



instructables

# Audi Seat Skoda VW 2.7 & 3.0 TDI Left & Right Intake Inlet Intake Manifold P2015 Error Motor Actuator Repair Bracket Fix Kit Install Instructions Guide



by x8rltd

## **Symptoms Of Fault**

Error Code: P2015, "Intake Manifold Flap Position Sensor, Bank 1 - Implausible Signal". Error Code: P2020, "Intake Manifold Flap Position Sensor, Bank 2 - Implausible Signal". VAG Error Code: 18447, 7859, 008213. VAG Error Code: 18452, 008224. Malfunction Indicator Lamp (MIL)(K83) active. Check engine light illuminated/flashing. Rough idle. Decreased fuel economy. Reduced acceleration. Increased fuel consumption. Intake Manifold Flap Motor (V157) stuck/faulty.

Possible other error codes: P2004, P2005, P2006, P2007, P2008, P2009, P2010, P2011, P2012, P2013, P2014, P2016, P2017, P2018, P2019, P2021, P2022, P2023, P3135, P1018.

## **The Fault**

The actuator motor on the intake manifold over rotates; triggering fault codes.

When the Engine Control Module (ECM) detects that the intake manifold is not functioning properly it will normally illuminate the check engine light.

The intake manifold control valve/position sensor (which is typically located at one end of the intake manifold) provides values which help the vehicle's Powertrain Control Module (PCM) control the amount of air being allowed into fuel injected engines at various RPMs.

Using information from the sensor, the Intake Manifold Runner Control (IMRC) determines the

position of the throttle body plates (commonly called flapper valves) and adjusts them to adapt to engine load variations. This ensures a correct mixture of fuel and air by limiting the amount of air that can pass through the engine. The P2015 code means that there is out of range data from the sensor.

The P2020 code is the fault code associated with Bank 2 for the same issue.

If your vehicle has a P2015 and/or P2020 error it is very likely the main dealer will look to fix this issue with one or two completely new intake manifolds at significant cost. The fault however usually lies with the actuator motor on the intake manifold(s). There are two plastic limiting stops on the large cog within the motor. These are delicate and inevitably wear, allowing the motor to over rotate which triggers the P2015/P2020 error.

Our repair brackets can be installed very easily (normally in situ) providing a solid limit for the actuator motors - curing these faults for the life of the vehicle. There is no need to replace the complete manifolds / actuator motors which would only fail again.

## **The Solution**

Fit our brackets and remedy the over rotation with a hard limit for the actuator motor. Clearing fault codes.

We recommend to fit both brackets at the same time as the two manifolds work together so it is preferable for them both to have the same limit.

Our brackets can be fitted very simply, usually in under 15 minutes, with basic tools. They attach to the manifold actuator motors themselves and stop the over rotation which causes the fault. Many of our customers have purchased our brackets as a preventative measure before their motors fail.

Our parts limit the motors to the same range as when they were new. Avoid the cost of a complete new manifold and actuator motor (or two) which would only fail again and which requires the removal of the fuel lines for installation.

No software (VCDS/ VAG COM) is needed for this repair, check out our instructions and videos, after the bracket is fitted the error will clear on its own.

Our bracket is unique in design and is constructed from stainless steel.

Fit our bracket quickly and simply and cure this common fault.

### **Vehicles Affected**

VAG 2.7 & 3.0 v6 TDI engines with actuator motor with 4-pin and 5-pin plug. Both left-hand and right-hand manifolds, Type A & Type B. 2007 onwards.

Compatible with actuator part numbers: 059129086J, 059129086L, 059129086G, 059129086K, 059129086D, 059129086M, 059129086E.

Associated manifold part numbers: 059129711AF, 059129711AG, 059129711AL, 059129711AR, 059129711BJ, 059129711BK, 059129711BP, 059129711BQ, 059129711BR, 059129711BS, 059129711CA, 059129711CG, 059129711CH, 059129711CK, 059129711CL, 059129711DC, 059129711T, 059129712AJ, 059129712AR, 059129712BA, 059129712BC, 059129712BE, 059129712BF, 059129712BG, 059129712BH, 059129712BK, 059129712BL, 059129712BM, 059129712BN, 059129712BQ, 059129712BR, 059129712BS, 059129712BT, 059129712CA, 059129712CB, 059129712CK, 059129712E, 059129712H, 059129712N, 059129712P, 059129712T.

### **Associated vehicles:**

Audi Q7 3.0 TDI from 2007

Audi Q5 3.0 TDI from 2009

Audi A4 3.0 TDI from 2008

Audi A4 2.7 TDI from 2008

Audi A5 3.0 TDI from 2008

Audi A5 2.7 TDI from 2008

Audi A6 3.0 TDI from 2008

Audi A6 2.7 TDI from 2008

VW Touareg 3.0 TDI from 2007

VW Phaeton 3.0 TDI from 2007

Audi; A8 & Q7

Associated engine codes: CAMA, CAMB, CANA, CANB, CANC, CAND, CAPA, CARA, CASA, CASB, CASC, CASD, CATA, CCLA, CCMA, CCWA, CCWB, CDYA, CDYB, CDYC, CEXA, CGKA, CGKB.

### **Complete Kit**

2x Stainless steel brackets to fit both Left and Right hand manifolds. (4 and 5 pin)



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### Step 1: Remove Linkage Arm

**This repair can normally be carried out in situ on the vehicle but is shown here on the bench for clarity.**

Using a flat bladed screwdriver lever the linkage arm away from the ball joint on the actuator.



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### Step 2: Remove Actuator Screws

Using a T30 bit remove the 2x actuator screws shown.



### Step 3: Fit Our Bracket

Select the correct bracket from our set and fit as shown. You will need to rotate the actuator by hand by pushing on the ball joint, hold this under tension, you can then slide our bracket in to place, line up the holes in the top section to the actuator holes and re-tighten the screws.



### Step 4: Refit Linkage

Push fit linkage on to the actuator ball joint.

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You can then test the movement of the actuator motor and see that it tops and bottoms out on our bracket, keeping it within range.

Installation is carried out at installers risk, if unsure please contact us or a professional, X8R Ltd cannot be held responsible for any adverse result of installing this product or any injuries caused by install, if in doubt ask a professional. All images and texts are copyright X8R Ltd 2020.

If you need any further guidance on this install or would like to purchase the parts shown please call us on +44 01843 446643 or email us at [sales@x8r.co.uk](mailto:sales@x8r.co.uk). Please also check out our instruction guide on YouTube.

