



Fitting Instruction For MFK2100 LS2/3 Alternator Relocation Kit

Important Information

The instruction booklet describes the required modifications (if any) and installation process in order for our kit to fit and work properly. These instructions **make no assumption** on whether additional changes need to be considered or made. It is highly possible that other aspects of your vehicle and/or third party products, eg. Engine etc. will have an impact on all that is required for you to achieve your desired outcome.

Marks 4WD Adaptors do not and cannot take responsibility for knowing everything that may impact on your conversion. Before beginning, thoroughly step 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.

The left and right side of the vehicle is determined as facing forward, seated in the driver's seat.

Kit Contents

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

Part No.	Quantity	Description
• MFC1769A	1	Base Plate Assembly LS2/3
• MFC1769D	1	Front Plate LS2/3 Alternator
• MFC1769E	1	Spacer, 10 x 20 x 16 P/ST
• MFC651	4	Spacer, 10 x 20 x 51L P/ST
• MFC1849	1	Bracket Coil Relocation LS2
• MFC1819-LS2VE	1	Bracket Power Steering Reservoir
• BTC-M6-20	2	Bolt, M6 X 1 X 20mm - Captured Spring Washer & Washer
• CSK-M10-30	1	Countersunk Socket Head Cap Screw – M10 x 1.5 x30mm
• BT-M10-80	5	Bolt, M10 x 80mm
• NT-M10	2	Nut, M10 x 1.5
• SW-M10	5	Spring Washer, M10
• 6PK2080 (or 6PK2085)	1	Drive Belt



Step 1 Ignition Coil Pack Bracket Modification

On the left hand side of the engine;

- Remove factory fitted power steering reservoir and bracket
- Disconnect the plugs connecting to the top of each ignition coil.
- Disconnect the main wiring loom connector.
- Remove and retain all eight (8) bolts holding all the ignition coils in place.
- Remove and retain all five (5) studs with a fixed nut that hold the coil pack mount to the rocker cover.
- Cut off the left most finger of the coil pack mount as shown in the image below.



Image 1.1 Modified coil pack mount with ignition coils reattached. Note the holes where captured bolts have been left off for now.

- With the coil pack mount cut down use the five (5) original bolts, apply Loctite® or similar to each bolt and bolt the coil pack mount back on to the rocker cover.
- Working from right to left, bolt two (2) of the four (4) the ignition coils back on to the coil pack mount as shown in image 1.1 above.
Note: the 2nd ignition coil from the right is not to be bolted on yet.
- Apply Loctite® or similar to each bolt beforehand.
- You should be left with two captured bolts.

Step 2 Bolt Coil Relocation Bracket

Bolt the Coil Relocation Bracket (MFC1849) into the holes where the cut-off portion of the coil pack mount was bolted to the rocker cover. Use the two (2) supplied M6 x 20mm bolts with captured spring & flat washer and attach the bracket as shown in image 2.1 below. Apply Loctite® or similar to each bolt.



Image 2.1 Coil relocation bracket bolted to the rocker cover.

Using the two remaining bolts that held the ignition coils in place, bolt the ignition coil to the coil relocation bracket (MFC1849) as shown in Image 2.2 below. Apply Loctite® or similar to each bolt.

The ignition coil will now be positioned in a vertical position as opposed to the horizontal position it was originally in.



Image 2.2 Relocatoin of the 1st ignition coil.

Step 3 Remove alternator

Remove the drive belt and discard.

Remove the two bolts securing the alternator and slide the alternator out.

Using the two factory bolts and two (2) of the supplied spacers (MFC651) fit the spacers where the original alternator was mount and insert the bolts and tighten. Torque these bolts to the manufacturer's specification.

Step 4 Fit new Alternator Relocation Bracket

Before bolting up the alternator relocation bracket (MFC1769), you will need to remove the two (2) front bolts holding the power steering pump in place and loosen the side bolt so that the pump drops as shown in image 4.1 below.

This alternator relocation kit consists of two plates (MFC1769A & 1769D) bolted to the engine block but separated by spacers. The plate marked MFC1769A is the first plate to attach. Using the supplied countersunk socket head-cap screw attach this plate to the engine block as shown below. This only needs to be finger tight for now. Ensure Loctite® or similar has been applied to the screw. This cannot be tightened until two bolts holding the second plate in place, have been inserted.



Image 4.1 Alternator relocation bracket (MFC1769) loosely bolted up.

Using two supplied (2) M10 1.5 x 80 bolts and M10 Spring Washers bolt the second plate of the relocation bracket into place. . Ensure the supplied spacers (MFC651) have been placed on the bolts to achieve the correct spacing of each bracket. Apply Loctite® or similar to each bolt beforehand.

The alternator relocation bracket (MFC1769) should look the same as shown in image 4.2.



Image 4.2 The two alternator mount brackets bolted to the engine block with spacers installed.

Note that the power steering pump has been lifted so as to fit in between each plate.



Image 4.3 Final mounting of the alternator relocation bracket

Fit the 16mm spacer (MFC1769E) between the outer bracket (MFC1769) and the power steering bracket.

Fit the M10 1.5 x 80mm bolt and spring washer through the plate spacer and factory bracket into the engine head.

Tighten all three (3) bolts. Check the tension of the countersunk socket head-cap screw. Bolt up the power steering pump using the two bolts removed earlier and tighten the bolt on the side. Ensure Loctite® or similar has been applied to the front bolts.



Image 4.4 Final mounting of the alternator relocation bracket

You can now mount the alternator in place using the supplied two (2) M10 1.5 x 80 bolts and two (2) M10 Spring Washers and M10 nuts. Apply Loctite® or similar before bolting up.



Image 4.5 Alternator mounted in the new position.

Step 5 Bolt the Power Steering Reservoir



Image 5.1 Mounting of the power steering reservoir.

Using the remaining three (3) original bolts to hold the ignition coils in place, bolt on the bracket for the power steering reservoir as shown in image 5.1 below.

Fit the original power steering reservoir to the new bracket, use the supplied hose and hose clamps to connect the reservoir to the power steering pump. If the hose is too long trim to suit.

Marks 4wd manufacture a high pressure power steering hose to connect the VE power steering pump to the Nissan steering box – part number MFC1818-VE-VF

Step 6 Drive Belt

Fit the supplied drive belt (6PK2080) and ensure it is tensioned correctly. The image below is indicative of the route the drive belt should take. It does not show the exact components and conversion as has been discussed above.



Image 5.2 New routing of the drive belt.

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.

Contact Information

Web: <http://www.marks4wd.com/>
Email: sales@marks4wd.com
Phone: + 61 3 9552 6555
Address: 385-393 Lower Dandenong Rd
Dingley Victoria 3172
Australia