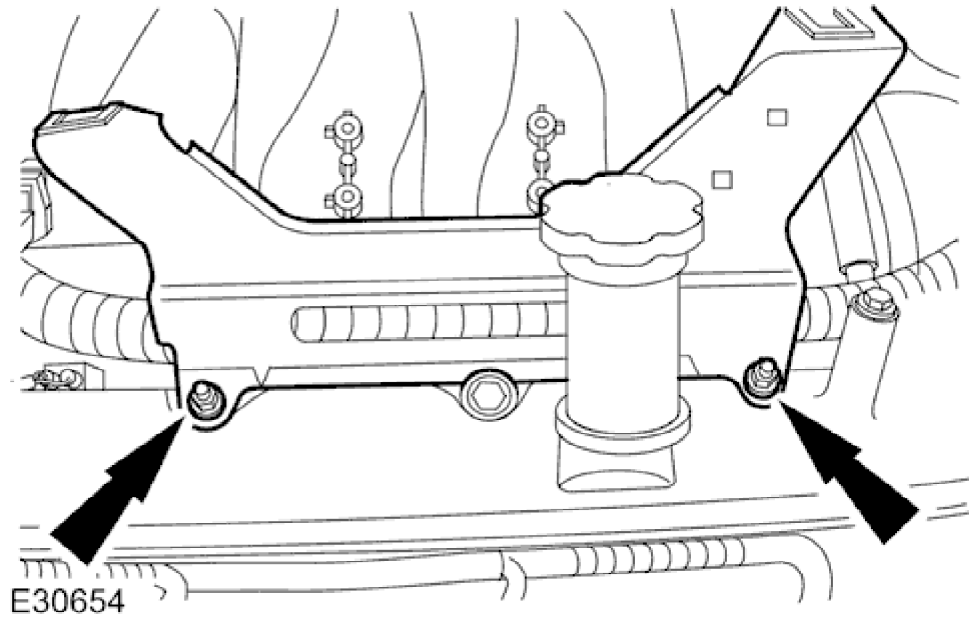


## Intake Manifold 30.15.01

### Removal

1. Release the fuel system pressure. <<310-00>>
2. Remove the air cleaner outlet pipe. <<303-12>>

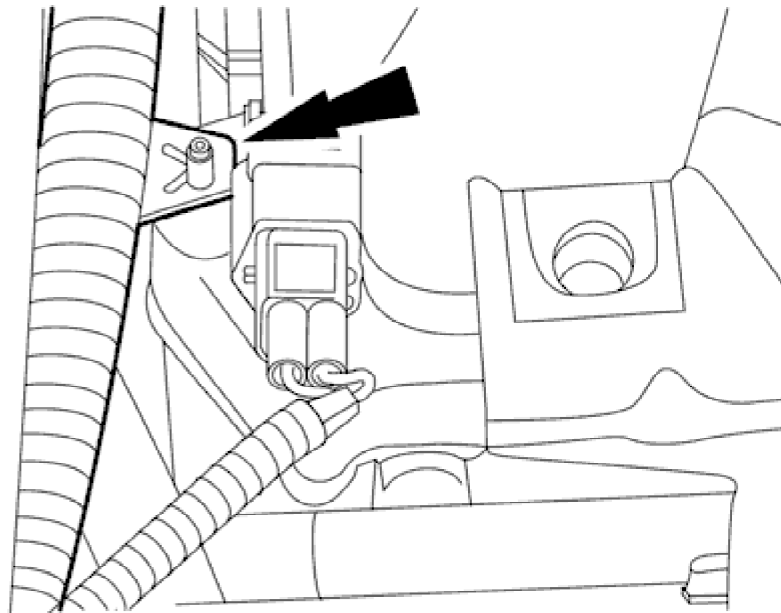


### 3. NOTE:

Left hand shown, right hand similar.

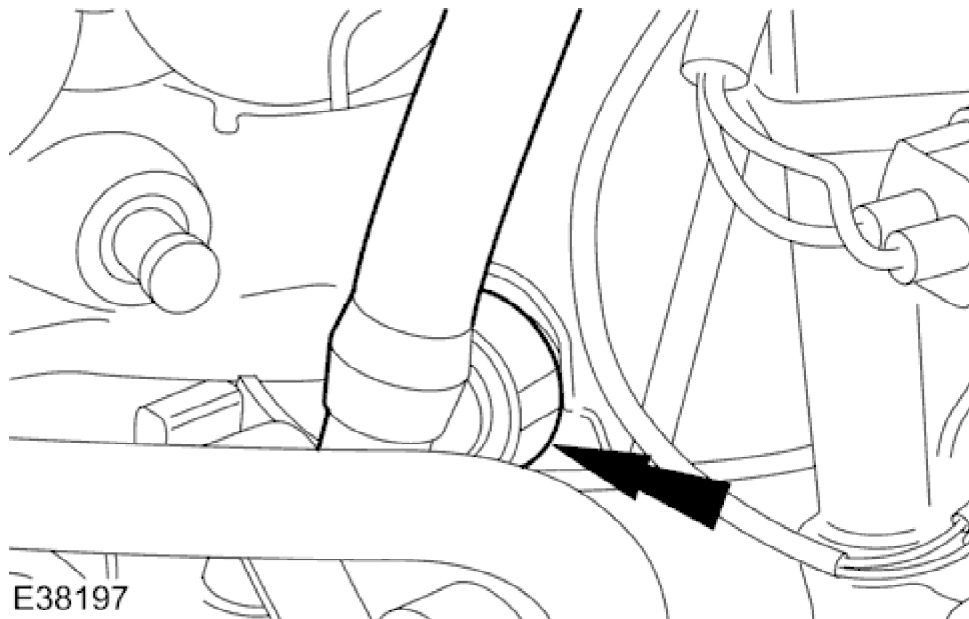
Remove the engine cover retaining brackets.

- Detach the knock sensor (KS) electrical connectors.



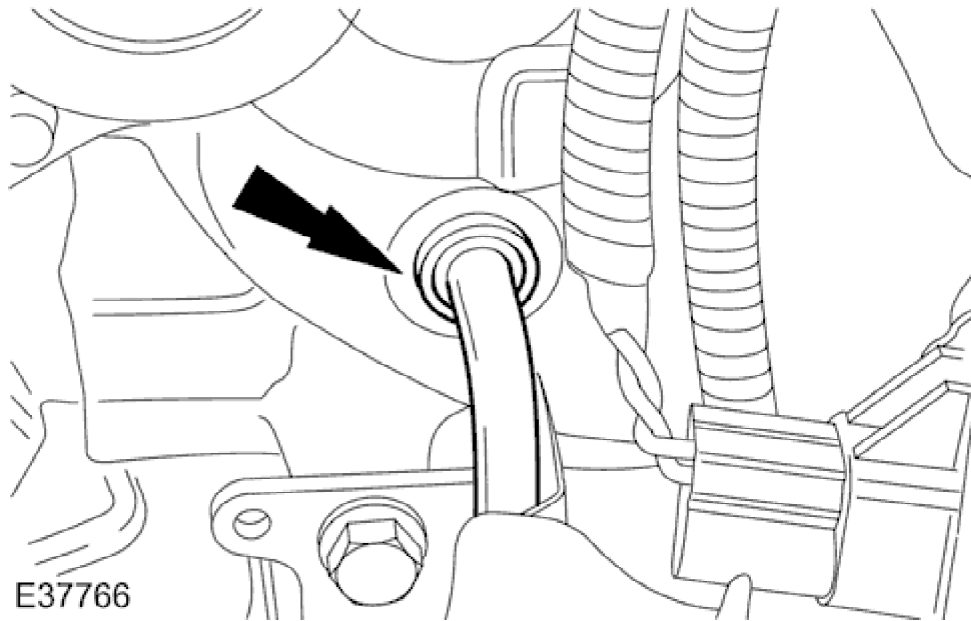
E37792

4. Detach the engine wiring harness.



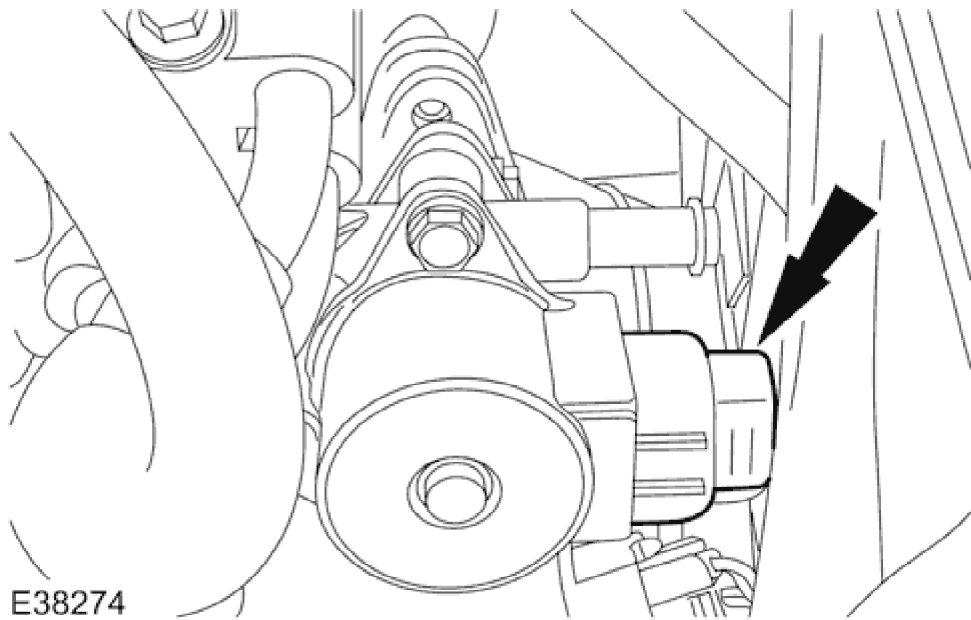
E38197

5. Disconnect the hose.



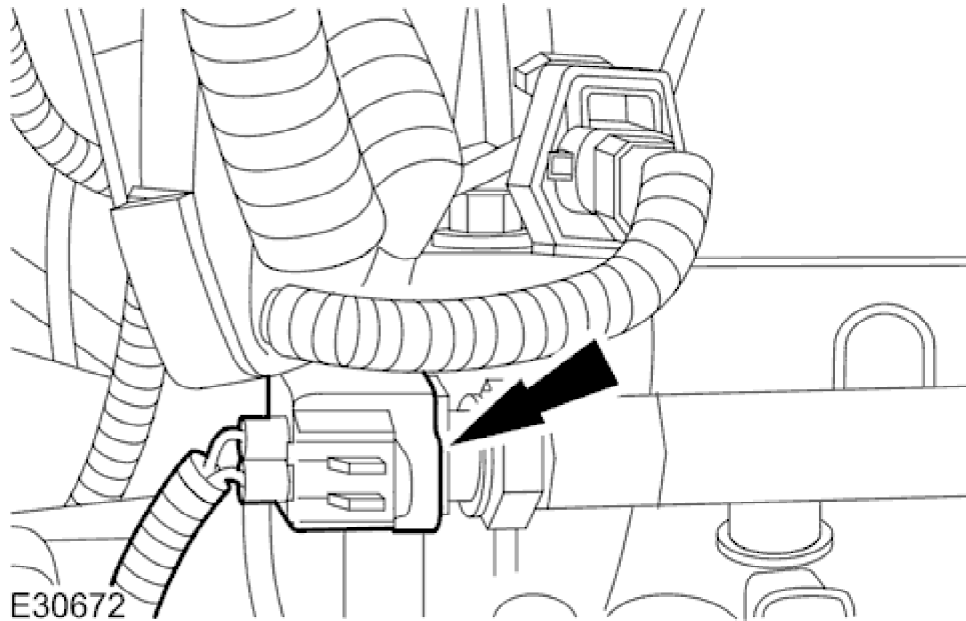
E37766

6. Disconnect the pipe.

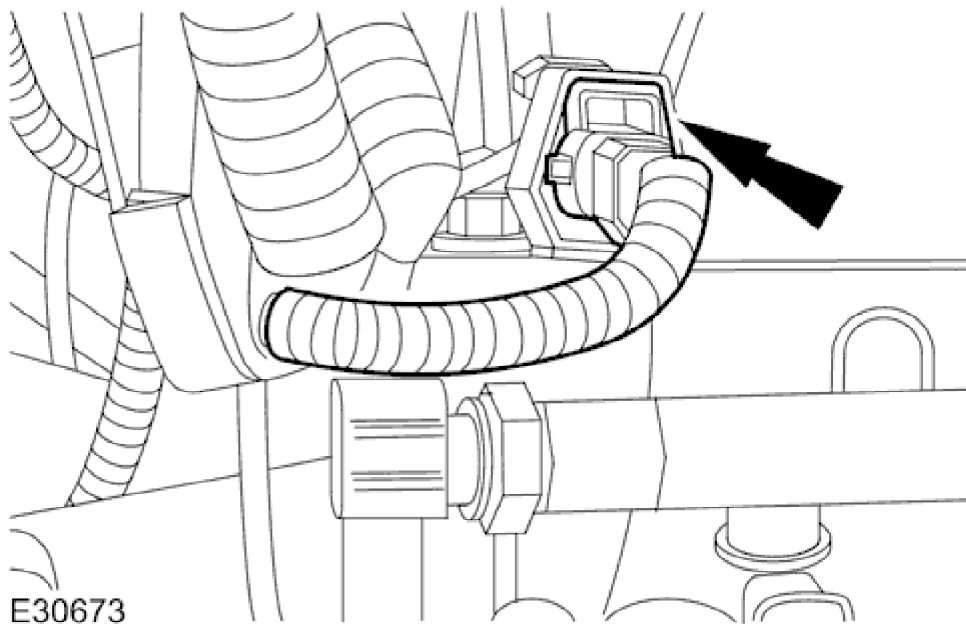


E38274

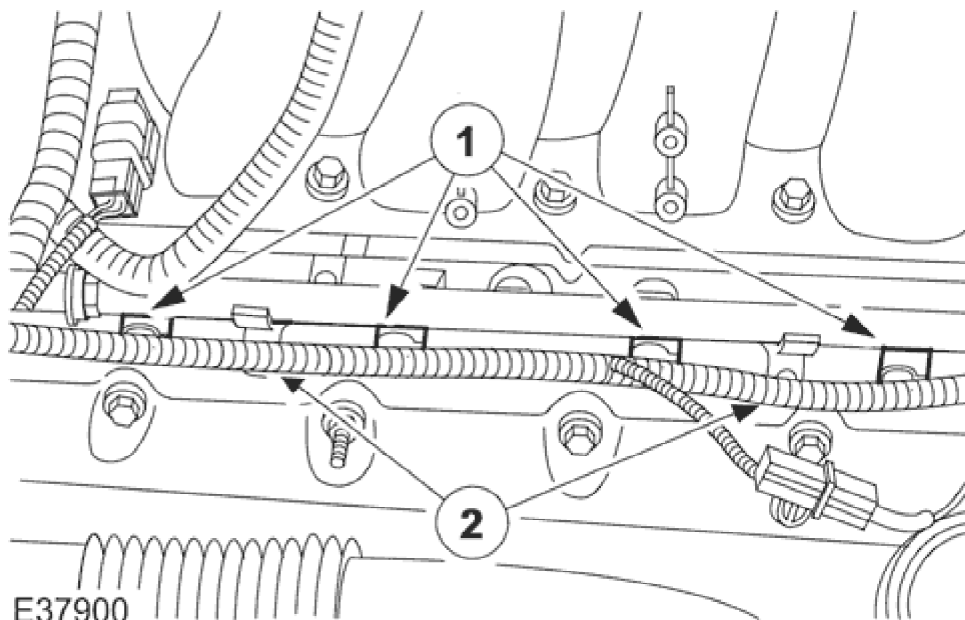
7. Disconnect the exhaust gas recirculation (EGR) valve electrical connector.



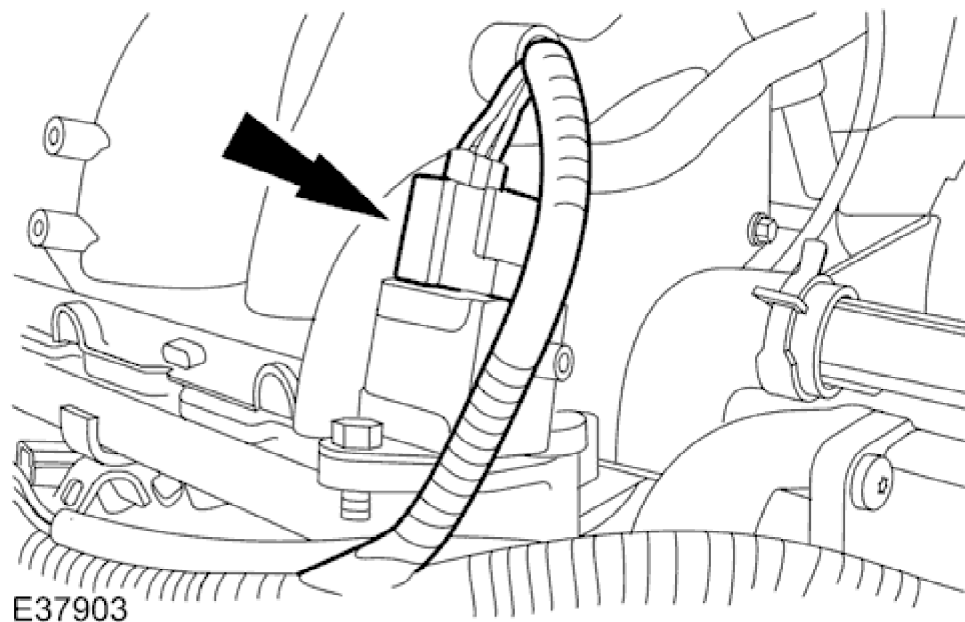
8. Disconnect the fuel temperature sensor electrical connector.




9. Disconnect the right-hand camshaft position (CMP) sensor.



10. Detach the wiring harness.
  1. Disconnect the electrical connectors.
  2. Detach the wiring harness.

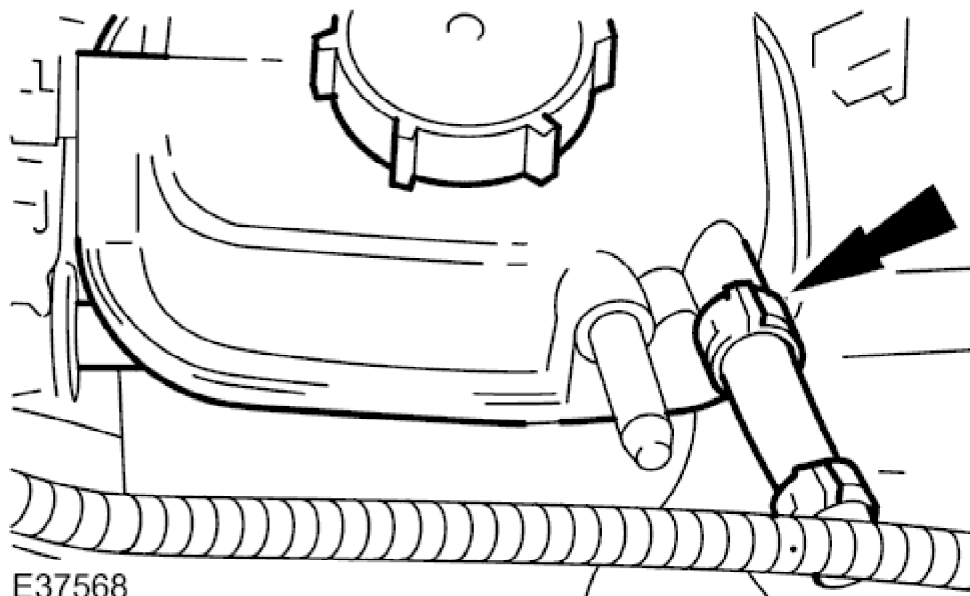


11. Disconnect the fuel pressure regulator electrical connector.

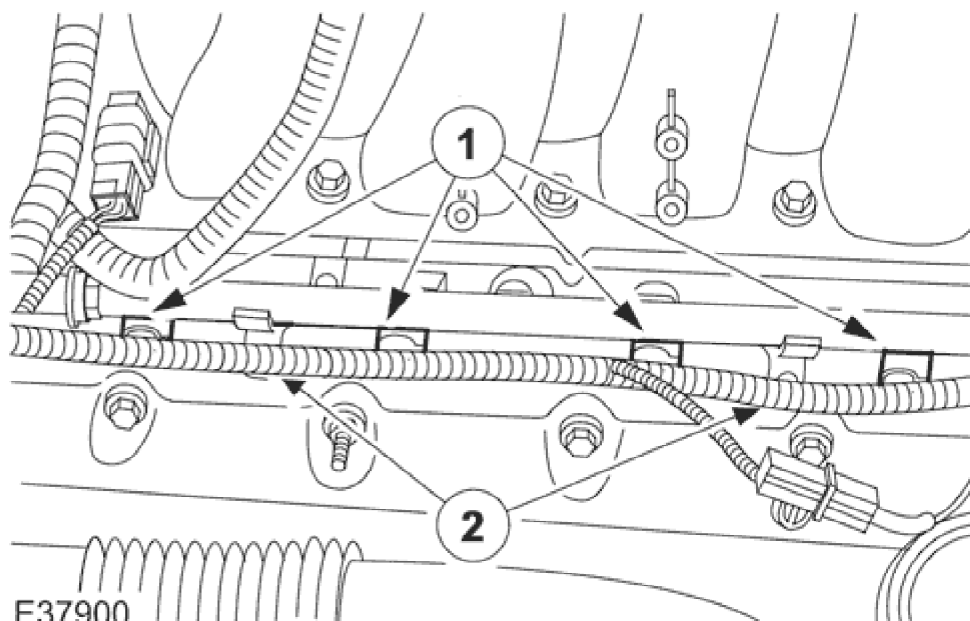
12.  **WARNING:**  
**TO AVOID HOT COOLANT OR STEAM BLOWING OUT OF THE COOLING SYSTEM, USE EXTREME CARE WHEN REMOVING THE COOLANT EXPANSION TANK PRESSURE CAP. WAIT UNTIL THE ENGINE HAS COOLED DOWN, THEN INSULATE THE COOLANT PRESSURE CAP WITH A SUITABLE CLOTH AND SLOWLY LOOSEN THE COOLANT EXPANSION TANK PRESSURE CAP UNTIL THE COOLING SYSTEM PRESSURE IS RELEASED. DO NOT REMOVE THE COOLANT**

**EXPANSION TANK PRESSURE CAP. STEP BACK WHILE THE PRESSURE IS RELEASED FROM THE SYSTEM. WHEN ALL OF THE PRESSURE HAS BEEN RELEASED SLOWLY REMOVE THE COOLANT EXPANSION TANK PRESSURE CAP (STILL WITH THE SUITABLE CLOTH IN POSITION) FROM THE COOLANT EXPANSION TANK. FAILURE TO FOLLOW THIS INSTRUCTION MAY RESULT IN PERSONAL INJURY.**

Release the cooling system pressure.



13. Disconnect the coolant hose from the expansion tank.

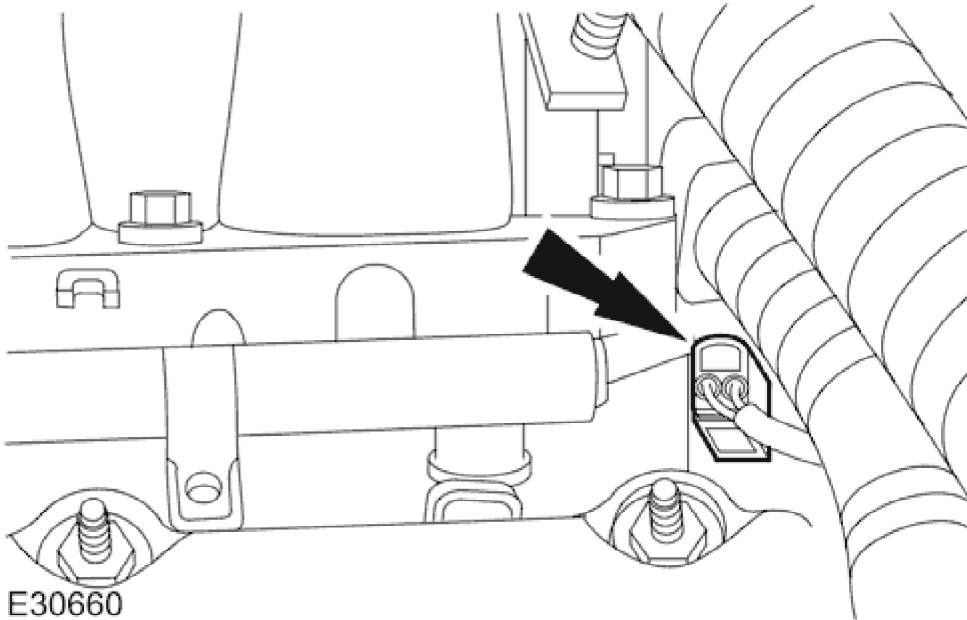


14. **NOTE:**  
Right hand shown, left hand similar.

Detach the wiring harness.  
1. Disconnect the electrical connectors.

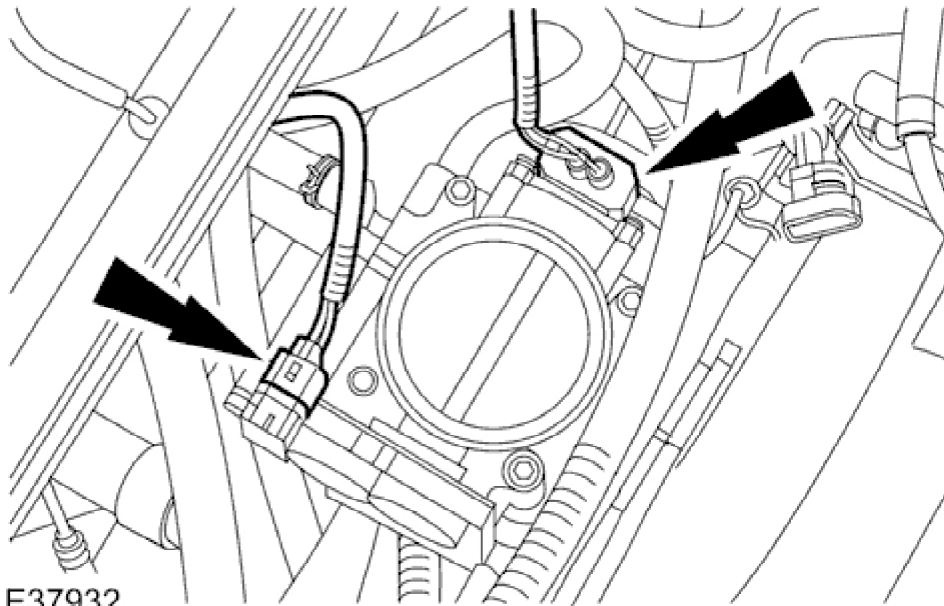
## 2003 XK RANGE - Engine - 303-01

2. Detach the wiring harness.



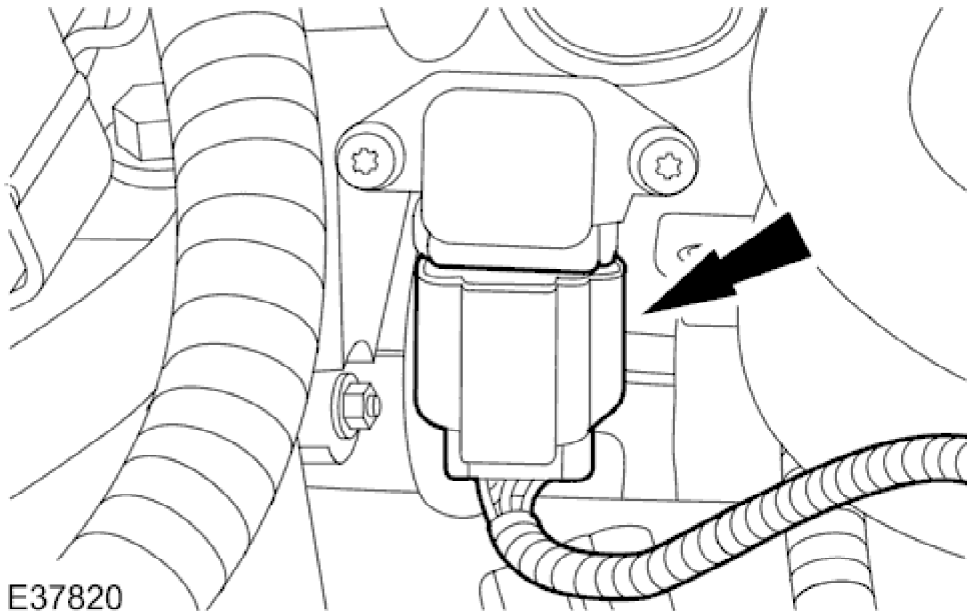
E30660

15. Disconnect the electrical connector.



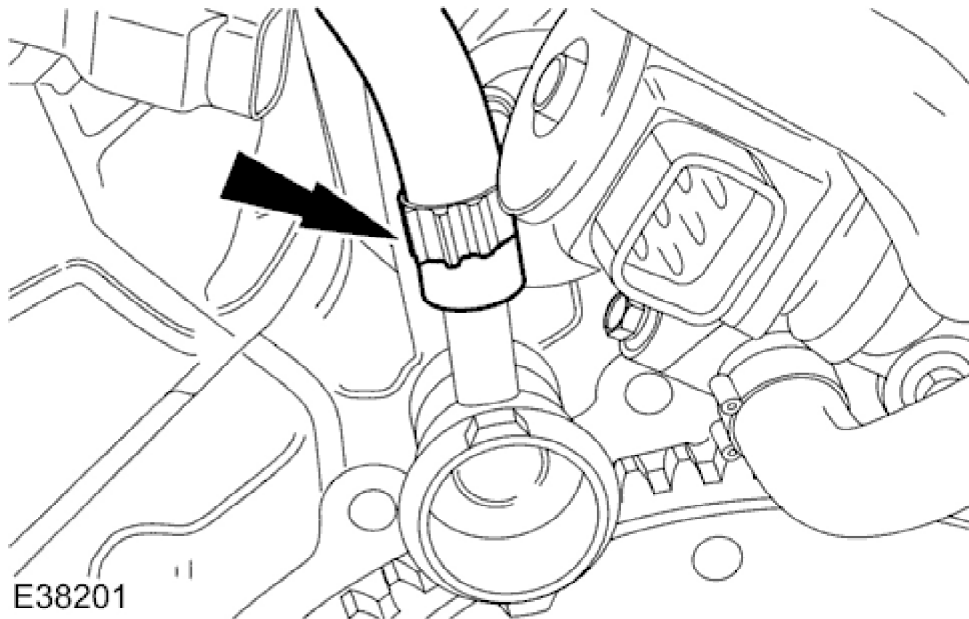
E37932

16. Disconnect the throttle body electrical connectors.



E37820

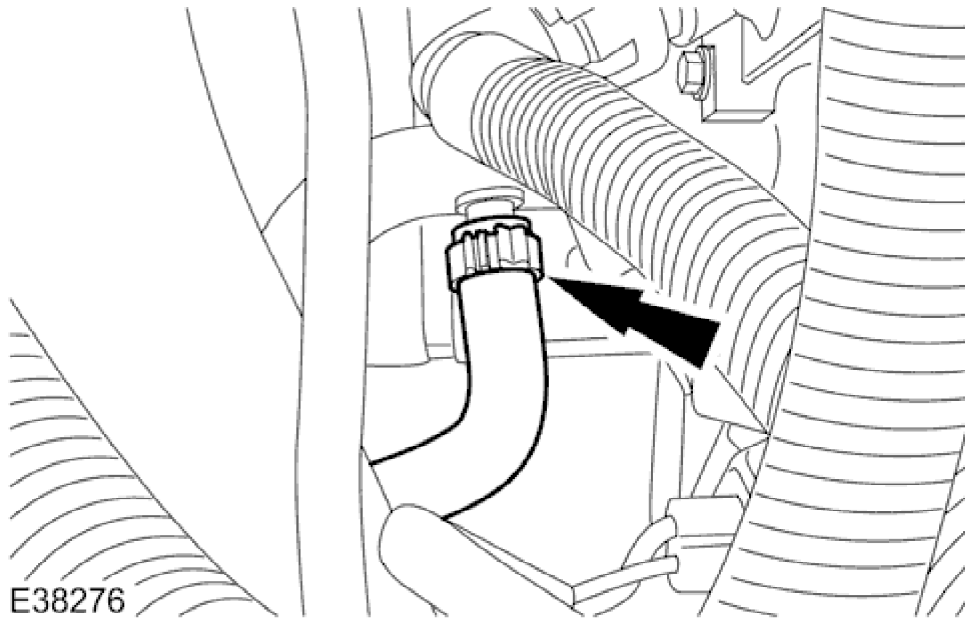
17. Disconnect the manifold absolute pressure (MAP) sensor electrical connector.



E38201

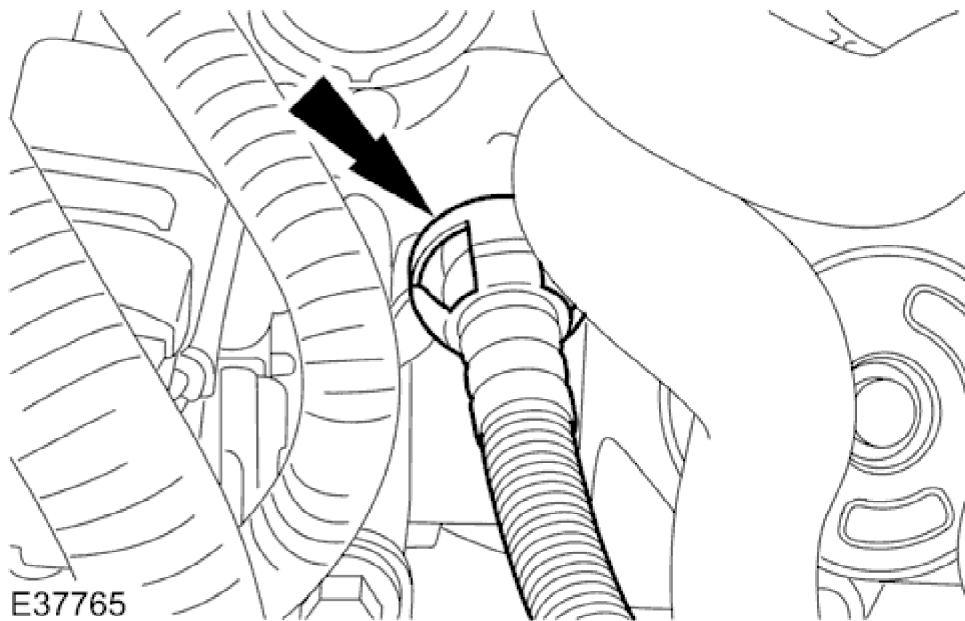
18. Disconnect the coolant hose.





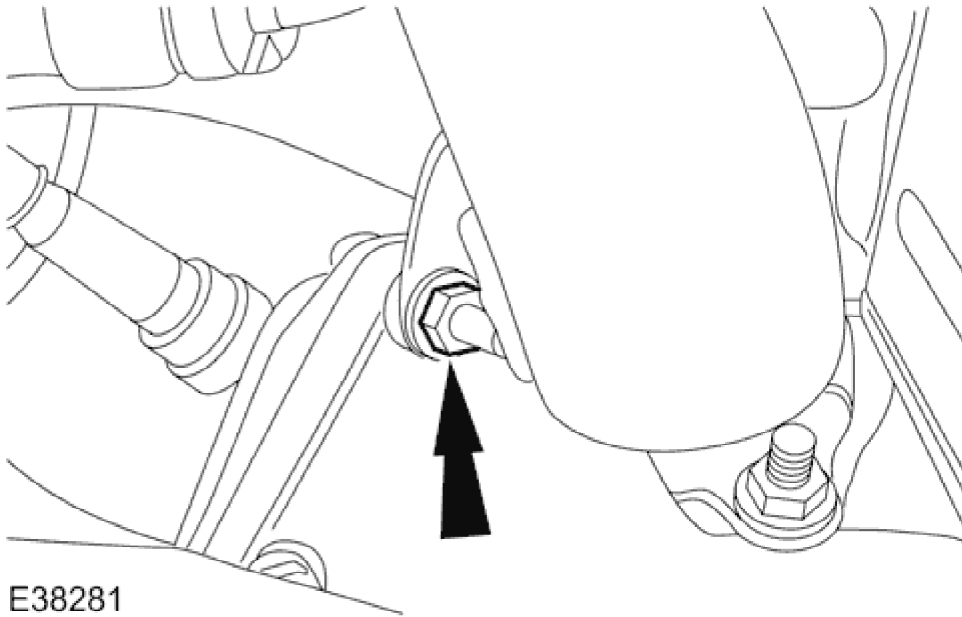
E38276

19. Disconnect the coolant hose.



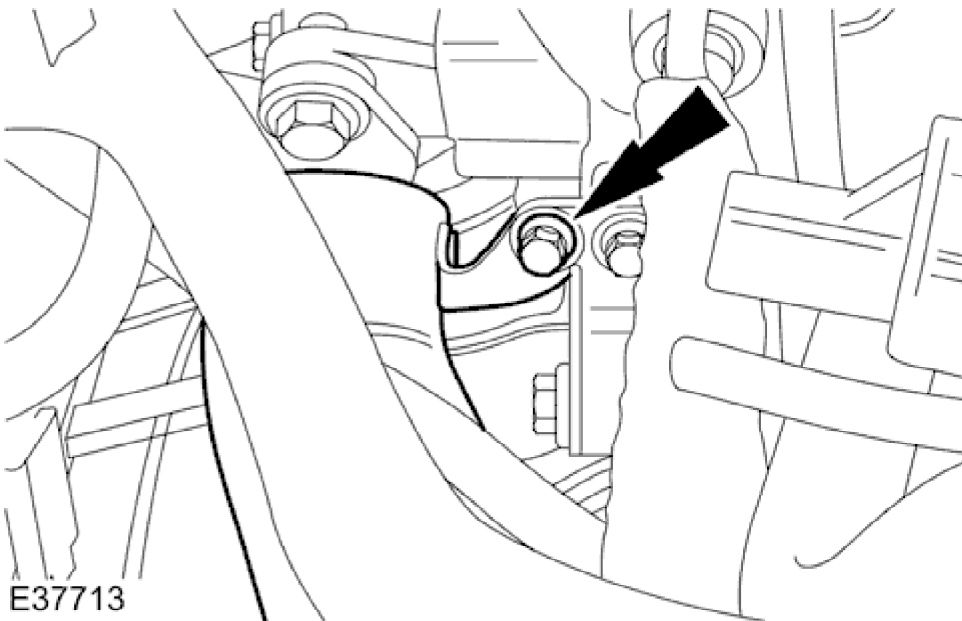
E37765

20. Disconnect the hose.



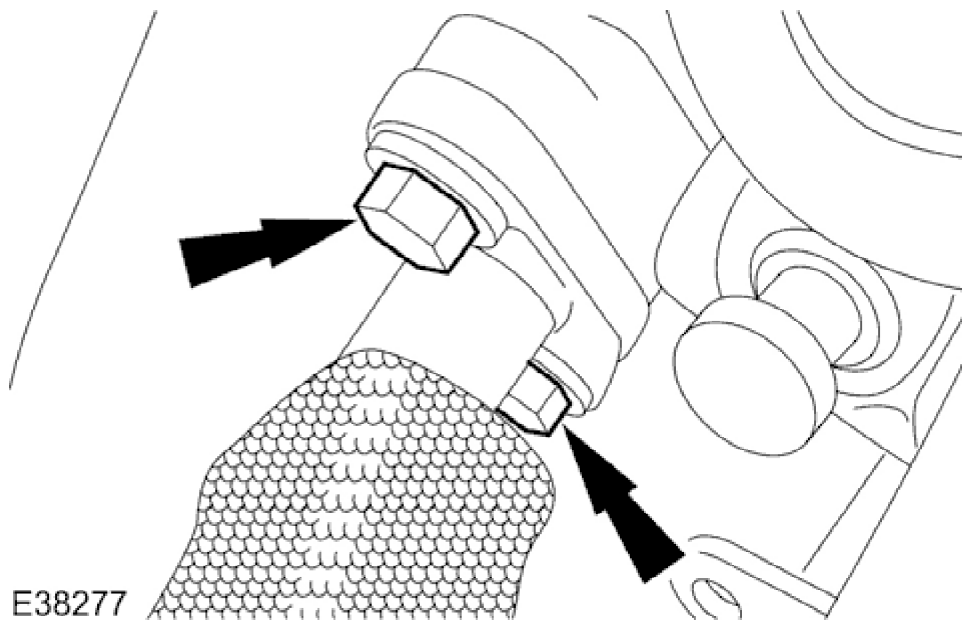
E38281

21. Remove the exhaust manifold to exhaust gas recirculation (EGR) valve tube heat shield retaining nut.

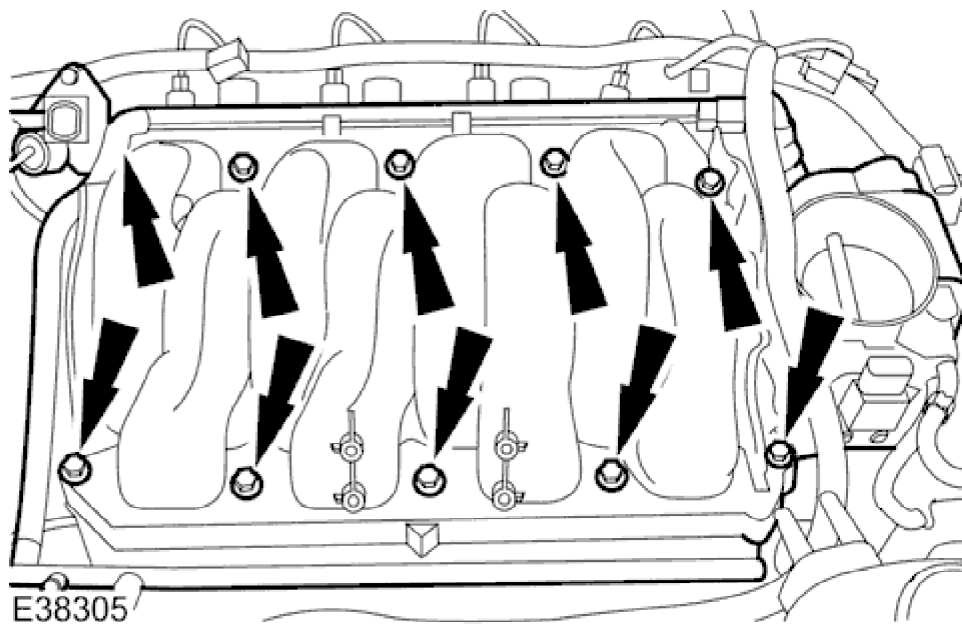


E37713

22. Remove the exhaust manifold to EGR valve tube heat shield.

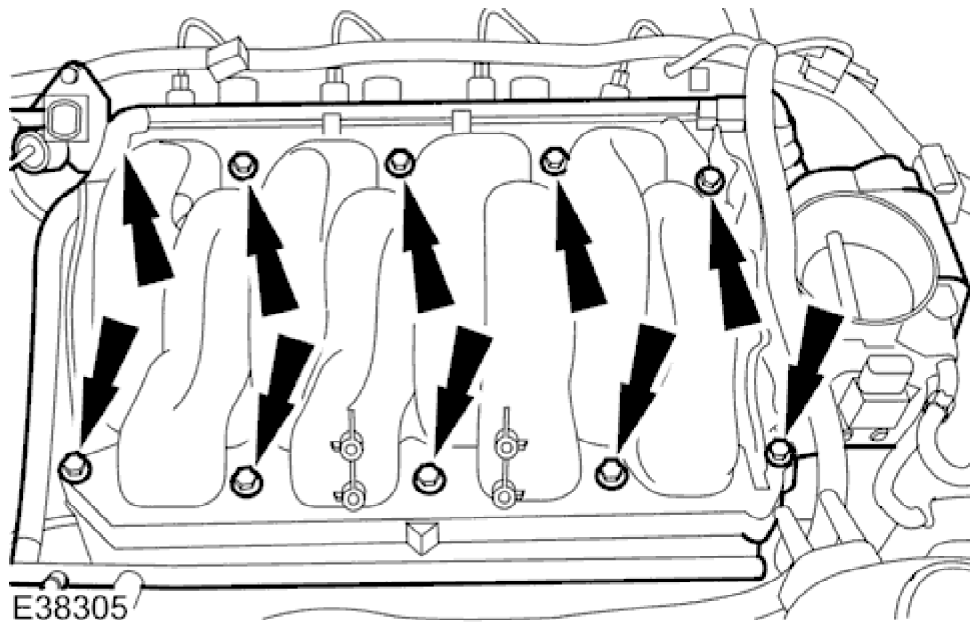


23. Remove the exhaust manifold to EGR valve tube retaining bolts.
- Remove and discard the gasket.

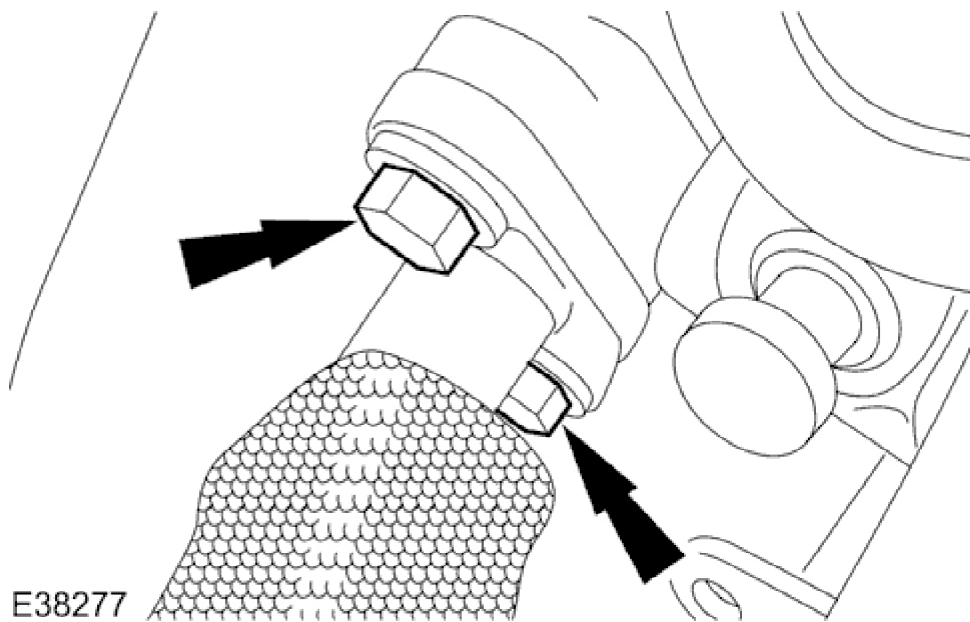


24. Remove the intake manifold.
- Remove and discard the gaskets.

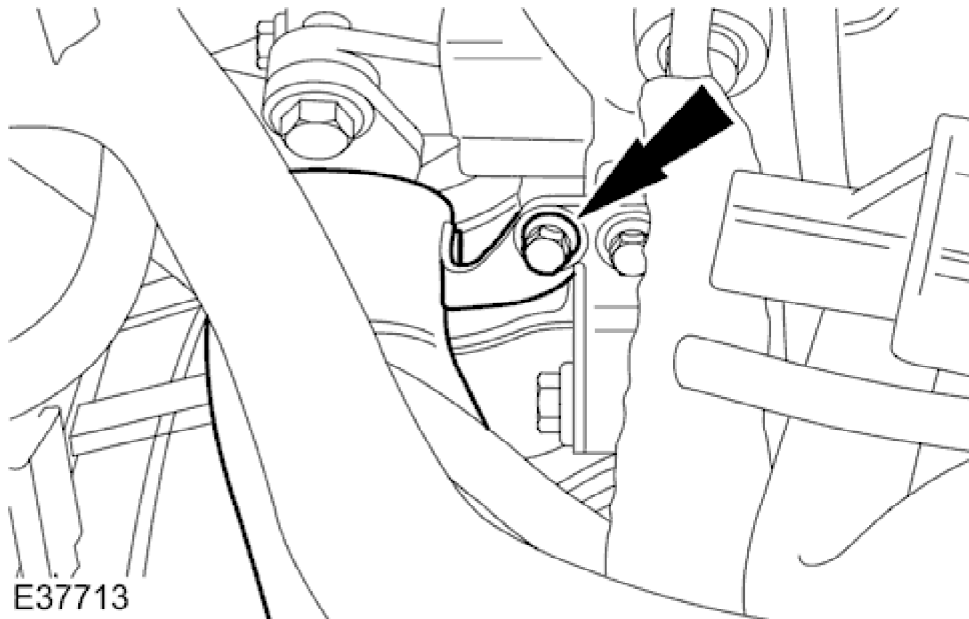
## Installation



1. Install the intake manifold.
  - Install new gaskets.
  - Tighten to 22 Nm.

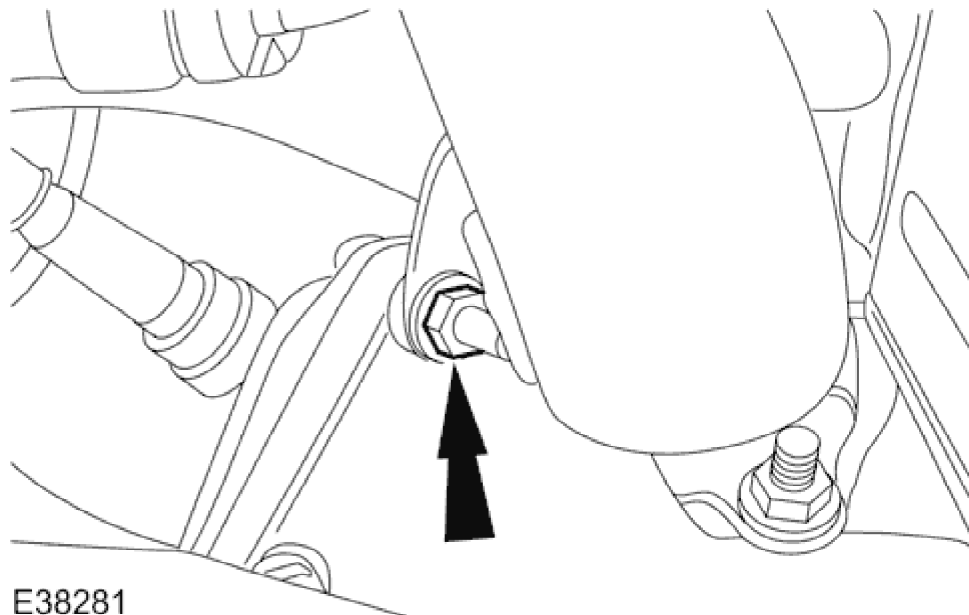


2. Install the exhaust manifold to EGR valve tube retaining bolts.
  - Install a new gasket.
  - Tighten to 21 Nm.



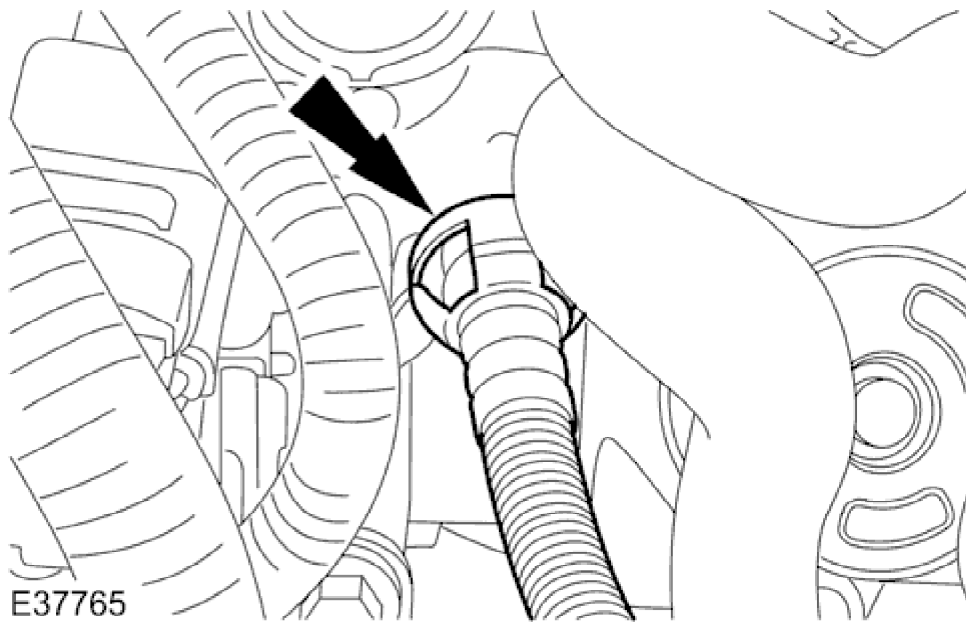
E37713

3. Install the exhaust manifold to EGR valve tube heat shield.
  - Tighten to 9 Nm.



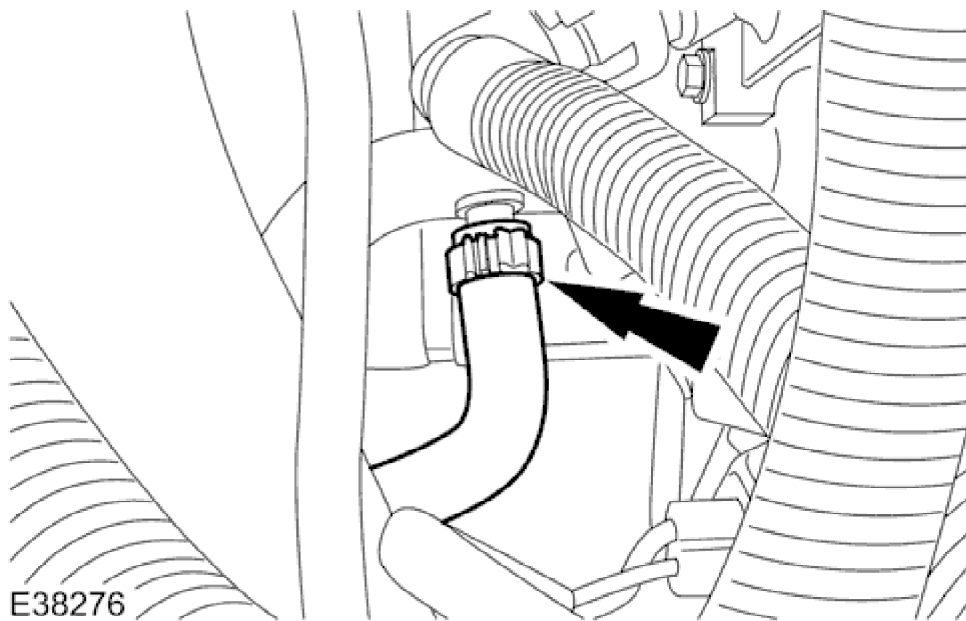
E38281

4. Install the exhaust manifold to EGR valve tube heat shield retaining nut.
  - Tighten to 60 Nm.



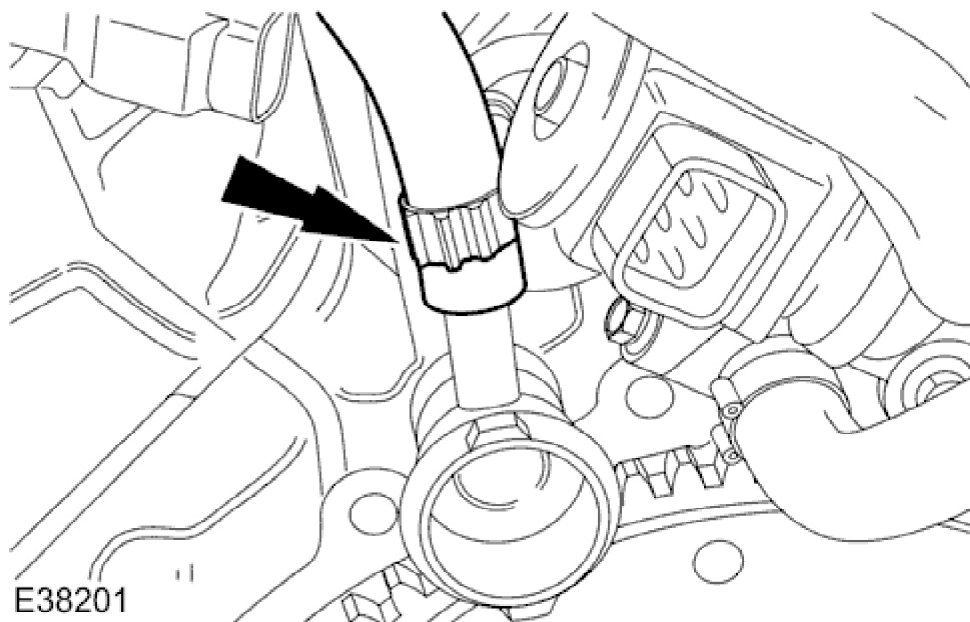
E37765

5. Connect the hose.



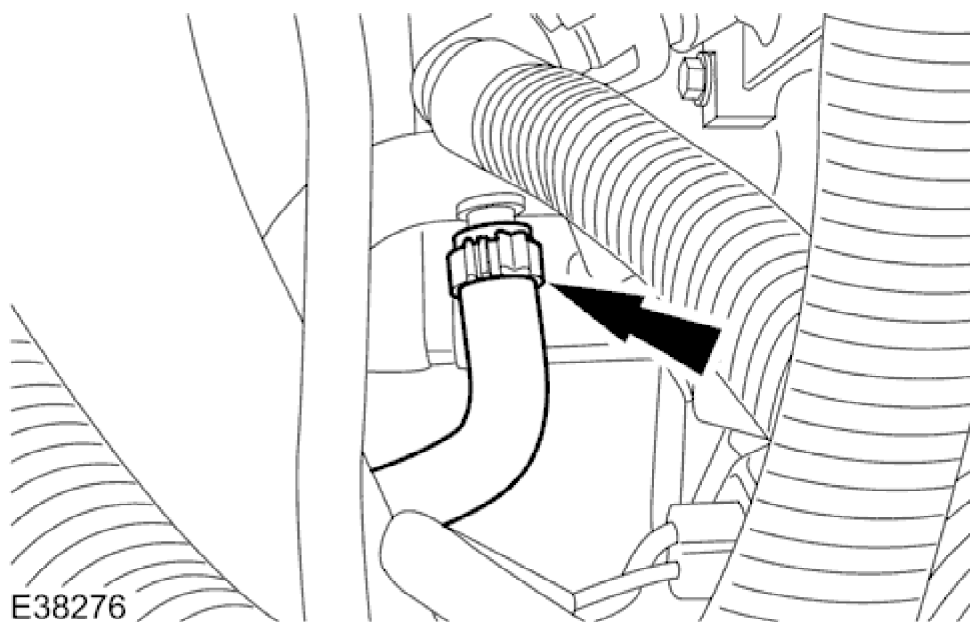
E38276

6. Connect the coolant hose.



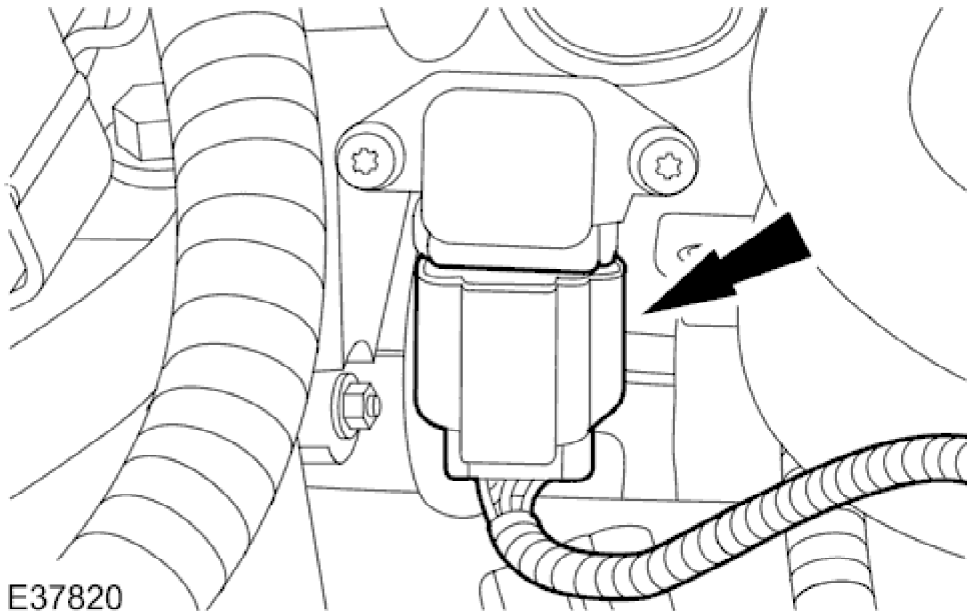
E38201

7. Connect the coolant hose.



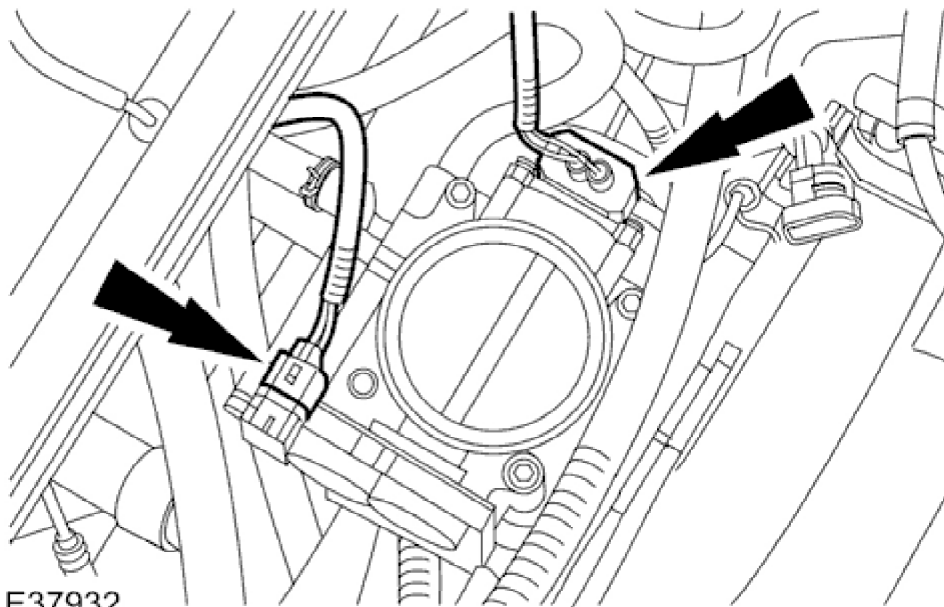
E38276

8. Connect the electrical connector.



E37820

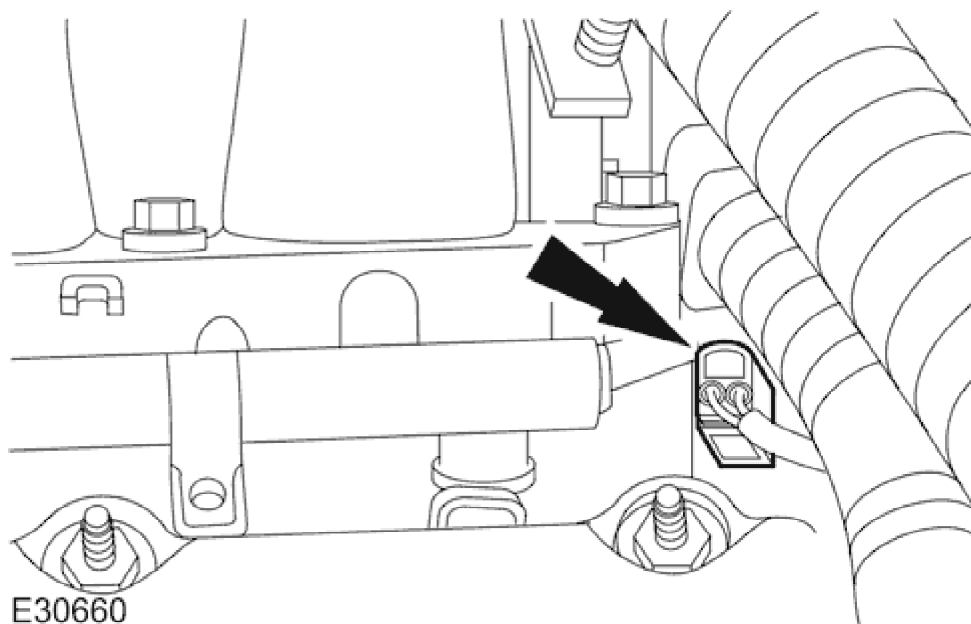
9. Connect the manifold absolute pressure (MAP) sensor electrical connector.



E37932

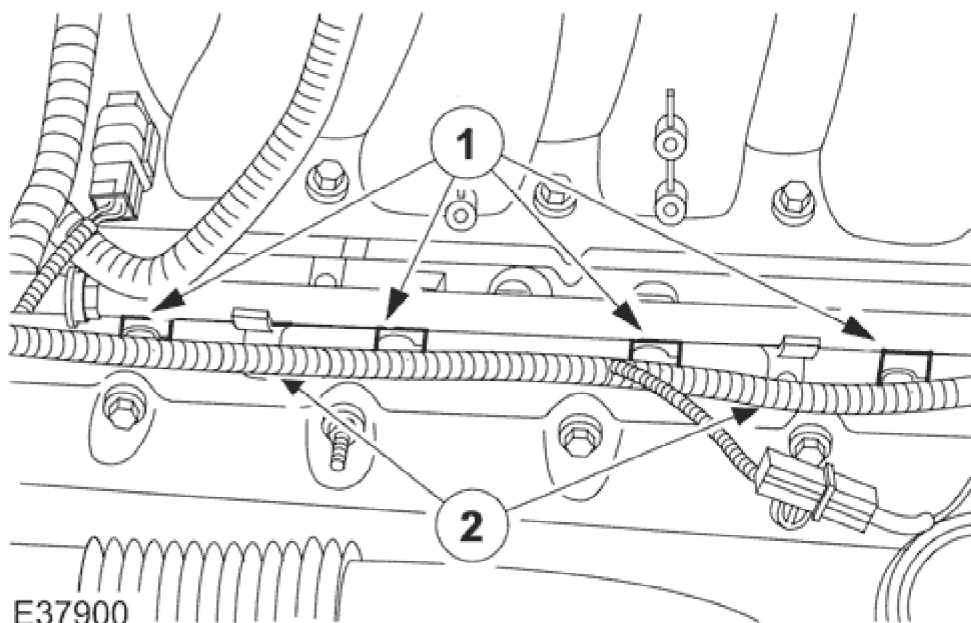
10. Connect the throttle body electrical connectors.





E30660

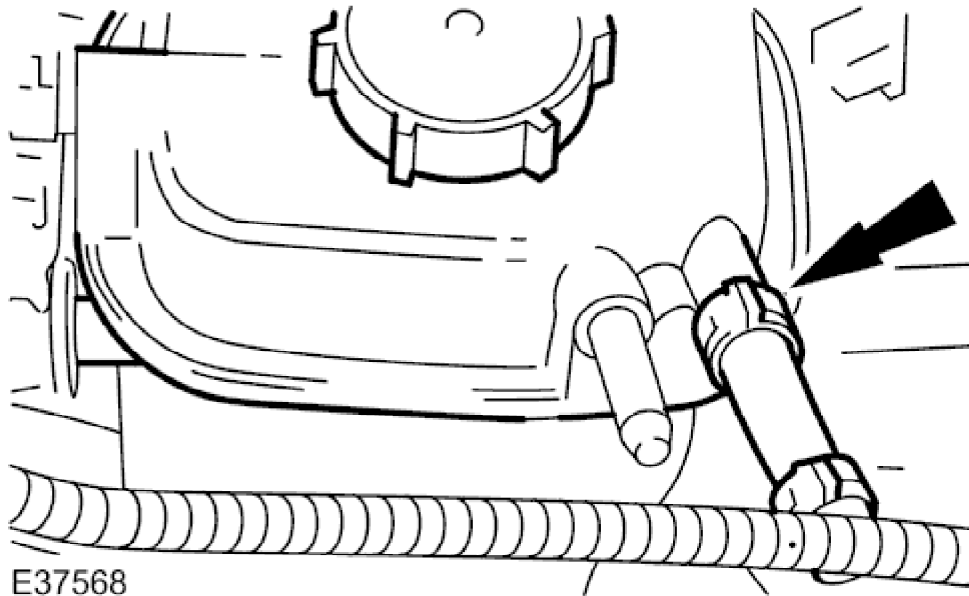
11. Connect the CMP electrical connector.



E37900

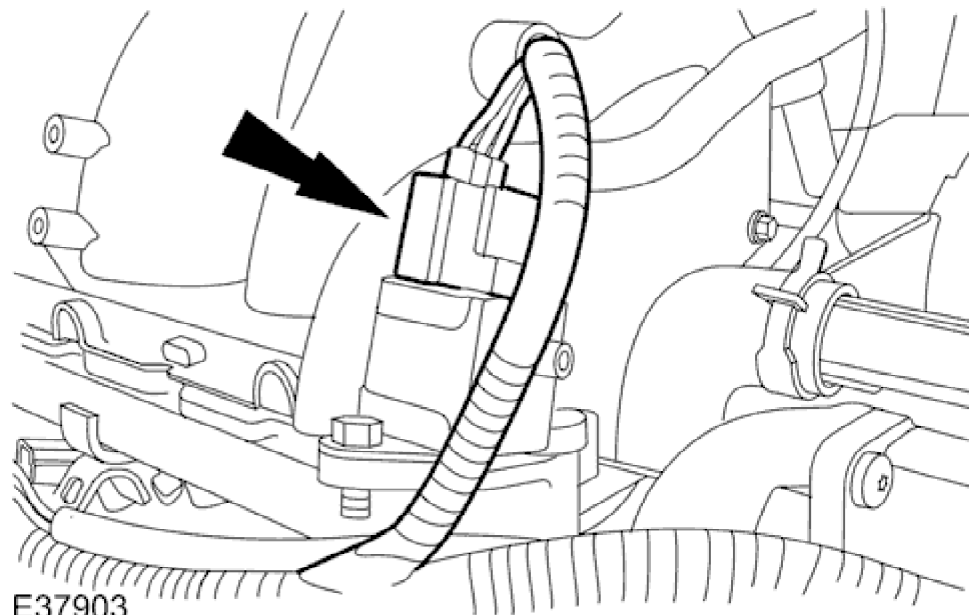
12. **NOTE:**  
Right hand shown, left hand similar.

Attach the wiring harness.  
1. Connect the electrical connectors.  
2. Attach the wiring harness.



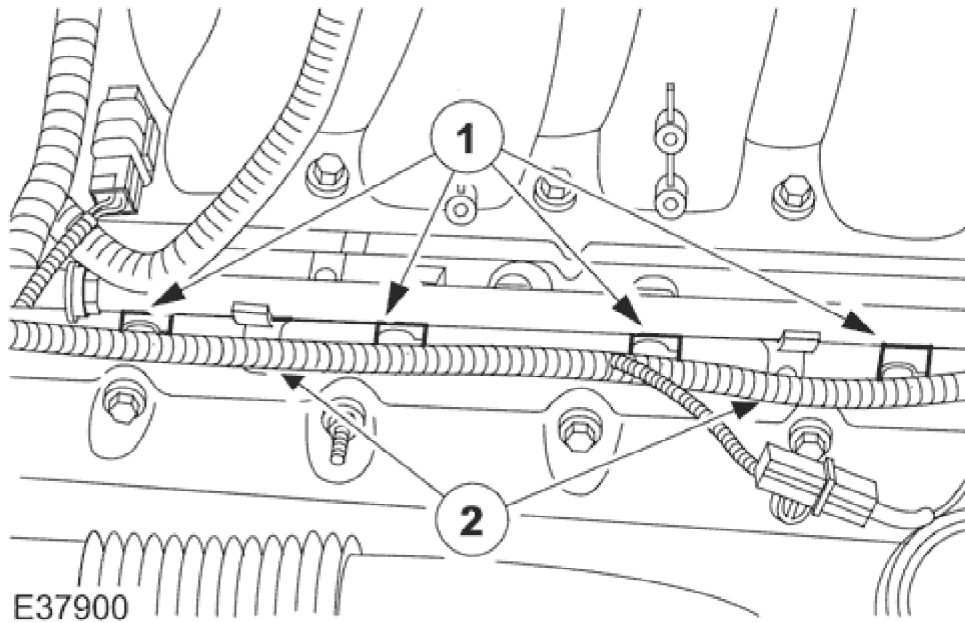
E37568

13. Connect the hose to the expansion tank.



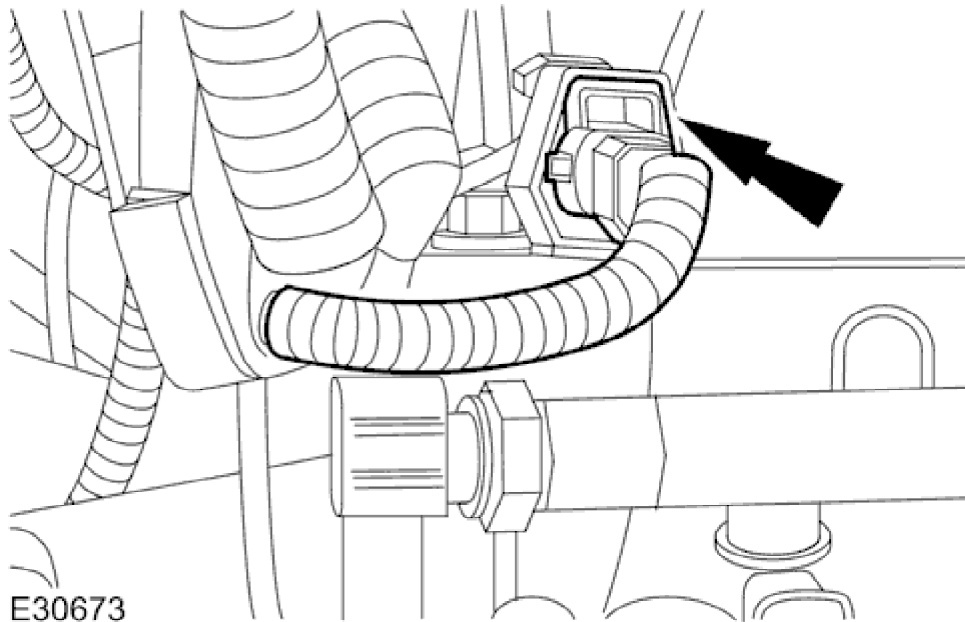
E37903

14. Connect the fuel pressure regulator electrical connector.



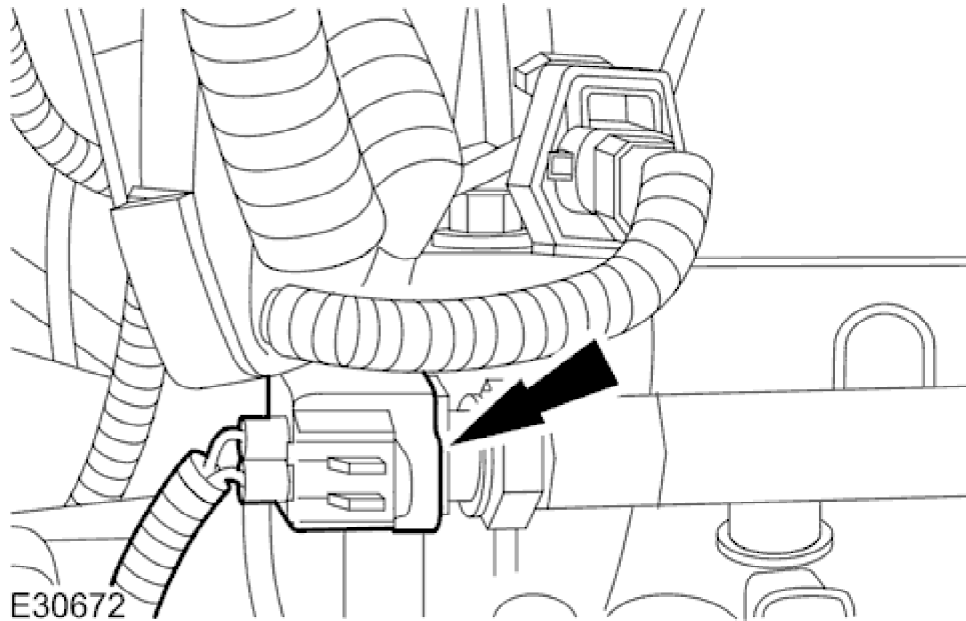
E37900

15. Attach the wiring harness.
  1. Connect the electrical connectors.
  2. Attach the wiring harness.



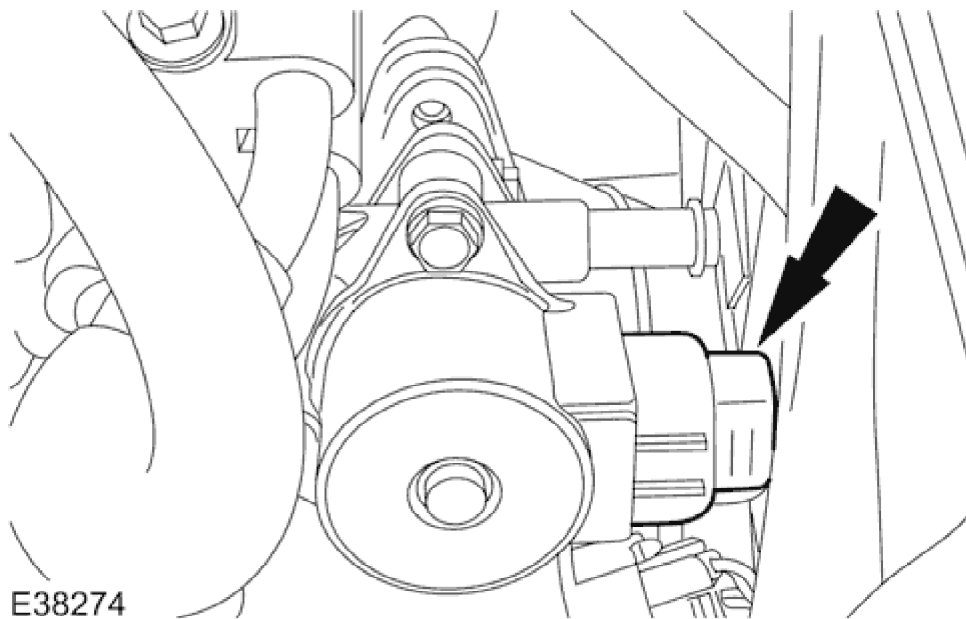
E30673

16. Connect the right-hand CMP sensor.



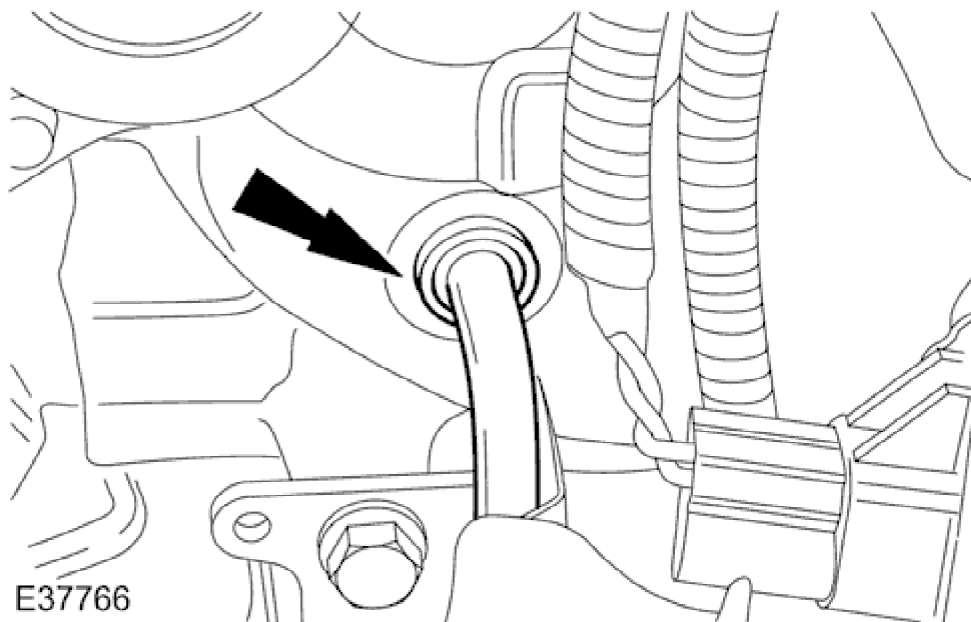
E30672

17. Disconnect the fuel temperature sensor electrical connector.

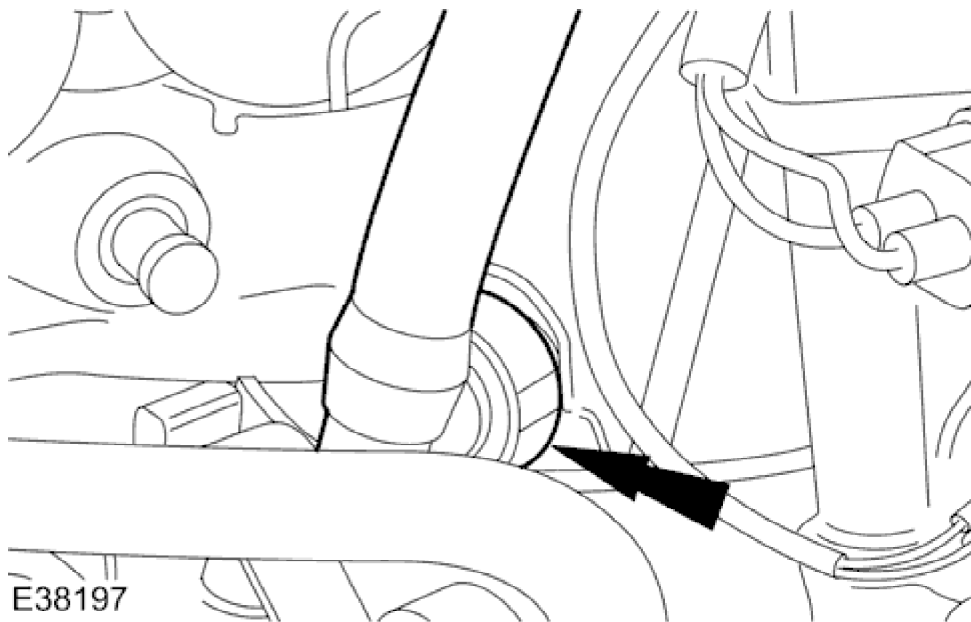


E38274

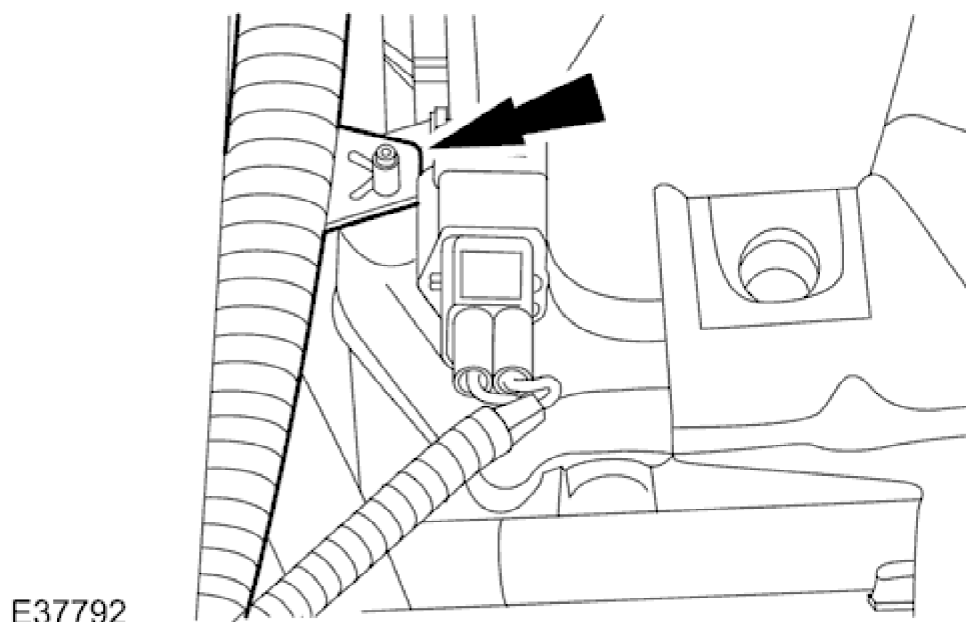
18. Connect the EGR valve electrical connector.



19. Connect the pipe.

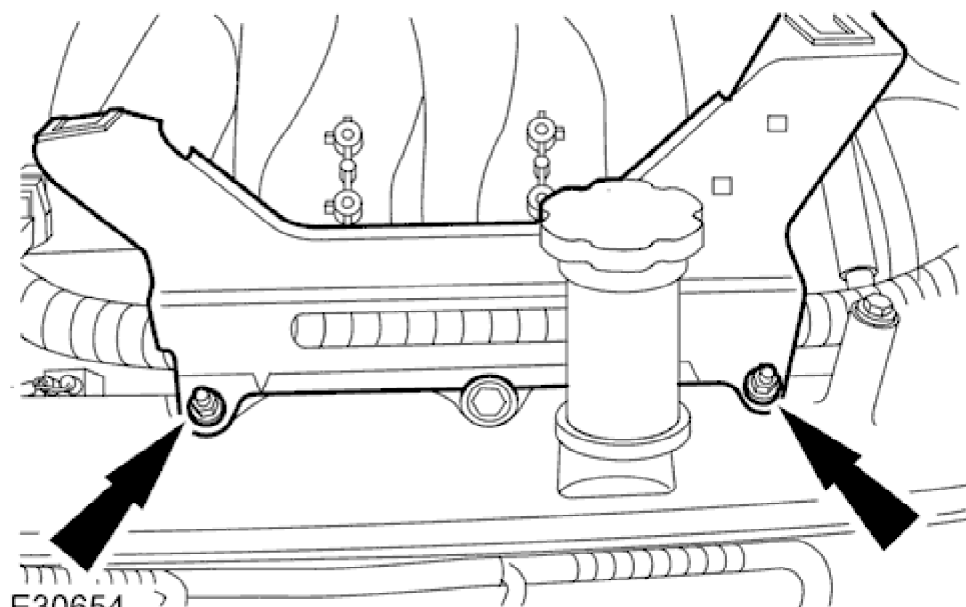


20. Connect the hose.



E37792

21. Attach the engine wiring harness.



E30654

22. **NOTE:**

Left hand shown, right hand similar.

Install the engine cover retaining brackets.

- Detach the knock sensor (KS) electrical connectors.
- Tighten to 6 Nm.

23. Install the air cleaner outlet pipe. <<303-12>>

24. Check and top up the cooling system.