



MARKS4WD

Fitting Instruction For MFK2045

ABS Relocation Kit LandCruiser 80 & 100 Series

Kit Contents

This kit contains the following parts. Before beginning any work ensure that you have all parts.

Part No.	Quantity	Description
• MFC2045	2	Reluctor Ring ABS front L/C 80 & 100
• MFC2045MB	2	Reluctor Mounting Boss ABS L/C80 & 100
• MFC972	8	Screw M3 x 5mm, black
• MFC2046L	1	Bracket ABS L/H sensor L/C 80 & 100
• MFC2046R	1	Bracket ABS R/H sensor L/C 80 & 100
• MFC2046S	2	Shim 1mm ABS sensor
• MFC2045HS	2	Seal – dust axle hub – L/C 80 & 100
• MFC732	2	Welsh plug M20
• MFC447	2	Bolt M8 x 1.25 x 16 H/T – Z/P
• CWC42	2	Washer copper 8 x 12 x 1
• MFC2089	2	Bracket cable mounting



Note:

To fit our ABS kit, remove the front brake calipers, wheel hubs, backing plate and wiper seal as per the Toyota workshop manual. Proceed with the following steps for the installation of our kit (MFK2045).

Part A : Mounting Boss To Hub Fitting

Step 1 Heat Fitting of Reluctor Mount Boss



The reluctor mounting boss ring (MFC 2045MB) is required to be heated before being fitted to the wheel hub. This can be done by preheating it in an oven at 200° for 15 minutes or a similar method. Using a pair of heat-proof gloves and/or multi grips pick up the ring and fit onto the wheel hub with the smaller diameter facing out. Make sure the mount boss is sitting hard against the bottom shoulder and sitting square. Using a vernier, measure in four (4) places at 90° intervals to ensure the boss runs true.

Image 1.1 Placement of the mount boss ring

Please Note: On 80 series models the reluctor mounting boss will need to be removed to change disc rotors. 100 series models removal of the reluctor mounting boss to change disc rotors is not required.

Step 2 Fit ABS Reluctor Ring



Image 2.1 Placement of the ABS Reluctor ring



Image 2.2 Tightening the screws holding the reluctor ring

The ABS Reluctor ring sits on the inside of front brake rotor with the fingers facing outward towards the rotor. See Image 2.1 This ring mounts flush to the Boss mount reluctor ring as fitted earlier (Step 1).

Screw the ABS reluctor ring to the Boss mount reluctor using supplied M3 screws. Screws to be tightened to hand tight, no specific tension/torque is required. Apply Loctite or similar product to ensure screws remain fastened.

It is important to check the run-out of the ABS reluctor before fitting the ABS sensor. After completing the above steps mount the rotor (fit one (1) wheel bearing adjuster nut) and check for trueness. If adjustment is required, remove the rotor and tap around the reluctor mounting boss. Re mount the ABS reluctor and recheck the run-out. Repeat process as necessary until trueness has been achieved.

Part B: Swivel Fitting

Step 1 - Seal Original ABS Entry and Mount Hole



Remove the ABS sensor from top of swivel housing. This leaves an entry hole and a bolt hole which are no longer required. Tap the supplied welsh plug (MFC732) into the existing ABS sensor entry hole to seal it using Loctite. Using the supplied M8 x 1.25 x 16 bolt (MFC447) and copper washer (CWC42), screw into the existing bolt hole to seal it.

Image 1.1 Sealing the ABS entry and mount holes.

Step 2 - Fit Dust Seal



Image 2.1 Fitting of the dust seal.

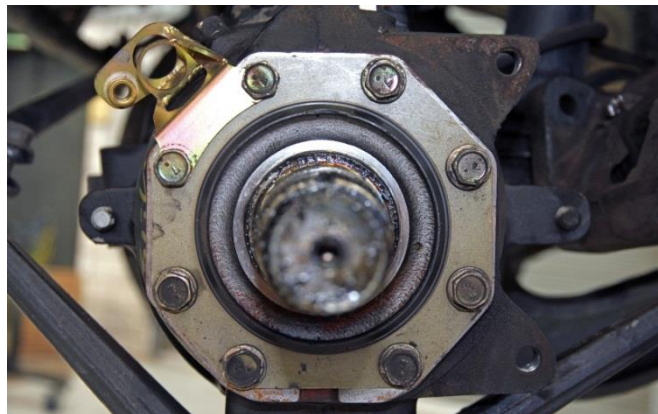


Image 2.2 Fitting of the new ABS sensor bracket.

Fit the dust seal (MFC2045HS) to the swivel housing. There are eight (8) bolts in total that hold this seal in place, two of which hold the new ABS sensor bracket in place. The six (6) factory bolts not holding the ABS sensor bracket are required to be fitted in conjunction with the spring washer. Nip these six bolts up, to hold the dust seal in place. Do not refit backing plate.

Step 3 Fit ABS Sensor Bracket

Bolt on the ABS sensor bracket (MFC2046L/MFC2046R) using the remaining two factory bolts, these bolts are to be fitted without the spring washer. Nip these bolts up to check the following clearances. Do not tension bolts properly until clearances have been checked.

A clearance is required between the ABS sensor bracket and the swivel housing. The swivel housing is a cast item with a machined face so there is the strong possibility that when fitting the ABS sensor bracket there will not be any clearance. If this is the case, it will be necessary to clearance the swivel housing around the ABS sensor bracket. This can be done with a small



Image 3.1 Fitting of the new ABS sensor bracket.

angle grinder fitted with a flapper disc or a die grinder. All bolts are to be tightened according to the Toyota workshop manual. Apply Loctite to these six (6) bolts.

The images below indicate where the required clearance around the ABS sensor mounting bracket should be.



Image 3.2 Clearance under the ABS sensor mount



Image 3.3 Clearance beside the ABS sensor mount.

Once adequate clearance is obtained remove bolts without a spring washer and apply a small Loctite. All eight (8) bolts are to be tightened according to the Toyota workshop manual.

Step 4 - Fit ABS Sensor

Remove the original O-ring from the ABS sensor as shown in image 4.1. It will not be reused. Slide the ABS sensor into the new ABS bracket (MFC2046L/MFC2046R) and bolt into place using the original mounting bolt. When fixing the sensor into place it is important to note its position in relation to the fingers on the reluctor ring.

A gap of no less than 0.7mm and no greater than 3.0mm is required. If this clearance is not immediately achievable remove the ABS sensor from the mount, slip onto the ABS sensor the supplied 1mm shim (MFC2046S), slide the sensor back onto the ABS bracket and re-check the clearance between the sensor and the fingers of the reluctor. Refer to Image 4.2 below.



Image 4.1 Removal of the O-ring prior to inserting into bracket.

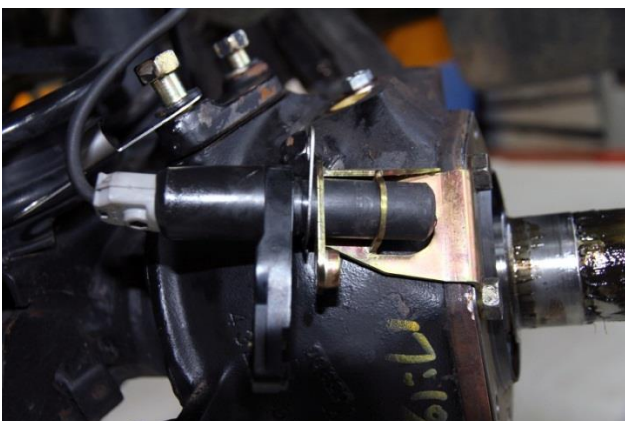


Image 4.2 Fit position of the ABS sensor



Image 4.3 Clearance (exaggerated) between ABS sensor and reluctor ring.

Step 5 - Fit Cable Mounting Bracket



Image 5.1 Location of the new ABS cable mount.

This kit comes with a new cable mount bracket (MFC2089) which will replace the existing cable mount. Remove the existing cable mount and fit the new cable mount using the factory king pin bolts and spring washers. Tighten each bolt according to the Toyota workshop manual.

It is important that you keep the existing rubber split sleeve as this will be reused around the sensor cable in the cable mount as shown - image 5.2.

With the split rubber sleeve in place and the cable sitting in the cable bracket arm, use a pair of pliers or similar and gently squeeze close the bracket arm so that it is tight enough to hold the ABS sensor securely in place.

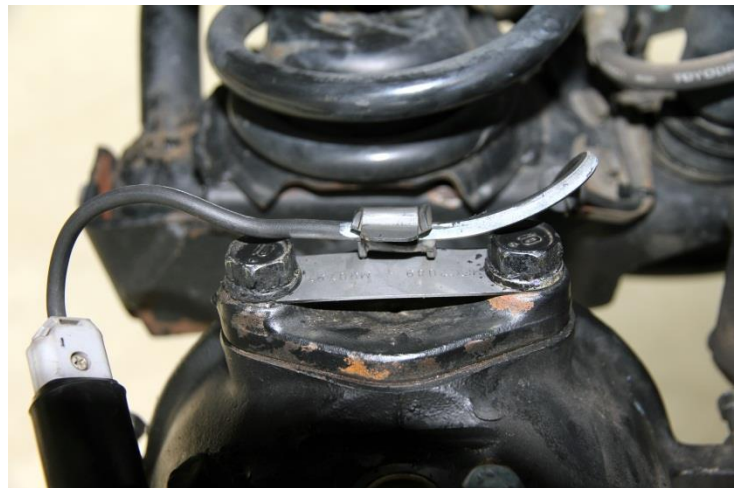


Image 5.2 Location of split rubber sleeve.



Image 5.3 Clamping closed the bracket arm.

Note:

Refit front wheel hubs, bearings and calipers as per the Toyota workshop manual.

On successful completion of installing this kit you will be left with two (2) backing plates, two (2) O-rings and two (2) original dust seals. These items are no longer required and can be discarded or kept for later use.

Terms and Conditions

Thank you for purchasing this product manufactured by Marks 4WD Adaptors. Components supplied in this kit are designed and machined for a specific conversion only as outlined in this guide. Modifications to or substitution for any of the components without the written consent of Marks 4WD Adaptors will void any possible warranty or return privileges.

The following instructions are intended as a guide and only for Marks 4WD Adaptors kits. If you do not fully understand the steps, modifications or changes required to complete the conversion, contact our sales department for more information. We recommend that you purchase a service manual pertaining to your vehicle for specific torque values, wiring diagrams and other related information.

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