



Fitting instructions for

## **MFK 1040**

### **4L80E AUTOMATIC TO RANGE ROVER**

#### **5 SPEED MANUAL, 3 AND 4 SPEED AUTOMATIC 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.** This kit is designed for use with the short tail housing transmission. Stick out length must be 79.00 mm +/- 3.00 mm . If you have a two wheel drive transmission you may find a steel sleeve pressed over the spline . This can be removed and the shaft cut down to the appropriate length . The LT230 transfer case should be the non viscous coupling type . This kit has been designed for use with our MFK1044 Speed Sensor kit .

### **Instructions**

1. Remove the transfer case linkages and mounting brackets from the original transmission assembly.
2. Remove the main transmission assembly from the transfer case.
3. Remove the rear transfer case cover (tin hat).
4. Remove the coupler shaft and clean the transfer case thoroughly.
5. Remove the old transfer case input seal and fit the new seal (4) to the housing (3). Make sure the spring side of the seal faces the transfer case.
6. Fit the other new seal (4) to the adaptor housing (5). Make sure the spring side of the seal faces the automatic transmission.
7. Place a smear of grease inside the seals.
8. Make sure the two dowels are fitted to the front of the transfer case housing. Using a suitable sealer, fit the adaptor housing (5) to the transfer case and secure it using the original bolts.

**NOTE.** The following instructions 9 and 10 are for adaptor kits without the speed sensor kit.

9. Fit the coupler shaft (8) through the adaptor housing (5) into the transfer case input gear spline. Then fit the coupler shaft washer (2) with the tapered side facing the transfer case. Use loctite on the bolt (1) torque the bolt to 55-60 ft-lbs.

10. Refit the transfer case rear cover (tin hat).

**NOTE.** The following instructions 10a and 10b are for adaptor kits with the speed sensor kit.

10a. Fit the coupler shaft (8) through the adaptor housing (5) into the transfer case input gear spline. Then press the reluctor ring (S1) onto the reluctor ring boss (S2). Fit the assembly to the back of the PTO gear and secure it using the coupler shaft retaining bolt (1). Note. use loctite on the bolt and torque to 55-60 ft-lbs.

10b. Fit the speed sensor housing (S6) to transfer case using the original bolts (S3) and a suitable sealing compound. Fit the speed sensor (S4) and secure it with the m6 bolt (S5). Note. A smear of grease applied to the speed sensor o'ring will help when fitting.

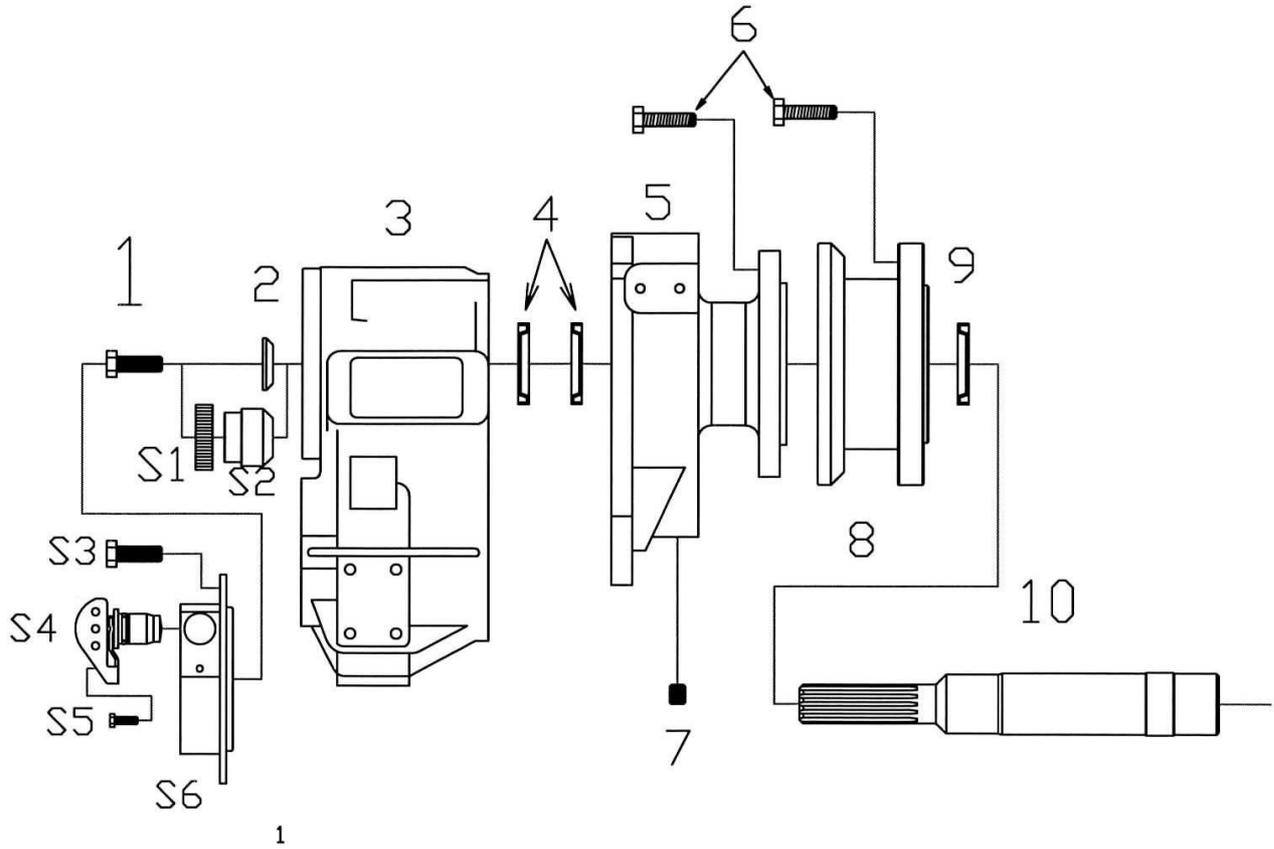
11. Fit the transmission to the adaptor housing (5) using the 6 socket head cap screws (6).

12. Refit the transfer case linkages to the adaptor housing (5).

**NOTE.** Range Rover have different transmission mount bolt patterns. For this reason the new adaptor housing has been multi drilled.

13. Trial fit the original mounting to the adaptor to establish which bolt pattern you have. The holes in the adaptor not used to hold the mounting must be plugged using the 4 alloy plugs (7), make sure you use loctite to seal the thread.

**PARTS LISTING**



KEY	PART NO.	QTY.	DESCRIPTION
1	MFC046	1	BOLT M12x1.25x40
2	MFC358	1	WASHER COUPLER SHAFT
3			TRANSFER CASE HOUSING
4	TC12577	2	SEAL
5	MFC355	1	HOUSING TH400 TO RANGE ROVER
6	MFC1042	12	BOLT M10x1.5x40
7	MFC582	4	PLUG ALLOY M12x1.75x12
8	MFC1040	1	HOUSING 4L80E
9	TC12586	1	SEAL 48x62x8
10	MFC1041	1	SHAFT COUPLER TH400 TO RANGE ROVER
MFK1044 SPEED SENSOR PARTS			
S1	MFC699	1	RELUCTOR RING
S2	MFC1043	1	BOSS RELUCTOR MOUNTING
S3		6	ORIGINAL BOLTS
S4	10456520	1	SPEED SENSOR
S5	MFC148	1	BOLT M6x10
S6	MFC1044	1	HOUSING SPEED SENSOR

14. Mount the complete assembly into the vehicle.

**NOTE.** The automatic transmission and adaptor is longer than the transmission being replaced. For this reason drive shafts and transfer case mountings will require modification.

15. Refit front drive shaft and check the clearance between it and the side of the automatic transmission sump. Modify the sump if required by removing the corner section.

**NOTE.** When modifying an automatic sump make sure that the modifications do not interfere with the valve body.

All automatic transmissions require the use of a suitable transmission cooler. This can either be incorporated into the original radiator or a remote type can be used. The transmission shift mechanism can either be an after market Hurst or B&M floor shifter. Alternatively a T-bar set up can be used from an automatic Range Rover with modification.

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.

***Proudly Manufactured by:***

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