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LANDCRUISER 70 SERIES
1VD-FTV 4.5L V8 – 08/2016+
DPF SIMULATOR

This module facilitates the removal of the DPF on August 2016+ production date Toyota Landcruiser 70 series fitted with the 1VD-FTV V8 diesel engine.

With this module, no tune or ECU remap is required.
The DPF can be refitted and everything returned to standard at any time.

It works by watching data from the MAF sensor and EGT sensor, and simulates valid EGT and differential pressure sensor readings. A simulated exhaust fuel addition injector prevents any possible attempt of a regen.
The engine ECU thinks a DPF is still fitted and everything is normal.

IMPORTANT INFORMATION

- The DPF must be removed and a delete pipe or gutted DPF fitted.
- EGT1 + EGT2 must be retained in the delete pipe.
- The oxygen sensor must be retained downstream in the exhaust system.
- EGT3 and pipes / hoses for the differential pressure sensor are not required.
- DPF system must already be in normal working order prior to fitment.
- If there are any DPF related trouble codes logged (eg. P2458, P2463) - make sure you can clear them and reset soot accumulation prior to fitment.
- If possible, check your soot accumulation with a scan tool. It is a good idea to reset it or perform a forced regeneration prior to fitment if you can.

DISCLAIMER

This product is intended to be fitted to unregistered vehicles for off-road use on private property only. The DPF is an emission control device. As such, any person who removes, disconnects or impairs the operation of it on a road-registered vehicle may be guilty of an offence under Australian law. DPF removal will render your vehicle unroadworthy. By fitting this module, you agree the vehicle is not registered in Australia and will not be used on any Australian road.

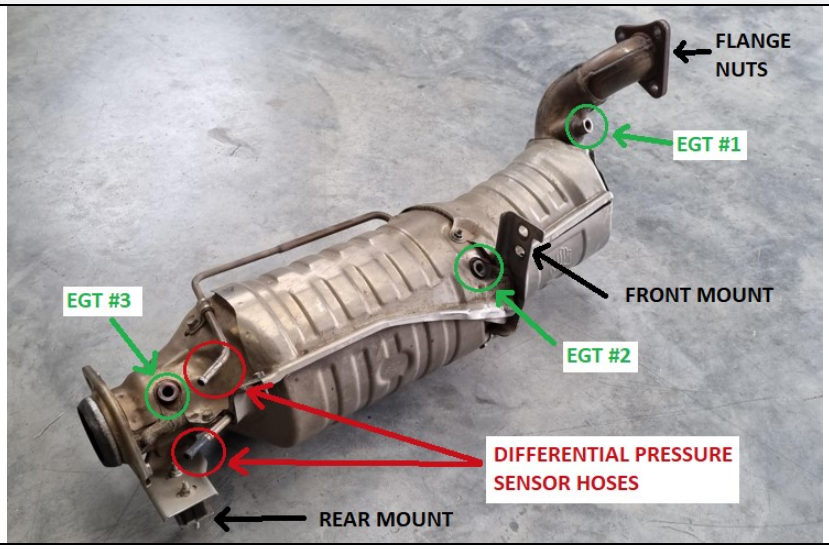
Any risk associated with vehicle modification is your responsibility. Mr Module accepts no liability for vehicle damage, voided warranties, vehicle repair expenses or legal expenses caused by the use of this module.

BEFORE INSTALLATION

The DPF system must be in working condition prior to installing the simulator module.
The module works by simulating valid sensor readings to make the ECU think everything is working normally. If it already thinks there is a fault, fitting the module won't fix it.

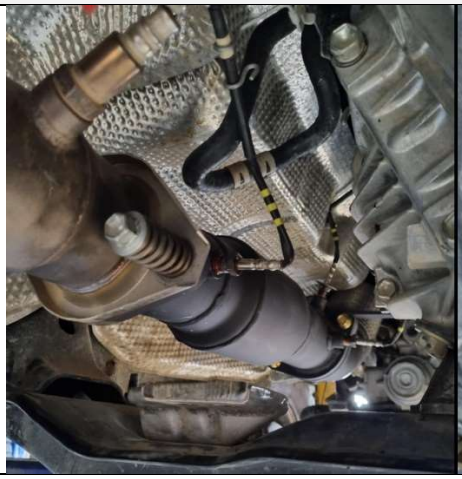
- If the soot accumulation is too high (DPF light is on), a successful DPF regeneration must be completed before removing the DPF and fitting the module. Go for a 30-minute highway drive.
- If DTC **P244C**, **P2458** or **P2463** are logged, a successful forced regeneration must be performed using a scan tool before removing the DPF and fitting the module.
  If the scan tool fails to start the regeneration, disconnect the battery for 10 minutes and try again - once a regeneration fails with excessive soot load, the ECU will not perform another one until battery power is removed.

STEP 1 - DPF REMOVAL



- Remove gearbox undertrays if fitted.
- Disconnect differential pressure sensor hoses.
- Unplug EGT sensor #3 at rear end of DPF.
- Unplug oxygen sensor slightly further down in the exhaust pipe.
- It is difficult to access the connectors for EGT #1 and #2. Instead of being unplugged, they can be unscrewed from the DPF using a 14mm flare nut spanner, which will make removal easier.
- If they are rusted in, be careful not to round them. Heating the DPF boss where they screw in may help. If they are going to round, leave them and wait until you drop the DPF down to unplug the connectors.
- Remove 2x 12mm bolts from front mount.
- Remove 10mm nuts from underside of rear mount.
- Remove 2x 14mm spring loaded bolts holding exhaust on at rear.
- Remove 3x 14mm flange nuts holding DPF to turbo. You will need long extensions and a universal joint. Be careful not to round them or they will be very difficult to remove. Use heat if required.
- The LH nut can be accessed from above the chassis rail, behind the rubber slash guard in the wheel arch.
- Remove bolts from underside holding gearbox mount to centre of gearbox crossmember.
- Jack gearbox up off crossmember slightly and support with stands.
- Remove 2x bolts either end of crossmember, and remove crossmember from vehicle.
- The DPF should now come backwards and down and out of the vehicle. Be careful to pull the EGT sensors out. Don't let them get stuck. If you were unable to get them unscrewed, you will have to move the DPF enough to allow access to unplug the connectors instead.

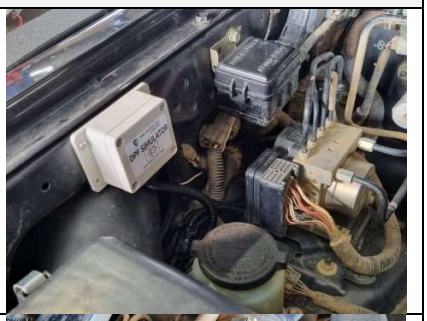
STEP 2 – DELETE PIPE FITMENT




- Prepare delete pipe by transferring EGT1 + EGT2 sensors over from DPF. These sensors are still required - they must be fitted back to the pipe. Do not damage them or cut them shorter to make them fit or they will not work.
- EGT3 and the differential pressure sensor hoses / pipes are no longer required.
  You can refit them to block the holes if your delete pipe already has provision for them, but they will not serve any function.
- Fit delete pipe in reverse order of DPF removal.
- Reconnect EGT1, EGT2 and oxygen sensor connectors.

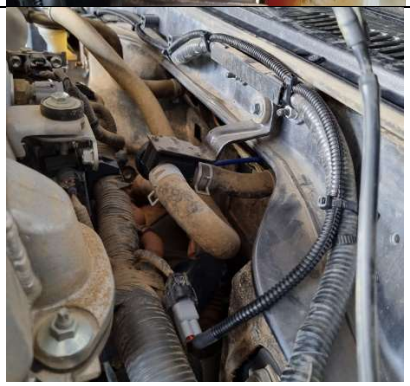
STEP 3 – MODULE MOUNTING + WIRING

- Mount simulator module to RH side under bonnet, near airbox and ABS module.



- Run MAF sensor piggyback connectors to the MAF sensor.
- Follow and cable tie wiring to the factory wiring loom.
- Disconnect factory MAF sensor connector, and reconnect sensor through the 2 piggyback connectors
  IE. Factory plug to piggyback plug + other piggyback plug to sensor.

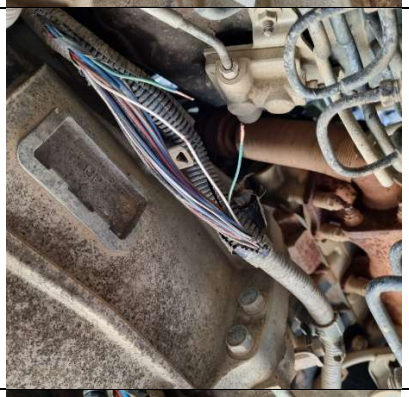
- At the rear of the LH passenger side cylinder head is a black 2 pin connector, which connects to a patch lead that runs down to the exhaust fuel injector in the back of the head.
  It is directly under the heater tap, and a bit tricky to access.
- If a larger aftermarket intercooler is fitted, you will probably have to remove the intercooler to access it.
- Disconnect this black connector and connect it to the 2 pin grey connector on the simulator module.
- Secure module wiring to the factory loom running across the firewall.



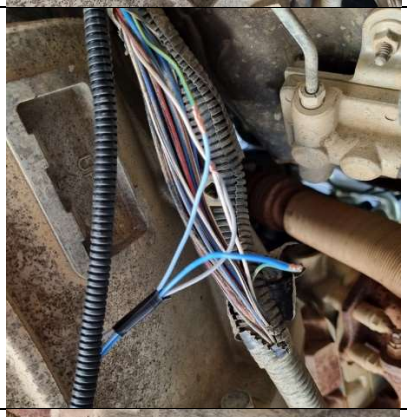
- Run the remaining wiring down under the brake booster to the chassis, and then across to meet the factory wiring loom on the driver side of the bellhousing.
- Make sure it is secure and will not be damaged by the steering column etc.
- The 3 loose wires from the simulator module should meet the factory loom near the bellhousing in an easy to access location.

- Run the longest part of wiring (the 3 pin connector) across the top of the gearbox and secure it to the factory wiring.
- At the rear of the gearbox, disconnect the factory differential pressure sensor and connect the factory wiring to the simulator module connector.
- Make sure EGT3 remains unplugged. Do not connect this again, unless you cut and disconnect the plain white wire in the following step.

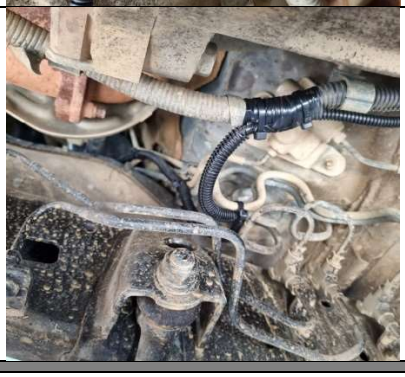
- On the driver side of the bellhousing, open the tubing of the factory wiring loom.
- Locate the **green + yellow** and **plain white** factory wires.
- Green/yellow is the EGT2 sensor signal. It should match the wire colour in the factory EGT2 connect on the LH side of the gearbox. Cut this wire and strip both ends.
- Plain white is the EGT3 sensor signal. It should match the wire colour in the factory EGT3 connector at the rear of gearbox. Cutting is not required, as long as you leave factory EGT3 sensor unplugged. Just strip this wire to allow soldering to it.



- Join the light blue simulator module wire to the green + yellow factory wire - on the side that runs over the gearbox to the sensor.
- Join the dark blue simulator module wire to the green + yellow factory wire – on the side that runs forwards to the engine and back to the ECU.
- Make sure you do not mix the 2 blue wires up. It is very important which wire connects to which side of the green + yellow factory wire.
- Join the grey simulator module wire to the plain white factory wire.



- Insulate and secure all joins. Return the factory wiring inside the tubing and tape up. Cable tie and secure the simulator module wiring to the factory wiring as required.



INSTALLATION COMPLETE!

If you had sensors unplugged with the ignition on, you might find you now have an engine light. The codes can be cleared with a scan tool (or disconnecting the battery for 10 minutes).

NOTE: If you ever choose to refit the DPF, the wiring modifications must be reversed.