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#### 1991-1997 Toyota Land Cruiser Part Time Transfer Case Conversion



Qty	Part Included	Tools Needed
1	Center Diff Spool	Standard Hand Tools
1	Brass Bushing (installed in spool)	FIPG Sealant
2	Spacers	
2	Free Wheel Hubs (optional)	

# Thank you for purchasing a Slee Off-Road Part Time Kit for your Land Cruiser. All attempts have been made to supply the bracket and related parts in perfect condition with complete installation hardware. However should you have any problems with the condition of the parts or find any parts missing, please do not hesitate to contact us at 1888 4X4 SLEE or <u>sales@sleeoffroad.com</u>

Your Slee Off-Road parts are guaranteed free of defect in material and workmanship for a period of one year from date of purchase. Should you experience any problems, please contact us directly to resolve any issues. We have attempted to provide complete installation instructions provided below. However from time to time changes might be made to parts and associated hardware and you might notice small inconsistencies with the instructions. Please notify us of such occurrences so we can correct them.

### **Installation Instructions**

The following instructions are intended as a guide. It is recommended that you purchase a workshop manual to suit the 80/100 series Land Cruiser. The Toyota publication No. For the 80 series transfer case is RM184E, the following instructions refer to this manual.

Note: Viscous coupled transfer cases can be fitted with the part time conversion. The rear extension housing contains the viscous coupling and is removed when installing the part time kit. An original Toyota centre diff lock switch is required to allow 4WD to be engaged in HIGH range.

1. To remove the coupling remove the circlip and then slide the coupling off the output shaft as seen in the photos below.

2. The rest of the transfer case and free wheeling hub installation is as per the following instructions.

# **3.** This product requires the vehicle to be fitted with a Center Diff Lock Switch. If yours are not fitted with one, please contact Slee Off-Road to purchase the correct switch



Early and Late Model Center Diff Lock Switches





The photo below shows the viscous coupling removed from the extension housing.



#### INSTRUCTIONS

- 1. Drain the transfer case oil.
- 2. Remove the rear drive shaft.
- 3. Remove the speedo cable or speed sensor wiring.

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4. Remove the rear extension housing from the transfer case by undoing the 9 bolts as per page TF-7 instruction 11 in the Toyota manual. *NOTE:* The bolt lengths vary so take note of which holes the bolts came from.



- 5. Remove the 5 bolt, top case cover, as per instruction 13 in the Toyota manual.
- 6. Remove the large snap ring from the outside of the transfer case input shaft rear bearing.
- 7. Remove the 8 bolts holding the centre housing to the front housing. Separate the two housings as per instruction 14a, b, and c in the Toyota manual.



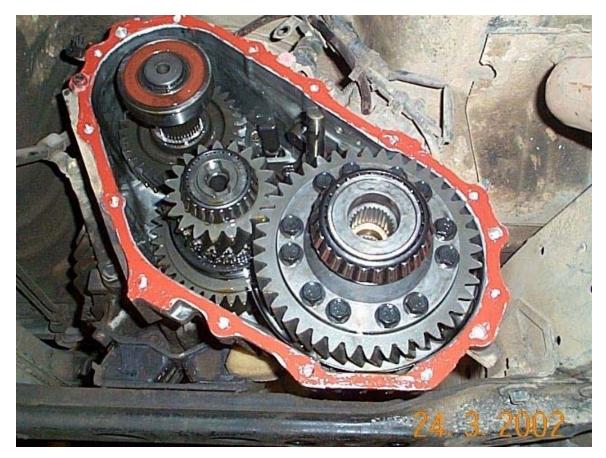
- 8. Remove the centre differential rear case (spool) as per page TF-23 instruction 10 in the Toyota manual. 12 bolts hold the rear case to the front. *NOTE:* Do not remove the differential from the transfer case.
- 9. Remove the pinion shaft, locating pin, pinion gears, rear side gear and 3 thrust washers. They are no longer required. Leave the front side gear and thrust washer in place they are required to support the front drive shaft.



- 10. Remove the tapered roller bearing from the old spool. 11. Clean all parts thoroughly.
- 12. Press the tapered roller bearing onto the new spool. 13. Apply some grease to the face of the bush.



- 14. Install the differential rear spool (as shown above) to the front case and torque the 12 bolts to 65ft-lb, 88 NM as per page TF-25 instruction 4 and 5a in the Toyota manual.
- 15. Then loosen the 12 bolts as per instruction 5b in the Toyota manual.
- 16. Re-torque the 12 bolts to 72ft-lb 98 n-m as per instruction 5c in the Toyota manual.
  The following instructions 17 through to 21 refer to pages TF42 and TF43 in the Toyota Manual.
- 17. Fit the centre housing to the front housing using a suitable sealer as per instruction 9a, b, and c in the Toyota manual.
- 18. Apply liquid thread sealer to all 8 bolts and torque them to 27ft-lb 37 NM as per instruction 9d and e in the Toyota manual.



# The photo above shows the new spool fitted and ready for the rest of the transfer case to be assembled.

- 19. Re-install the snap ring on the input shaft rear bearing as per instruction 9f in the Toyota manual.
- 20. Install the 5 bolt rear case cover. Apply sealer to the cover as per instruction 10a and b in the Toyota manual.
- 21. Apply sealer to the 5 cover bolts and torque them to 27ft-lb 37 n-m as per instruction 10c, d and e in the Toyota manual.
- 22. The output shaft shims should not require adjustment as the rear differential case has been machined to a tolerance of .02mm but the end float should be checked as per page TF-44 in the Toyota manual.
- 23. Install the rear extension housing using sealer on the housing and the 9 bolts as per page TF-45 instruction 14a, b, c, d and e in the Toyota manual.
- 24. Torque the bolts to 27ft-lb 37 n-m.

- 25. Fill the transfer case with 75w-90 oil. It should take approximately 1.3ltrs (1.4US qts)
- 26. Fit the rear drive shaft.
- 27. Fit the speedometer cable or speed sensor wiring.
- 28. Fit the free wheel hubs as per the instructions provided.

*NOTE 1:* Post 1994 models are fitted with wider driving members and longer axles. Before fitting the circlip to the axle on these models fit the 8mm wide spacer (MFC1210S) supplied in the kit. This is to prevent axle end float.

**NOTE 2:** Vehicles fitted with ABS will have the ABS fault light showing when the free wheeling hubs are disengaged. This means that the braking system will revert back to standard (no ABS). Should ABS be required such as when driving in icy conditions the free wheel hubs must be engaged.

**WARNING!** Do not engage the centre differential lock while the vehicle is moving. This action could damage the front output clutch hub or the centre differential front drive.

The components supplied in the kit are designed for specific type conversions. Modifications to any components without the written consent from Marks 4WD Adaptors will void any possible warranty or return privileges. Should you have any further questions that are not covered in the instruction sheet, please contact our sales department for assistance.

Remember an inexpensive phone call can save a costly mistake