31/10/06



Fitting instructions for

# MFK925/80E and MFK925RB80E

# <u>4L80E to</u>

## Nissan GQ and GU Patrol

## **5-speed and Automatic Transfer Case**

Thank you for purchasing a product manufactured by Marks 4WD Adaptors. The following instructions are intended as a guide. It is recommended that you purchase a workshop manual to suit your vehicle.

The following instructions assume the transmission is removed from the vehicle.

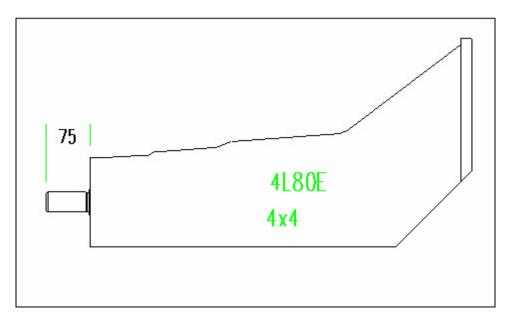
The 4L80E can be fitted with a short output shaft as found in all the 4WD versions or a short shaft 2 wheel drive version can be used. Refer to the diagrams below.

#### **INSTRUCTIONS**

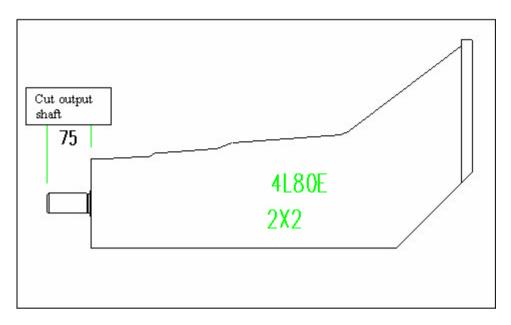
1. Drain the gearbox and transfer case oil.

#### 4L80E 4 wheel drive output shaft diagram

The diagram below shows the output shaft stick out length of a 4x4 transmission for which the kit was designed to fit without any modification.



However if a 2 wheel drive transmission is to be used the output shaft will need to be cut 75mm from the back of the transmission casing to allow the fitting of the kit. The 2 wheel drive transmission also has a sleeve fitted over the output shaft spline and will need to be removed using a small grinder and or cold chisel. *Note:* Be careful when removing the sleeve as deep groves in the shaft will weaken it substantially.



# 4L80E 2 wheel drive output shaft diagram.

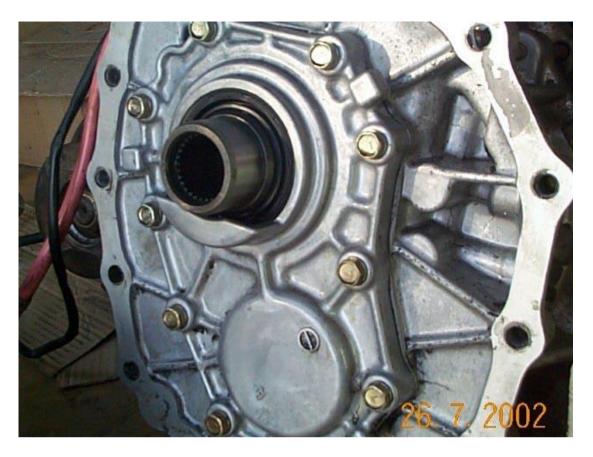
This photo is of a 2wd 4L80E. **NOTE:** Not all 2WD transmissions are fitted with this type of output shaft.



- 2. Disconnect the transfer case linkages, lockout plate and pivot pin from the original Nissan extension housing.
- 3. Remove the transfer case from gearbox.
- 4. Fit the 4L80E extension housing sealing ring to the steel adaptor plate spigot.
- 5. Put a thin smear of silastic on the mating faces.
- 6. Fit the steel adaptor MFC1200 to back of the automatic transmission and secure it using the 6 M10x1.5x25 socket head cap screws supplied in the kit. <u>NOTE</u>: Check to make sure the socket head cap screws do not bottom out in the transmission taped holes. If they do cut or grind them down.
- 7. Fit a new sealing ring to the cast adaptor housing (MFC925). *NOTE:* A TH700 or 4L60E sealing ring can be used.
- 8. Put a thin smear of silastic on the mating faces.
- 9. Fit the adaptor housing MFC925 to back of the steel adaptor plate and secure it using the 4 M10x1.5x25 socket head cap screws supplied in the kit. <u>NOTE</u>: Check to make sure the socket head cap screws do not bottom out in the adaptor taped holes. If they do cut or grind them down.
- Slide the coupler shaft over the output shaft on the automatic transmission. <u>NOTE:</u> Lubricate the spline on the output shaft using ATF.
- 11. Fit the new seal in the rear of the adaptor housing with the spring facing the transmission. *NOTE:* Use sealer and a suitable drift to fit the seal.
- 12. Fit the 2 M12x20 dowels (MFC382) to the adaptor housing.

## RB30 MODELS ONLY

- 1. Cut the original transfer case shift linkage rod in half. Weld the new extension piece supplied between the two halves.
- 2. The oil catcher under the transfer case input seal would need to be cut off. If this is not done the oil catcher will foul on the adaptor oil seal. The photo below shows a transfer case with the oil catcher



- 1. Fit the transmission assembly to the transfer case and secure it using the original bolts.
- 2. Fit the transfer case linkages, lockout plate and pivot pin to the extension housing.
- 3. Fit the linkage and the original lever to the side of the adaptor housing along with the new lockout plate supplied.
- 4. Fit the torque converter to the transmission and put a small amount of grease on the location spigot.
- 5. Fit the flex plate to the engine and secure it using the GM crankshaft bolts. <u>NOTE</u>: Use locktite on the bolts and torque to specification.
- 6. Apply a small amount of grease to the crankshaft pocket.
- Lift the complete assembly into the vehicle and secure it to the engine using the GM bellhousing bolts. <u>NOTE</u>: One of the top bolts also secures the dip stick tube.
- 8. Fit the cross member and the transmission mounting rubber using the original bolts.

9. Fit the torque converter bolts. *NOTE:* Use locktite on the bolts and torque to specification.

- 10. Fit the torque converter cover plate and secure it using the GM bolts.
- 11. Fit the front and rear drive shafts.
- 12. Fit the transmission cooler and pipes. **NOTE:** Keep the pipes well clear of the exhaust system.

- 13. Fit the transmission shifter. **NOTE:** A B&M or Hurst type can be used.
- 14. Fit the HI/LOW lever and boot.
- 15. Connect the inhibit switch and reverse light switch.
- 16. Connect the transmission control module (TCM) to the transmission.
- 17. Fill the transmission with ATF.
- 18. Start the engine and allow it to warm up and check for oil leaks.
- 19. Before road testing check the transmission oil level.
- 20. Road test the vehicle for 1 to 5km.
- 21. Then check again for oil leaks.

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!

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