



FITTING INSTRUCTIONS FOR

MFK1065, MFK1065E, MFK1065E-6, MFK1065S, MFK1065S-E, MFK1065S-E6

TURBO 700R-4 AND 4L60-E

TO

HILUX / 4 RUNNER AND SURF 4 CYLINDER

CHAIN DRIVEN TRANSFER CASE

Thank you for purchasing a product manufactured by Marks 4WD Adaptors. The following instructions are intended as a guide. We recommend that you purchase a service manual pertaining to your vehicle for specific torque values, wiring diagrams and other related information.

NOTE 1: The Toyota 4/Runner-Surf automatic transmission, transfer case and cross member can't be used in this conversion. The 4 cylinder model transfer case previously fitted with a 5-speed gearbox along with the cross member will be required to position the engine into the correct position. The drive shafts and Hi/Low lever will need to be altered accordingly.

NOTE 2: It is recommended that an automatic transmission specialist install the modified transmission output shaft to the automatic transmission. The automatic transmission requires complete disassembly to remove the output shaft. Make sure your specialist fits the correct seal to the front of the output shaft.

NOTE 3: These instructions assume the gearbox and transfer case have been removed from the vehicle and that the change over mainshaft has been fitted to the automatic.

NOTE 4: The 6 bolt transmissions require the MFC1103 6 to 4 bolt adaptor to be fitted. Socket head cap screws are supplied, silicone must be used to seal the housings.

1. Separate the transfer case from the gearbox by undoing the nine bolts on the rear of the gearbox extension housing.

Note: This kit is designed to use the existing 65-mm long coupler sleeve found in 1988 to 1998 models. The 2.7ltr and 3.0ltr models are fitted with a 55mm long coupler sleeve and can not be used in this kit. If your coupler is 55mm long we suggest you source one from your local 4WD wrecker. (Please note that Toyota do not sell this part separately, it can only purchased with the transfer case input shaft.)

If you are using our MFK1065S (Surf) kit, you have been supplied with a coupler sleeve.

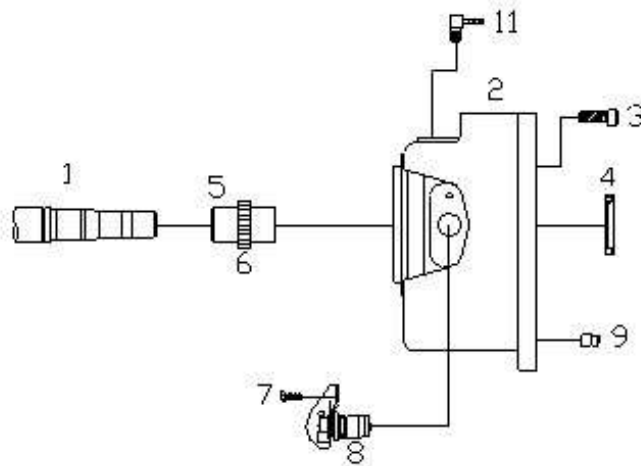
2. Remove the hi-low lever housing from the top of the gearbox extension housing and clean it thoroughly.
3. Fit the hi-low lever housing to the top of the new adaptor housing, use a light smear of silastic on the machined faces and secure it with the original bolts.

4. All 4L60-E transmissions have a special speed sensor that fits into the side of the adaptor housing. The reluctor ring supplied in the kit must be fitted to the centre of the coupling sleeve. (The reluctor ring in the surf kit is pressed to the step on the coupler sleeve)
5. **NOTE:** Some early VR and imported 4L60E transmissions were fitted with a 2" diameter VSS this VSS can't be used in the new adaptor housing. The new adaptor is machined to suit the cheaper and more common 24mm one from VS and later model vehicles. The GM part number for the 24mm VSS is 10456520.

5a. Fit the new seal in the adaptor housing with the spring side facing the auto.

NOTE: The seal must flush with the end of the machined recess in the adaptor. (Approx 45 mm from transfer case face)

6. Fit the 4L60-E/700-R4 o'ring seal to the adaptor housing.



KEY	PART NO.	QTY.	DESCRIPTION
1	MFC1066	1	MAINSHAFT 700R4 CHANGE OVER
2	MFC1065	1	HOUSING 700R4 TO CHAIN DRIVEN T/CASE
3	MFC099	4	SHCS M10x1.5x40
4	TC12554	1	SEAL
5		1	COUPLING SLEEVE FROM HILUX MAINSHAFT
6	MFC1067	1	RELUCTOR RING
7		1	BOLT M6x1
8		1	SPEED SENSOR
9	MFC1068	2	DOWEL STEPPED 12MM/11MMx20L
11		1	BREATHER ADAPTOR
11		1	BREATHER TRANSFER CASE

7. Fit the new adaptor housing to the automatic transmission using the bolts supplied in the kit. Use a suitable sealer between the two faces.

8. Fit the 2 stepped dowels in the transfer case side of the adaptor housing. If they are already fitted, ignore this operation.

9. Using a suitable sealer on the adaptor housing machined face fit the transmission to the transfer case securing it with the original bolts.

10. Mount the complete assembly into the vehicle.

V6 ENGINE INSTALLATION

NOTE. If the transmission is being fitted with a Commodore V6 engine the drive shafts and cross member remain unchanged. The engine can be fitted as per our MFK129 instructions.

1. Cut a piece of galvanised sheet metal to cover the old gear lever hole in the transmission tunnel if not using Marks 4WD Adaptors shifter kit (MFK1145##).
2. Fit the hi-low lever and the original boot.
3. Fit the original Commodore transmission shifter with the Marks 4WD Adaptors mounting plate and electronic digital display. Wire the Commodore inhibit switch and reverse light switch.

If your vehicle is fitted with a floor console modifications should be avoided using the above components.

4. Fit a new automatic transmission cooler. We recommended that you fit the original GM, steel cooler pipes from the transmission to the front of the engine. Then use flexible hoses and clamps to connect the GM pipes to the new cooler.

Note: It is important that you carefully measure the distance between the front drive shaft and the transmission pan. If there is insufficient clearance to allow for full suspension travel, you should consider using a smaller diameter front drive shaft tube, or modify the oil pan. Failure to have adequate clearance will result in the front tail-shaft tearing a hole in the oil pan.

V8 ENGINE INSTALLATION

If the transmission is being fitted with a V8 engine, the drive shafts will require modification. The new transmission with the new adaptor housing measures 735mm/28.9", which is 95mm/3.75" longer than the original 5-speed gearbox and bellhousing

The cross member will require relocation, Marks 4WD Adaptors manufacture a pair of transfer case mounts (Part no. MFK385). They simply weld to the chassis rail and allow the Hilux cross member to be secured using the original bolts. The cross member mounting plates are 25mm/1" thick, this will improve the drive shaft angles.

1. Cut a piece of galvanised sheet metal to cover the old gear lever hole and hi-low lever hole
2. Cut a new hole in the transmission tunnel for the hi-low lever, it should be 95mm/3.75" back from its original position.
3. Fit the hi-low lever and the original boot, use self tapping screws to secure it to the tunnel.
3. Fit the original Commodore transmission shifter with the Marks 4WD Adaptors mounting plate and electronic digital display. Wire the Commodore inhibit switch and reverse light switch.

If your vehicle is fitted with a floor console modifications should be avoided using the above components.

4. Fit a new automatic transmission cooler. We recommended that you fit the original GM, steel cooler pipes from the transmission to the front of the engine. Then use flexible hoses and clamps to connect the GM pipes to the new cooler.

Note: It is important that you carefully measure the distance between the front drive shaft and the

transmission pan. If there is insufficient clearance to allow for full suspension travel, you should consider using a smaller diameter front drive shaft tube, or modify the oil pan. Failure to have adequate clearance will result in the front tail-shaft tearing a hole in the oil pan.

The components supplied in the kit are designed for specific 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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