



# SERVICE BULLETIN

Classification: TF11-001c	Reference: NTB11-017c	Date: August 25, 2015
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## MURANO AWD AND MURANO CROSSCABRIOLET; FLUID LEAK FROM TRANSFER ASSEMBLY

This bulletin has been amended to change the Flat Rate Time and Op code for the reseal of the Transfer Case Assembly. Please discard previous versions of this bulletin.

**APPLIED VEHICLES:** 2009 - 2014 Murano (Z51) Equipped with AWD  
2011 - 2014 Murano CrossCabriolet (Z51)

### IF YOU CONFIRM:

Fluid leak from transfer assembly.

**NOTE:** Please refer to NTB14-057 for conditions demonstrating a fluid leak that should be considered for repair, and for service information.

### ACTION:

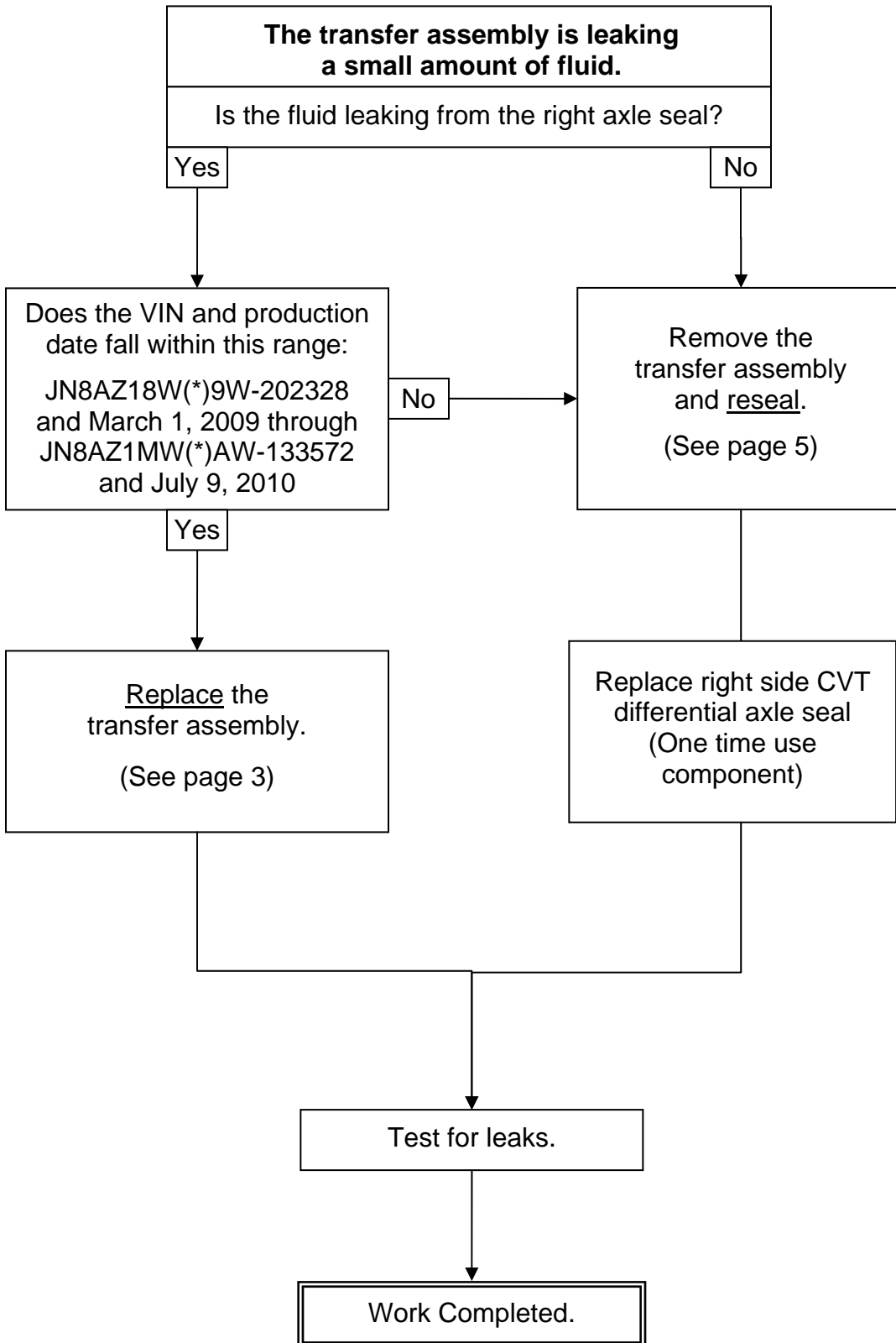
Refer to the **REPAIR FLOW CHART** on page 2.

**CAUTION:** Failure to follow the **REPAIR FLOW CHART** and the **SERVICE PROCEDURE** (as it applies, including all cautions) may cause transfer assembly fluid leakage after repairs.

**IMPORTANT:** The purpose of **ACTION** (above) is to give you a quick idea of the work you will be performing. You **MUST** closely follow the **REPAIR FLOW CHART** (on page 2) as it contains information that is essential to successfully completing this repair.

Nissan Bulletins are intended for use by qualified technicians, not 'do-it-yourselfers'. Qualified technicians are properly trained individuals who have the equipment, tools, safety instruction, and know-how to do a job properly and safely. **NOTE:** If you believe that a described condition may apply to a particular vehicle, **DO NOT** assume that it does. See your Nissan dealer to determine if this applies to your vehicle.

## REPAIR FLOW CHART



## SERVICE PROCEDURE

### Transfer Assembly: Determine if Reseal or Replacement

**NOTE:** If the VIN and production date falls within the range of JN8AZ18W(\*)9W-202328 and March 1, 2009 through JN8AZ1MW(\*)AW-133572 and July 9, 2010, **STOP HERE:** Replace the transfer assembly. Go to **Replace Transfer Assembly** on this page.

If the VIN and production date does not fall within the range stated above, reseal the transfer assembly. Go to **Reseal Transfer Assembly** on page 5.

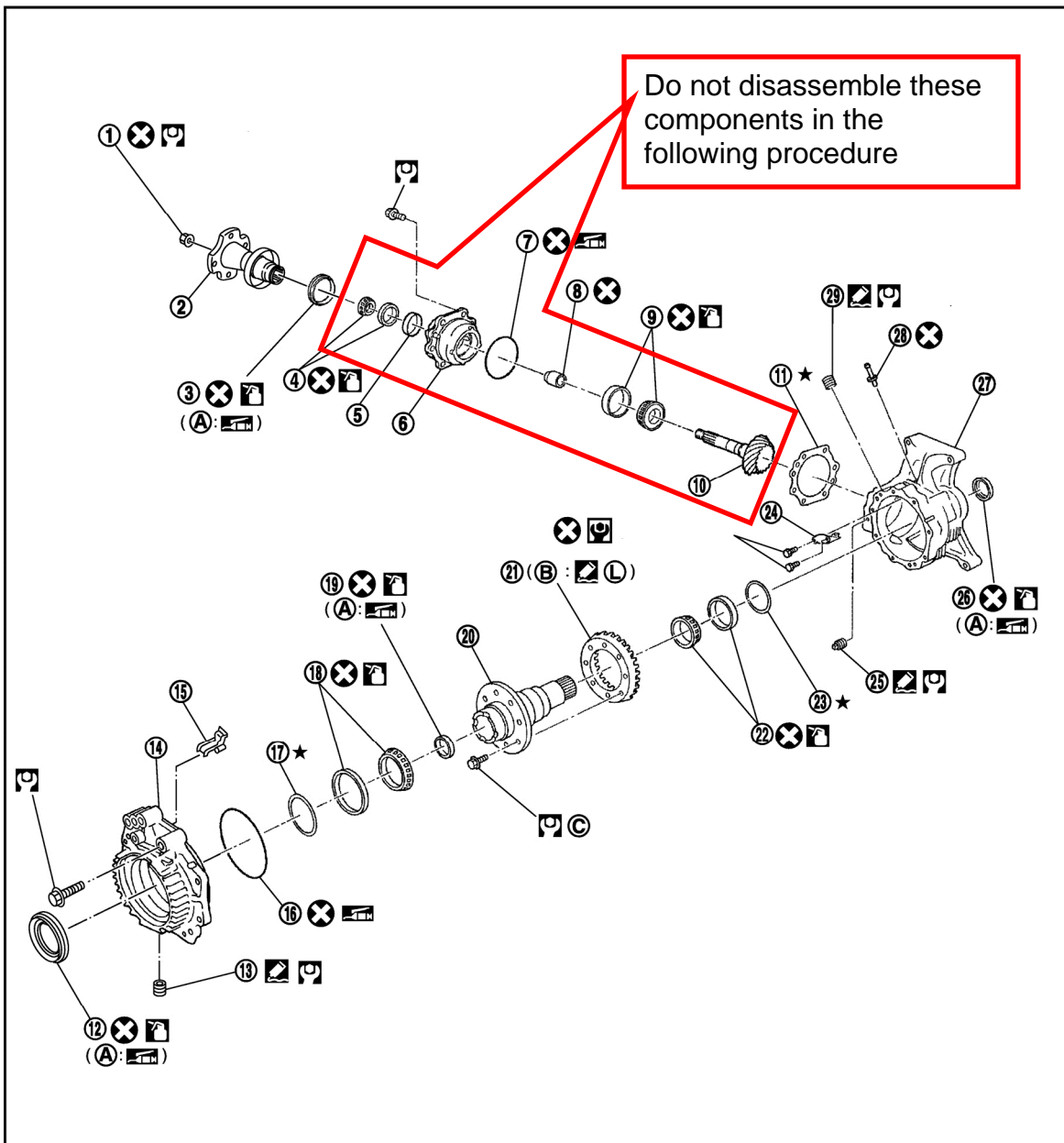
### Replace Transfer Assembly

1. Write down all radio station presets.

Presets	1	2	3	4	5	6
AM						
FM 1						
FM 2						
XM 1						
XM 2						
XM 3						
Bass	Treble		Balance		Fade	Speed Sen. Vol.

2. Disconnect both battery cables, negative cable first.
3. Replace the transfer assembly.
  - Refer to the **DLN** section of the appropriate Electronic Service Manual (ESM), if needed.
4. Fill the transfer assembly.
  - For warranty purposes, use the gear oil listed in **PARTS INFORMATION** only.
  - For transfer assembly gear oil capacity and filling procedure, refer to the **MAINTENANCE** and **DLN** sections of the appropriate ESM, if needed.
5. Connect both battery cables, negative cable last.
6. Reset / initialize all applied systems i.e., radio, power windows, clock, sunroof, etc.
7. Test the vehicle for transfer assembly related leaks.

Exploded view of typical Murano transfer assembly.



- |  |   |   |
|--|---|---|
| 1. Pinion lock nut                         | 2. Companion flange                                       | 3. Pinion sleeve oil seal                 |
| 4. Pinion rear bearing                     | 5. Dust cover   | 6. Pinion sleeve                          |
| 7. O-ring                                  | 8. Collapsible spacer                                     | 9. Pinion front bearing                   |
| 10. Drive pinion                           | 11. Pinion sleeve shim                                    | 12. Adapter case oil seal                 |
| 13. Drain plug                             | 14. Adapter case  | 15. Oil gutter                            |
| 16. O-ring                                 | 17. Gear ring bearing adjusting shim (adapter case side)  | 18. Gear ring bearing (adapter case side) |
| 19. Gear ring oil seal                     | 20. Gear ring   | 21. Drive gear                            |
| 22. Gear ring bearing (transfer case side) | 23. Gear ring bearing adjusting shim (transfer case side) | 24. Oil defense                           |
| 25. Filler plug                            | 26. Transfer case oil seal                                | 27. Transfer case                         |

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## Reseal Transfer Assembly

**NOTE:** Perform repairs in a clean working environment.

1. Write down all radio station presets.

Presets	1	2	3	4	5	6
AM						
FM 1						
FM 2						
XM 1						
XM 2						
XM 3						
Bass	Treble		Balance	Fade	Speed Sen. Vol.	

2. Disconnect both battery cables, negative cable first.
3. Remove the transfer assembly.
  - Refer to the **DLN** section of the appropriate ESM, if needed.

**NOTE:** Perform repairs in a clean working environment.
4. Remove the seven (7) bolts securing the pinion sleeve assembly to the transfer case (see Figure 1).

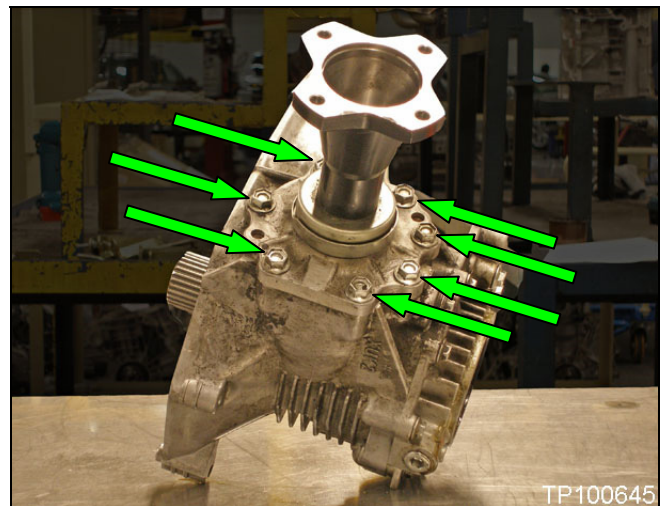


Figure 1

5. Using a suitable tool, remove the pinion sleeve assembly from the transfer case (see Figure 2).

**CAUTION:** Carefully tap on the companion flange only (see Figure 2).



Figure 2

6. Remove the pinion sleeve's O-ring seal by pinching inward, and then pulling it off (see Figure 3).

**CAUTION:** Do **NOT** use a pick, scribe, pocket screwdriver, etc., to remove this seal. Possible scratching where the seal is seated may cause leakage.

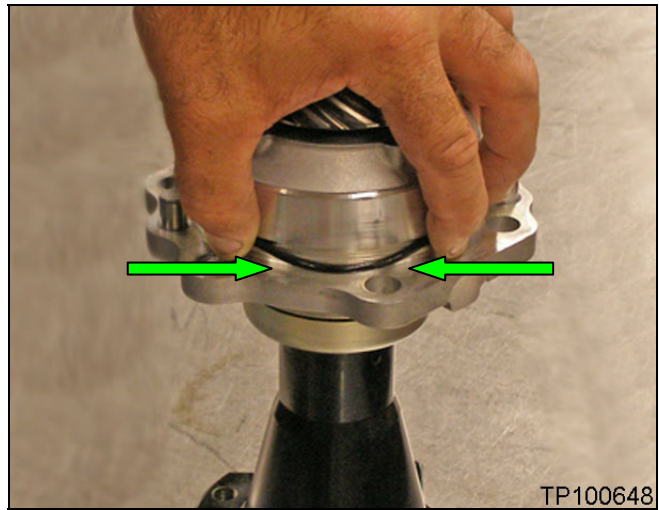


Figure 3

7. Remove the nine (9) bolts securing the adaptor case to the transfer case. See Figure 4.

**NOTE:** The red circled bolts are longer than the green circled bolts.

8. Remove the adaptor case from the transfer case by carefully tapping equally only on the areas noted in Figure 5 and 6.

- Remove its O-ring seal the same way as in Step 6.

**NOTE:** The shims (if any) and bearing race may fall out. Make sure they are marked so they can be reinstalled in the same locations before re-assembly.

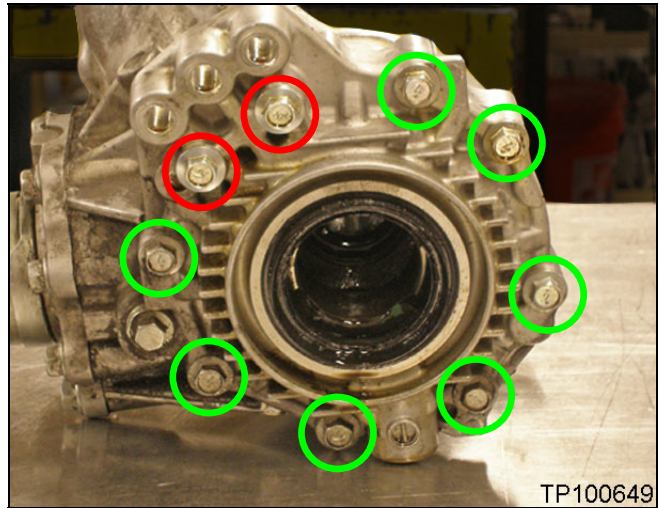


Figure 4

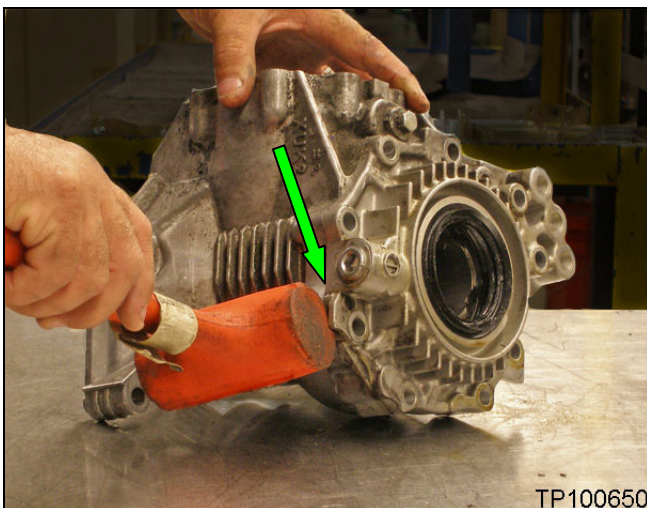


Figure 5

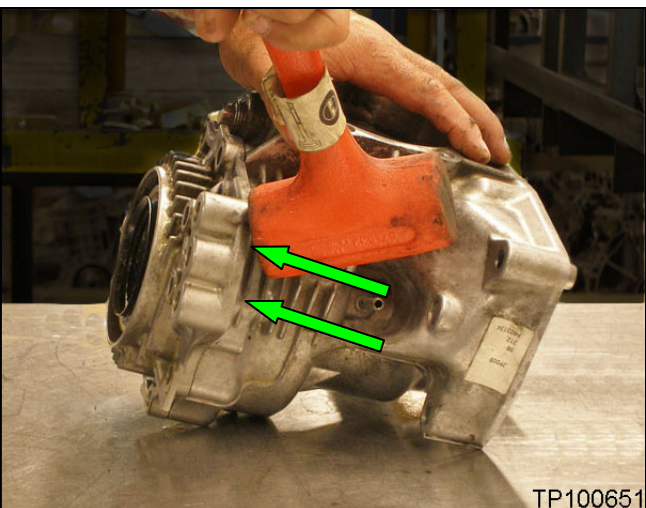


Figure 6

- Carefully remove the drive gear assembly from the transfer case (see Figure 7).

**NOTE:** The shims (if any) and bearing race may fall out. Make sure they are marked so they can be reinstalled in the same locations before re-assembly.



Figure 7

- Place the transfer case on wood blocks, folded shop rags, or equivalent, and then tap out the seal with a suitable punch (see Figure 8).



Figure 8

**CAUTION:** Angle the punch, making sure it does not scrape the transfer case's seal mating surface (see Figure 9).

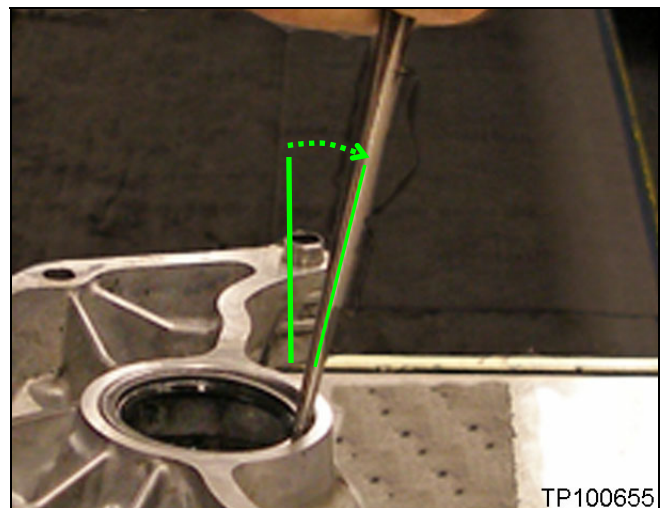


Figure 9

11. Place the adaptor case on wood blocks, and then tap out the seal in the adaptor case with a suitable tool (see Figure 10).

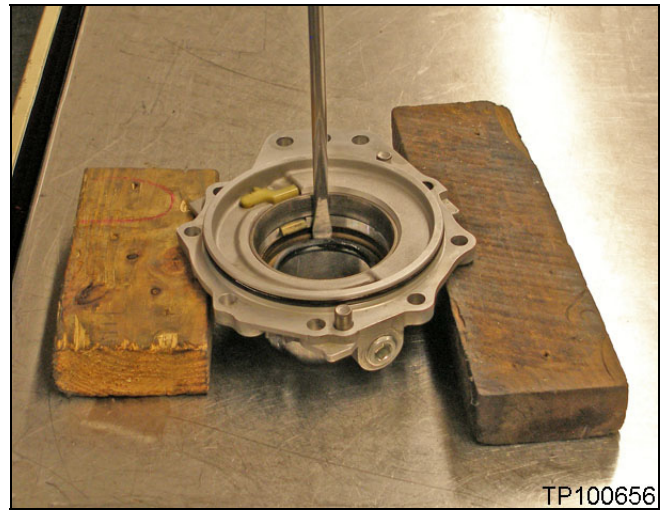


Figure 10

**CAUTION:** Tap out only from behind the seal lip where shown in Figure 11.

12. Clean off all parts (transfer case, pinion sleeve assembly, etc.).

- Inspect the mating surfaces of all seals for scratches, pitting, etc.

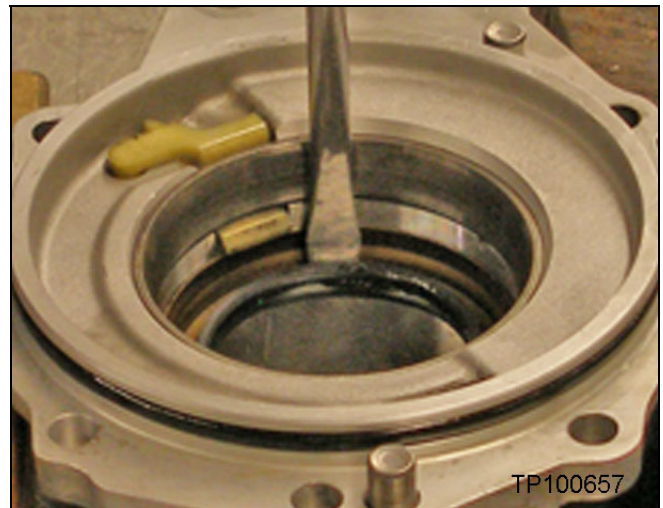


Figure 11

13. Coat the new O-ring seals for adaptor case and pinion sleeve with oil, and then install them (no picture shown).

14. Position the transfer case on wood blocks, and then install its new seal with tool J-42738 (see Figure 12).

- Position the seal's outside surface flush with the transfer case's surface.



Figure 12



15. Install the drain plug with the sealant listed in **PARTS INFORMATION**, and then torque the drain plug.

- For drain plug torque, refer to the **DLN** section of the appropriate ESM.

16. Position the adaptor case as shown in Figure 13, and then install its new seal with tool J-50367.

- Make sure tool J-50367 bottoms out during seal installation.

**NOTE:** The same shims (if any) and bearing race that may have fallen out of this location must be reinstated in this location.

17. Apply masking tape or equivalent covering over the splined end of the drive gear assembly as shown in Figure 14.



Figure 13

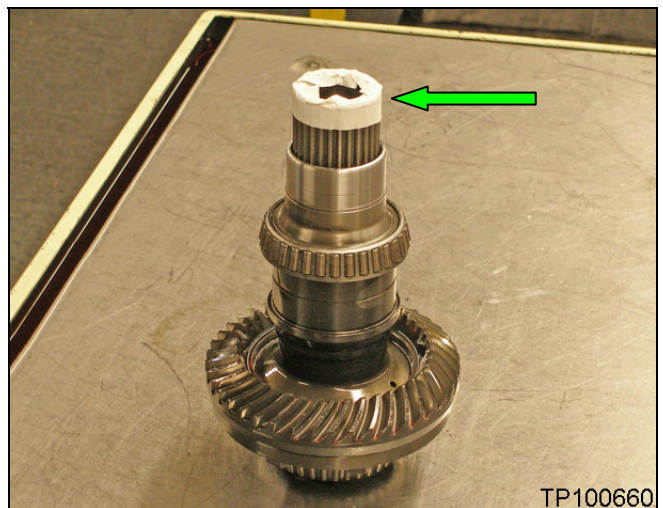


Figure 14

18. Make sure the bearing race and any shims are installed and do not fall out during assembly.

**NOTE:** The same shims (if any) and bearing race that may have fallen out of this location must be reinstated in this location.

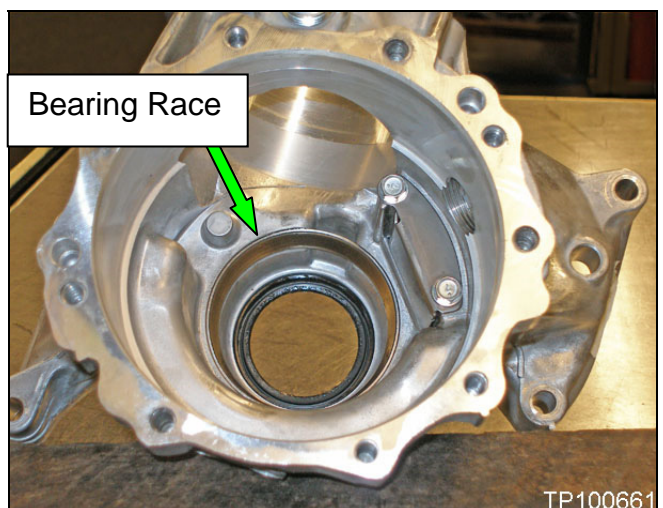


Figure 15

19. Position the drive gear assembly on a wood block, and then install it by carefully lowering the transfer case over it (see Figure 16).

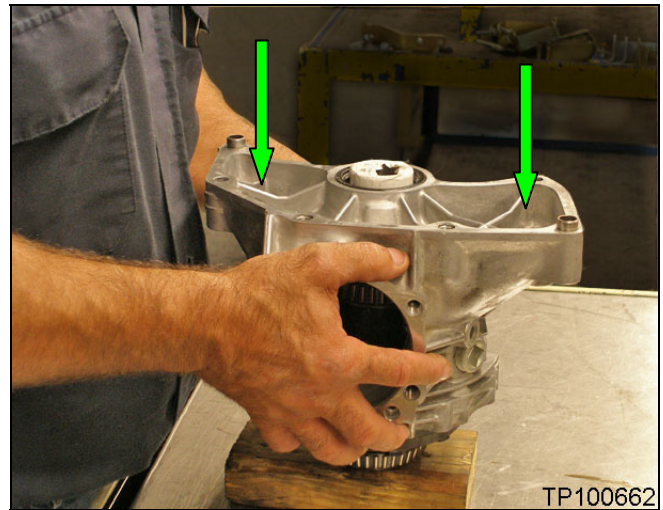


Figure 16

20. While holding the drive gear assembly in place, invert the transfer case and set it on wood blocks (see Figure 17).



Figure 17

21. Install the adaptor case to the transfer case (see Figure 18).

- Make sure the O-ring seal has been coated with oil.
- Align the dowels in the correct holes.
- Carefully tap the adaptor case as needed.
- Make sure the bearing race and any shims do not fall out during assembly.

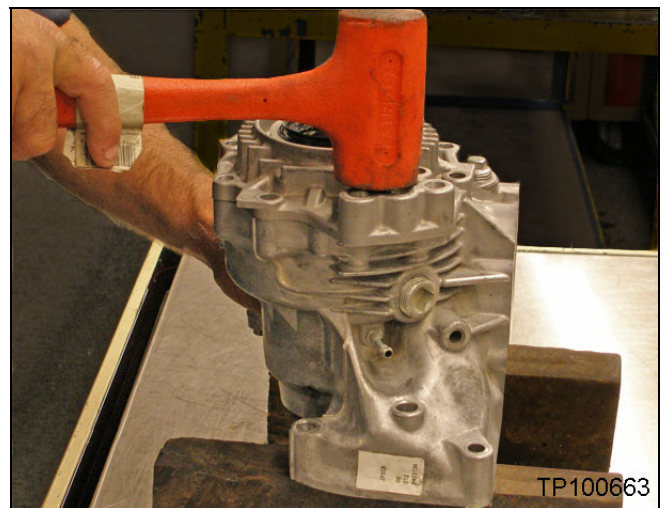


Figure 18

22. Apply anti-corrosive oil or equivalent to the bolts' threads and seats, and then install and torque the bolts in a "star" pattern.

See Figure 19 for bolts location:

- **A** = 45 mm (1.8 inch) bolts
- **B** = 30 mm (1.2 inch) bolts
- Bolts torque: 14-16 N•m (1.5-1.6 kg-m, **10.4-11.8 ft-lb**)

23. Install the pinion sleeve assembly (see Figure 20).

- Make sure the O-ring seal has been coated with oil.
- Align the dowels in the correct holes.
- Carefully tap on the companion flange to fully seat the sleeve as needed (see Figure 20).

24. Apply anti-corrosive oil or equivalent to the bolts' threads and seats, and then install and torque the bolts in a "star" pattern.

- Bolts torque: 26-33 N•m (2.7-3.3 kg-m, **20-24 ft-lb**)

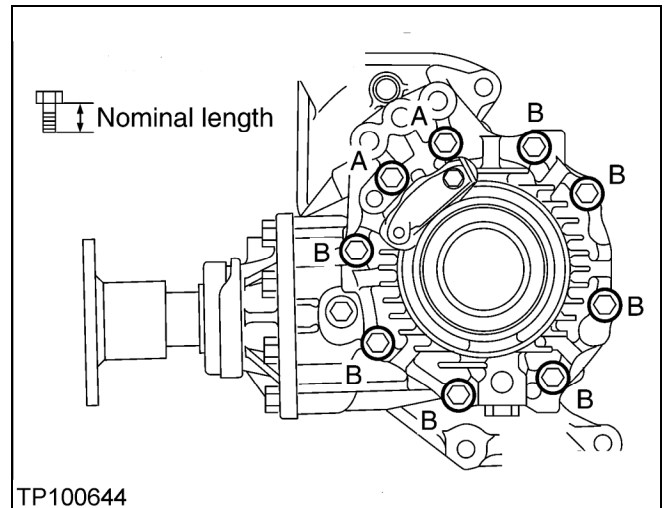


Figure 19



Figure 20

25. Replace the right side differential (CVT differential axle seal) oil seal.

**CAUTION:** Be careful not to scratch the seal surface when removing and installing.

26. Clean off any assembly oil / lube, remove the tape (applied in Step 17), and then install the transfer assembly.

- Refer to the ESM, if needed.

27. Fill the transfer assembly.

- For warranty purposes, use the gear oil listed in **PARTS INFORMATION only**.
- For transfer assembly gear oil capacity and filling procedure, refer to the **MAINTENANCE** and **DLN** sections of the appropriate ESM, if needed.

28. Connect both battery cables, negative cable last.

29. Reset / initialize all applied systems i.e., radio, power windows, clock, sunroof, etc.

30. Test the vehicle for transfer assembly related leaks.

## PARTS INFORMATION

DESCRIPTION	PART #	QUANTITY
SEAL – OIL	33142-4N200	1 (a)
SEAL – O RING	38343-AD300	1 (a)
SEAL – OIL, RING GEAR	33111-AD30A	1 (a)
SEAL – O RING, PINION SHAFT SLEEVE	33149-5V210	1 (a)
SEAL – OIL, DIFFERENTIAL CONVERTER HOUSING (CVT diff axle seal)	38342-06R01	1 (a, b)
80W-90 Diff Oil	999MP-1XGPP0P	(a, b, c, d)
NISSAN LIQUID GASKET	999MP-1217HP	(a, c, e)
TRANSFER ASSY	33100-JP11C	1 (b)

(a) Use for transfer assembly reseal.

(b) Use when replacing the transfer assembly.

(c) Nissan Liquid Gasket and 80W-90 Diff Oil are available through the Nissan Maintenance Advantage program: Phone: 877-NIS-NMA1 (877-647-6621) Website order via link on dealer portal [www.NNAnet.com](http://www.NNAnet.com) and click on “Maintenance Advantage” link.

(d) Bill out the Diff Oil under **expense code 018**. Do not include the Diff Oil part number on the claim.

(e) Bill out the Nissan Liquid Gasket Sealant under **expense code 009**. Do not include the Nissan Liquid Gasket Sealant part number on the claim.

## CLAIMS INFORMATION

Submit a Primary Failed Part (PP) line claim using the following claims coding:

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
R&I TRANSFER CASE ASSY	(1)	KA01AA	ZR	32	(2)
RPL TRANSFER ASSY	(1)	KA021A			(2)

- (1) Refer to the electronic parts catalog (FAST or equivalent) and use the Transfer Case Assembly part number as the Primary Failed Part (PFP).
- (2) Reference the current Nissan Warranty Flat Rate Manual and use the indicated flat rate time.

## OR

Submit a Primary Failed Part (PP) line claim using the following claims coding:

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
R&I TRANSFER CASE ASSY	(1)	KA01AA	ZR	32	(2)
RESEAL TRANSFER ASSY	(1)	KX042A			0.9

- (1) Refer to the electronic parts catalog (FAST or equivalent) and use the Transfer Case Assembly part number as the Primary Failed Part (PFP).
- (2) Reference the current Nissan Warranty Flat Rate Manual and use the indicated flat rate time.

## Expense Codes:

EXPENSE CODE	DESCRIPTION	MAX AMOUNT
009	Sealant	\$1.30
018	Differential Oil	\$6.76