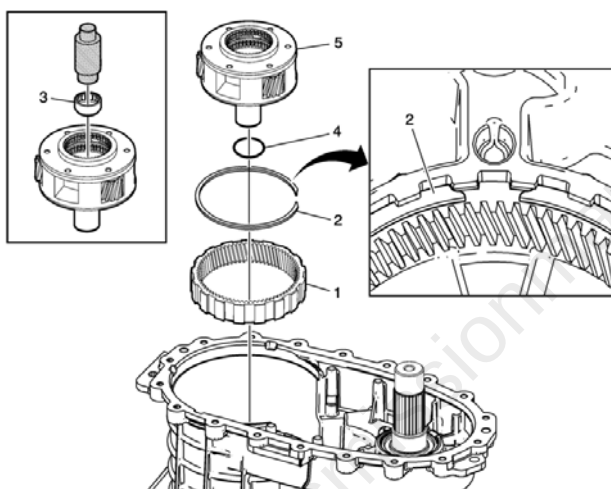
145 Y (107 lb ft)

Special Tools

J 08614-A Pinion Flange Holder and Remover

For equivalent regional tools, refer to Special Tools.

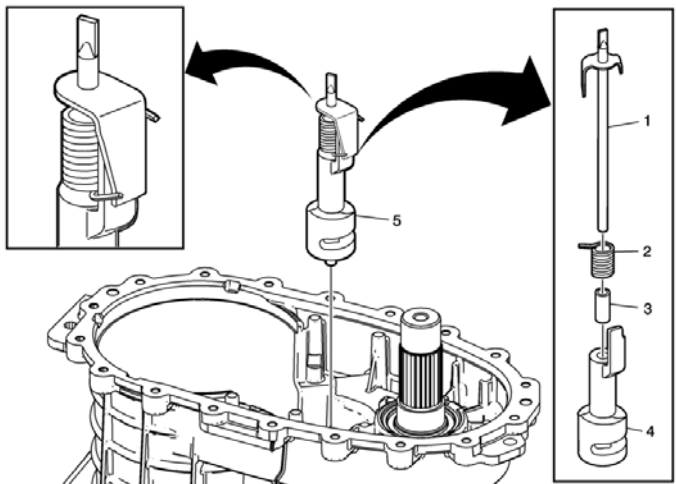
[High/Low Planetary Carrier Assembly, Front Output Shaft, and Planetary Carrier Internal Gear Installation](#)



High/Low Planetary Carrier Assembly, Front Output Shaft, and Planetary Carrier Internal Gear Installation

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

- | | |
|---|--|
| | Planetary Carrier Internal Gear |
| 1 | Note: First design planetary carriers are a 6-pinion design. Second design planetary carriers are a 3-pinion design. When replacing a 6-pinion carrier with a 3-pinion design, the 3-pinion design planetary carrier internal gear must also be used. Refer to New Product Information. |
| | High/Low Internal Gear Retaining Ring |
| 2 | Note: Install the retaining ring so the ring ends are accessible for service. |
| | Input Shaft Pilot Bearing |
| | Note: Apply sealant P/N 89021297 (Canadian 10953588) to the outer diameter of the bearing. |
| 3 | Special Tools |
| | <i>DT 50314</i> Input Shaft Pilot Bearing Remover/Installer |
| | For equivalent regional tools, refer to Special Tools. |
| 4 | Input Shaft O-ring Seal |
| | High/Low Planetary Carrier Assembly |
| 5 | Note: First design planetary carriers are a 6-pinion design. Second design planetary carriers are a 3-pinion design. When replacing a 6-pinion carrier with a 3-pinion design, the 3-pinion design planetary carrier internal gear must also be used. Refer to New Product Information. |



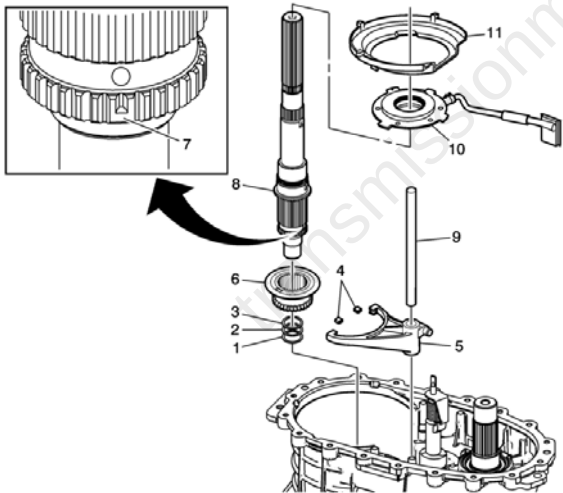
Shift Cam Assembly Installation

Callout

Component Name

- 1 Shift Detent Lever Shaft
- 2 High/Low Shift Fork Shaft Detent Spring
Note: Ensure the spring tabs are installed in the correct orientation.
- 3 Shift Detent Lever Spacer
- 4 Shift Cam
- 5 Shift Cam Assembly

[High/Low Shift Fork, Oil Pump Assembly, and Rear Output Shaft Installation](#)



High/Low Shift Fork, Oil Pump Assembly, and Rear Output Shaft Installation

Callout

Component Name

- 1 Planetary Carrier Sun Gear Thrust Washer
- 2 Input Shaft Thrust Bearing
Note: Apply lubricant to the bearing.
- 3 Planetary Carrier Sun Gear Thrust Washer
- 4 High/Low Shift Fork Pads
- 5 High/Low Shift Fork
- 6 Range Shift Sleeve
Note: Assemble and install the range shift sleeve and high/low drive shift fork as an assembly.
- 7 Rear Output Shaft Spline Alignment

Callout

Component Name

- 8
- Rear Output Shaft

Note:

 - Note the orientation of the rear output shaft external splines to the range shift sleeve internal splines.
 - Use care when installing the rear output shaft to properly align the input end of the shaft through both the planetary carrier sun gear thrust washers and the input shaft thrust bearing.

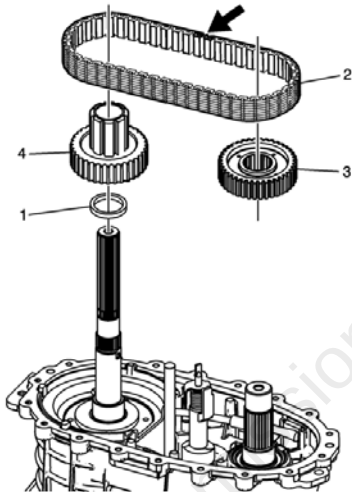
9 Shift Rail

Oil Pump Assembly

10 **Note:** Inspect for proper orientation of the oil pump retaining clip onto the oil pump. Refer to Oil Pump Cleaning and Inspection.

11 Support Bracket

[Drive Chain and Sprockets Installation](#)



Drive Chain and Sprockets Installation

Callout

Component Name

- 1
- Front Output Shaft Drive Sprocket Thrust Washer

Front Output Shaft Drive Chain Assembly

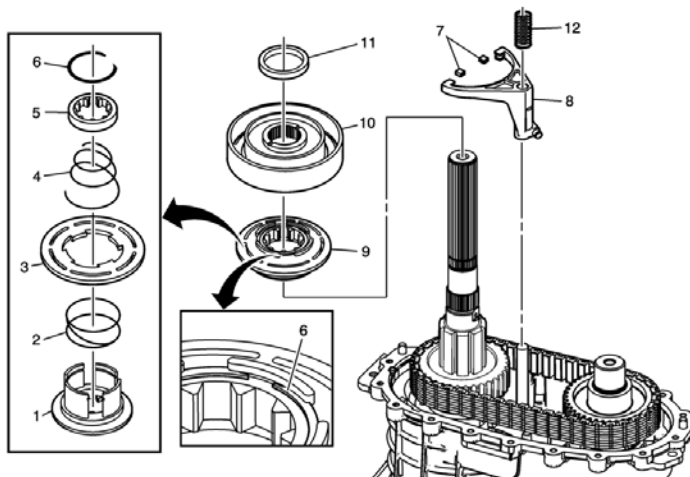
Procedure

- 2
1. Install the drive chain, driven sprocket, and drive sprocket as an assembly.
 2. Note the orientation of the blue chain links to the sprockets. The blue chain links should be positioned facing upward and away from the case half.

3 Front Output Shaft Driven Sprocket

4 Front Output Shaft Drive Sprocket

[Two/Four Wheel Drive Synchronizer Hub and Two/Four Shift Fork Installation](#)



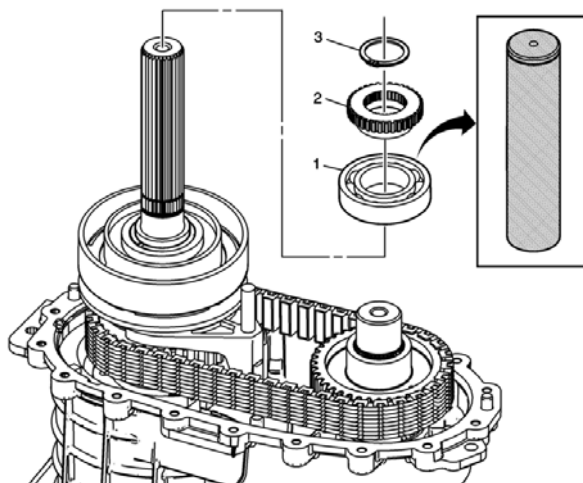
Two/Four Wheel Drive Synchronizer Hub and Two/Four Shift Fork Installation

Callout

Component Name

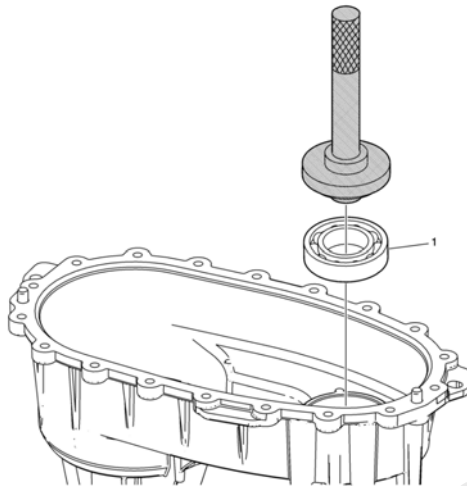
- | | |
|----|---|
| 1 | Two/Four Wheel Drive Clutch Coil Housing |
| 2 | Two/Four Wheel Drive Synchronizer Hub Outer Spring |
| 3 | Four Wheel Drive Armature Plate |
| 4 | Two/Four Wheel Drive Synchronizer Hub Inner Spring |
| 5 | Synchronizer Collar |
| | Lockup Retaining Ring |
| 6 | Note: Ensure the ends of the retaining ring are to be positioned as indicated (6). The ends of the ring should NOT be positioned into an open area of the housing. |
| 7 | Two/Four Shift Fork Pads |
| 8 | Two/Four Shift Fork |
| | Two/Four Wheel Drive Lockup Assembly |
| 9 | Note: Assemble the synchronizer/lockup assembly to the shift fork and install both components at the same time, positioning the lockup assembly onto the rear output shaft and the fork onto the shift rail. |
| 10 | Two/Four Wheel Drive Synchronizer Hub |
| 11 | Rear Output Shaft Bearing Spacer |
| 12 | Shift Fork Spring |

[Rear Output Shaft Rear Bearing Installation](#)



Callout	Component Name
	Rear Output Shaft Rear Bearing
	Special Tools
1	<i>J 45342-1</i> Bearing Installer
	For equivalent regional tools, refer to Special Tools.
2	Rear Output Shaft Speed Sensor Reluctor Wheel
	Note: The raised area of the reluctor wheel should face the bearing.
3	Vehicle Speed Sensor Reluctor Wheel Retaining Ring

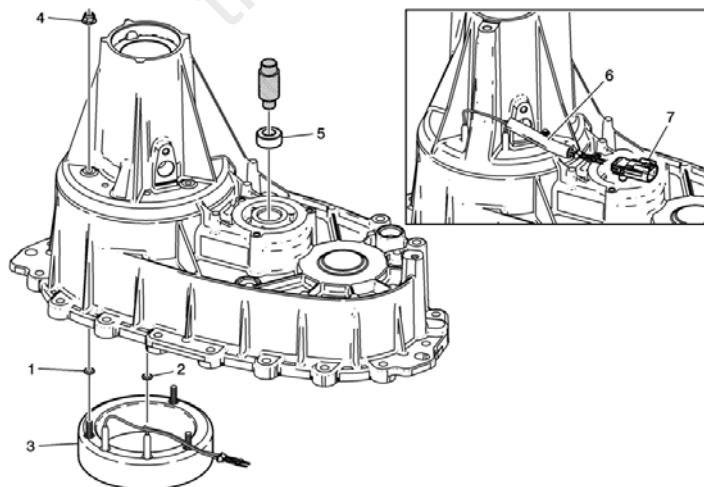
[Front Output Shaft Rear Bearing Installation](#)



Front Output Shaft Rear Bearing Installation

Callout	Component Name
	Front Output Shaft Rear Bearing
	Note: Use the small end of the tool to install the bearing.
	Special Tools
1	<i>DT 50633</i> Bearing Installer <i>GE 8092</i> Driver Handle
	For equivalent regional tools, refer to Special Tools.

[Two/Four Wheel Drive Clutch Coil and Cam Shaft Detent Lever Seal Installation](#)

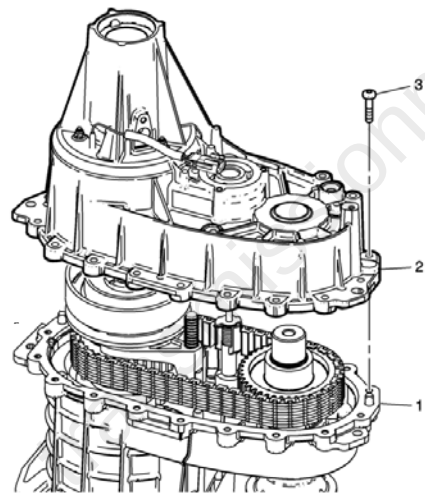


Two/Four Wheel Drive Clutch Coil and Cam Shaft Detent Lever Seal Installation

Callout	Component Name
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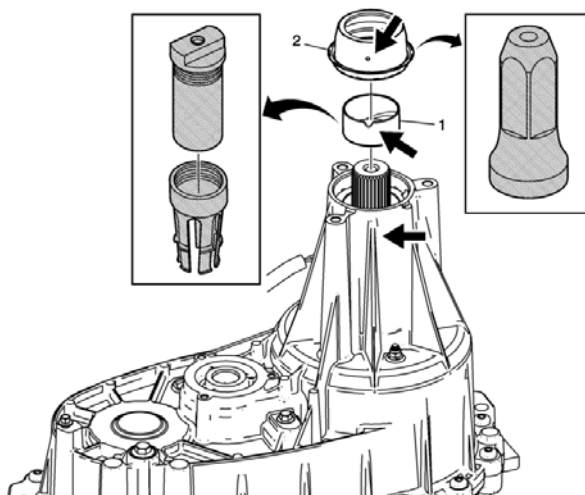
Callout	Component Name
1	Two/Four Wheel Drive Clutch Coil Stud O-ring Seal
2	Two/Four Wheel Drive Clutch Coil Wire O-ring Seal
3	Two/Four Wheel Drive Clutch Coil Assembly Note: Carefully slide the wires through the holes in the case to avoid damage to the wire coating.
4	Two/Four Wheel Drive Clutch Coil Nut Note: Tighten the nuts evenly to ensure the coil is installed and seated properly to the rear case. Tighten 12 Y (106 lb in)
5	Cam Shaft Detent Lever Seal Note: The metal face of the seal should be positioned towards the installer tool. Special Tools <i>DT 50314</i> Input Shaft Pilot Bearing Installer For equivalent regional tools, refer to Special Tools.
6	Synchronizer Coil Wiring Harness Conduit Note: Slide the conduit over the synchronizer coil wires to install it.
7	Synchronizer Coil Wiring Harness Connector Assembly Note: Insert the wires into the connector and install the connector wire retaining clip.

Transfer Case Rear Half Installation



Transfer Case Rear Half Installation

Callout	Component Name
	Transfer Case Front Half Caution: Apply the proper amount of sealant to the flange when assembling the transfer case. Excessive amounts of sealant can plug the oil pump screen, resulting in internal component failure.
1	Procedure • Ensure both sealing surfaces of the front and rear case halves are free of dirt, oil and cleaning solvent. • Apply a 3.5–4.0 mm (0.14–0.16 in) bead of sealant P/N 12346286 (Canadian 10953472) to the sealing service of the front case half.
2	Transfer Case Rear Half Transfer Case Half Bolt (Qty: 18)
3	Tighten 37 Y (27 lb ft)



Rear Output Shaft Seal and Bushing Installation

Callout

Component Name

Rear Output Shaft Bushing

Note: The notched area of the bushing should face the rear seal and be aligned with the rib of the case.

1

Special Tools

J 45380 Transfer Case Rear Bushing Remover and Installer

For equivalent regional tools, refer to Special Tools.

Rear Output Shaft Seal

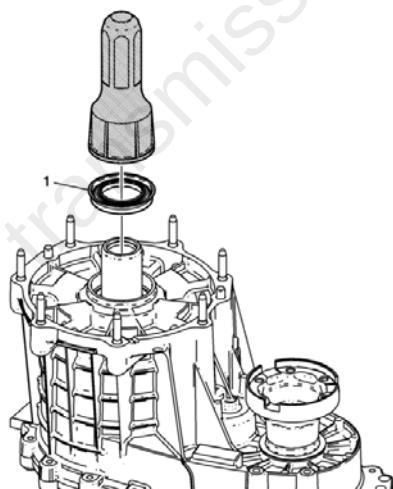
Note: The drain hole of the seal should be aligned with the rib of the case.

2

Special Tools

J 38869 Rear Extension Seal Installer

For equivalent regional tools, refer to Special Tools.



Input Shaft Seal Installation

Callout

Component Name

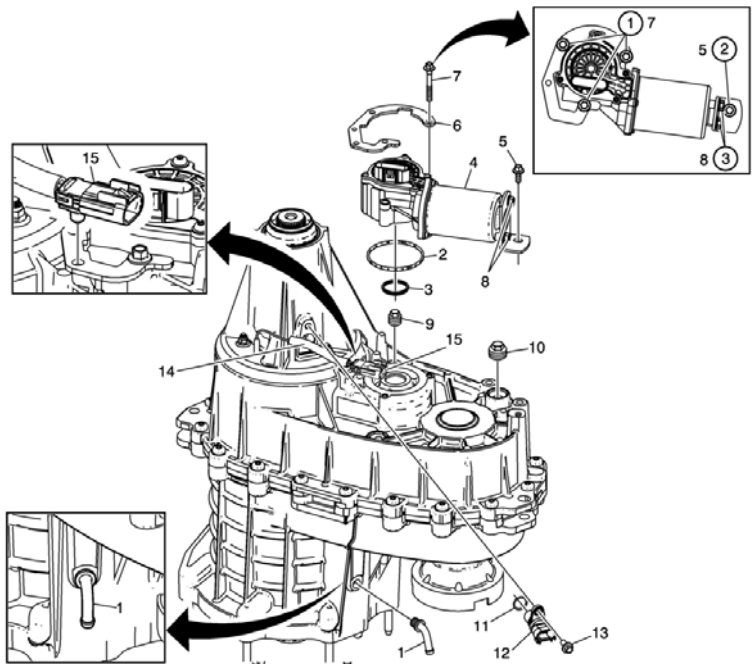
Input Shaft Seal

1

Special Tools

J 42738 Seal Installer

For equivalent regional tools, refer to Special Tools.



Oil Fill and Drain Plug, Vent Hose Connector, Two/Four Wheel Drive Actuator, and Speed Sensor Installation

Callout

Component Name

Vent Hose Connector

Note:

1

- Apply sealant P/N 12346004 (Canadian 10953480) to the hose connector before installation.
- Apply the sealant only to the end of the connector that installs into the case.

2

Two/Four Wheel Drive Actuator Outer O-ring Seal

3

Two/Four Wheel Drive Actuator Inner O-ring Seal

4

Two/Four Wheel Drive Actuator Assembly

Two/Four Wheel Drive Actuator Bolt

Procedure

Tighten in the sequence shown.

5

Note: Motor nuts and bolts have a specific tightening sequence, tighten bolts 7 before tightening bolt 5, then tighten the bracket nuts (8 Nm 70 lb in) last, as required

Tighten

12 Y (106 lb in)

6

Actuator Motor Bracket

Two/Four Wheel Drive Actuator Motor Bracket Bolt

7

Tighten

12 Y (106 lb in)

Bracket nuts

8

Tighten

8 Y (70 lb in)

Oil Fill Plug

Note:

9

- Apply sealant and install the fill plug ONLY after the correct type and quantity of fluid has been added to the assembly. Refer to Adhesives, Fluids, Lubricants, and Sealers.
- Apply sealant P/N 12346004 (Canadian 10953480) to the fill plug threads.

Tighten

15 Y (11 lb ft)

Oil Drain Plug

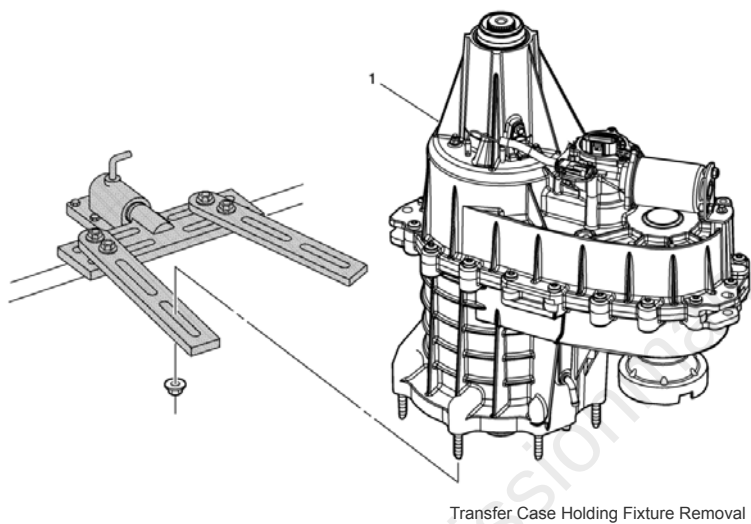
10

Note: Apply sealant PN 12346004 (Canadian 10953480) to the drain plug threads.

Tighten

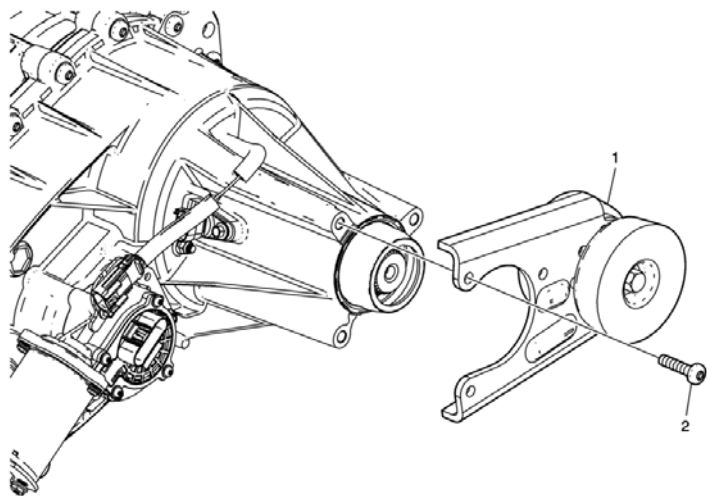
Callout	Component Name
	30 Y (22 lb ft)
11	Speed Sensor O-ring Seal Note: The speed sensor O-ring seal is reusable. Inspect the O-ring seal for damage and replace as required.
12	Rear Output Shaft Speed Sensor
	Speed Sensor Bolt
13	Tighten 12 Y (106 lb in)
14	Synchronizer Coil Wiring Harness Conduit Note: Slide the conduit over the synchronizer coil wires to install it.
15	Electrical Connector Note: Install the electrical retainer into the hole in the actuator motor bracket.

Transfer Case Holding Fixture Removal



Callout	Component Name
	Transfer Case
	Special Tools
1	- J 3289-20 Holding Fixture Base Assembly - J 36842 Case Holding Fixture For equivalent regional tools, refer to Special Tools.

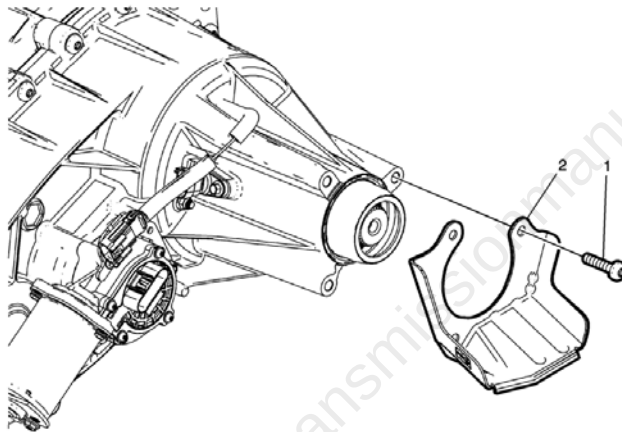
Transfer Case Vibration Dampener Installation



Transfer Case Vibration Dampener Installation

Callout	Component Name
1	Transfer Case Vibration Dampener - Model Dependent
	Transfer Case Vibration Dampener Bolt - Model Dependent
2	Tighten
	25 Y (18 lb ft)

[Transfer Case Shield Installation](#)



Transfer Case Shield Installation

Callout	Component Name
1	Transfer Case Shield - Model Dependent
	Transfer Case Shield Bolt - Model Dependent
2	Tighten
	25 Y (18 lb ft)