



V8 XJ Series/XK

DATE 04/03
Amended 07/04

309-S501

SERVICE

TECHNICAL BULLETIN

Exhaust Gas Recirculation (EGR) Transfer Pipe – Replace – Service Action S501

MODEL 2000-02 MY XKR
2000-01 MY XJR & VDP SC
VIN A00116-A27550
F00103-F30384

Remove and destroy Bulletin 309-S501, dated 4/03.
Replace with this Bulletin.
Revisions are marked with a bar and in **bold text**.

Issue:

A concern has arisen whereby the EGR transfer pipe fitted to vehicles within the above VIN range may crack, due to a combination of normal engine resonance and the form of the pipe. This could result in the illumination of the check engine MIL and customer complaints of excess engine noise.

In order to avoid unnecessary customer inconvenience, the EGR transfer pipe should be replaced with a redesigned EGR transfer pipe on all vehicles within the above VIN range.

Jaguar Cars will be writing to all current owners of vehicles within the above VIN ranges, **who have not had this Service Action performed**, to request them to bring their vehicle in at the first available opportunity to have this work carried out.

Action:

At the next service opportunity, replace the EGR transfer pipe on all 2000-02 MY XKR and 2000-01 MY XJR & VDP SC vehicles within the above VIN range.

NOTE: THE INFORMATION IN TECHNICAL BULLETINS IS INTENDED FOR USE BY TRAINED, PROFESSIONAL TECHNICIANS WITH THE KNOWLEDGE, TOOLS, AND EQUIPMENT TO DO THE JOB PROPERLY AND SAFELY. IT INFORMS THESE TECHNICIANS OF CONDITIONS THAT MAY OCCUR ON SOME VEHICLES, OR PROVIDES INFORMATION THAT COULD ASSIST IN PROPER VEHICLE SERVICE. THE PROCEDURES SHOULD NOT BE PERFORMED BY "DO-IT-YOURSELFERS." DO NOT ASSUME THAT A CONDITION DESCRIBED AFFECTS YOUR CAR. CONTACT A JAGUAR RETAILER TO DETERMINE WHETHER THE BULLETIN APPLIES TO YOUR VEHICLE.

Workshop Procedure – XJR and VDP Supercharged Vehicles

1. Open hood and install fender protectors.
2. Open luggage compartment lid and remove battery cover.
3. Disconnect battery.

Note: Ensure the radio code is available before disconnecting the battery.

4. Remove air intake tube/mass air flow sensor/air cleaner cover assembly (see Illustration 1).

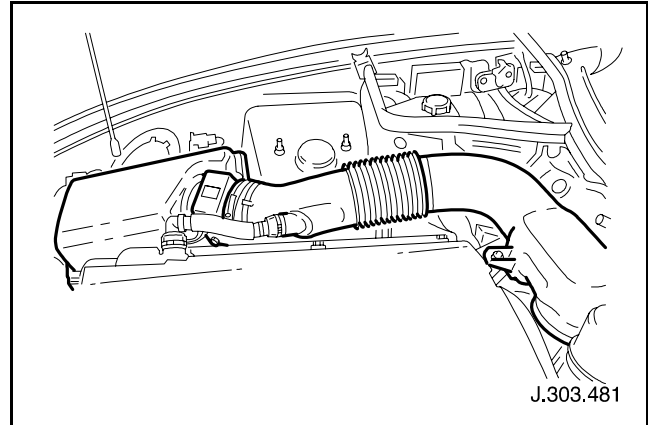


Illustration 1

5. Remove left and right hand false bulkhead top covers and engine compartment rear cover (see Workshop Manual, JTIS CD ROM: section: 501-02).
6. Disconnect evaporative emissions (EVAP) canister purge valve electrical connector (see Illustration 2).

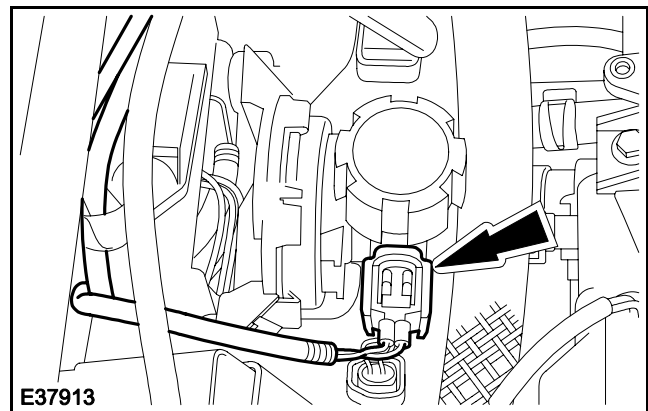


Illustration 2

7. Remove the EVAP canister purge valve securing screws (see Illustration 3).

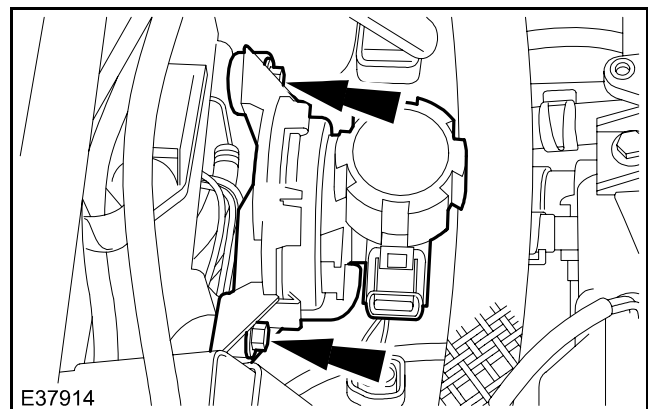


Illustration 3

8. Displace EVAP canister purge valve for access.

9. Remove EGR transfer pipe to EGR valve securing screws (see Illustration 4).

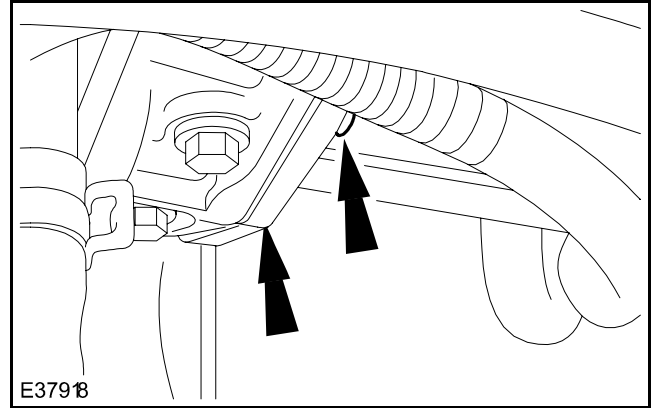


Illustration 4

10. Reposition EGR transfer pipe for access to the gasket.
11. Remove and discard EGR transfer pipe to EGR valve gasket.
12. Remove EGR transfer pipe to right hand exhaust manifold securing nuts (see Illustration 5).

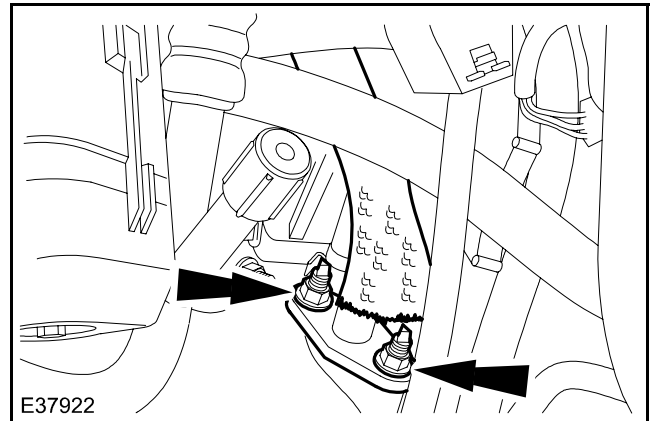


Illustration 5

13. Displace and remove EGR transfer pipe from the right hand exhaust manifold studs.
14. Remove gasket from the right hand exhaust manifold studs.
15. Clean the relevant components and mating faces.
16. Install a new gasket to the right hand exhaust manifold studs.
17. Install EGR transfer pipe to the right hand exhaust manifold studs.
18. Install, but do not fully tighten, EGR transfer pipe to right hand exhaust manifold securing nuts (see Illustration 6).

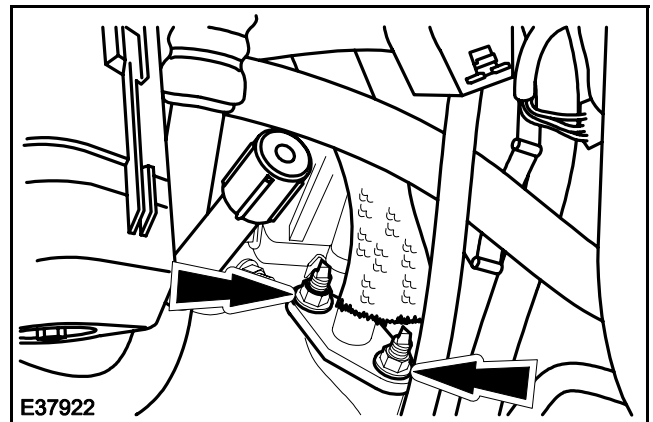


Illustration 6

19. Adjust EGR transfer pipe (via convolutions) to align with the EGR valve.
20. Install a new gasket between the EGR transfer pipe flange and the EGR valve.
21. While maintaining the gasket in position, align the EGR transfer pipe flange to the EGR valve.

22. Install and tighten EGR transfer pipe to EGR valve securing screws to 21 Nm (see Illustration 7).

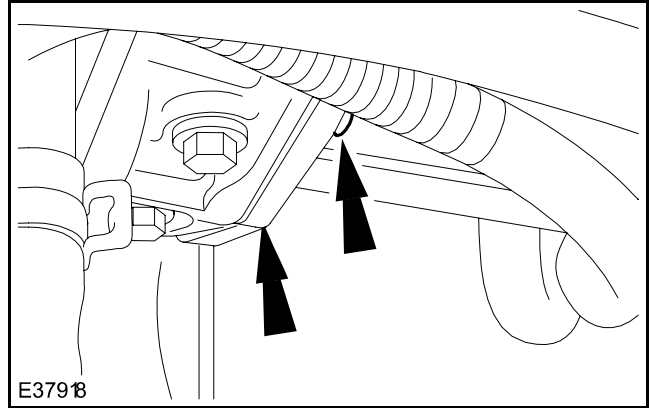


Illustration 7

23. Final tighten EGR transfer pipe to right hand exhaust manifold securing nuts to 21 Nm (see Illustration 8).

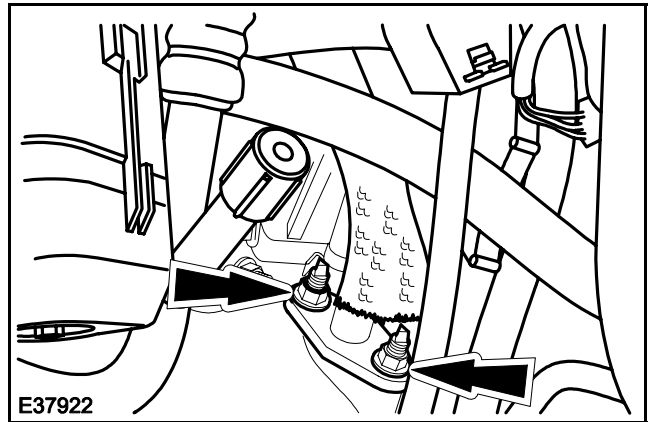


Illustration 8

24. Align EVAP canister purge valve to mounting position.
25. Install and fully tighten EVAP canister purge valve securing screws to 6 Nm (see Illustration 9).

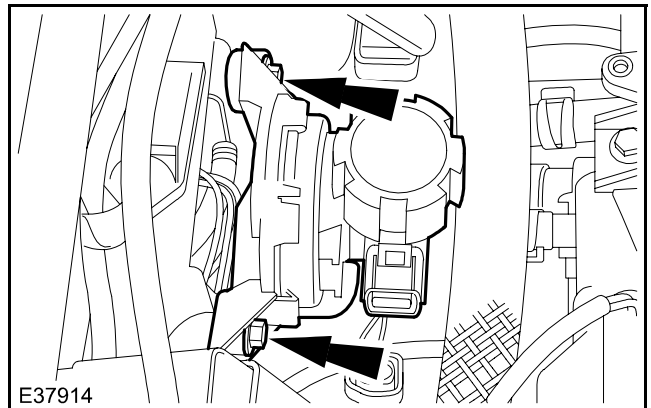


Illustration 9

26. Connect EVAP canister purge valve electrical connector (see Illustration 10).

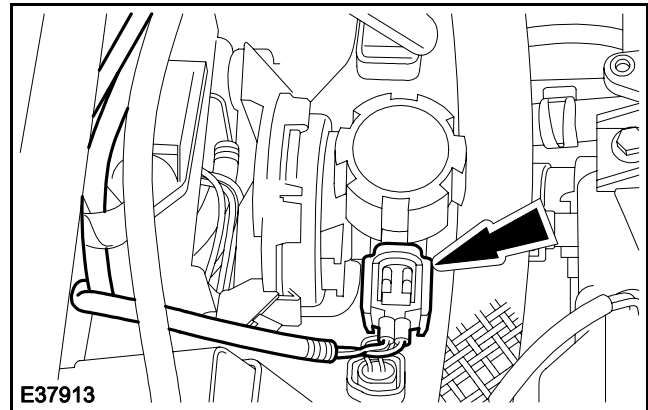


Illustration 10

27. Install left and right hand false bulkhead top covers and engine compartment rear cover (see Workshop Manual, JTIS CD ROM, section: 501-02).
28. Re-fill cooling system to the correct level.
29. Install cooling system expansion tank pressure cap.
30. Check accelerator cable adjustment.
31. Install air intake/mass air flow sensor/air cleaner cover assembly (see Illustration 11).

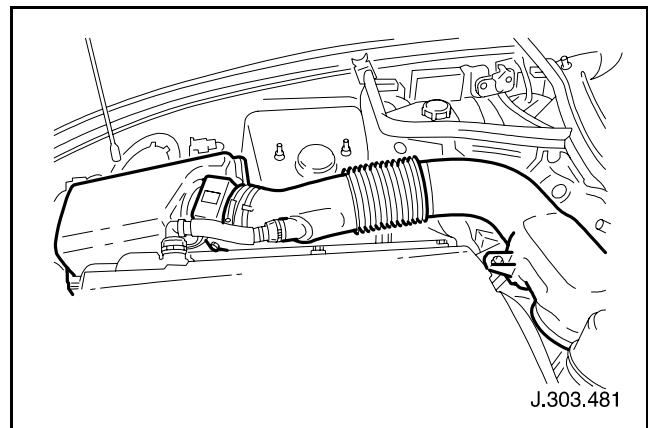


Illustration 11

32. Connect battery.
33. Re-align battery cover and close luggage compartment lid.
34. Remove fender protectors and close hood.

Workshop Procedure - XKR vehicles

On all vehicles

1. Open hood and install fender protectors.
2. Open luggage compartment lid and remove battery cover.
3. Disconnect battery.

Note: Ensure the radio code is available before disconnecting the battery.

4. Remove air intake tube/mass air flow sensor/air cleaner cover assembly (see Illustration 12).

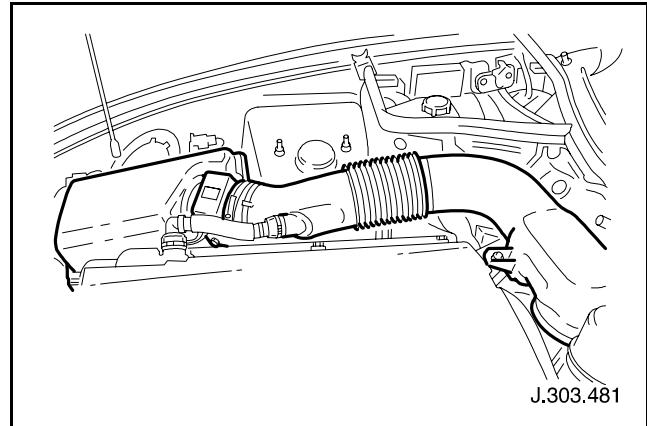


Illustration 12

WARNING: NEVER REMOVE THE COOLANT EXPANSION TANK PRESSURE CAP WHILE THE ENGINE IS RUNNING. WHEN REMOVING THE CAP USE EXTREME CARE TO AVOID HOT COOLANT OR STEAM BLOWING OUT OF THE COOLING SYSTEM. WAIT UNTIL THE ENGINE HAS COOLED DOWN THEN INSULATE THE CAP USING A SUITABLE CLOTH AND SLOWLY LOOSEN THE CAP UNTIL THE PRESSURE IS RELEASED. WHEN ALL THE PRESSURE HAS BEEN RELEASED SLOWLY REMOVE THE CAP FROM THE TANK. FAILURE TO FOLLOW THIS INSTRUCTION MAY RESULT IN PERSONAL INJURY.

5. Release cooling system pressure.
6. Disconnect throttle body electrical connectors (see Illustration 13).

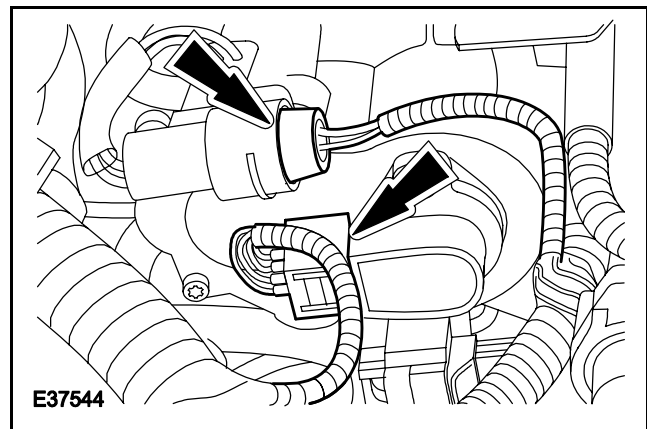


Illustration 13

7. Detach right-hand camshaft position sensor electrical harness (see Illustration 14).

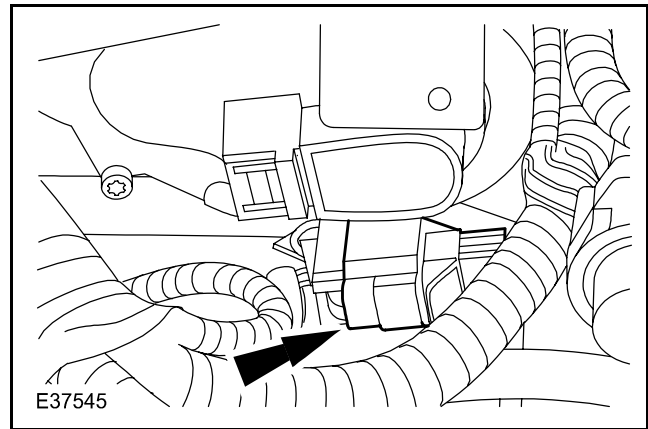


Illustration 14

8. Disconnect throttle body coolant hose (see Illustration 15).

Note: Cap the coolant hose to minimize coolant loss.

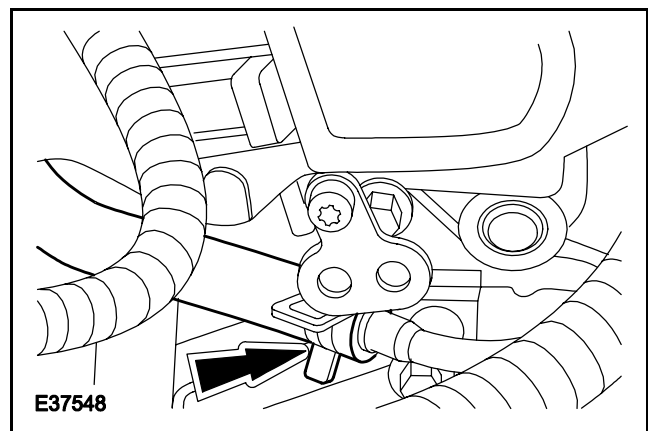


Illustration 15

9. Disconnect throttle body coolant hose (see Illustration 16).

Note: Cap the coolant hose to minimize coolant loss.

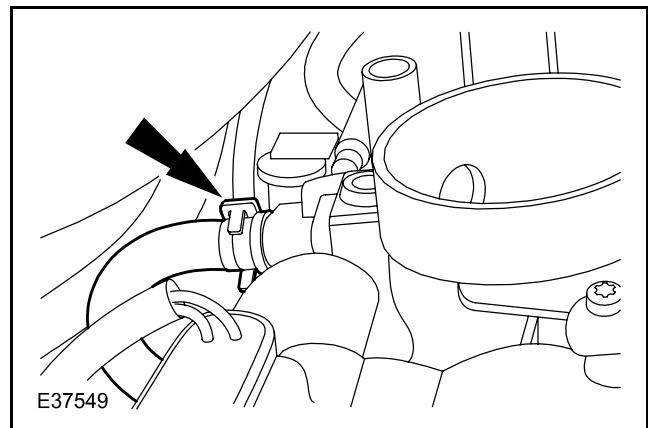


Illustration 16

10. Remove and discard cable tie and disconnect the accelerator outer cable (see Illustration 17).

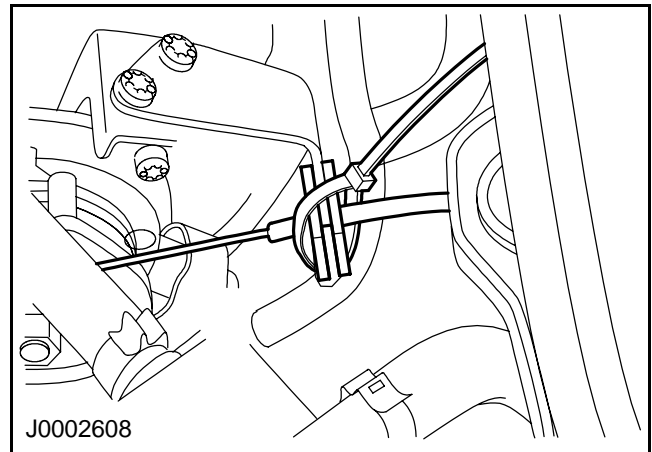


Illustration 17

11. Reposition the accelerator pulley to the full throttle position and disconnect accelerator inner cable (see Illustration 18).

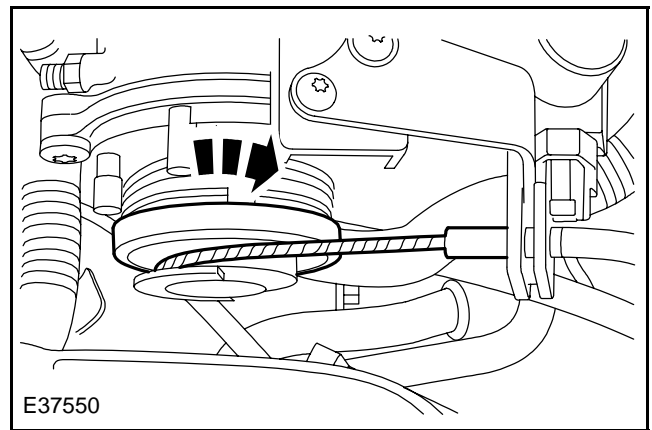


Illustration 18

12. Disconnect throttle body electrical connectors (see Illustration 19).

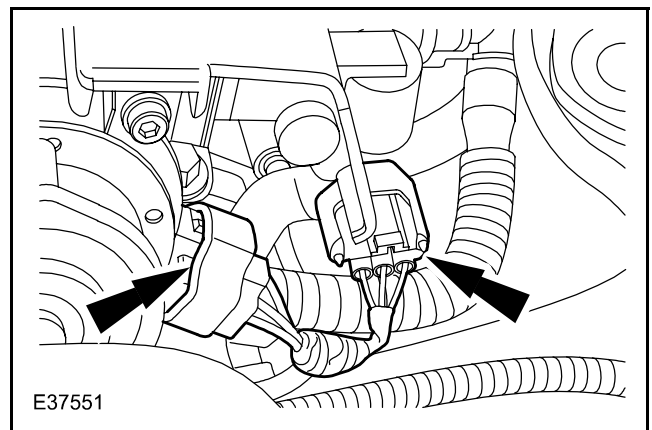


Illustration 19

13. Detach left-hand camshaft position sensor electrical harness (see Illustration 20).

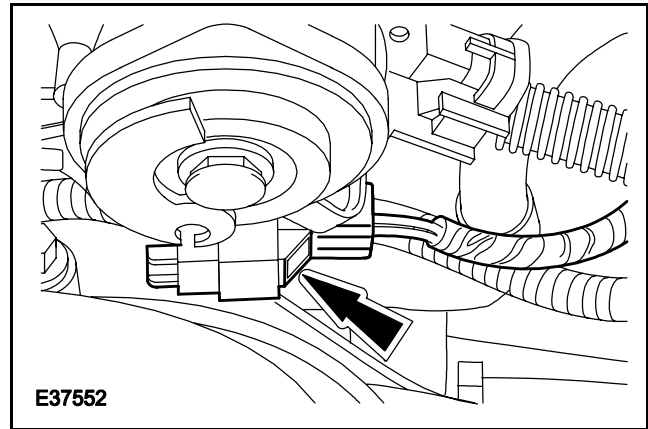


Illustration 20

14. Remove throttle body securing screws and throttle body and discard the gasket (see Illustration 21).

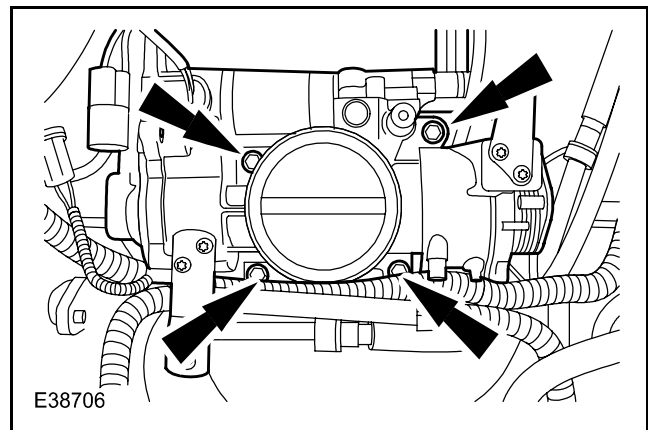


Illustration 21

15. Remove right hand catalytic converter heat shield upper securing screws (see Illustration 22).

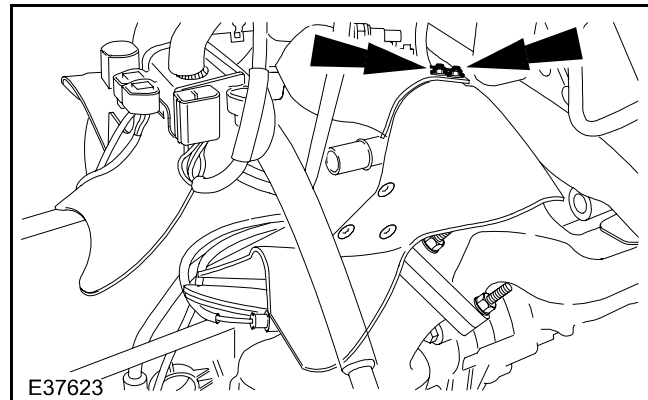


Illustration 22

16. Remove right hand catalytic converter heat shield to right hand exhaust manifold securing screws and remove heat shield from vehicle (see Illustration 23).

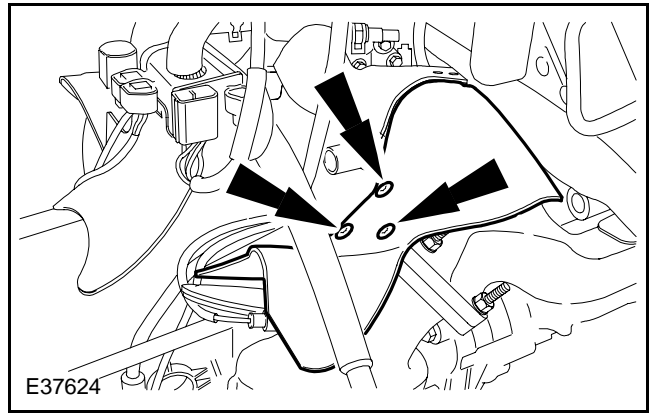


Illustration 23

17. Remove EGR transfer pipe heat shield securing screw and remove heat shield from vehicle (see Illustration 24).

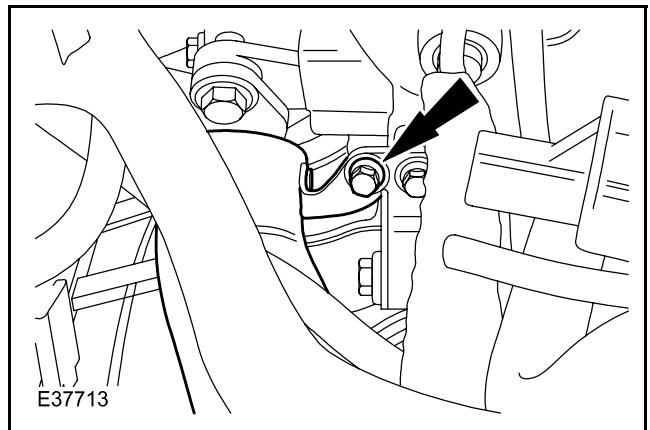


Illustration 24

18. Remove EGR transfer pipe to EGR valve securing screws (see Illustration 25).

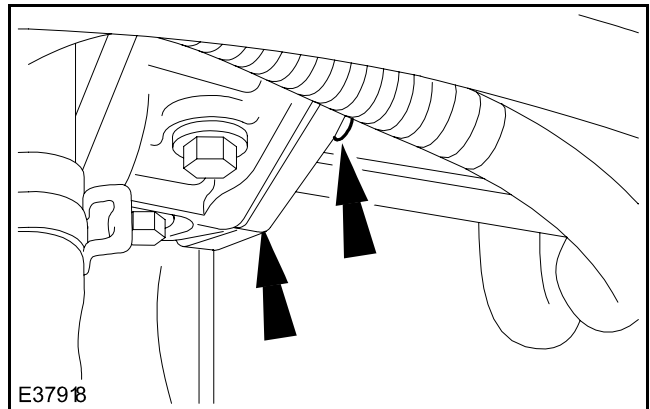


Illustration 25

19. Reposition EGR transfer pipe for access to the gasket.
20. Remove and discard EGR transfer pipe to EGR valve gasket.

21. Remove EGR transfer pipe to right hand exhaust manifold securing nuts (see Illustration 26.).

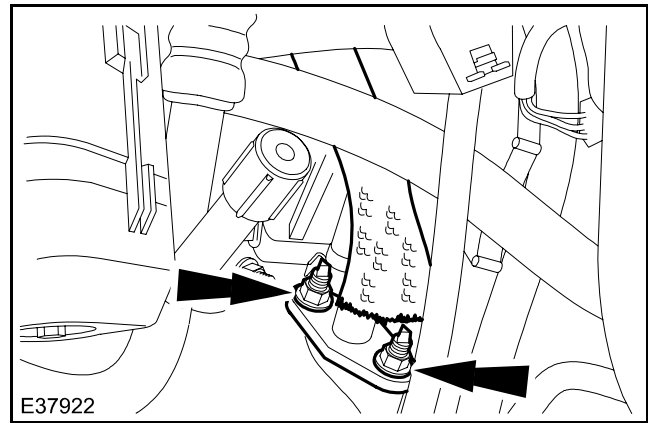


Illustration 26

22. Displace and remove EGR transfer pipe from the right hand exhaust manifold studs.
23. Remove gasket from the right hand exhaust manifold studs.
24. Clean the relevant components and mating faces.
25. Install a new gasket to the right hand exhaust manifold studs.
26. Install EGR transfer pipe to the right hand exhaust manifold studs.
27. Install, but do not fully tighten, EGR transfer pipe to right hand exhaust manifold securing nuts (see Illustration 27).

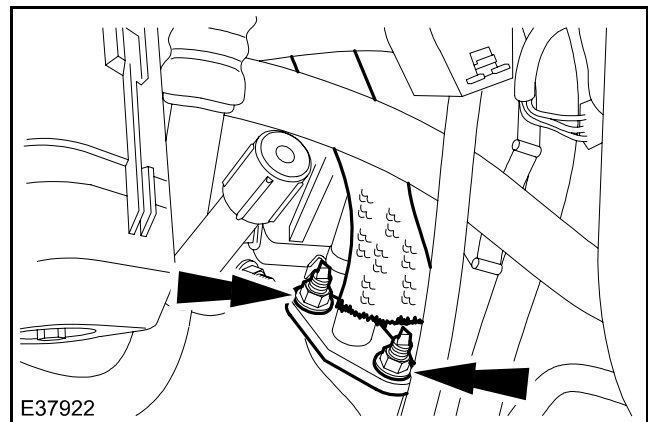


Illustration 27

28. Adjust EGR transfer pipe (via convolutions) to align with the EGR valve.
29. Install a new gasket between the EGR transfer pipe flange and the EGR valve.
30. While maintaining the gasket in position, align the EGR transfer pipe flange to the EGR valve.
31. Install and tighten EGR transfer pipe to EGR valve securing screws to 21Nm (see Illustration 28).

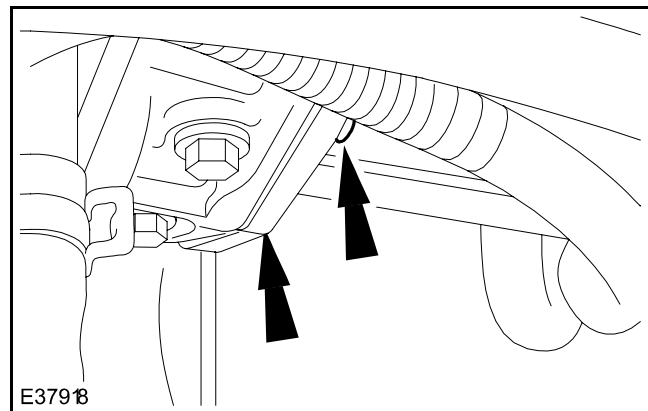


Illustration 28

32. Final tighten EGR transfer pipe to right hand exhaust manifold securing nuts to 21Nm (see Illustration 29).

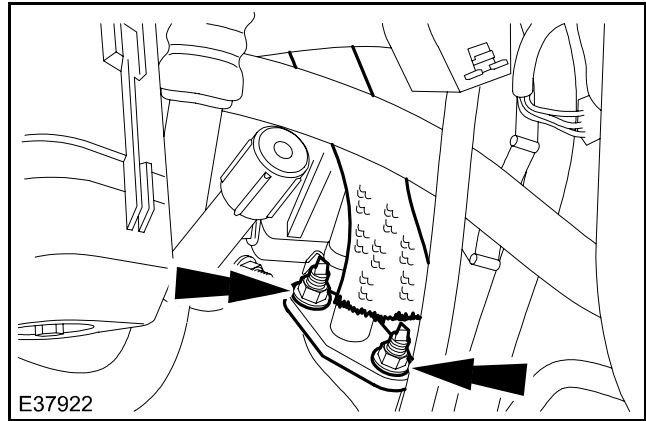


Illustration 29

33. Align EGR transfer pipe heat shield to vehicle and install but do not fully tighten securing screw (see Illustration 30).

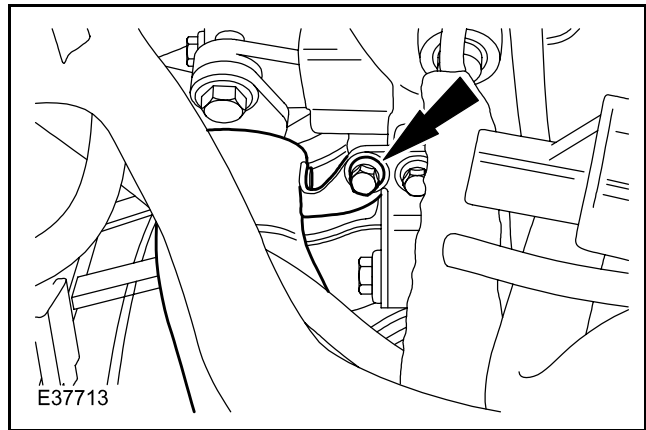


Illustration 30

34. Align right hand catalytic converter heat shield to vehicle and install but do not fully tighten securing screws (see Illustration 31).

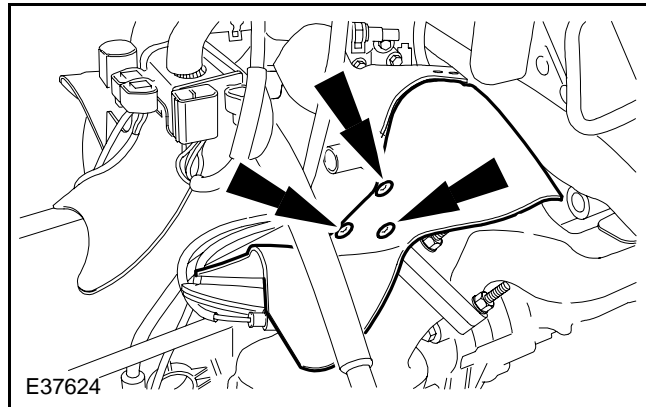


Illustration 31

35. Install and fully tighten right hand catalytic converter heat shield upper securing screws (see Illustration 32).

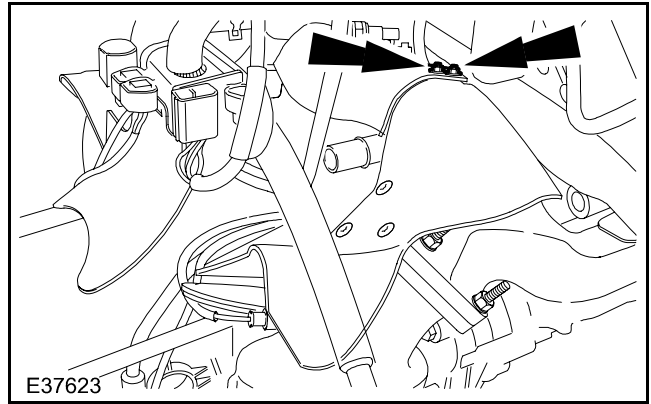


Illustration 32

36. Final tighten EGR and right hand catalytic converter heat shields securing screws.
37. Install a new throttle body gasket and install throttle body. Tighten securing screws to 18-24 Nm (see Illustration 33).

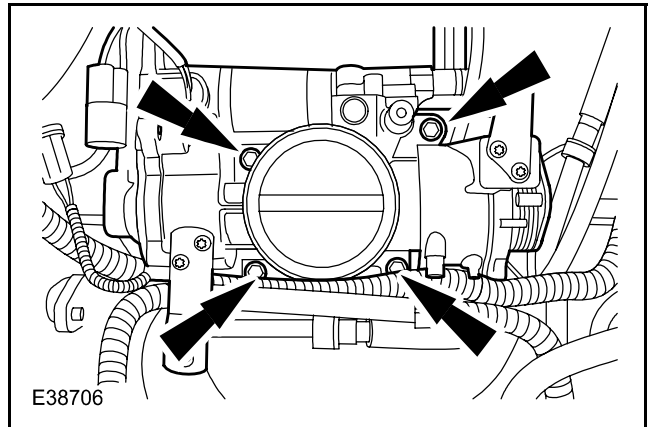


Illustration 33

38. Re-install left-hand camshaft position sensor electrical harness (see Illustration 34).

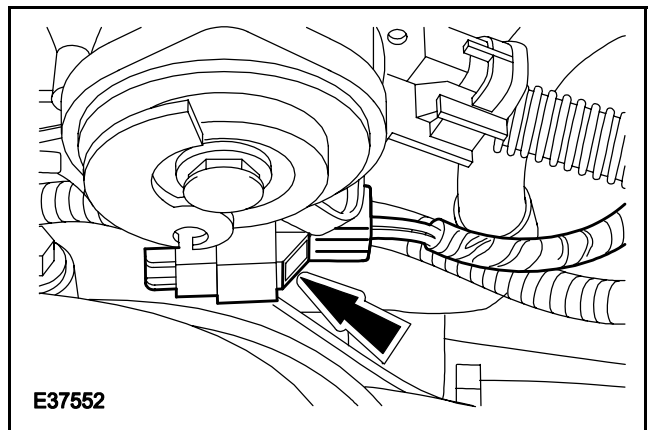


Illustration 34

39. Connect throttle body electrical connectors (see Illustration 35).

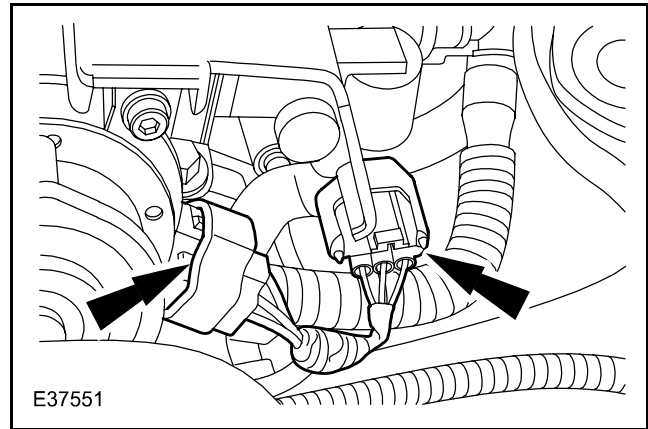


Illustration 35

40. Reposition accelerator pulley to the full throttle position and connect the accelerator inner cable (see Illustration 36).

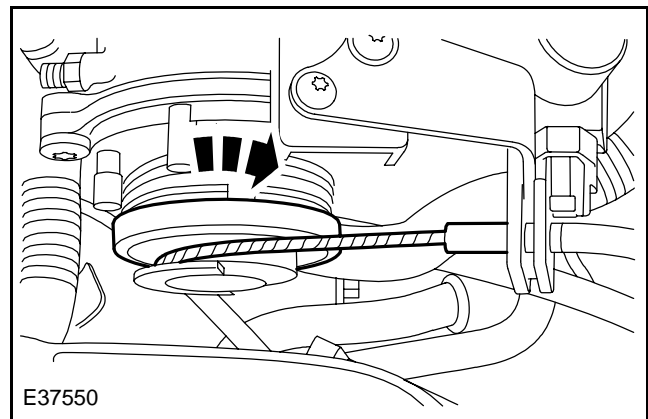


Illustration 36

41. Install accelerator outer cable to mounting bracket and secure using cable tie (see Illustration 37).

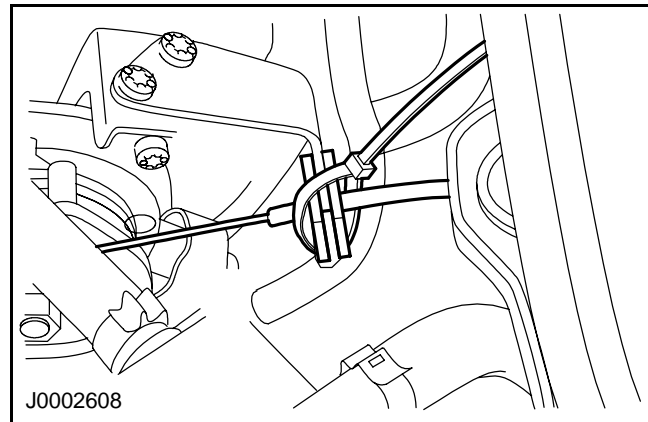


Illustration 37

42. Connect throttle body coolant hose (see Illustration 38).

Note: Uncap the coolant hose.

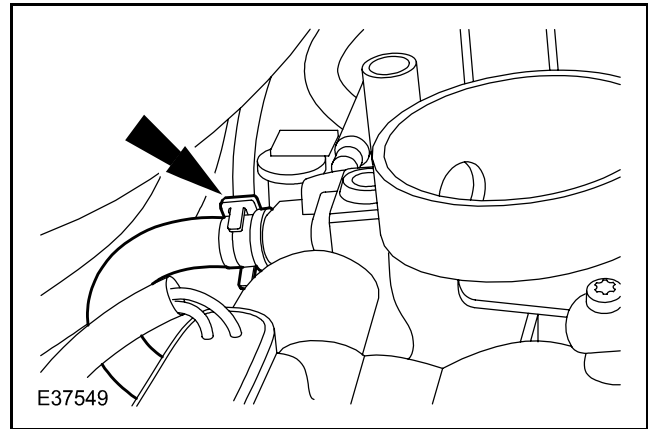


Illustration 38

43. Connect throttle body coolant hose (see Illustration 39).

Note: Uncap the coolant hose.

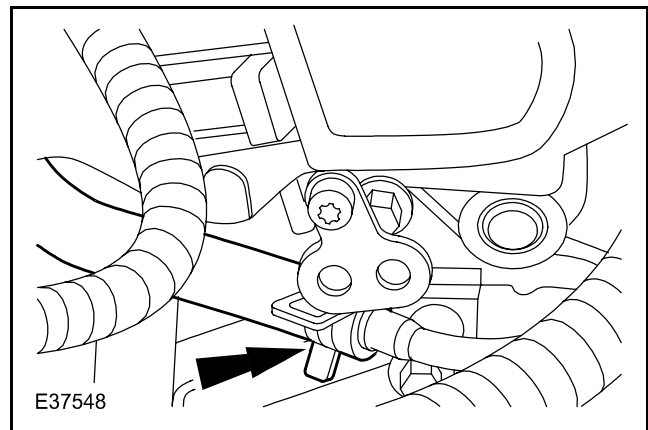


Illustration 39

44. Re-install right-hand camshaft position sensor electrical harness (see Illustration 40).

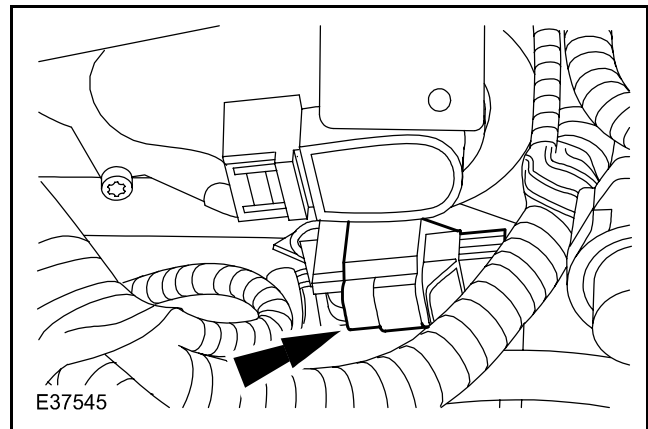


Illustration 40

45. Connect throttle body electrical connectors (see Illustration 41).

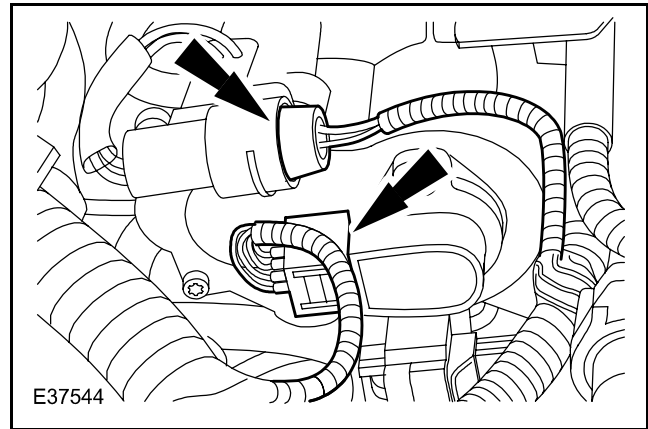


Illustration 41

46. Re-fill cooling system to the correct level.
47. Install cooling system expansion tank pressure cap.
48. Check accelerator cable adjustment.
49. Install air intake/mass air flow sensor/air cleaner cover assembly (see Illustration 42).

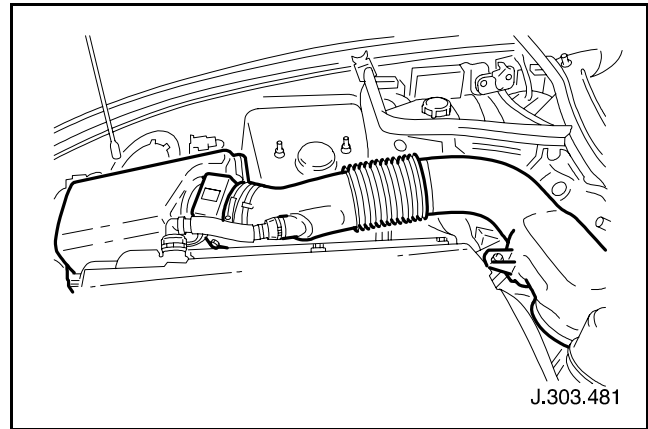


Illustration 42

50. Connect battery.
51. Re-align battery cover and close luggage compartment lid.
52. Remove fender protectors and close hood.

Global Technical Reference (GTR):

Dealer Access: <https://hub.franchise.jaguar.com>

Internet access: <http://www.jaguartechno.com>

APPLYING MODIFICATION LABEL

AUTHORIZED MODIFICATION LABEL

JAGUAR	AUTHORIZED MODIFICATIONS	WRITE IN DESCRIPTION
	THE FOLLOWING MODIFICATIONS HAVE BEEN MADE:	
	SERVICE ACTION S501 - REPROGRAMTCM	
WRITE IN DEALER NUMBER	THESE MODIFICATIONS HAVE BEEN APPROVED, AS APPROPRIATE.	WRITE IN DATE
	DEALER NUMBER: <input type="text"/>	DATE: <input type="text"/>
	CHANGE AUTHORITY: JAGUAR PLC CAMPAIGN	
		PRINTED IN U.S.A.

ILLUSTRATION 1

Fill out an authorized modification label (Illustration 1), enter the dealer number and date on the authorized modification label. List any other service actions that have been performed at the same time. Apply the label to the driver door on XKR vehicles (Illustration 2) or under the hood on V8 XJ Series vehicles (Illustration 3) and apply the clear sheet over the label.



ILLUSTRATION 2

LOCATION OF LABEL UNDER HOOD (V8 XJ SERIES)



ILLUSTRATION 3

PROOF OF CORRECTION FORM

California Dealers (and any other states where required): Fill out and place the salmon colored “Vehicle Emission Recall - Proof of Correction” form (Illustration 4, part no. S CAL RCL) in the vehicle glove compartment.

PROOF OF CORRECTION FORM

JAGUAR Vehicle Emission Recall - Proof of Correction	
Vehicle Identification Number	
License Number	Make Year Model Body Type
Manufacturer <u>JAGUAR CARS</u> Recall Number _____ The above described vehicle has been repaired modified and/or equipped with new emission control devices to meet applicable California Emission Control Laws.	
Dealer's Name	Address, City, State and Zip
Date	Dealership's Authorized Signature
	x

ILLUSTRATION 4

Note: Refer to Administration Bulletin 6-94, for information on obtaining additional Authorized Modification labels or Proof of Correction forms.

Parts Information:

<u>DESCRIPTION</u>	<u>PART NUMBER</u>	<u>QTY</u>
EGR transfer pipe - All	AJ8 6857	1
Gasket - pipe to manifold - All	NCA 4771DA	1
Gasket - pipe to EGR valve - All	AJ8 5476	1
Throttle body gasket - XKR only	NNE 3021AC	1
Cable tie - XKR only	ADU 9028	1



Warranty Information:

Service Action S501

Model	Year	VIN Range
XKR	2000 MY	YP A00116 - YP A11050
XKR	2001 MY	1P A11051 - 1P A22928
XKR	2002 MY	2P A22929 - 2P A27550
V8 XJ SC	2000 MY	YM F100103 - YM F20644
V8 XJ SC	2001 MY	1M F20645 - 1M F30384

Program Code	Option	Description	SRO	Time	Part Number	Part Description	Qty
S501	B	XKR Replace EGR transfer pipe	17.45.11	1.1 hrs.	AJ8 6857	EGR transfer pipe	1
					NCA 4771DA	Gasket	1
					AJ8 5476	Gasket	1
					NNE 3021AC	Throttle body gasket	1
					ADU 9028	Cable tie	1
S501	C	XKR Replace EGR transfer pipe	17.45.11	1.1 hrs.	AJ8 6857	EGR transfer pipe	1
					NCA 4771DA	Gasket	1
					AJ8 5476	Gasket	1
S501	D	XJR/VDP Replace EGR transfer pipe	17.45.11	0.4 hrs.	AJ8 6857	EGR transfer pipe	1
					NCA 4771DA	Gasket	1
S501	E	XJR/VDP Replace EGR transfer pipe	17.45.11	0.4 hrs.	AJ8 6857	EGR transfer pipe	1
					NCA 4771DA	Gasket	1
		Drive in/Drive out	10.10.10	0.1 hrs.			

Note: Always review a Vehicle's Claim History within DDW first to determine whether this service action has been previously performed on a specific vehicle. The "Review Claim History" function will display a list of claims against the vehicle. If this recall appears in the program code field, do not perform this service action.



May 2004

JAGUAR CARS

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Vehicles Affected:

XJR, VDP S/C, and XKR models with 4.0 Liter V8 supercharged engine

Model Year:

2000 and 2001 - XJR and VDP S/C models

2000 through 2002 - XKR model

RE: S-501 Service Action - Exhaust Gas Recirculation Tube

Dear Jaguar Owner:

Jaguar Cars and the U.S. Environmental Protection Agency have determined that all 2000 and 2001 model year Jaguar XJR and VDP S/C models with 4.0 liter V8 supercharged engines and all 2000 through 2002 model year Jaguar XKR models with 4.0 liter V8 supercharged engines may be emitting pollutants in excess of the Federal and California emission standards. These standards were established to protect the public health and welfare from the dangers of air pollution. Jaguar Cars therefore is conducting an emission service action to replace a component that if cracked may cause elevated levels of oxides of nitrogen. If you are a recipient of this notice, and an owner of one of the above vehicles, this letter is to inform you that your vehicle is included in this emission service action.

What is the problem?

Over time, your vehicle's emission control system may not be able to adequately control the oxides of nitrogen emission levels regulated by State and Federal agencies. The original Exhaust Gas Recirculation (EGR) transfer pipe, under some conditions may split allowing the exhaust gas to escape. This may lead to increased combustion temperatures, which contribute to the formation of NOx. The design of the EGR transfer pipe has been modified to correct the situation. This condition may affect drivability of your vehicle by causing a slight hesitation, poor fuel economy, rough idle, and or lack of power although the most noticeable symptom may be excessive noise under the hood. It will also cause illumination of the Malfunction Indicator Light (MIL) indicating 'Check Engine', and can cause an increase in exhaust emissions. Failure to have this repair performed may lead to increased air pollution.

What will Jaguar do?

Jaguar Cars will install a redesigned EGR transfer pipe and gasket. The repairs take approximately 30 minutes to perform, but due to scheduling, your dealer may require your car for one full business day.

What should you do?

You are requested to contact an authorized Jaguar dealer to arrange for this repair at your earliest convenience. This work will be performed by the dealer free of charge and will increase your vehicle's emission system performance and enhance its reliability. Failure to have this service performed may cause your vehicle to fail an emission test when such tests are required under state or local law.

In order to ensure your full protection under the emission warranty made applicable to your vehicle by Federal law, and your right to participate in future recalls, it is recommended that you have your vehicle serviced as soon as possible. Failure to do so could legally be determined to be a lack of proper maintenance of your vehicle.

Are you an owner of an affected vehicle registered in California?

The State of California requires the completion of this repair prior to vehicle registration renewal. Your Jaguar is subject to these requirements.

When your dealer completes the repair, you will receive a "Vehicle Emission Recall - Proof of Correction" certificate that will indicate that this service action has been performed on your Jaguar.

Please make sure that you get a certificate from the dealer and that you have it when you renew your Jaguar's registration. Dealers will often place the certificate in your vehicle's glove box. It is also important for you to know that the certificate should be returned to the Department of Motor Vehicles (DMV) only if it is requested by the DMV. Otherwise, the certificate is to be held by you for your records.

Where is the closest Jaguar dealer?

Should you have any questions regarding this Service Action or need assistance in locating your nearest authorized Jaguar dealer please contact the Jaguar Customer Relationship Center on 1-800-4JAGUAR (1-800-452-4827) or by e-mail at jaguarowner@jaguar.com.

Moved or no longer own a Jaguar?

Please fill out the enclosed card and return it to Jaguar by simply putting it in the mail.

Should you have the need to contact Jaguar by mail, please use the following address:

Jaguar Cars
ATTN: Customer Relationship Center
555 MacArthur Boulevard
Mahwah, NJ 07430-2327

If your dealer and the Jaguar Customer Relationship Center are unable to assist you in performing the repairs within a reasonable time, you may wish to contact the U.S. Environmental Protection Agency at the following address:

U.S. Environmental Protection Agency
National Vehicle & Fuel Emissions Laboratory
Certification & Compliance Division
2000 Traverwood
Ann Arbor, Michigan 48105

Sincerely,



Benjamin I. Weiner
Customer Satisfaction Manager

Enclosure