

Component Procedures: Transfer Case

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Component Procedures: Transfer Case

SHIFT FORKS & RAILS (Article 313942)

Non Standards

- NP231 Non-Synchro, NV231 (313943)

CASE & RELATED PARTS (Article 313944)

Non Standards

- NP231 Non-Synchro, NV231 (313945)

GEAR TRAIN (Article 313946)

Non Standards

- NP231 Non-Synchro, NV231 (313947)

Parts and Labor (itype_189)

Parts

Qualifier	Part #	Name	Price	Note
NP231 Non-Synchro, NV231 > T?	52099364AB	Transfer Case Assembly	1685.00	
NP231 Non-Synchro, NV231 > T?	52099211	Transfer Case Assembly	780.00	

Labor

Operation	Qualifier Path	Skill	Std Hrs	Wty Hrs
Replace	NP231 Non-Synchro, NV231 > Complete Assembly ?	B	1.8	1.4
Replace	NP231 Non-Synchro, NV231 > Complete Assembly ?	B	1.8	1.3
Overhaul/Rebuild	NP231 Non-Synchro, NV231	A	5.9	4.4

NV231 Transfer Case (Article 2082056)

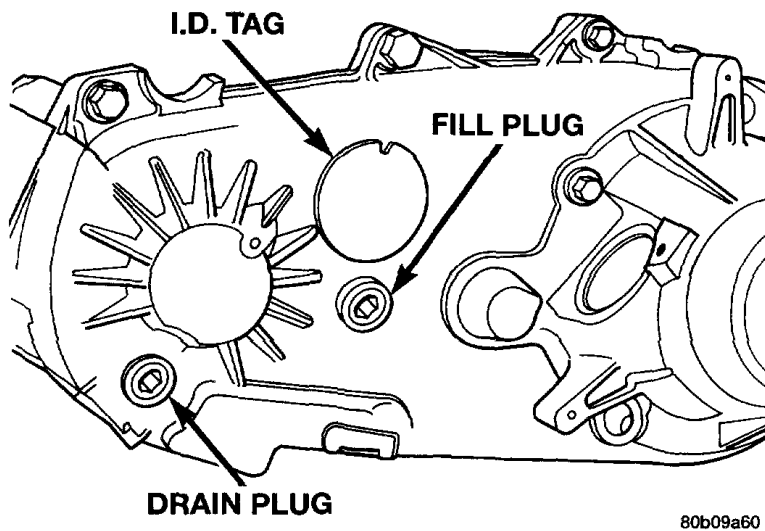


Fig. 1 Fill/Drain Plug And I.D. Tag Locations

NV231 Transfer Case (Article 2082037)

NV231

TRANSFER CASE

The NV231 is a part-time

transfer

case

with a low range

reduction gear

system. The NV231 has three operating ranges plus a Neutral position. A low range system provides a reduction ratio for increased low speed torque capability.

The input gear is splined to the transmission output shaft. The input gear drives the mainshaft through the planetary assembly and range hub.

The front output shaft is operated by a drive chain that connects the shaft to a drive sprocket on the mainshaft. The drive sprocket is engaged/disengaged by the mode fork, which operates the mode sleeve and hub. The sleeve and hub are not equipped with a synchronizer mechanism for shifting.

The gear-train is mounted in two aluminum case halves attached with bolts. The mainshaft front and rear bearings are mounted in aluminum retainer housings bolted to the case halves.

OPERATING RANGES

Transfer case operating ranges are:

- 2WD (2-wheel drive)
- 4x4 (4-wheel drive)
- 4 Lo (4-wheel drive low range)

The 2WD range is for use on any road surface at any time.

The 4x4 and 4 Lo ranges are for off road use only. They are not for use on hard surface roads. The only exception being when the road surface is wet or slippery or covered by ice and snow.

The low range reduction gear system is operative in 4 Lo range only. This range is for extra pulling power in off road situations. Low range reduction ratio is 2.72:1.

SHIFT MECHANISM

Operating ranges are selected with a floor mounted shift lever.

The shift lever is connected to the transfer case range lever by an adjustable linkage rod. A straight line shift pattern is used. Range positions are marked on the shifter bezel cover plate.

NV231 Transfer Case (Article 2081217)

Non Standards

- Cleaning and Inspection (2081231)
- Disassembly and Assembly (2081232)
- Removal and Installation (2081235)

NV231 Transfer Case (Article 2082368)

Plug, Detent 12 - 18 ft.lb

Plug, Drain/Fill 15 - 20 ft.lb

Plug, Drain/Fill 30 - 40 ft.lb

Bolt, Extension Housing 26 - 34 ft.lb

Bolt, Front Brg, Retainer 16 ft.lb

Bolt, Case Half 20 - 25 ft.lb

Nut, Front Yoke 90 - 130 ft.lb

Nut, Range Lever 20 - 25 ft.lb

Bolt, Rear Retainer 26 - 34 ft.lb

Nuts, Mounting 22 - 30 ft.lb

Switch, Indicator 15 - 25 ft.lb

All Technical Service Bulletins (itype_100)

Tsbs

- Transfer Case Shifter - Creaking/Thumping Noise (21-09-98, 1998/07/31)

Customer Interest Bulletins (itype_109)

Tsbs

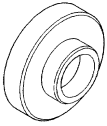
- Transfer Case Shifter - Creaking/Thumping Noise (21-09-98, 1998/07/31)

NV231 Transfer Case (Article 2081814)

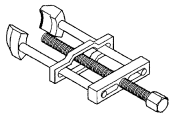
Condition	Possible Cause	Correction
Transfer case difficult to shift or will not shift into desired range.	1) Vehicle speed too great to permit shifting.	1) Slow vehicle and shift into desired range.
	2) If vehicle was operated for an extended period in 4H mode on dry surface, driveline torque load may cause difficulty.	2) Stop vehicle and shift transfer case to Neutral position. Transfer case can then be shifted to the desired mode.
	3) Transfer case shift linkage binding.	3) Repair or replace linkage as necessary.
	4) Insufficient or incorrect lubricant.	4) Drain and refill transfer case with the correct type and quantity of lubricant.
	5) Internal transfer case components binding, worn, or damaged.	5) Repair or replace components as necessary.
Transfer case noisy in all drive modes.	1) Insufficient or incorrect lubricant.	1) Drain and refill transfer case with the correct type and quantity of lubricant.
Transfer case noisy while in, or jumps out of, 4L mode.	1) Transfer case not completely engaged in 4L position.	1) Slow vehicle, shift transfer case to the Neutral position, and then shift into the 4L mode.
	2) Transfer case shift linkage out of adjustment.	2) Adjust linkage as necessary.
	3) Transfer case shift linkage loose or binding.	3) Repair, replace, or tighten linkage components as necessary.
	4) Range fork damaged, inserts worn, or fork is binding on the shift rail.	4) Repair or replace components as necessary.
	5) Low range gear worn or damaged.	5) Repair or replace components as necessary.
Lubricant leaking from transfer case seals or vent.	1) Transfer case overfilled.	1) Drain lubricant to the correct level.
	2) Transfer case vent closed or restricted.	2) Clean or replace vent as necessary.
	3) Transfer case seals damaged or installed incorrectly.	3) Replace suspect seal.
Abnormal tire wear.	1) Extended operation in 4H mode on dry surfaces.	1) Operate vehicle in 2H mode on dry surfaces.

NV231 Transfer Case (Article 2082002)

NV231



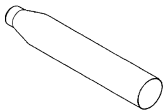
Installer—C-4076-B

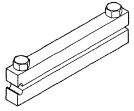


Puller, Slinger—MD-998056-A



Installer—MD-998323

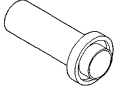




Installer, Boot Clamp—C-4975-A



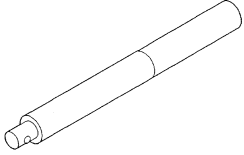
Installer, Bearing—5064



Installer, Seal—8143



Installer, Bearing—5065



Handle, Universal—C-4171



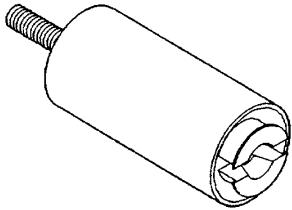
Installer, Bushing—5066



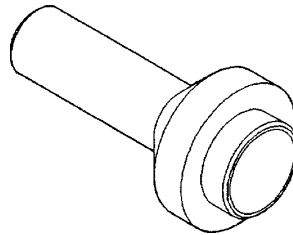
Installer, Seal—C-4210



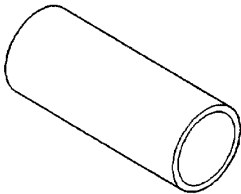
Installer, Bearing—8128



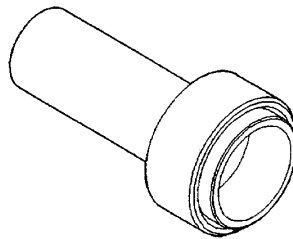
Remover—L-4454



Installer, Seal—7884



Cup—8148



Installer, Pump Housing Seal—7888

Noise (itype_156)

Tsbs

- Transfer Case Shifter - Creaking/Thumping Noise (21-09-98, 1998/07/31)

New / Updated Parts (itype_117)

Tsbs

- Transfer Case Shifter - Creaking/Thumping Noise (21-09-98, 1998/07/31)