



## Fitting Instruction for MFK41295-1 Oil Catch Can Kit - Toyota VDJ 200 Series LandCruiser



### 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 and for the engine/transmission you are installing to cover any factory torque / installation settings to complete the installation.

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, transmission 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 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.

### Operation Notes:

Drain cock must remain closed for correct operation of the catch can. The lever is in the closed position when it is pushed down to run in line with the drain, as shown in *image 1.1*

The oil collected in the Oil Catch Can will need to be drained regularly. We recommend this is done every 1,500 to 2,000 kms, however the frequency required will depend on your individual vehicle.

### Filter Inspection:

Remove the screw top lid and visually check the lid for an oily residue inside the outer rim of the lid. This oily residue can be an indication that the filter needs to be replaced. The internal filter should be replaced every 60,000 kms or 12 months whichever comes 1<sup>st</sup>. (Element Kit PCV. Part No. 8980023460)



***Image 1.1 Drain Cock***

### ***Step 1 Engine Intercooler Cover***

Locate the 2 dome nuts and remove. *See image 2.1*

Remove engine intercooler cover. *See image 3.1*



***Image 2.1 Engine Intercooler Cover***



***Image 3.1 Engine Intercooler Cover Removed***



*Image 4.1 PCV Hose*

### ***Step 2 Original PCV Hose***

Locate the PCV Hose. See image 4.1

### ***Step 3 Remove PCV Hose***

After locating the correct hose in step 2, Now remove the PCV Hose. See image 5.1

## **DO NOT DISCARD HOSE**

Set aside the PCV Hose, as it's to be re-used at a later stage of the installation process.



*Image 5.1 PCV Hose Removed*

### **Step 4 Plastic Inner Guard**

Under the passenger side front fender, locate the plastic inner guard.

*See image 6.1 for KDSS Suspension Vehicle*

**NOTE: LH Front wheel may have to be removed or rotate steering to left full lock.**

### **Step 5 Trim Plastic**

Trim the plastic inner guard to suit hose for drain cock.

For KDSS Suspension a small section of plastic requires removal. This is the end of the plastic that lines up with the two bolts below used to mount drain cock in the coming steps. *See image 7.1 for reference line marked in red.*

**Note: Cutting template not supplied.**

For standard suspension a small hole in the plastic is required. Making sure the hole you make in the plastic lines up with the two bolts below used to mount drain cock in the coming steps. *See image 8.1*



**Image 7.1 Trim Plastic for KDSS Suspension**



**Image 6.1 Plastic Inner Guard With KDSS**



**Image 8.1 Plastic Inner Guard NO KDSS**



**Image 9.1 Plastic Guard**

### ***Step 6 Located plastic guard***

Locate bolts holding plastic guard, which is below the trim you just modified.

*See image 9.1*

### ***Step 7 Remove Plastic Guard***

Remove bolts holding plastic guard.

*See image 10.1*

These bolts and plastic guard are used in the next step.



**Image 10.1 Plastic Guard Removed**

### ***Step 8 Drain Cock***

Place plastic cover back into position with drain cock bracket over the top. Insert 2 bolts and tighten to torque specs from the Toyota workshop manual.

*See image 11.1*

### ***Step 9 Connect Drain Cock Hose***

Place hose into position on drain cock and secure using the supplied constant tension hose clamp.

*For KDSS Suspension See image 12.1*

*For Standard Suspension See image 13.1*



***Image 11.1 Drain Cock Installed***



***Image 12.1 Drain Cock Hose KDSS Suspension***



***Image 13.1 Drain Cock Hose Standard Suspension***



**Image 14.1 Drain Hose**

### **Step 10 Route Drain Hose**

Route drain hose up to rear of engine intercooler area. This location is where the oil catch can is being installed.

Using cable ties supplied, secure the hose along wiring loom on inner guard. Any excess hose can be trimmed before fitment to the drain on the oil catch can, for a neat fitment.

See image 14.1

### **Step 11 Electrical Connection Junction Box**

Locate and remove the bolts qty 3 from the electrical connector junction box legs located towards rear Left Side (Aus vehicle) of engine bay.

See image 15.1



**Image 15.1 Electrical Connection Box**



**Image 16.1 Conduit Over Wiring Loom**

### **Step 12 Install Conduit Over Wiring Loom**

Locate wiring loom at base of electrical connection junction box. Install the supplied piece of conduit over the wiring loom that goes to junction box.

See image 16.1

### **Step 13 Install Main Bracket**

Place cable tie through the main bracket before installation. See image 17.1

Install the main bracket under the legs of the electrical connection junction box. See image 18.1 and image 19.1

Inspect and Confirm the wiring loom is on the engine side of the main bracket. See image 20.1

Now loosely fit original bolts back into the electrical connection junction box.

You removed these bolts in Step 11.

Now route cable tie around wiring loom, through the hole in main bracket and back through the cable tie end. Pull tight and cut off the excess. See image 21.1



**Image 17.1 Cable Tie located on Main Bracket**



**Image 18.1 Main Bracket Instalation**



**Image 19.1 Main Bracket Under Junction Box Legs**



**Image 20.1 Wiring Loom is on the Engine Side**



**Image 21.1 Cable Tie Wiring Loom**

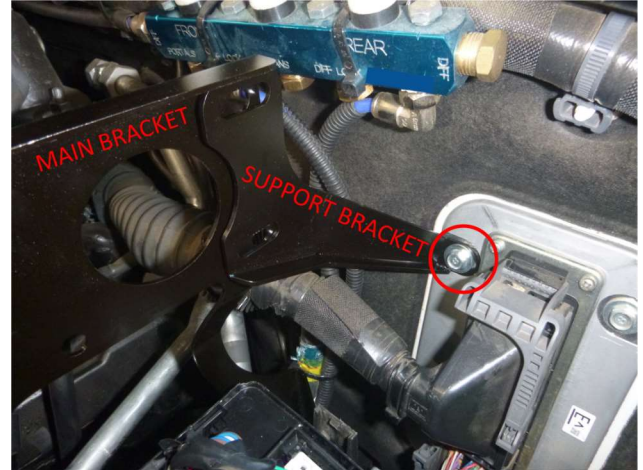
### ***Step 14 Install Support Bracket***

Remove the top left bolt from the engine wiring harness bulkhead connector. *See Image 22.1*

Install the support bracket, then replace the original bolt loosely. *See Image 23.1*



***Image 22.1 Bolt Removed***



***Image 23.1 Support Bracket Installed***

### ***Step 15 Install Hoses to Oil Catch Can***

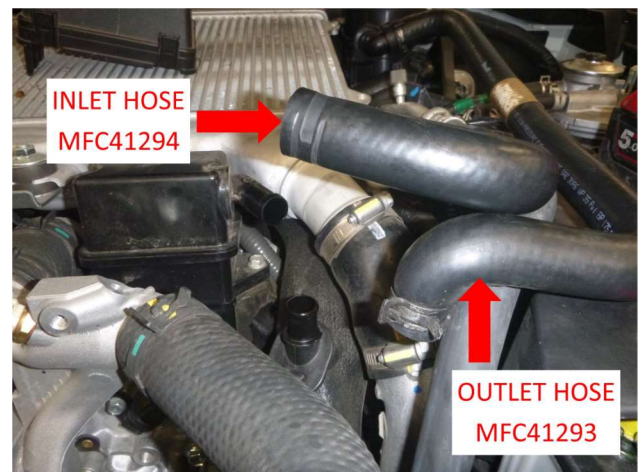
Install the two supplied hoses MFC41294 & MFC41293 and constant tension hose clamps to the oil catch can.

Making sure correct location & orientation.

*See Image 24.1 and Image 25.1*



***Image 24.1 Inlet & Outlet Hoses***



***Image 25.1 Inlet & Outlet Hoses***

### ***Step 16 Install Foam to Inlet Hose***

Locate the PCV hose which you removed from the engine in Step 3.

Remove the two factory clamps, then remove/slide the foam protection from the original hose.

Silicone spray may be required to make removal easier.

Trim ends of foam if desired with a sharp knife.

See *Image 26.1*

Slide foam onto the oil catch can inlet hose MFC41294 to a location that lines up beside the crimped section of A/C hose. See *Image 27.1* and *Image 28.1*



***Image 26.1 PCV Hose***



***Image 27.1 Foam on Inlet Hose***

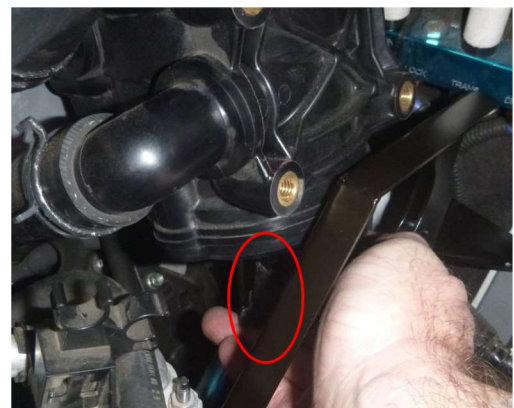


***Image 28.1 Foam Location***

### ***Step 17 Install Drain Hose to Oil Catch Can***

Slide supplied constant tension hose clamp onto drain hose, install hose to the oil catch can, and move clamp along with the drain hose to just below the bottom of the oil catch can for a sealed fitment. See *Image 29.1*

For ease of installation, hose fitment first before mounting the oil catch can.



***Image 29.1 Drain Hose***

### Step 18 Mount the Oil Catch Can

Mount the oil catch can to the brackets using the supplied M8 bolts with medium strength thread locker applied and torque to appropriate specs. See Image 30.1

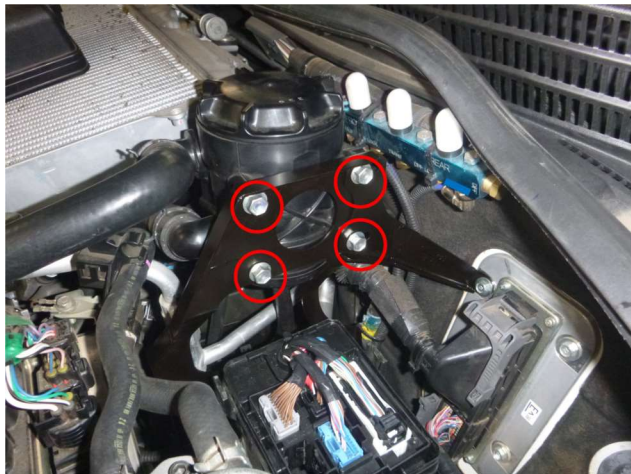


Image 30.1 Oil Catch Can Mounting Bolts

### Step 20 Engine Cover Modification

Engine intercooler cover requires slight modification using the supplied template to ensure adequate clearance to prevent interference with the hoses. Use the provided Marks4WD template part number MFC41287. **DO NOT** print a copy from the fitting instructions as the scale will not be correct.

Cut along the thick solid line as indicated by the scissor symbol on the template.

Tape down the template to the engine intercooler cover matching the contour curve as much as possible. See Image 32.1 Template MUST be aligned with the air inlet grill on the engine cover and retaining bolt recess. See Image 33.1 Install cover to engine and torque dome nuts to specs from Toyota workshop manual.



Image 33.1 Template Installed

### Step 19 Install Inlet & Outlet Hoses to Engine

Install the inlet and outlet hoses to the engine using supplied constant tension hose clamps. Ensure you position the oil catch can with adequate clearance around it.

Then tighten remaining bolts from steps thirteen and fourteen to torque specs from the Toyota workshop manual. See Image 31.1

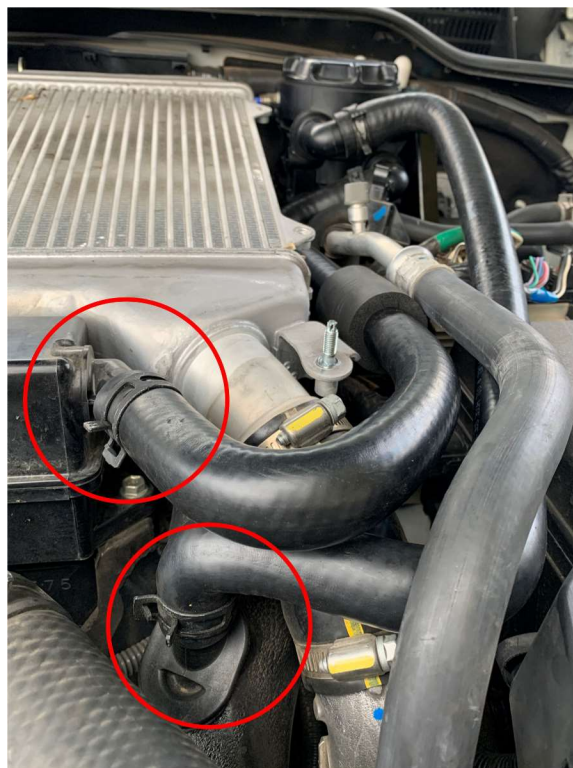


Image 31.1 Inlet & Outlet Hoses at Engine

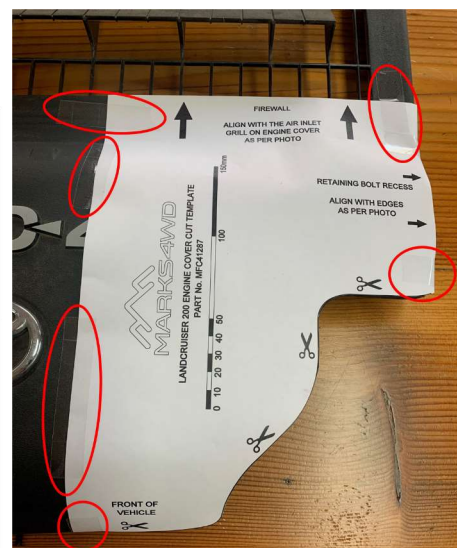
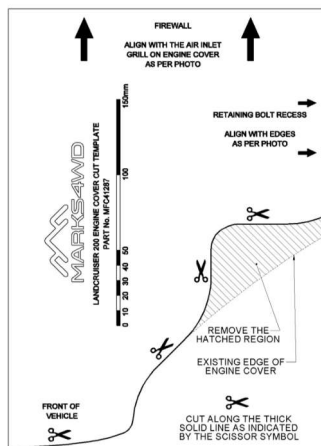


Image 32.1 Template Taped Locations

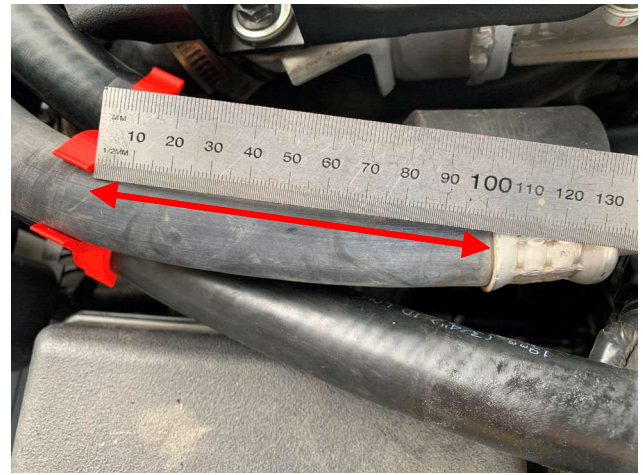
## Step 21 Installation of Hose Retaining Clip

Marks 4WD has supplied a hose retaining clip that will hold the oil catch can hose together with the air conditioning hose. Installation of the retaining clip MUST be in the correct location to ensure adequate clearance to prevent interference with other components in the engine bay.

The right distance is 100mm. See Image 34.1

The supplied hose retaining clip is **BLACK**.

The **RED** hose retaining clip shown in photo's, is for illustration purposes only. See Images 35.1, 36.1 & 37.1



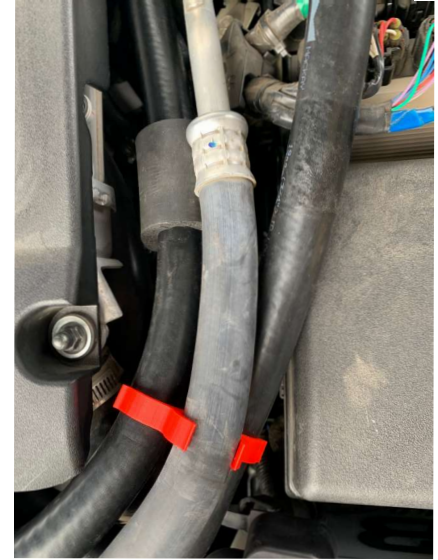
**Image 34.1 Hose Retaining Clip Distance**



**Image 35.1 Hose Retaining Clip**



**Image 36.1 Hose Retaining Clip**



**Image 37.1 Hose Retaining Clip**

## 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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