

HD Standard Length SYE Kit for the NP241 Fits Jeep, Chevy, Dodge

**Manufactured by JB CONVERSIONS, INC.
Phone: 337-625-2379**

Installation Instructions for the NP241C or NP241DLD Transfer Case

Part No. 16-1204

Instruction Rev: 2010.03.10-02



Installed photo.

Applications:

- Use for installing Dodge NP241 into Jeep TJ, YJ, XJ with original Jeep speedometer
- Install in existing Dodge NP241 (truck) with transfer case mounted speedo pickup
- Use for installing Chevy NP241 into Jeep TJ, YJ, XJ requiring Jeep style speedometer
- Install in existing Chevy NP241 (truck) with mechanical speedometer (driver's side F/O)
- Use for installing Chevy or Dodge NP241 into custom chassis requiring mechanical speedo cable hookup
- Kit includes **new HD 32-spline** output shaft and rear bearing housing
- This kit will **not** work on the NP241DHD with PTO cover.

Installation Instructions

Note: This kit can be installed without removing the transfer case from the vehicle however it is recommended that the unit be removed to ease installation of the SYE kit.

1) Drain the fluid from the transfer case. This kit can be installed while the transfer case remains in the vehicle however, removal is recommended for an easier installation.

2) Remove the 10mm bolts (4) holding the tail cone onto the bearing housing (Fig.1).

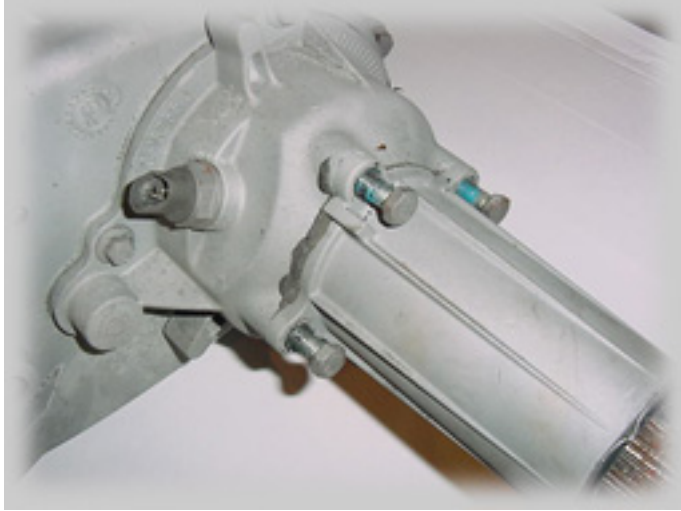


FIG: 1

3) Remove the retaining ring (Fig.2).

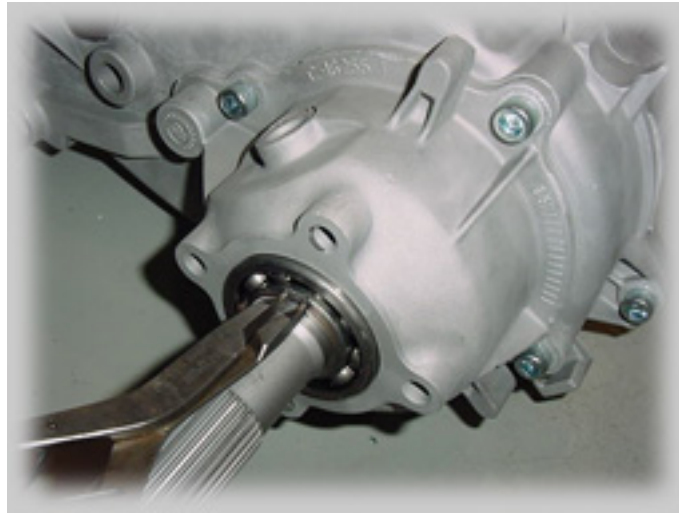


FIG: 2

4) Remove the 10mm bolts (4) holding the rear bearing housing onto the rear case half (Fig.3).



FIG: 3

5) Remove the bearing housing using a pry device. Be careful not to damage the case during this process (Fig.4).

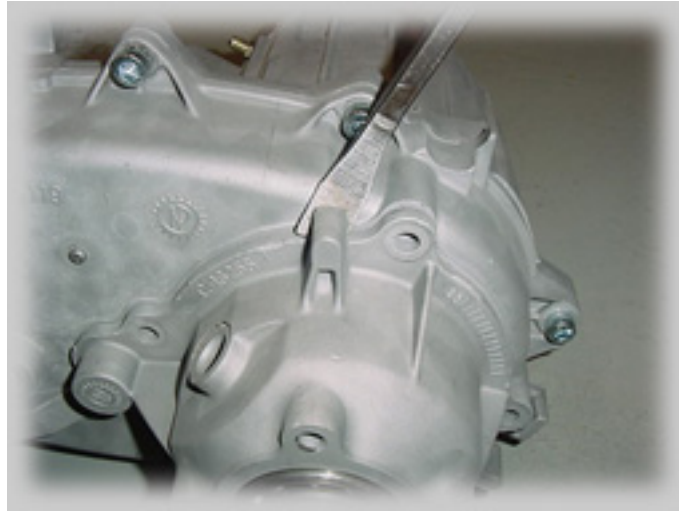


FIG: 4

6) Remove the retaining ring above the tone wheel (Fig.5).

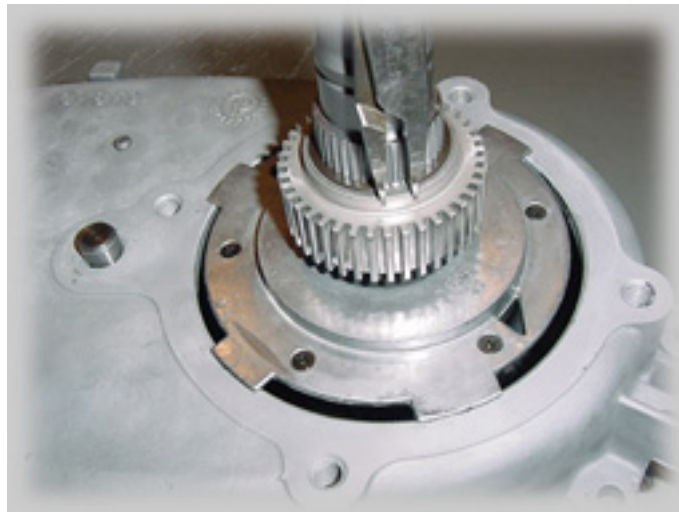


FIG: 5

7) Remove the tone wheel (Fig.6).



FIG: 6

8) Remove the lower retaining ring (Fig.7).

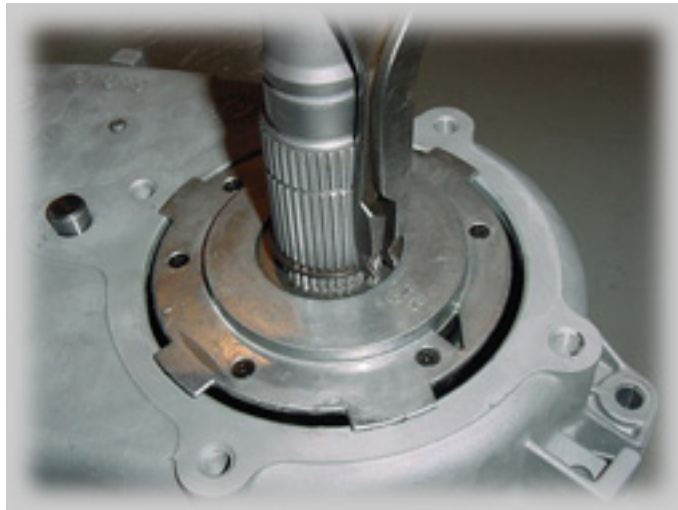


FIG: 7

9) Remove the 10mm bolts holding the two case halves together.

10) Gently pry the two halves apart using a screwdriver. There are two locations in the case designed for use as pry points. Only use these two locations. They are located on the sides of the case half (Fig.9).

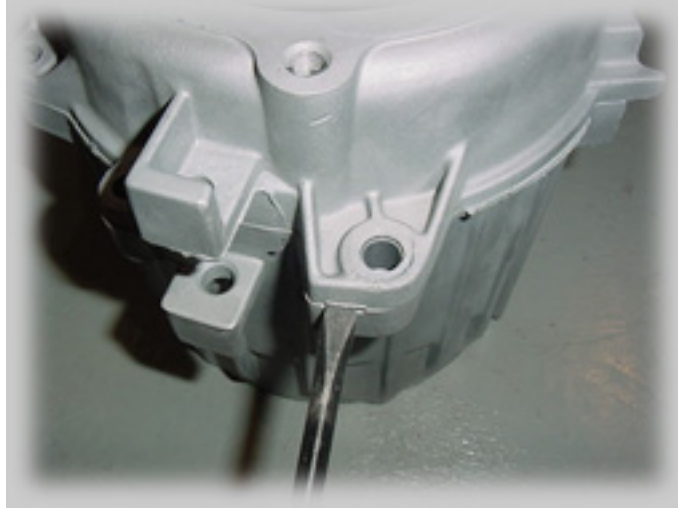


FIG: 9

11) Lift the rear case half and pump off of the front case half (Fig.10).

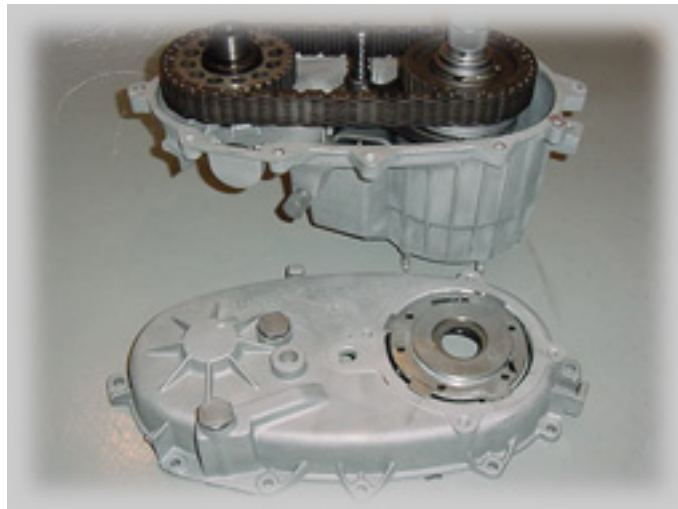


FIG: 10

12) Remove the spring from the mode fork shaft (Fig.11).



FIG: 11

13) Remove the retaining ring holding the front output sprocket in place (Fig.12).



FIG: 12

14) Lift the mainshaft assembly and front output sprocket out of the case as an assembly (Fig.13).

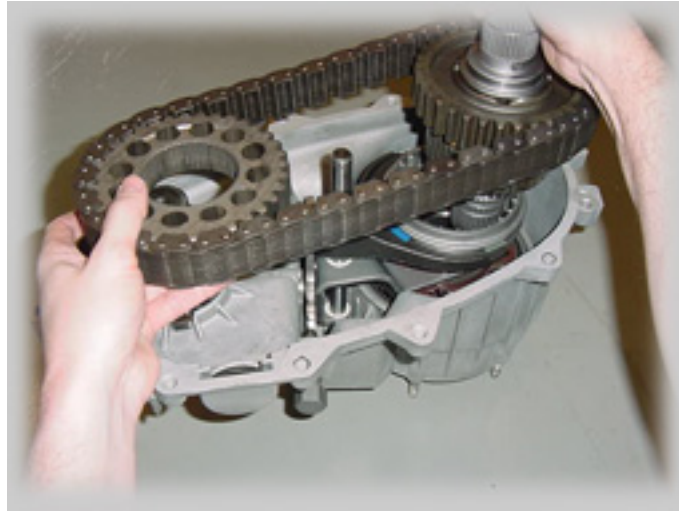


FIG: 13

15) The synchro hub ring may stay in the case with the mode fork as the mainshaft is removed. If this happens, be sure to notice the top and bottom orientation of the ring. Remove the mode fork and ring. It is possible to reinstall this ring incorrectly causing malfunction (Fig.14, 14A).



FIG: 14



FIG: 14A

16) Remove the retaining ring holding the main drive sprocket assembly in place. Remove the sprocket assembly from the shaft (Fig.15).



FIG: 15

17) Inspect the inside of the main drive sprocket for the presence of needle bearings. If the bearings are present, remove them with a press. The deletion of these bearings is per OEM design. After 1995, the mfg. (New Venture Gear) adopted this design and it performs fine (Fig.16,17).



FIG: 16



FIG: 17

18) Install the main sprocket assembly onto the new output shaft. Retain this assembly with the new retaining ring supplied in the kit (Fig.19).



FIG: 19

19) Install the mainshaft assembly into the case. Be sure to line up the range fork as the mode fork is lowered into place with the mainshaft. It may be necessary to slightly lift the lower range fork with your finger as you lower the mainshaft/fork assembly into place. Do not force the mainshaft assembly into place (Fig.20).

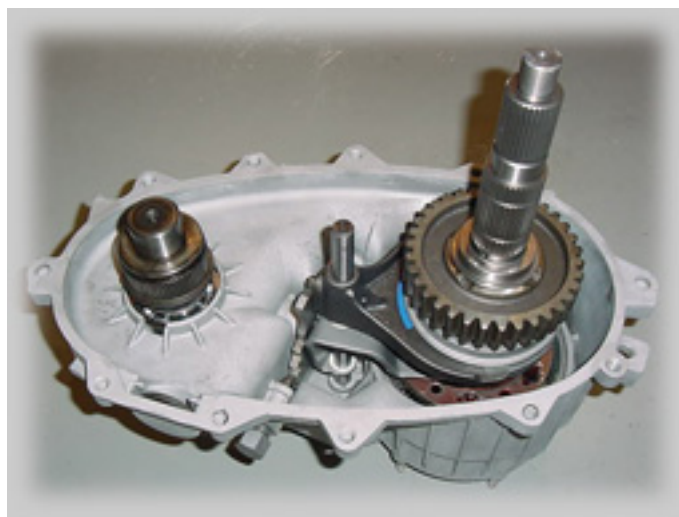


FIG: 20

20) Place the chain around the front output sprocket and loop it around the main drive sprocket. You will have to slightly lift the mainshaft sprocket assembly to provide enough slack to get the front sprocket into place (Fig.21).

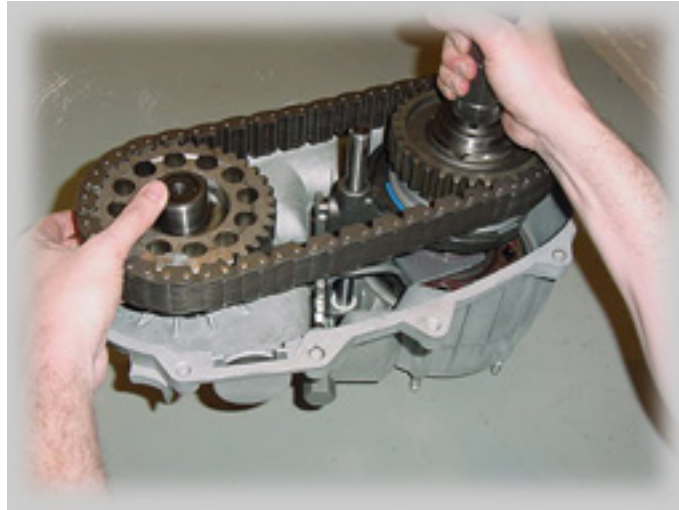


FIG: 21

21) Install the retaining ring onto the front output shaft (Fig.22).



FIG: 22

22) Install the mode fork spring. Verify the magnet is in place (Fig.23,24).



FIG: 23

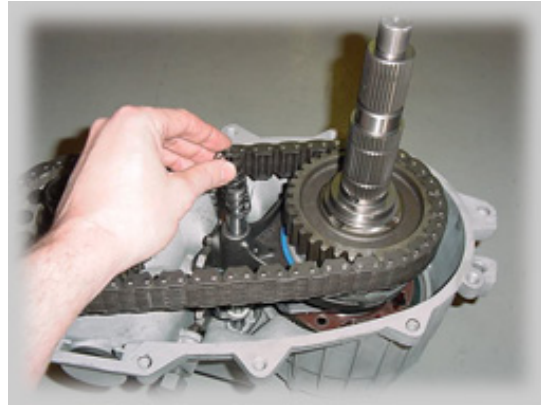


FIG: 24

23) Verify the O-ring is in place within the pump (Fig.25). Orient the pump and pickup tube into the rear case as shown (Fig.26).



FIG: 25

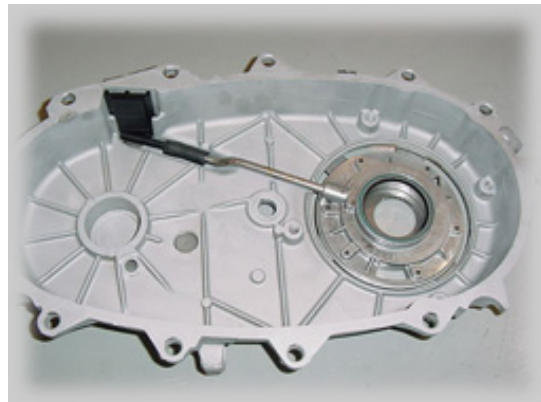


FIG: 26

24) Apply a thin bead of RTV sealant to the rear case half and install the rear case/pump assembly (Fig.27).



FIG: 27

- 25) Install the 10mm bolts to hold the two case halves together.
- 26) Visually verify that the pump pickup tube is in place and has not become disconnected from the pump housing.
- 27) Install the small retaining ring onto the second to lowest groove on the shaft above the pump (Fig.28a). Install the blue speedometer gear onto the mainshaft followed by the second snap ring onto the top groove (threaded end).

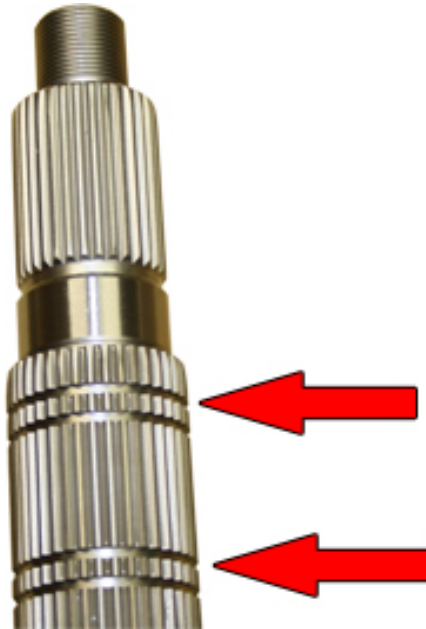


FIG: 28a

28) Apply silicone RTV to the back of the new bearing housing. Install the bearing housing onto the rear case half using the original 10mm bolts (Fig.29)



FIG: 29

29) Install the yoke followed by the rubber star washer as shown in Fig.30a. Torque the nut to 180 lb-ft. (Fig.30b).

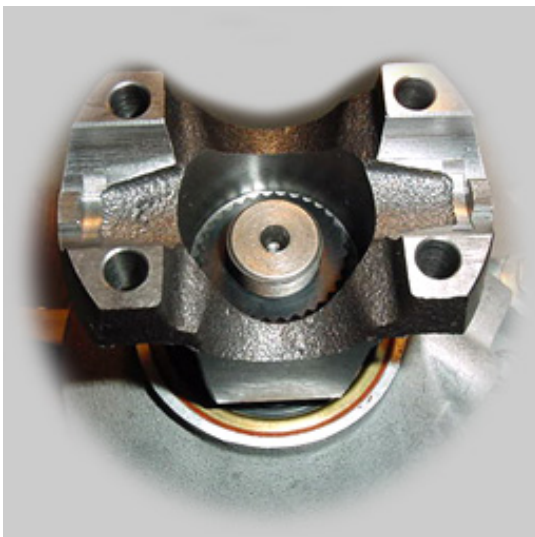


FIG: 30a



FIG: 30b

30) Install the stock speed sensor to complete the installation.