



Fitting instructions for
MFK1195, MFK1195E and MFK1196E/6
TH700, 4L60E and 4L60E 6 bolt to
LAND CRUISER 80 SERIES
5-speed 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 series Land Cruiser. The Toyota publication No. For the 80 series is RM184E, some of the following instructions refer to this manual.

NOTE 1: This kit is designed to replace the Toyota 5-speed manual transmission. The kit is designed to use a GM transmission from a 2WD vehicle. The 4WD version has a short output shaft and can not be used unless you fit the output shaft from a 2WD version.

The new transfer case input shaft supplied in the kit does not have a spline for PTO option.

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

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

Transfer case Preparation

1. Drain the gearbox and transfer case oil.
2. Remove the transfer case from the gearbox.
3. 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.
4. Remove the oil strainer, 2 bolts as per instruction 12 in the Toyota manual.
5. Remove the 5 bolt, case cover, at the back of the transfer case input shaft, as per instruction 13 in the Toyota manual.
6. Remove the large snap ring from the outside of the input shaft rear bearing.
7. Remove the 8 bolts holding the center housing to the front housing. Separate the two housings as per instruction 14a, b and c in the Toyota manual.

8. Remove the input shaft assembly as per instruction 16 in the Toyota manual.
9. Refer to page TF-12. Remove the rear bearing snap ring.
10. Press the rear bearing off the shaft.
11. Remove the snap ring behind the PTO gear if fitted.
12. Remove the PTO gear if fitted.
13. Remove the snap ring behind the input gear.
14. Remove the input gear from the input shaft.
15. Remove the front bearing from the input shaft using a press.
16. Clean all parts thoroughly.
17. Press the front bearing onto the new input shaft (MFC1212).
18. Fit the input gear onto the new input shaft.
19. Fit the snap ring behind the input gear.
20. Press the rear bearing onto the new input shaft.
21. Fit the rear bearing circlip.
22. Fit the input shaft assembly into the front transfer case housing.
23. Fit the center housing to the front housing using a suitable sealer as per instruction 9a, b, and c in the Toyota manual.
24. 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.
25. Re-install the snap ring behind the input shaft rear bearing as per instruction 9f in the Toyota manual.
26. Install the 5-bolt, rear case cover. Apply sealer to the cover as per instruction 10a and b in the Toyota manual.
27. 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.

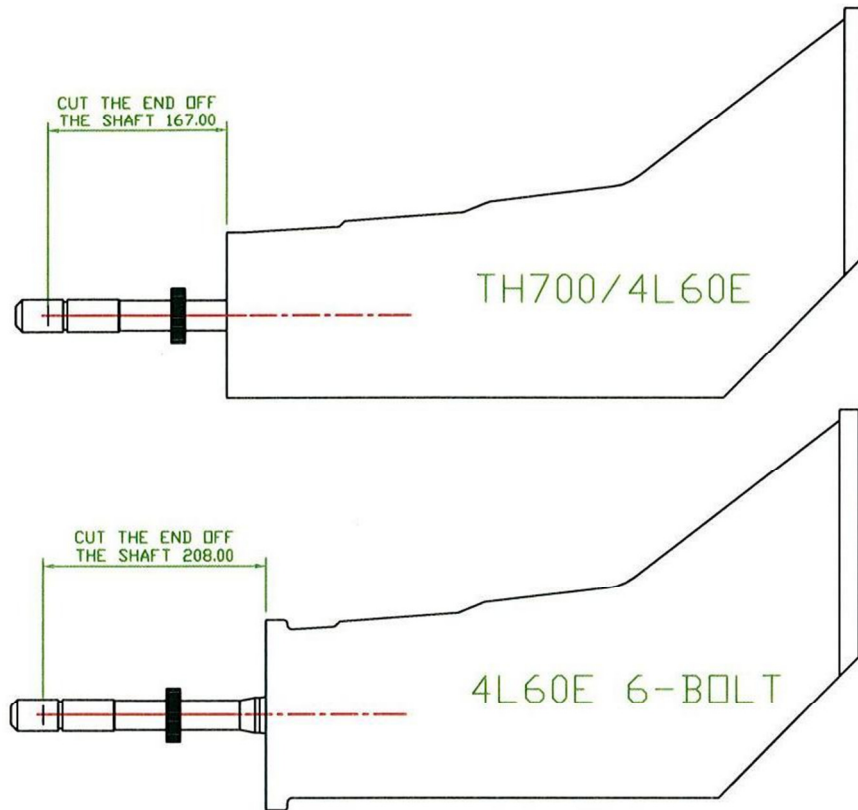
28. Shim adjustment should not be required for the idler shaft unless you have replaced the bearings. If so refer to page TF-43 in your manual.
29. The output shaft shims should also not require adjustment unless you have replaced the bearings. If so refer to page TF-44 in the Toyota manual.
30. Install 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.
31. Torque the bolts to 27ft-lb 37 n-m.
32. Fill the transfer case with 75w-90 oil. It should take approximately 1.3ltrs (1.4US qts).

Transmission Preparation

33. Remove the TH700, 4L60E, 4L60E-6-bolt extension housing.
34. Remove the sealing ring from the extension housing.

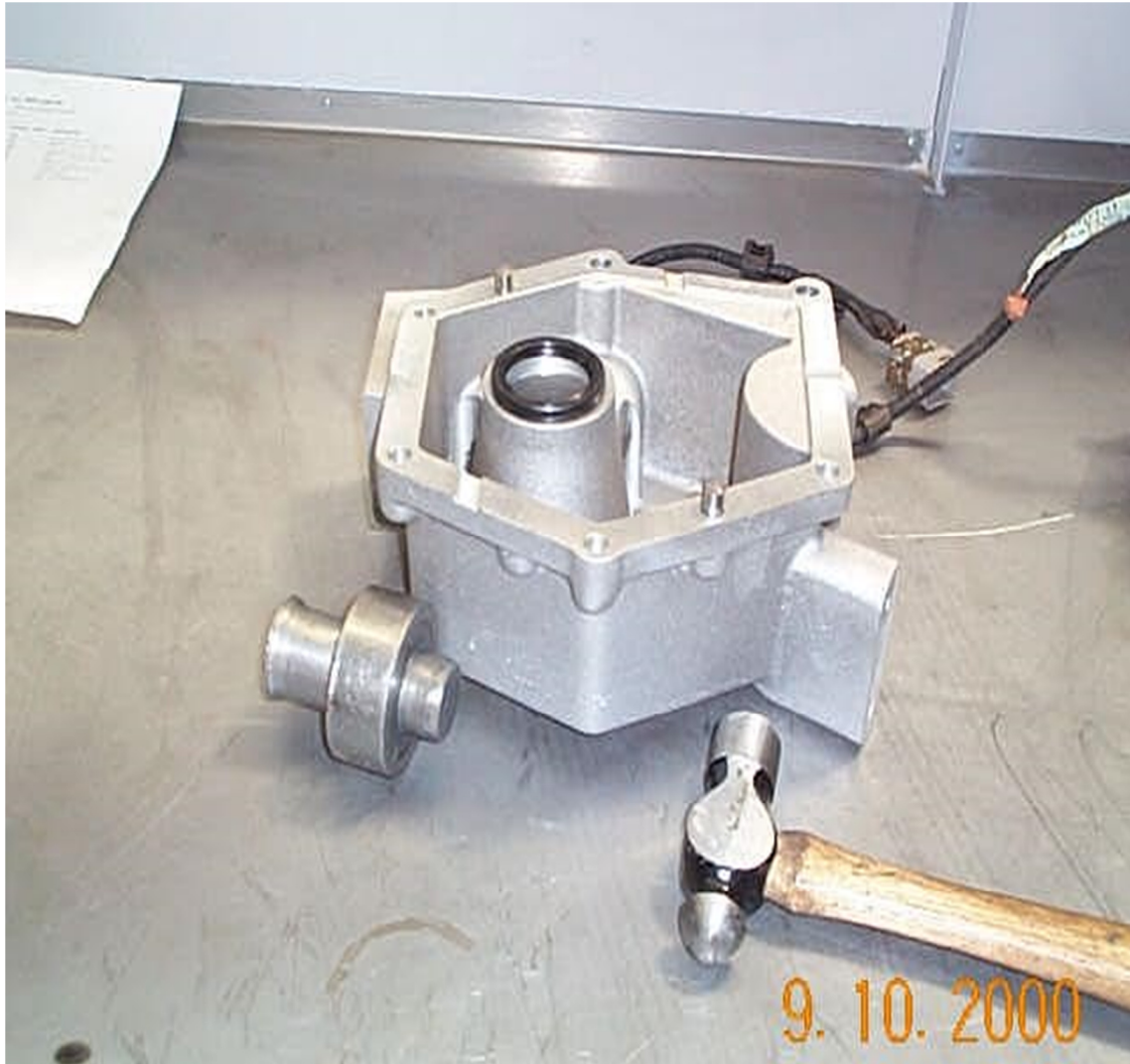


35. Next the output shaft will need to be cut down. Pack a rag into the back of the transmission around the output shaft to prevent any metal filings from entering the transmission while cutting the shaft.





36. **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). 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.
37. Fit the new seal (TC12586) in the back of the adaptor housing, with the spring facing the transmission. **NOTE:** Use sealer and a suitable drift to fit the seal. See the following photo.



38. Fit the original extension housing o'ring to the adaptor housing, if you don't have one don't worry, use silicone sealer between the housings, with or without the oring.
39. Fit the two M12x20 dowels (MFC382) to the adaptor housing.
40. Fit the transfer case adaptor housing to the back of the automatic transmission and secure it using the four M10x1.5x80 socket head cap screws supplied in the kit.
NOTE (1): *When fitting a six bolt 4L60-E.* Use the four M10x1.5x50 socket head cap screws supplied to fit the adaptor housing to the MFC1103.
NOTE (2): As above, use silastic on the mating surfaces.
41. Fit the transmission assembly to the transfer case and secure it using the original Toyota bolts.



TH700 SPEED SENSOR (Hall Effect).

- 42. If your vehicle is fitted with a speedometer cable use the MFK696 speed sensor. For installation refer to the instructions supplied with the kit.
- 43. 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).

- 44. 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.
- 45. Fit the HI/LOW lever assembly to the top of the adaptor housing and connect the linkage.
- 46. Fit the torque converter to the transmission and put a small amount of grease on the location spigot.
- 47. 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.

48. Apply a small amount of grease to the crankshaft pocket.
49. 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.
50. Fit the cross member and the transmission mounting rubber using the original bolts.
51. Fit the torque converter bolts. **NOTE:** Use locktite on the bolts and torque to specification.
52. Fit the torque converter cover plate and secure it using the GM bolts.
53. Fit the front and rear drive shafts.
54. Fit the transmission cooler and pipes. **NOTE:** Keep the pipes well clear of the exhaust system.
55. Fit the transmission shifter. **NOTE:** A B&M or Hurst type can be used.
56. Fit the HI/LOW lever and boot.
57. Plug the loom plugs into the inhibit switch and the reverse light switch.
58. Connect the torque converter lockup.
59. Fill the transmission with ATF.
60. Start the engine and allow it to warm up and check for oil leaks.
61. Before road testing check the transmission oil level.
62. Road test the vehicle for 1 to 5km.
63. Then check again for oil leaks.
64. 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.

Remember an inexpensive phone call can save a costly mistake!

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