



Fitting Instructions for MFK20171 & MFK20176 LS A/C Compressor Relocation Bracket Kit LS1/LS2/LS3/LSA

Important Information

This instruction booklet can be used standalone for the above stated conversion but we would also recommend having a workshop manual for your vehicle to cover any factory torque / installation settings to complete the **A/C Relocation** installation to your **LS Engine**.

The instruction booklet describes the required modifications (if any) and installation process in order for our kit to fit and work properly.

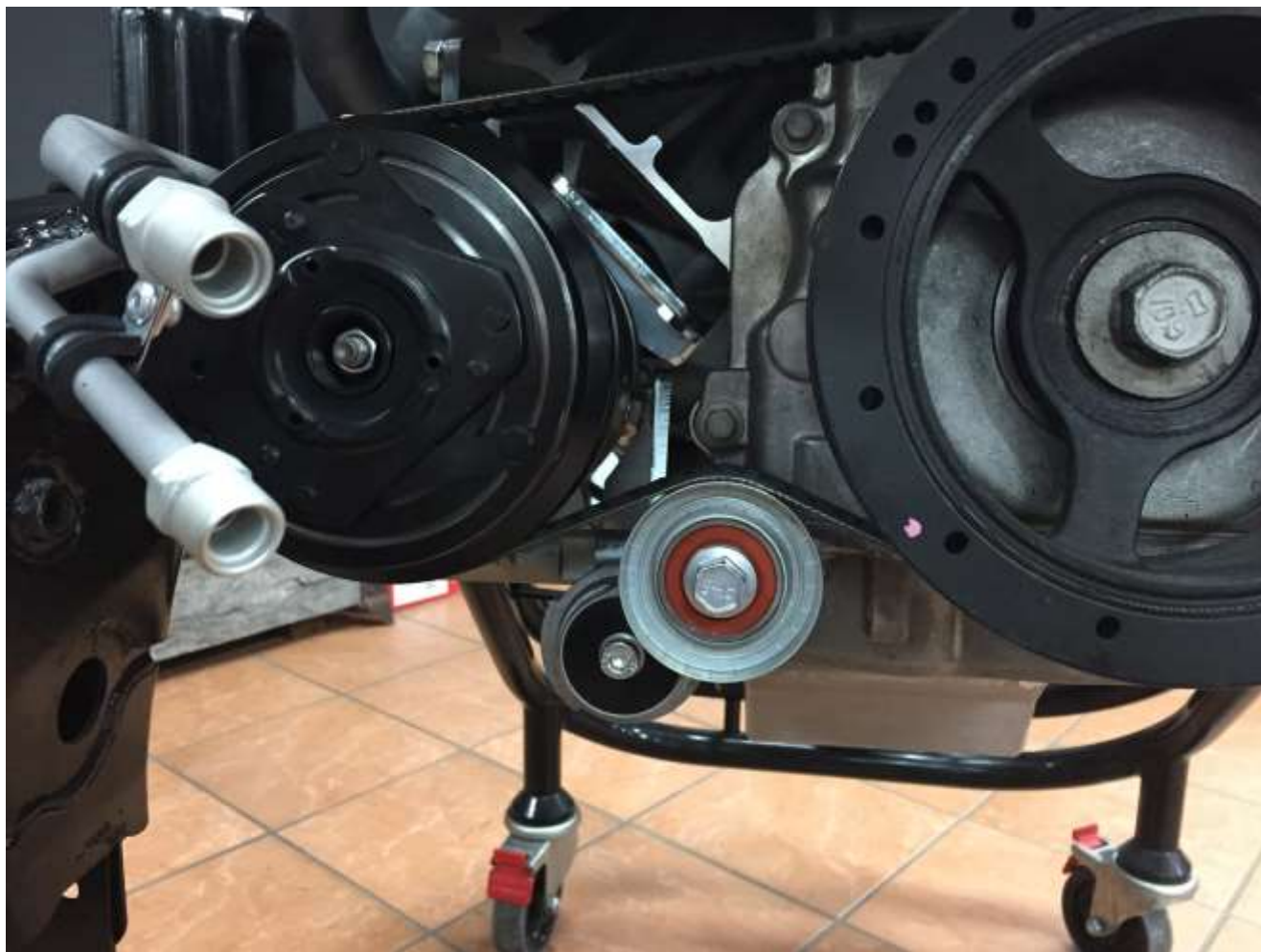
Marks 4WD Adaptors cannot and will not take responsibility for knowing everything that may impact on your conversion. Before beginning any work, thoroughly work through the sequence of changes, work and potential impact of your conversion. You must ensure you completely understand all the factors that may impact on achieving your desired results.



Kit Contents

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

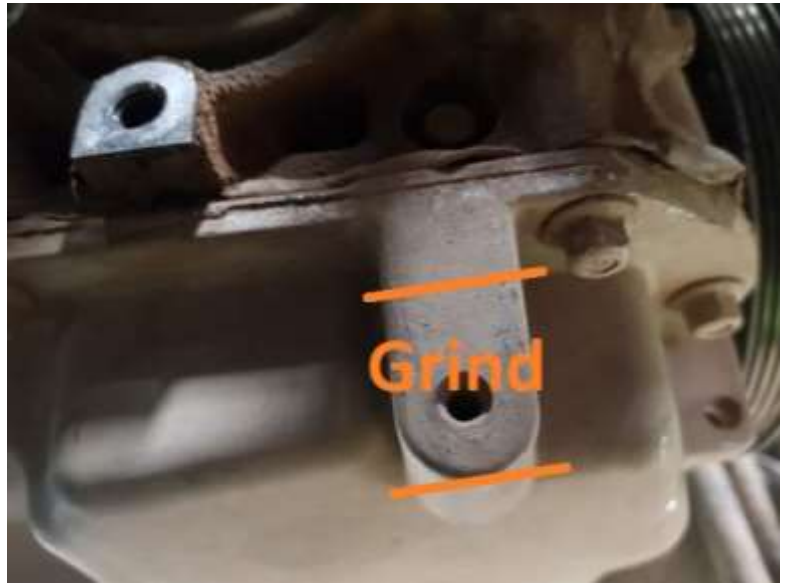
Part No.	Quantity	Description
MFC2017#	1	Upper A/C Relocation Bracket
MFC2017#	1	Lower Auto Tension A/C Relocation Bracket
4PK980	1	Drive Belt - Poly Rib
BT-2145	2	Bolt - M10 x 1.25 x 45mm - H/T - Z/P
CSK-2015	3	CSK SHCS - M10 x 1.5 x 30mm - S/S
BT-2245	2	Bolt - M10 x 1.5 x 30mm - H/T - Z/P
BT-2185	2	Bolt - M10 x 1.5 x 110mm - H/T (8.8) - Z/P
SW-2005	6	Spring Washer - M10 - S/S
SHCS-2150	1	SHCS - M8 x 1.25 x 40mm - H/T - Z/P



Step 1—Grinding For Clearance (LS2/LS3/LSA Onwards Only)

When fitting this kit to LS2/LS3/LSA VE-VF models onwards, some sumps might require you to grind a small portion off the sump to allow the tensioner bracket to be installed to the engine block.

Test fit the bracket before grinding to give an indication as to what grinding has to be done. Grind small amounts and test fit bracket to ensure sufficient clearance.



See Image 1.1 →



What the modification looks like when completed.

← See Image 1.2

With the tensioner fitted this is the clearance required.



See Image 1.3 →

When fitting this kit to LS2/LS3/LSA VE-VF models onwards, you need to grind a small portion off the corner of block and sump to allow the tensioner on the new A/C assembly to be installed to bracket.

Test fit the bracket before grinding to give an indication as to what grinding has to be done. Grind small amounts and test fit tensioner to ensure sufficient clearance.

See Image 1.4 →



What the modification looks like when completed.

← **See Image 1.5**

With the tensioner fitted this is the clearance required.

See Image 1.6 →



Step 2—Fitting of New A/C Bracket

Mount the new A/C tensioner bracket to the engine block using x3 M10 counter sunk socket head cap screws supplied in the kit.

Note: Use Medium strength Loctite on all threads.

- Some early model LS1 block will only have 2 mounting bosses on the block instead of 3.

See Image 2.1 →



Install the top A/C bracket to the block using the x2 M10 x 1.5 x 30mm bolts and x2 M10 Spring Washers

Do not tighten the bolts at this stage, having movement in the bracket makes installation easier.

← See Image 2.2

Step 3—Mounting The Compressor

Fit the x2 M10 x 1.5 x 110mm bolts with spring washers through the bottom 2 mounting holes before lifting the compressor into the bracket. This has to be done because there is not enough room between chassis and compressor to fit the bolts.

See Image 3.1 →



If you have purchased one of our A/C manifold kits now is the easiest time to fit it to the compressor

Make sure the standard stud is removed and replaced with the socket headed cap screw provided with the manifold

← See Image 3.2

Fit the x2 M10 x 1.25 x 45mm bolts with spring washers through the top 2 mounting holes into the top A/C bracket loosely. Screw the 2 lower bolts into the bracket. Once all bolts are done up by hand, go over every bolt and tighten.

When pump is sitting in position with bolts done up loosely, its important to ensure that pump is sitting straight on the top x2 bolts while tightening. Push down on pump and tighten to avoid misalignment.

See Image 3.3 →



Step 4—Fitting Drive Belt

Supplied in kit is x1 4pk980. The belt is a tight fit, so moving left to right while moving the belt forward is essential.

See Image 4.1 →



Step 5—Fitting the Tensioner

Install tensioner to bracket using supplied M8 socket head cap screw. Tensioner has dowel to fix its location on the bracket. There is clearance on the dowel due to variations in different branded tensioners. Once tensioner is firmly on bracket, rotate the tensioner so the pulley is at its highest point then tighten.

Note: Use High strength Loctite on thread.

See Image 5.1 →



Place a 15mm ring spanner between the pulley and belt. Rotate the tensioner till it bottoms out. While holding the tensioner on its bottomed out position, slide the belt over the pulley. Release spanner off tensioner.

Check over A/C assembly and make sure all looks ok.

← See Image 5.2

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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