



# MARKS4WD

## Installation Instructions for MFK1820ZD Engine Mount Kit for LS1, LS2 & LS3 Engines into Nissan ZD30 GU Patrols



### Important Information

This instruction booklet can be used standalone for the above stated engine but we would also recommend having a workshop manual for your vehicle and for the engine/transmission you are installing.

Marks 4WD Adaptors do not and cannot 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.

**Note 1:** GU ZD30 Auto models we recommend fitting a ZD30 manual crossmember or Marks 4WD adjustable, extra clearance crossmember (MFG43000), tails shafts and low range lever. Using these will allow you to run the bolt in engine mount kit MFK1820ZD. If you keep the auto crossmember you will need to cut your chassis posts out and weld in the MFK1820 kit.

## MFK1820ZD Kit Includes:

| <b>Part No.</b> | <b>Quantity</b> | <b>Description</b>         |
|-----------------|-----------------|----------------------------|
| MFC20385        | 1               | Engine Mount Bracket Left  |
| MFC1821         | 1               | Engine Mount Bracket Right |
| MFC20389        | 2               | Engine Mount Rubbers       |
| MFC20382LH      | 1               | Engine Mount Clamp LHS     |
| MFC20382RH      | 1               | Engine Mount Clamp RHS     |
| SW-2005         | 8               | Spring Washer M10          |
| NT-2120         | 6               | Flanged Nut M12 x 1.75     |
| BT-2235         | 1               | Bolt M10 x 20mm            |
| BT-2240         | 7               | Bolt M10 x 25mm            |

### Step 1 Factory ZD30 Chassis Posts

Note: Use the driver (right) and passenger (left) engine mount clamps; MFC20382LH & MFC20382RH as your drill jig. The lip on each engine mount clamp points to the ground and is pushed hard against the chassis bracket, see image 1.1 below.



Image 1.1



Image 1.2

A clamp should be used to hold them in position while drilling, a 6mm pilot hole can be drilled if preferred. The front stud hole will need to be filed or ground for clearance on the driver's side. See image 1.2 above right.

Both chassis posts need some small modifications for clearance on the new engine mounts.

The small gusset section located at the top rear of the left (passengers side in Australia) side chassis mount will need to be removed. **See images 1.3 & 1.4 next page.**

A small tab will need to be removed from the driver's (in Australia) chassis post, **see images 1.5, 1.6, 1.7 & 1.8 on the following page.**



Image 1.3



Image 1.4



Image 1.5

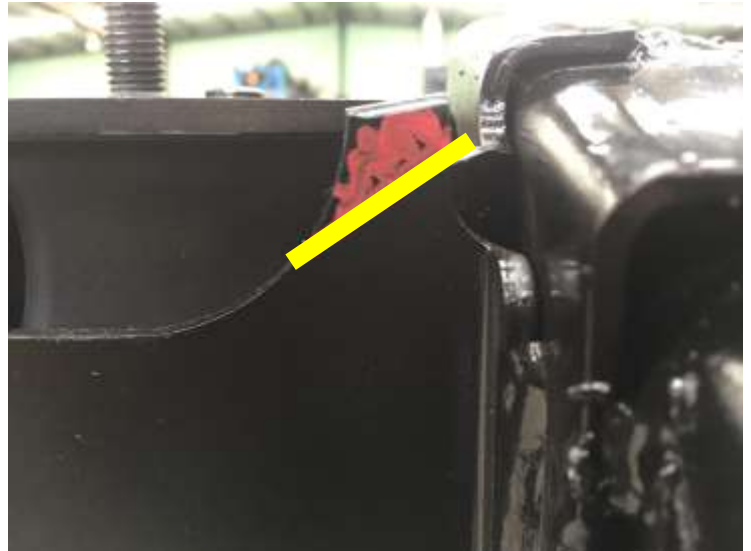


Image 1.6



Image 1.7



Image 1.8

## **Step 2 Moving Brake, Gearbox and Diff Breather Lines**

Relocate the gearbox and diff breather pipes on the passenger side chassis rail, this is to allow for adequate clearance to the exhaust. Image below shows a **ZD30** engine bay



*Image 2.1*

The brake hose bracket on the chassis will need to be moved and modified. Image 2.2

You will also need to move the fuel lines to allow for our heat shield (MFK1850) to be fitted to protect the fuel and brake lines. Image 2.3

Note: Images below shows a **ZD30** engine bay



*Image 2.2*



*Image 2.3*

# Step 3: Only refers to fitment with the old MFK605G3 kit, if fitting the new MFK1905 full bellhousing kit proceed to step 4

## ***Step 3 Transmission Tunnel Modifications***

When fitting the LS engine up to the original Nissan GU Transmission (auto or manual) (using the MFK605G3 adaptor kit) the transmission tunnel will need to be panel beaten to allow adequate bellhousing clearance. The photo below shows the area which needs attention. It is located over the seam between the 12 o'clock position and the passenger foot well.



*Image 3.1*

## ***Step 4 Engine Mount Assembly***

Fit the engine mount bracket MFC20385 to the left hand side (passenger side) of the engine using the supplied bolts and spring washers.

Fit the engine mount bracket MFC1821 to the right hand side (drivers side) of the engine using the supplied bolts and spring washers.



*Image 4.1*



*Image 4.2*

## **Step 6: ZD30 Fitting the Engine Mount Rubbers and Engine**

On the left hand side (passenger side) fit the engine mount rubber MFC20389 to the chassis post with two of the flanged nuts and engine mount clamp MFC20382LH.

On the right hand side (drivers side) fit the engine mount rubber MFC20389 to the chassis post with two of the flanged nuts and engine mount clamp MFC20382RH.

You will now need to fit either the bellhousing or transfer case adaptor and fit the engine into the vehicle. Make sure the crossmember is bolted up correctly as well as the gearbox mounting rubbers.

Lower the engine onto the engine mount rubbers and fit the supplied flanged nuts to secure in place. See images 6.1 & 6.2 below.

The engine should sit approx. 20mm to the left (passenger side)



Image 6.1



Image 6.2

## **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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