

DPF Removal And Procedure Guide

Here you will find a general guide to the process of removing a DPF (Diesel Particulate Filter) from a vehicle.

A vehicle must be diagnosed correctly, **selling DPF removal as the solution to all sins is not competent**. In 90% of cases a DPF failure is consequence of another component failure; simply removing the DPF will not resolve origin of the issue and compromise your reputation.

The DPF overloading or blocking is as usually a result of the following component failure or issues;

) **Air regulation fault;** EGR, and or turbocharger boost circuit issue. This is the most common of causes of DPF failure especially on vehicles fitted with an airflow meter. Any leak or air bypass plays havoc with the DPF regulation and regeneration due to the mixture regulation problems. Some ignorant tuners claim that vehicle with no DPF will smoke and this is normal, this is not the case. It is the origin fault showing itself. Sad but true.

) **Fuel Injector failure;** Worn nozzle/needles are common place on high mileage vehicles, again causing mixture regulation issues over loading the DPF system.

) **No smoke No poke;** Ignorant injector duration remapping is pretty much a death sentence for any DPF system. Smoke = wasted energy

Our calibration files are developed and implemented thousands of times over the years and checked by our server's mega data system for precision.

Hands on guide.

Firstly find out the story from the customer about their vehicle. Find out exactly what has brought them to you for a dpf removal, as an example consider asking questions like:

-) Has the vehicle been diagnosed by another garage before it came to you?
-) Has anybody else before you, physically done anything with the vehicle in regards to the ecu or the DPF exhaust unit?
-) How does the vehicle currently drive?
-) How long has the customer been driving it around for in Limp Mode?
-) What warning symbols appear on the display?
-) What is the current oil level?
-) Have they had any recent components replaced? etc...

Before we start here are few examples of the most common faults we see when a DPF Fails:

Egr Valve Failure



Turbocharger Failure



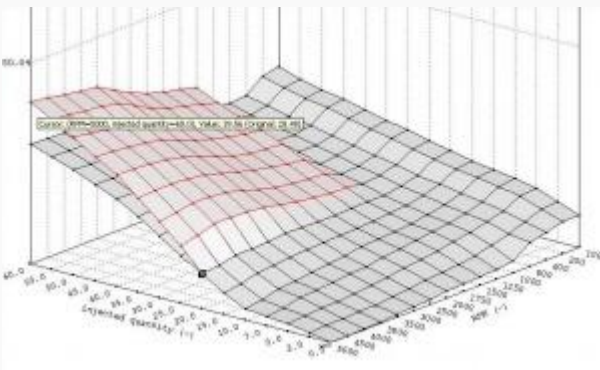
Inlet Manifold Swirl Flap Failure



Injector Failure



A very poor Ecu Re-calibration



Step 1

Vehicle Diagnostic:

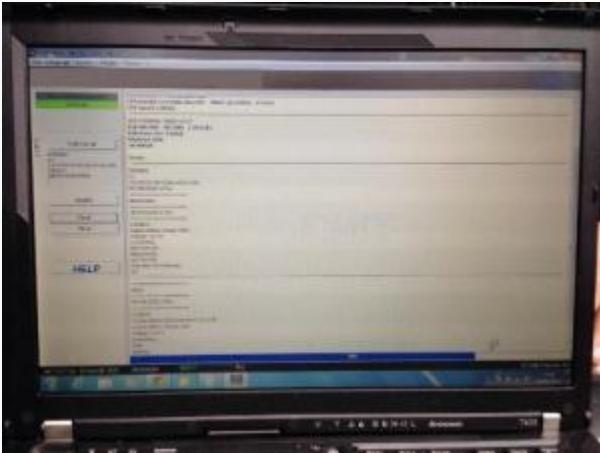
- J Now that you have plugged your diagnostic tool into the vehicle and checked that it is only the dpf that is blocked and by removing this it will cure the problem then Proceed to the first step.
- J It is recommended that you scan every module on the vehicle and erase every fault code possible prior to working with the Ecu -
- J DO NOT REMOVE THE FILTER YET!!!
- J Attempt a forced regeneration always before removing the filter, this will exit the passive control cycle of the ECU.
- J This procedure will help to prevent post removal issues. Reset the (Particulate Data) Ash Counter.
- J **Do Not Under Any Circumstances Skip This Step!**
- J You must use the correct level of diagnostic equipment that suits that specific vehicle.
- J If you do not reset the ash counter prior to writing on the Mod File then you will en-counter problems such as the vehicle could remain in limp mode or it might not distinguish the light on the display, or it may not allow you to delete any DPF related fault code's as the gateways to them will be closed.



Step 2

Read The Ecu

- J OBD Tuning: Now plug in your device and read of the Original calibration file from the ecu.



-) ECU Removal: If you have just switched off the ignition then it is advised that you let the communication (can lines) etc.. go to sleep.
-) So remove the key and place it away from the vehicle as you should with any ecu removal job and leave it for atleast 3 mins.
-) Now remove and open the ecu and read the original file.
-) Upload the original file to the PCW Server and remember to ask for Dpf delete when creating your mod Calibration File.



Step 3

Remove And Re-install The Dpf (Diesel Particulate Filter) Exhaust Unit

-) Remove the Dpf exhaust unit from the vehicle.
-) **Make sure all of the sensor wiring is un-plugged and you do not damage the sensor's whilst removing it!**

-) No place it on a surface where you can work on it and not damage any sensors you may have left plugged in.
-) For the best result and to any avoid MOT problems extract the dpf discreetly as possible do not cut a small square window.



-) **TIP: An SDS Drill with a chisel bit, can be a great tool for breaking up the filter.**



-) Check the condition of the pressure sensor's.
-) Weld the exhaust back up professionally.

- J Whilst the weld repair is cooling down check the rest of the exhaust assembly for any leaks,excessive corrosion and the condition of the gasket's (seals).
- J Depending on the vehicle now could be a good time to check the turbo for excessive wear?



- J Once the welding repair has cooled enough for you to be able to work with it and you have all the necessary clamps,gasket's and sealant at the ready you can now put the Dpf back on.
- J **Again be-careful not to damage any sensors whilst re-fitting the exhaust!** Do not start the vehicle.

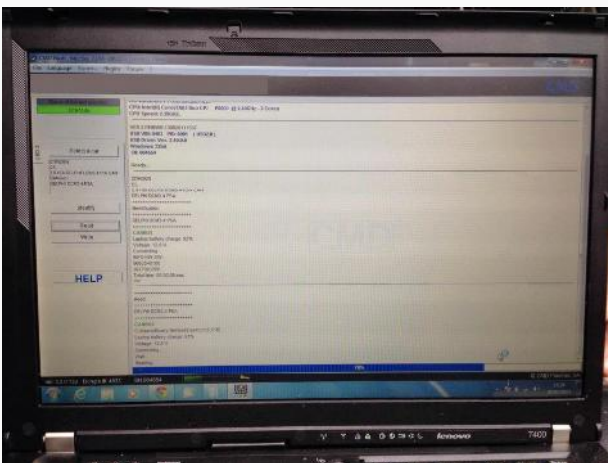


) *FILTER REFITTED, LOOKING UNTOUCHED*

Step 4

Apply The Mod Calibration File To The Ecu

) **OBD Tuning:** Plug your obd flash tool in and right the Mod File into the Ecu



) **BDM Tuning:** Flash the Mod file into the ecu check the surface of the Circuit board, reseal it and plug it back into to the vehicle.



Step 5

Check The Vehicle

- J Start the vehicle and check the exhaust for any gas leaks.
- J Let the vehicle idle for 10-15 mins. Now plug in your diagnostic tool and scan for faults.
- J If you are clear then test drive the vehicle and allow it to get hot.
- J If you are happy with everything then perform the full and final diagnostic check prior to releasing the vehicle back to the customer.



Dpf removal guide FAP additive systems

How To Prepare And Reset Additive Control Systems Prior To DPF Deletion And EGR Off

NOTE: For a full explanation of how an additive control system works please see our wiki page Dpf Additive Systems Explained

The correct level of diagnostic equipment is required to perform these tasks!

Taking into consideration that you have diagnosed the vehicle and:

The BSI is not faulty All FAP/DPF sensors are intact and fully operational The DPF filter is completely extracted from the exhaust unit The fuel filler cap sensor is a genuine component and operational The additive level sensor is operational The ECU Engine control unit is not faulty The EGR valve operates as it should and/or in its closed position

Now you have confirmed all of the above are present and correct you can proceed to the next step.

We recommend you follow these instructions to ensure a successful deletion, however is you have been presented with a vehicle that has already had the dpf filter removed or the diagnostic tools you own have limited capabilities then you can attempt the manual BSI reset procedure which you can find at the bottom of this page..

Recommended Diagnostic Tools

Peugeot/Citroen: Peugeot Planet - Lexia Ford: IDS

Other tools we know of that can perform these tasks successfully: Delphi Diagnostics

STEP 1 CLEAR DTC'S

Clear all of the DTC's from the engine control unit and the BSI. If there are still DTC's present for the dpf data or dpf pressure sensor's do not worry at this point as they may require the next reset procedure before they will clear. Once you have cleared the DTC's switch off the ignition and remove the key for 3 mins.

STEP 2 RESET'S

Reset DPF Particulate Data Reset DPF Pressure Sensor's You Can Learn A New CATALYST To The System The Will Help With Resetting Pre-cat Sensors Reset All Mass Airflow Data Reset The EGR Valve Position Now tell the bsi the Additive Tank has been replaced and re-filled this will reset the additive level sensor Once you have carried out the reset procedure, switch off the ignition and remove the key for 3 mins.

STEP 3 CLEAN UP

Now go back and clear all DTC'S, any faults relating to dpf and egr should be cleared prior to applying the mod file. If you require DTC codes removing then please request this upon upload of your file to the PCW website. Once you have cleared the DTC's switch off the ignition and remove the key for 3 mins.

STEP 4 FLASH THE ECU

Now you can flash the mod file onto the ecu! On some peugeots with the head-up display unit you may need to go into the diagnostic menu and perform a dtc check and reset once all these other steps are completed. To do this you will need to select the menu button on the right hand side of the stereo face here you can scroll up/down and find either (Diagnostic Check) or (Vehicle Configuration) in here you will find the self diagnostic check, carry out this procedure so the head-up display can clear the unwanted Additive Faulty warning light. Test drive the vehicle and fault check after to be sure you are happy.

Manual BSI Reset Procedure

The software that controls the operation of these systems can become corrupted if the battery has been replaced and the "BSI" has not gone to sleep before disconnection of old battery or been woken up after reconnection of new battery or sometimes for no good reason at all!

The system can be rebooted if a problem has occurred so all is not lost.

Follow this procedure for the reset (reboot).

- J Have the drivers window fully open.
- J Open the bonnet and make sure all equipment is switched off including interior light.
- J Close all doors and remove key from the ignition.

- J Wait 3 minutes, disconnect the vehicle battery then wait 15 seconds.
- J Reconnect the vehicle battery and wait a further 10 seconds.
- J Switch on the side lights through the driver's window.
- J Switch on the ignition DO NOT start the engine at this point.
- J Hold the lock button on the key down for 10 seconds while key is still in the ignition.
- J Switch off ignition and remove key open & close door to test central locking system.
- J Start the engine.