

So, I've compiled a list of common issues and common solutions based on what I've seen on the forums. Please research any possible fix before performing it. Personally, I've only had a bad pcv, so I'm basing a lot of this based on my understanding of the issue. Please let me know if something needs to be changed or added...I'd like to make this as good a possible.

If your car is stock and you still have warranty, then all the items below should be covered under warranty. If you are not stock, then the failed component may or may not be covered under warranty depending on what caused the failure, though this thread is not a warranty debate thread.

Disclaimer: This is a general guide only. Any problem with the car should be diagnosed by a competent and trained individual. All information provided is for information only and is not designed to replace a service manual or professional help. Use at your own risk.

1. Diverter valve failure
2. PCV failure
3. Broken intake ducting
4. Cam lobe wear
5. High pressure fuel pump failure
6. Air conditioning does not work
7. Tumble flap failure
8. Cold start problems
9. Misfires
10. Low Fuel Pressure Sensor Failure

1. Diverter valve failure

Background:

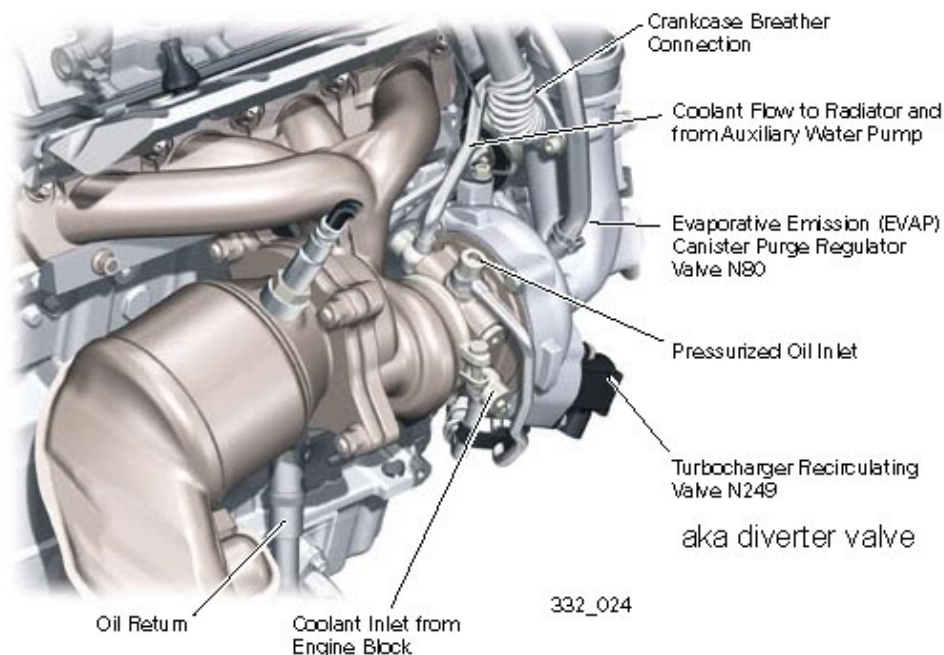
The stock diverter valve (dv) is prone to failure, whether chipped or stock. The diaphragm is prone to tearing (the orange shown in the pic of the stock dv (in the middle) below-may be a different color depending on the version of dv you have.)



Symptoms:

- A failing diverter valve will generally lose boost.
- The boost can be checked either via a boost gauge, or the vag-com (mb 115). You will see a huge drop in boost when the dv goes bad.
- Pin-hole DV failures usually allow boost to spike, but will then suddenly vent boost.
- Tearing in the DV usually only allows 6-7 PSI. Boost will not spike.
- You may see 000665 - Boost Pressure Regulation: Control Range Not Reached
- p0299 - 002 - Lower Limit Exceeded - Intermittent

-Alternatively, you can remove the dv, and inspect the diaphragm for tears. It is held onto the compressor housing by three bolts:



Solution:

-You can replace it with the stock dv, vw #06F 145 710 C. This is the latest dv as of this post, however, many people have also seen failures with the "C" dv. VW is also supposedly coming out with a "G" dv, part # 06F-145-710-G, though it is not officially released as of this post.

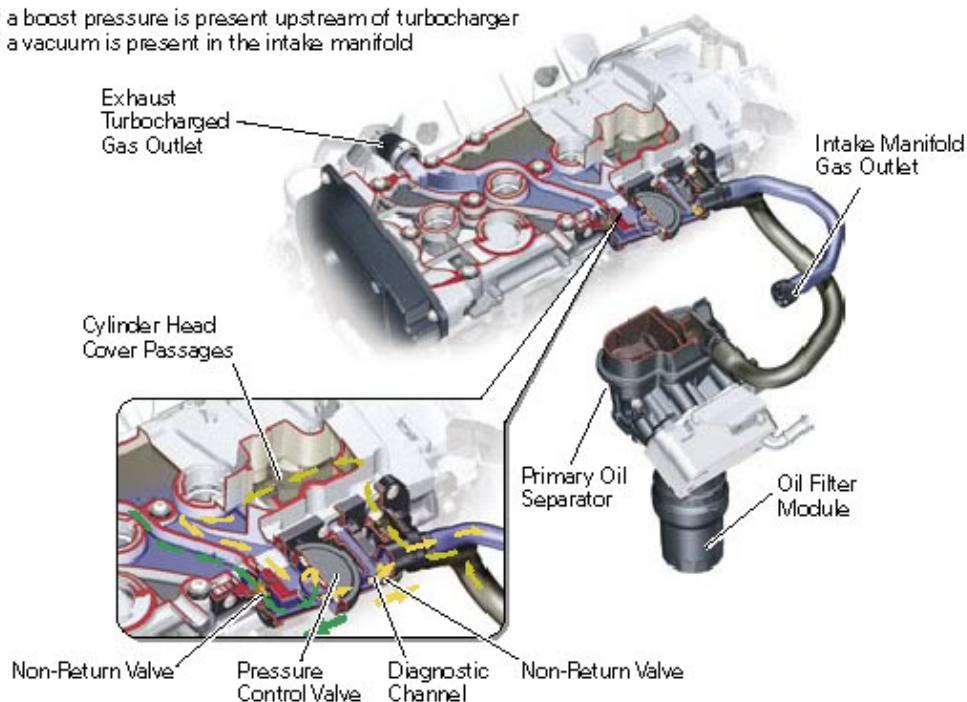
-You can upgrade to the Forge DV #fmfsitv. Pics of the Forge DV are shown above.

2. Positive Crankcase Ventilation failure

Background:

The positive crankcase ventilation is supposed to let gases get sucked from the crankcase to the intake manifold when under vacuum. The problem is, when the pcv system fails, and allows positive pressure (boost) to go from the intake manifold back into the crankcase.

- If a boost pressure is present upstream of turbocharger
- If a vacuum is present in the intake manifold



The latest PCV is the "G" version. To see which version you have, take a small mirror, and stick it under the pcv valve. The last letter identifies the revision ("E" is shown below). The part # is under the round section:



Symptoms:

- Typically you will see a slight drop in boost pressure. When my pcv failed, I saw a 2 psi drop across the board.
- Some oil will be pushed out through the oil filler cap, and onto the valve cover, and may possibly go towards the coil packs. There may also be some oil on the bottom side of the engine cover, where the oil filler cap is.
- There might be a slight decrease in MPG.
- Rear PCV failure usually results in oil accumulation around the DV, and will produce a little blue oil smoke at WOT applications.

Solution:

- There is the Digitalhippie fix which puts a check valve into the line from the crankcase to the intake manifold. For those who want a spare of the hose where the check valve is installed, the part number is 06F 103 221 F. You can read more about it here: <http://www.golfmkv.com/forums/...=8952>
- You can also upgrade to the latest PCV "G" valve. There have been very few failures reported with this PCV. Please verify the PCV you have before upgrading.

Part numbers for this upgrade:

PCV valve cover assembly: 06F 129 101 G

PCV valve cover gasket: 06F 103 483 E

PCV valve cover to turbo hose: 06F 103 215 A

PCV tube to turbo metal gasket: 06F 145 757 F

-If you did the DH pcv fix, and you have a rear pcv failure, then you will need to change the tube labeled as "Exhaust turbocharged gas outlet" shown in the pic above. the Part #'s are the last two shown above (06F 103 215 A & 06F 145 757 F)

3. Broken intake ducting

Background:

Some people have reported that part of the intake ducting that connects to the stock engine (the part in front of the accordion section) breaks off and gets lost, or worst, gets stuck and/or shredded by the fan. Due to its location, the loss in power should be minimal.



Symptom:

- You may notice that part of the ducting is missing.
- You may see shreds of the ducting in and around the fan.
- You may see the coolant temps rising possibly due to a part of the intake ducting getting stuck and not allowing the fan to turn. If the coolant gauge goes into the red, then immediately shut the engine off, and check to see if the fan is operating.

Solution:

- If the fan is damaged, then you may need a new fan.
- An aftermarket intake will replace the ducting section, and is a possibly solution.
- You might be able to tape or epoxy the sections together, so that it will make them harder to come apart. You may also remove the top piece alltogether.

4. Cam lobe wear

Background:

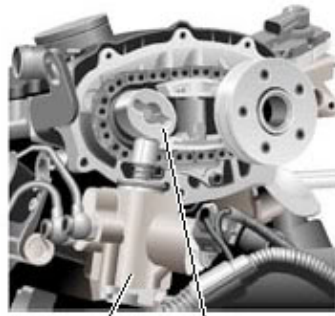
Excessive wear of intake camshaft lobe that drives the high pressure fuel pump. The wear limits maximum pump piston lift, causing fuel rail pressure fluctuations. The intake cam drives the fuel pump:

High Pressure Fuel Pump Drive

The high pressure fuel pump is driven by a double cam on the end of the intake camshaft.



Important: Before opening the system, the excess pressure must be bled off. The high pressures of this fuel system can cause injury or death. Always reference the electronic service repair information.



High Pressure Fuel Pump

Double Cam

Please see also #5 below.

Symptom:

- Fuel cut-out when driving, esp. under WOT.
- Fuel cut-out symptoms range from soft pulsations of power to long-pulse bucking while in high-gear high-load situations (high gear at WOT, or up a grade). MIL may flash if cut-out is severe. Car will also go into hard-limp (no boost, 4500RPM limit) if severe enough.
- MIL ON
- P0087 Fuel Rail / System Pressure - Too Low
- P1093 Fuel Trim 2, Bank 1 Malfunction
- P2293 Fuel Pressure Regulator 2 Performance

Solution:

Increase surface hardening of camshaft lobe for the high pressure fuel pump. Improved intake camshafts have Part No. 06F109101B. Refer to TSB# 15 07 04

5. High pressure fuel pump failure

Background:

The high pressure fuel pump sometimes is not able to supply enough fuel, especially at low to mid range RPMs because it is cam driven. Please note that the high pressure fuel pump is different than the in-tank fuel pump. Please see also #4 above.



Symptom:

- Fuel cut-out when driving, esp. under WOT.
 - You may see the following DTC
- 004767 - Low-Pressure Fuel Pressure Regulation: Pressure too High
P129F - 001 - Upper Limit Exceeded - MIL ON

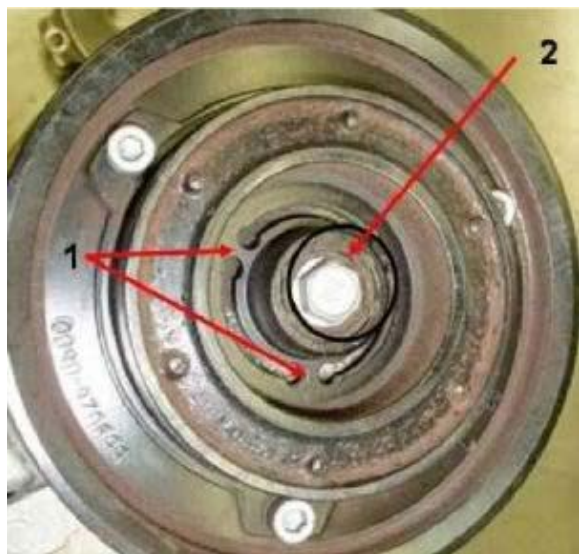
Solution:

- If you are chipped, then try to put the car in stock mode to see if the fuel cuts will stop. If it does, then you might want to wait until a fuel pump solution comes out. APR and Autotech are currently working on solutions.
- If you are stock, then it is possible that you have a bad fuel pump. The dealer should replace this under warranty.

6. Air conditioning does not work

Background:

The air conditioners manuf. By Zelex and Valeo tend to fail. They can be identified by the pulley:



Symptom:

- Air conditioning does not cool, air conditioning compressor may seize.

Solution:

- On the 2.0T engine a new Sanden compressor Part No: 1K0820803 index S must be installed. Refer to ETKA for the latest part # for the other engines. This should be covered under warranty.

7. Tumble flap failure

Background:

The tumble flap motor is prone to failure. This is probably the most common problem I've seen when scanning cars with the vag-com. A little background on how the tumble flap works:

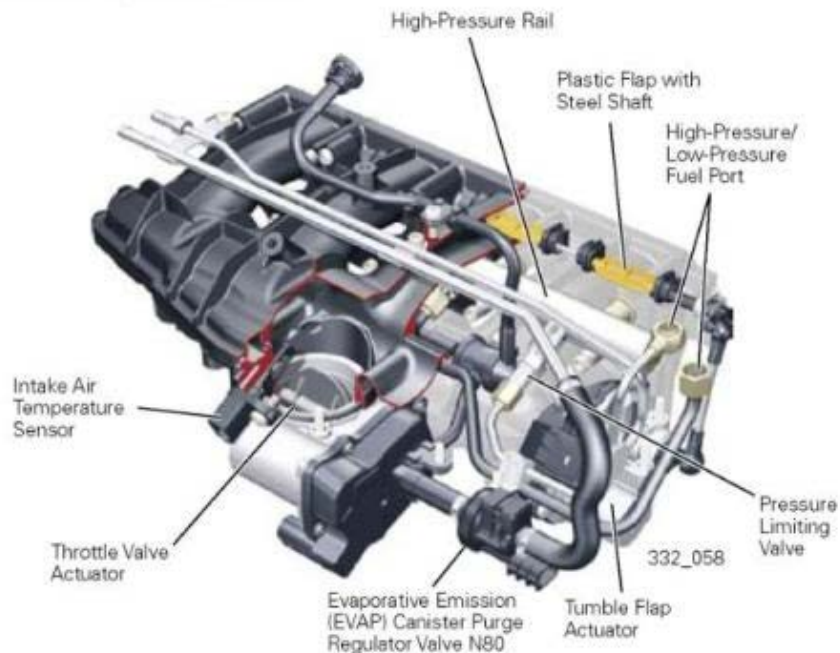
Tumble Flaps

Tumble flaps are individual plates located within the intake manifold runners that can either stay in a flat position to allow maximum airflow or move up to redirect the airflow into the combustion chamber. At different engine rpms, the tumble flaps are activated to enhance the air/fuel mixture.

The tumble flaps are actuated:

- To improve cold engine idling
- To improve charge efficiency at start-up
- In overrun mode

At other engine speeds, the tumble flaps are open to eliminate flow resistance and reduction in engine performance.



Symptoms:

You may see the following DTC's

- 012599 - Intake Manifold Runner Control: Basic Setting not Completed
- P3137 - 001 - Upper Limit Exceeded - Intermittent
- 012691 - Intake Manifold Runner Control: Open Stop outside of Valid Range
- P3193 - 002 - Lower Limit Exceeded - Intermittent
- 008196 - Intake Manifold Flap; Bank 1: Stuck Open
- P2004 - 008 - Implausible Signal - Intermittent
- 012600 - Intake Manifold Runner Control: Regulation Deviation
- P3138 - 008 - Implausible Signal - MIL ON

Solution: The intake manifold flap motor needs to be replaced.

8. Cold Start Problems

Background/Symptom: Troubles starting car when cold

Solution:

- Some people have reported that it was related to a certain gas, so maybe try a different gas station/company.
- Get the latest software reflash.
- Could also be a bad coil pack.

9. Misfires

Background/Symptom:
-Misfiring either under idle or under boost.
-Scan for DTC's. See which cylinder is misfiring, and swap coils and or plugs to see if the misfire follows.
-Coil pack misfire (non-fire, lol) symptoms are shorter duration, rather violent, and also result in backfires from unburnt fuel entering the exhaust system. The MIL usually starts flashing. Car may or may not go into limp.

Solution:
-Replace coils and/or plugs
-Could be a bad fuel injector

A special thanks to DirtyDisco. and syntrix for providing some of the info used in this post.

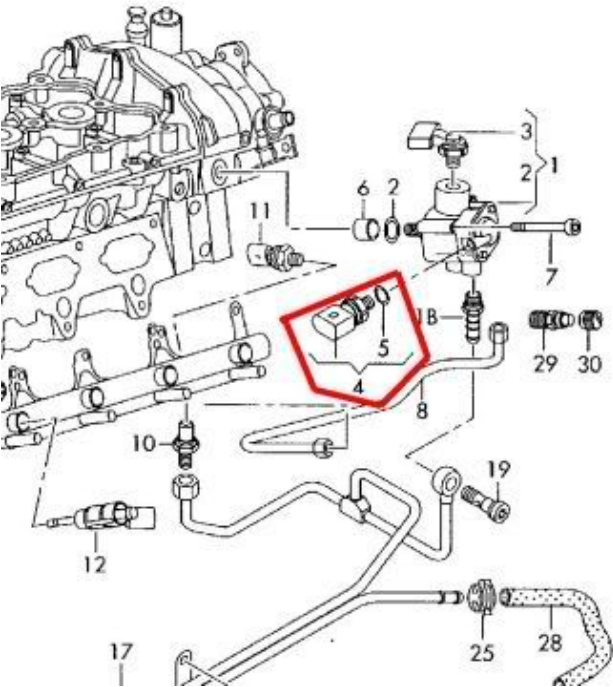
10. Low Fuel Pressure Sensor Failure

Background/Symptom:
You may get the following DTC's:
012555 - Low Pressure Fuel regulation: Fuel Pressure Outside Specification
P310B - 008 - Implausible Signal - Intermittent - MIL ON

004767 - Low-Pressure Fuel Pressure Regulation: Pressure too High
P129F - 001 - Upper Limit Exceeded – Intermittent

-The first symptom is typically stalling when first starting the car cold.
-Typically, the problem gets worse, and can lead to fuel cutouts at almost any rpm and/or car stalling/running lean/rich

Solution: Replace low fuel pressure sensor (thrust sensor), vw part #06E906051J
Sometimes, the high pressure fuel pump will be replaced at the same time (#1 in pic below)



Pos	Part Number	Name
		fuel pump fuel distributor injector F >> 1K-6-190
1	06F 127 025 F	fuel pump
2	06E 127 248	round seal
3		not a spare part
4	06E 906 051 J	thrust sensor
5	06E 906 149 B	round seal
6	06D 109 309 C	cam follower
7	N 106 247 01	screw, cheese hd.
8	06F 127 501 N	fuel line
9	06F 133 317 G	fuel distributor
10	06D 130 757 C	pressure limiting valve
11	06D 906 051 A	thrust sensor
12	06F 906 036 A	injector