

Fitting instructions for

# MFK1195A, MFK1195AE and MFK1195E/6A

# TH700 and 4L60E to LAND CRUISER 80 & 100 SERIES Automatic Transmission 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 80 & 100 series Land Cruiser.

**NOTE 1:** This kit has been designed to replace the A440 Toyota Automatic transmission. The following instructions assume the transmission is removed from the vehicle.

The kit has been designed to use a GM transmission from a 2WD vehicle. The 4WD version has a short output shaft and cannot be used unless you fit the output shaft from a 2WD version.

**NOTE 2:** The transmission oil pan will need to be modified to clear the front output shaft.

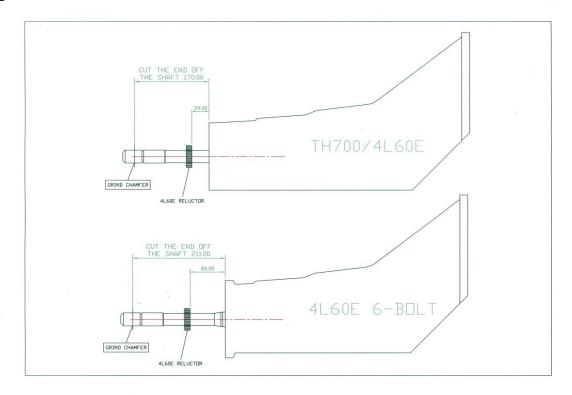
## **INSTRUCTIONS**

Drain the gearbox and transfer case oil.

- 1. Remove the transfer case from gearbox.
- 2. Remove the TH700 or 4L60E-extension housing.
- 3. Remove the sealing ring from the extension housing.

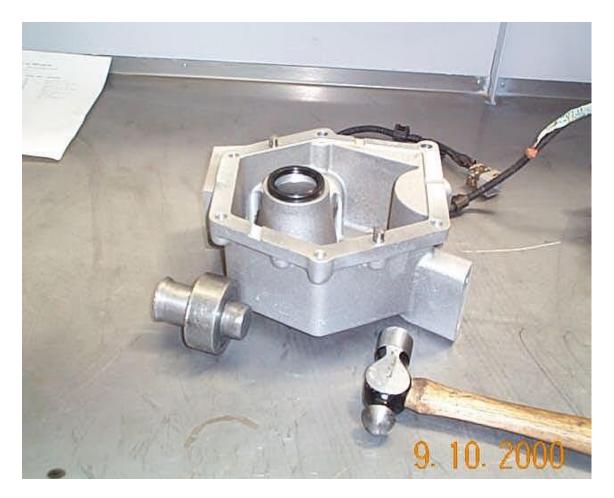


4. Cut the main output shaft 170mm from the back of the transmission as per the diagram.





- 5. **NOTE:** When fitting a six bolt 4L60-E. You will need to fit the six bolt to four bolt adaptor housing to the automatic transmission (part no. MFC1103) before cutting the mainshaft to length. Secure the MFC1103 housing to the transmission using the six M10x1.5x30 socket head cap screws. **NOTE:** Use the original o'ring and silastic to seal the housing to the transmission.
- 6. Fit the original extension housing o'ring to the adaptor extension housing (TH700 housing MFC887) and the (4L60E housing MFC887E). *NOTE:* 4L60E six-bolt adaptor to MFC887E housing does not require an o'ring, use silastic only.
- 7. Put a thin smear of silastic on the mating faces.
- 8. Fit the new extension housing (MFC887#) to the back of the automatic transmission and secure it using the four M10x1.5x40 socket head cap screws supplied in the kit. *NOTE:* 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.



- 9. Fit the new seal (TC12586) in the back of the adaptor housing (MFC1195) with the spring facing the transmission. *NOTE:* Use sealer and a suitable drift to fit the seal.
- 10. Fit the transfer case adaptor housing to the back of the extension housing and secure it using the four M10x1.5x40 socket head cap screws supplied in the kit.  $\underline{NOTE}$ : Use silastic on the mating surfaces.
- 11. Slide the coupler shaft (MFC1258) over the output shaft on the automatic transmission. *NOTE:* Lubricate the spline on the output shaft using ATF.
- 12. Fit the two M12x20 dowels (MFC382) to the adaptor housing.



13. Fit the transmission assembly to the transfer case and secure it using the original Toyota bolts.

### TH700 SPEED SENSOR (Hall Effect Type).

- 14. If your vehicle is fitted with a speedometer cable use the MFK696 speed sensor. For installation refer to the instructions supplied with the kit.
- 15. If your vehicle is fitted with the Toyota 3-wire Hall effect speed sensor use the MFK696E speed sensor interface. For installation refer to the instructions supplied with the kit.

#### 4L60E SPEED SENSOR (Inductive Type).

- 16. Fit the GM speed sensor to the adaptor extension housing and secure it using the original bolt. *NOTE:* The housing is machined to suit the 24mm diameter GM sender (Part No. 10456520). This sender is an inductive 2-wire type.
- 17. Fit the HI/LOW lever-mounting bracket (MFC886) to the top of the adaptor housing. Secure it to the adaptor using the original Toyota bolts.

18. Fit the HI/LOW lever assembly to the top of the bracket. Secure it using the four M8x1.25x25 bolts, four M8 spring washers, and four M8x1.25 nuts. Connect the transfer case linkage.



- 19. Fit the torque converter to the transmission and put a small amount of grease on the crankshaft location spigot.
- 20. Fit the flex plate to the engine and secure it using the GM crankshaft bolts. **NOTE:** Use locktite on the bolts and torque to specification.
- 21. Apply a small amount of grease to the crankshaft pocket.
- 22. Lift the complete assembly into the vehicle and secure it to the engine using the GM bellhousing bolts. *NOTE:* One of the top bolts also secures the dip stick tube.
- 23. Fit the cross member and the transmission mounting rubber using the original bolts.
- 24. Fit the torque converter bolts. <u>NOTE:</u> Use locktite on the bolts and torque to specification.
- 25. Fit the torque converter cover plate and secure it using the GM bolts.

- 26. Fit the front and rear drive shafts.
- 27. Fit the transmission cooler and pipes. **NOTE:** Keep the pipes well clear of the exhaust system.
- 28. Fit the transmission shifter. *NOTE*: A B&M or Hurst type can be used.
- 29. Fit the HI/LOW lever and boot.
- 30. Connect the inhibit switch and reverse light switch.
- 31. Connect the torque converter lockup (TH700).
- 32. Fill the transmission with ATF.
- 33. Start the engine and allow it to warm up and check for oil leaks.
- 34. Before road testing check the transmission oil level.
- 35. Road test the vehicle for 1 to 5km.
- 36. Then check again for oil leaks.
- 37. Should the kick down cable need adjusting, refer to the relevant section in the GM manual.

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.

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