IMPORTANT INFORMATION Please inform and provide a copy of this document to every person in your dealership with campaign-related responsibilities, including Service, Parts and Accounting personnel. By law, dealers must correct, prior to delivery for sale or lease, any vehicle that fails to comply with an applicable Federal Motor Vehicle Safety Standard or that contains a defect relating to motor vehicle safety. If you have questions regarding this or any other campaign, please contact Warranty

# **Emissions Service Action**

Subject: 2009 - 2012 Audi Q7 3.0L TDI **Differential Pressure Sensor/ECM Software Update** 

August 06, 2013

Code: 23L2

# Problem Description

- In some vehicles, corrosion can form in the differential pressure sensor, causing the Malfunction Indicator Light (MIL) to come on. If the MIL is on because of this issue, a vehicle will not pass an IM (emissions) inspection.
- In some vehicles under certain driving conditions, the MIL may come on due to an issue with the Engine Control Module (ECM) software. If the MIL is on because of this issue, the vehicle will not pass an IM (emissions) inspection.

# Corrective Action

- Update ECM software and/or
- Replace the differential pressure sensor

# **IMPORTANT!**

Some vehicles may have more than one criteria applicable. Check ElsaWeb to ensure that **all** applicable criteria are performed/claimed.

# Affected Vehicles

U.S.A. & CANADA:

# 2009-2012 MY Audi Q7 3.0LTDI

Verify the Open Campaigns/Actions screen in ElsaWeb to determine if the VIN# applies to this Campaign/ Action.

#### NOTE:

- ElsaWeb is the only valid campaign inquiry/verification source. Check ElsaWeb on the day the campaign work will be performed to verify vehicle eligibility for the repair in order to receive claim payment consideration. Campaign status must show "open".
- If this repair appears to have already been performed on the vehicle but the code still shows open in ElsaWeb, contact Warranty before proceeding further, e.g. a dealer may have recently performed this repair but not yet entered a claim for it in the system.
- ElsaWeb may also show additional open action(s); if so, inform your customer - this work can be done while the vehicle is in for this campaign.
- Contact Warranty if you have any questions.

#### Allocation Report of Affected Vehicles

Electronic allocation lists will be posted under My Dealership Reports on AccessAudi. A list will not be posted for dealers who had no affected vehicles.

#### Parts Information and Allocation

- Parts allocation will take place prior to customer notification.
- The Targeted Allocation program will be used in support of this campaign.
- Please refer to the dealer letter and Campaign Data Sheet for information regarding the Completion Factor/Replacement Rate for your targeted allocation calculations.
- If additional parts are required for critical cases, please contact the Parts Specialists at 800-767-6552.

#### **Owner Notification Mailing**

All known owners will be notified by first class mail in on or about August 13, 2013. Sample copies of the owner letters are enclosed.

#### **Requirements for Emissions Campaigns With Customer Notification (CALIFORNIA ONLY)**

The California Air Resources Board and the Department of Motor Vehicles (DMV) require emissions-related campaigns to be completed prior to vehicle registration renewal. When campaign work is done you must provide the owner with a signed "Vehicle Emission Recall - Proof of Correction" certificate (RC EMISCAVWAU). Certificates can be ordered at no cost online via the Compliance Label Ordering portal at www.accessaudi.com.

NOTE: Ensure owners are aware of the importance of retaining the completed certificate for their records. lt should be mailed to the California DMV only upon request.

#### **Campaign Completion Labeling Guidelines (California** Only)

Vehicles repaired under this action are required to be identified with a Campaign Completion label when the work is performed. It is mandatory for all dealers in California to complete and affix Campaign Completion label, part number CAMP 010 000, whenever this campaign is performed. Labels can be ordered at no cost online via the Compliance Label Ordering portal at www.accessaudi.com.



# **Claim Entry Procedure**

Immediately upon completion of the repair work, enter the Applicable Criteria ID and Repair Operation from the following chart. The Applicable Criteria ID is shown in ElsaWeb. Claims will only be paid for vehicles that show this campaign open in ElsaWeb <u>on the day of the repair.</u> To help ensure prompt and proper payment, attach the screen print to the repair order.

Saga Claim Entr	y Procedure	
Check ElsaWeb to de	etermine whether th	ie campaign is open.
Service No.: 23L2 Damage Code: 0099		Vahieles may have more than one
Parts Manufacturer Removed part: Use vendor code 002 Sold vehicle = 7 10 Unsold vehicle = 7 90		Vehicles may have more than one criteria. Complete and claim all
		applicable criteria on <u>one</u> claim.
Accounting Instructions	<u>&gt;</u>	
Criteria I.D. 01		
Perform ECM so	ftware update	
Repair operation	n: 2360 25 99	40 T.U.
AND/OR		
Criteria I.D. 02		
Replace different	tial pressure sensor	
Repair operation	n: 2675 55 99	70 T.U.
Quantity	Part Number	Part Description
1	059 906 051 A	Differential Pressure Sensor
	There is NO reimburs	sement for Vehicle Wash or Loaner
If customer refused rep	pairs	
•		(248) 754-6533 (U.S) and (905) 428-4811 (CAN). Provider information, Dealer number and date.

#### Customer Letter Example (United States – Except California)

Vehicle Identification Number (VIN): <VIN>

Criteria: <CRITERIA>

#### Subject: Emissions Service Action 23L2/L7 Differential Pressure Sensor/ECM Software 2009-2012 MY Audi Q7 3.0L TDI Vehicles

Dear Audi Owner:

As a valued Audi customer, your satisfaction is our utmost priority. We are writing to you today about how we intend to address/prevent some potential emissions-related issues that some customers have experienced in certain 2009-2012 MY Audi Q7 3.0L TDI vehicles.

What is the issue?	<ul> <li>In some vehicles, corrosion can form in the differential pressure sensor, causing the Malfunction Indicator Light (MIL) to come on.</li> </ul>
	<ul> <li>In some vehicles under certain driving conditions, the MIL may come on due to an issue with the Engine Control Module (ECM) software.</li> </ul>
	If the MIL is on because of either issue, your vehicle will not pass an IM (emissions) inspection. Please note that your vehicle may be subject to one or both of these issues.
What will we do?	As needed, your authorized Audi dealer will install updated Engine Control Module (ECM) software and/or a new differential pressure sensor on your vehicle at no cost to you. This work can take up to two hours to complete.
What should you do?	In order to limit any possible inconvenience, please contact your authorized Audi dealer as soon as possible to schedule your repair. This will allow your dealer time to plan ahead and ensure that the required parts (if needed) are available for your vehicle on your scheduled appointment date.
	IMPORTANT! Please note that if the ECM in your vehicle has been "chipped," "tuned," or otherwise modified from original factory specifications with aftermarket components and/or software, work needed to repair, replace, or return the ECM to original factory specifications is NOT covered under this action.
Lease vehicles and address changes	If you are the lessor and registered owner of the vehicle identified in this action, please forward this letter immediately via first-class mail to the lessee within ten (10) days of receipt. If you have changed your address or sold the vehicle, please fill out the enclosed prepaid Owner Reply card and mail it to us so we can update our records.
Reimbursement of Expenses	If you have previously paid for repairs relating to the conditions described in this letter, the enclosed form explains how to request reimbursement. We would be pleased to review your reimbursement request.
Can we assist you	If you have any questions regarding this repair, please contact us at:
further?	Audi of America, Inc., Attn: Customer Experience (23L2/L7) 3800 Hamlin Road, Auburn Hills, MI 48326 1-800-253-2834
	We also invite you to visit our website at <u>www.audiusa.com</u> where you can check to see if this or any other action may be open on your vehicle.

We hope you are enjoying the exceptional performance and fuel economy of your TDI® Clean Diesel vehicle, and we wish you many more miles of driving pleasure. Thank you for your continued loyalty!

Sincerely, Audi Quality & Technical Service

### Customer Letter Example (CALIFORNIA ONLY)

Vehicle Identification Number (VIN): <VIN> Criteria: <CRITERIA>

Subject: Emissions Service Action 23L2/L7 Differential Pressure Sensor/ECM Software 2009-2012 MY Audi Q7 3.0L TDI Vehicles

#### Dear Audi Owner:

As a valued Audi customer, your satisfaction is our utmost priority. We are writing to you today about how we intend to address/prevent some potential emissions-related issues that some customers have experienced in certain 2009-2012 MY Audi Q7 3.0L TDI vehicles.

What is the issue?	<ul> <li>In some vehicles, corrosion can form in the differential pressure sensor, causing the Malfunction Indicator Light (MIL) to come on.</li> </ul>
	<ul> <li>In some vehicles under certain driving conditions, the MIL may come on due to an issue with the Engine Control Module (ECM) software.</li> </ul>
	If the MIL is on because of either issue, your vehicle will not pass an IM (emissions) inspection. Please note that your vehicle may be subject to one or both of these issues.
What will we do?	As needed, your authorized Audi dealer will install updated Engine Control Module (ECM) software and/or a new differential pressure sensor on your vehicle at no cost to you. This work can take up to two hours to complete.
What should you do?	In order to limit any possible inconvenience, please contact your authorized Audi dealer as soon as possible to schedule your repair. This will allow your dealer time to plan ahead and ensure that the required parts (if needed) are available for your vehicle on your scheduled appointment date.
	IMPORTANT!
	Please note that if the ECM in your vehicle has been "chipped," "tuned," or otherwise
	modified from original factory specifications with aftermarket components and/or
	softwa <mark>re, work needed to repair, rep</mark> lace, or return the ECM to original factory specifications is NOT covered under this action.
Lease vehicles and	
address changes	If you are the lessor and registered owner of the vehicle identified in this action, please forward this letter immediately via first-class mail to the lessee within ten (10) days of receipt. If you have changed your address or sold the vehicle, please fill out the enclosed prepaid Owner Reply card and mail it to us so we can update our records.
Important information for California Vehicle Owners – <u>California</u> <u>Regulations</u>	California regulations require that this campaign be completed prior to the time you renew your vehicle registration. Therefore, <b>please make sure that this campaign is completed prior to the renewal of your vehicle registration</b> , and that you furnish proof of completion to the Department of Motor Vehicles (DMV) in the form of a copy of the dealer's repair order, including a signed "Proof of Correction" certificate. You obtain this from your dealer after the campaign has been completed. Please retain the signed "Proof of Correction Certificate" with your vehicle records. DO NOT MAIL THIS FORM to the DMV, unless requested.
Reimbursement of Expenses	If you have previously paid for repairs relating to the condition described in this letter, the enclosed form explains how to request reimbursement. We would be pleased to review your reimbursement request.
Can we assist you	If you have any questions regarding this repair, please contact us at:
further?	Audi of America, Inc., Attn: Customer Experience (23L2/L7) 3800 Hamlin Road, Auburn Hills, MI 48326 1-800-253-2834
	We also invite you to visit our website at <u>www.audiusa.com</u> where you can check to see if this or any other action may be open on your vehicle.
We hope you are enjoying	the exceptional performance and fuel economy of your TDI® Clean Diesel vehicle, and we wish

many more miles of driving pleasure. Thank you for your continued loyalty!

Sincerely,

Audi Quality & Technical Service

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you

### **Customer Letter Example (Canada)**

Vehicle Identification Number (VIN): <VIN> Criteria: <CRITERIA> Subject: Emissions Service Action 23L2/L7 Differential Pressure Sensor/ECM Software 2009-2012 MY Audi Q7 3.0L TDI Vehicles

Dear Audi Owner:

As a valued Audi customer, your satisfaction is our utmost priority. We are writing to you today about how we intend to address/prevent some potential emissions-related issues that some customers have experienced in certain 2009-2012 MY Audi Q7 3.0L TDI vehicles.

What is the issue?	<ul> <li>In some vehicles, corrosion can form in the differential pressure sensor, causing the Malfunction Indicator Light (MIL) to come on.</li> </ul>
	<ul> <li>In some vehicles under certain driving conditions, the MIL may come on due to an issue with the Engine Control Module (ECM) software.</li> </ul>
	If the MIL is on because of either issue, your vehicle will not pass an IM (emissions) inspection. Please note that your vehicle may be subject to one or both of these issues.
What will we do?	As needed, your authorized Audi dealer will install updated Engine Control Module (ECM) software and/or a new differential pressure sensor on your vehicle at no cost to you. This work can take up to two hours to complete.
What should you do?	In order to limit any possible inconvenience, please contact your authorized Audi dealer as soon as possible to schedule your repair. This will allow your dealer time to plan ahead and ensure that the required parts (if needed) are available for your vehicle on your scheduled appointment date.
	IMPORTANT! Please note that if the ECM in your vehicle has been "chipped," "tuned," or otherwise modified from original factory specifications with aftermarket components and/or software, work needed to repair, replace, or return the ECM to original factory specifications is NOT covered under this action.
Lease vehicles and address changes	If you are the lessor and registered owner of the vehicle identified in this action, please forward this letter immediately via first-class mail to the lessee within ten (10) days of receipt. If you have changed your address or sold the vehicle, please fill out the enclosed prepaid Owner Reply card and mail it to us so we can update our records.
Reimbursement of Expenses	If you have previously paid for repairs relating to the condition described in this letter, the enclosed form explains how to request reimbursement. We would be pleased to review your reimbursement request.
Can we assist you	If you have any questions regarding this repair, please contact us at:
further?	Audi Canada Attn: Customer Relations (23L2/L7) P.O. Box 842, Stn. A, Windsor, ON N9A 6P2 1-800-822-2834
	We also invite you to visit our website at <u>www.audi.ca</u> where you can check to see if this

We hope you are enjoying the exceptional performance and fuel economy of your TDI® Clean Diesel vehicle, and we wish you many more miles of driving pleasure. Thank you for your continued loyalty!

Sincerely, Audi Quality & Technical Service

If there are questions regarding the work procedure:

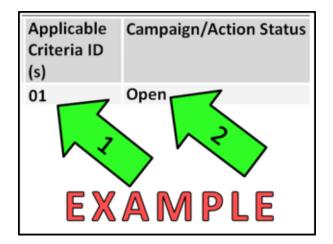
- U.S. dealers, contact Warranty
- Canadian dealers, open an ATA ticket using concern group "Compliance/Recall Assistance (C)"

# **Required Parts:**

Quantity	Part Number	Part Description
1	059 906 051 A	Differential Pressure Sensor
(1) Shop supply	CAMP 010 000	Campaign Completion Label (California Only)
(1) Shop supply	RC EMISCAVWAU	Proof of Correction Certificate (California Only)

# Work Procedure:

If Campaign Completion label is present, <u>no further work required</u>



## <u>Section A</u> – Identify Criteria and Check for Open Status

- **Tip**: On the date of repair, print this screen and keep a copy with the repair order.
- Enter the VIN in ElsaWeb and proceed to the "Campaign/Action" screen.
- ⇐ Ensure that the Status is "Open" <arrow 2>.
- Content of the Applicable Criteria ID(s) <arrow 1> for use in determining the correct work to be done and associated parts.

Perform all Applicable Criteria below as necessary according to ElsaWeb:

- 01 Section B ECM Software Update
- 02 Section C Sensor Replacement

# Section B - Criteria 01 – ECM Software update

- Open the hood.
- Attach an appropriate battery charger to the vehicle battery.
- Attach the VAS tester to the vehicle.

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- From the home screen of the scan tool select "Audi Flashing".
- Enter SVM code 23L2A001.
- Follow the on-screen prompts to perform the ECM software update.

If Criteria 2 applies, continue to Section C. Otherwise, continue to Section D.

## <u>Section C</u> - Criteria 02 – Replace Differential Pressure Sensor

- Remove the engine cover.
- The differential pressure sensor is mounted in the center of the bulkhead, below the wiper cowl <circle>.



Construct the electrical connector from the differential pressure sensor <circle>.







Remove the differential pressure sensor mounting nut <circle>.

- Reposition the spring clamps on both of the particulate filter hoses to allow removal of the hoses from the differential pressure sensor <arrows>.
- Remove both of the particulate filter hoses from the differential pressure sensor and remove the sensor itself from the mounting bracket.

- Install the particulate filter hoses onto the new differential pressure sensor (P/N 059 906 051 A).
- Reposition the spring clamps.
- Install the new differential pressure sensor into the retaining clip.
- Install and torque the mounting nut to 3.5 Nm.
- Reconnect the electrical connector.

#### **Adjust Programmed Values**

- Start the engine.
- Using a VAS 6150A or equivalent enter "Guided Functions".
- Select the appropriate model, model year, and engine code.

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Guided Functions	Volkswagen V19.20.00 31/01/2013
Functions	7L - Touareg 2003 > only USA/Canada
Selecting vehicle system or function	2010 (A) Sedan <u>CA</u> TA 3.0 L TDI-CR 165kW
01 - CATA - Engine - J623	
02 - 8-speed automatic transmission	n 0C8
22 - All wheel electronics I J646	
32 - Locking electronics I J647	
03 - Antilock brake system ABS/ED	L/TCS/ESP
13 - Adaptive cruise control - J428	
8B - Distance regulation 2 - J850	
53 - Parking brake - J540	
34 - Level control system I J197	
65 -Tire pressure monitoring -J502	
42 - Driver door electronics - J386	
52 - Front passenger door electronic	cs - J387
62 - Left rear door electronics - J38	3
72 - Right rear door electronics - J3	89

Guided Functions	Audi V19.45.00 24/10/2012
Functions	Audi Q7 USA/CDN 2007>
Selecting vehicle system or function	2012 (C) SUV CATA 3.0I TDI / 165 kW
Engine Control Module, enable in	nmobilizer
01 - Coding	
01 - Adapting Injector Quantity C	alibration with IVC
01 - Kick-Down point adapting	
01 - Cruise control activating or d	eactivating
01 - Adaptive Cruise Control activ	ating or deactivating
01 - Erase DTC memory	-
01 - Readiness Code	
01 - Read Measuring Value Block	(S
01 - Basic Setting	
01 - Adapting Diesel Particulate F	Filter (DPF) adapt. values
01 - Adapting Pressure Regulating	g Valves adapt. values
01 - Adapting Reducing Agent Ta	ink adapt. values
01 - Reducing Agent System Fau	It Display

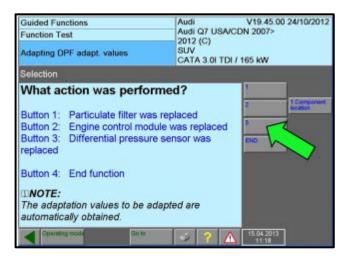
Guided Functions Test Plan	Audi Q7 USA/CDN 2007>
restman	2012 (C) SUV CATA 3.0I TDI / 165 KW
? 01 - Readiness Code	CATA 3.0FTD17105 KW
	Particulate Filter (DPF) adapt. values
	V

 $\leftarrow$  Select "01 – CATA – Engine – J623" <arrow>.

- ⇐ Select "Engine Control Module, enable immobilizer".
- Select "01 Adapting Diesel Particulate Filter (DPF) adapt. values" <arrow>.

Select "01 – Adapting Diesel Particulate Filter (DPF) adapt. values" <arrow>.

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Guided Functions Function Test	Audi V19.45.00 24/10/2012 Audi Q7 USAVCDN 2007> 2012 (C) SUV CATA 3.0I TDI / 165 kW
Adaptation values	
The adaptation value was successfully.	stored

⇐ Select "Button 3: Differential pressure sensor was replaced" <a row>.

- $\leftarrow$  Select "Done" <arrow>.
- ⇐ Disconnect the VAS tester from the vehicle.
- $\leftarrow$  Close the hood.

California dealers - Proceed to Sections D and E, all other dealers proceed to section F

#### Section D – CALIFORNIA ONLY Requirements for Emissions Campaigns Having Customer Notification and applying Campaign Completion Label

!) Note: The California Air Resources Board and the Department of Motor Vehicles (DMV) require emissions-related campaigns to be completed prior to vehicle registration renewal. When campaign work is done you must provide the owner with a signed "Vehicle Emission Recall Proof of Correction" certificate (RC EMISCAVWAU). Certificates can be ordered at no cost online via the Compliance Label Ordering portal at www.accessaudi.com. Tip: Ensure owners are aware of the importance of retaining the completed certificate for their records. It should be mailed to the California DMV only upon request. 0 Note: Vehicles repaired under this action in California are required to be identified

Campaign Completion

CAMP 010 000

SAGA CODE:

DLR #:

REPAIR DATE:

Note: Vehicles repaired under this action in California are required to be identified with a campaign completion label when the work is performed. It is <u>mandatory</u> for all dealers in California to complete and affix Campaign Completion label, part number CAMP 010 000, whenever this campaign is performed. <u>Labels</u> can be ordered at no cost online via the Compliance Label Ordering portal at <u>www.accessaudi.com</u>.

# Section E - Install Campaign Completion Label

- Open hood
- Fill out and affix Campaign Completion label, part number CAMP 010 000, next to the vehicle emission control information label

Tip: Ensure Campaign Completion label does not cover any existing label(s)

Close hood

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## Section F – Parts Return/Disposal

#### Parts Return/Disposal

Properly destroy and dispose of removed parts in accordance with all state/local requirements once the parts are listed on the Parts Destruction and Core Disposition report, unless otherwise indicated and/or requested for return.

#### ALL WORK IS COMPLETE