

**WARNUNG**

**Gefahr des Verlusts der Text-Bild-Zuordnung beim Ausdruck.**

- **Aus technischen Gründen kann derzeit nicht ausgeschlossen werden, dass trotz einwandfreier Darstellung auf dem Bildschirm beim Ausdruck der Zusammenhang von Text und zugehörigem Bild verloren geht.**
- **Wird der Fehler nicht bemerkt, besteht die Gefahr, daß Arbeiten nicht korrekt durchgeführt werden und es dadurch zu Personen- und Sachschäden kommt.**

→ Vergleichen Sie deshalb nach dem Druckvorgang unbedingt die Ausdrücke mit der Bildschirmdarstellung. Korrigieren Sie die Ausdrücke im Fehlerfall so, daß der Inhalt der Bildschirmdarstellung zutreffend wiedergegeben wird.

**WARNING**

**Danger of losing text-figure correspondence when printing out.**

- **For technical reasons, it can currently not be ruled out that the correspondence between text and associated figure can be lost when it is printed out, even though the display on the screen is correct.**
- **If the fault is not noticed, there is the danger that work will not be performed correctly which can cause injury and damage.**

→ Therefore, always compare printouts with the screen display after printing them out. Correct the printouts if they are faulty so that the content of the screen display matches that on the printouts.

**AVERTISSEMENT**

**Risque de perte de la correspondance texte-illustration lors de l'impression papier.**

- **Pour des raisons techniques, il ne peut pas être exclu à l'heure actuelle que, même en cas d'affichage correct à l'écran, la correspondance entre le texte et l'illustration puisse être erronée sur l'impression papier.**
- **Si l'erreur passe inaperçue, on court le risque d'exécuter certaines opérations de manière incorrecte pouvant conduire à des dommages corporels et matériels.**

→ Comparez impérativement pour cette raison les impressions papier avec l'affichage à l'écran. Corrigez-les en cas d'erreur de manière à reproduire correctement l'affichage à l'écran.

**ATTENZIONE**

**Pericolo di perdita dell'abbinamento testo-immagine nella stampa.**

- **Per motivi tecnici non è escluso che, nonostante la rappresentazione sullo schermo risulti perfetta, durante la stampa venga persa la corrispondenza fra testo e relativa immagine.**
- **Se tale difetto non viene rilevato vi è il pericolo che i lavori non siano eseguiti correttamente; ciò può avere come conseguenza lesioni e danneggiamenti.**

→ Per questo motivo, dopo la stampa è assolutamente necessario confrontare le stampe con la rappresentazione sullo schermo. In caso di errore si prega di correggere le stampe, così da garantire la riproduzione esatta della rappresentazione sullo schermo.

**ADVERTENCIA**

**Al imprimir se corre el riesgo de perder la correcta asignación de las figuras al texto.**

- **Por motivos técnicos, por el momento no se puede descartar que, aun siendo correcta la imagen que aparezca en la pantalla, al imprimir se pierda la correlación entre el texto y la figura correspondiente.**
- **Si este error pasara desapercibido, existe el riesgo de que los trabajos no se ejecuten de forma correcta y, por tanto, se produzcan daños personales y materiales.**

→ Por ello le rogamos que tras el proceso de impresión compare siempre las copias impresas con la imagen de la pantalla. En caso de error, corrija las copias impresas de forma que se correspondan con el contenido de la imagen de la pantalla.

## **24 46 19 Removing and installing intake-air distributor - as of MY 2003**

- [Preliminary work](#)
- [Information](#)
- [Removing intake-air distributor](#)
- [Installing intake-air distributor](#)
- [Subsequent work](#)

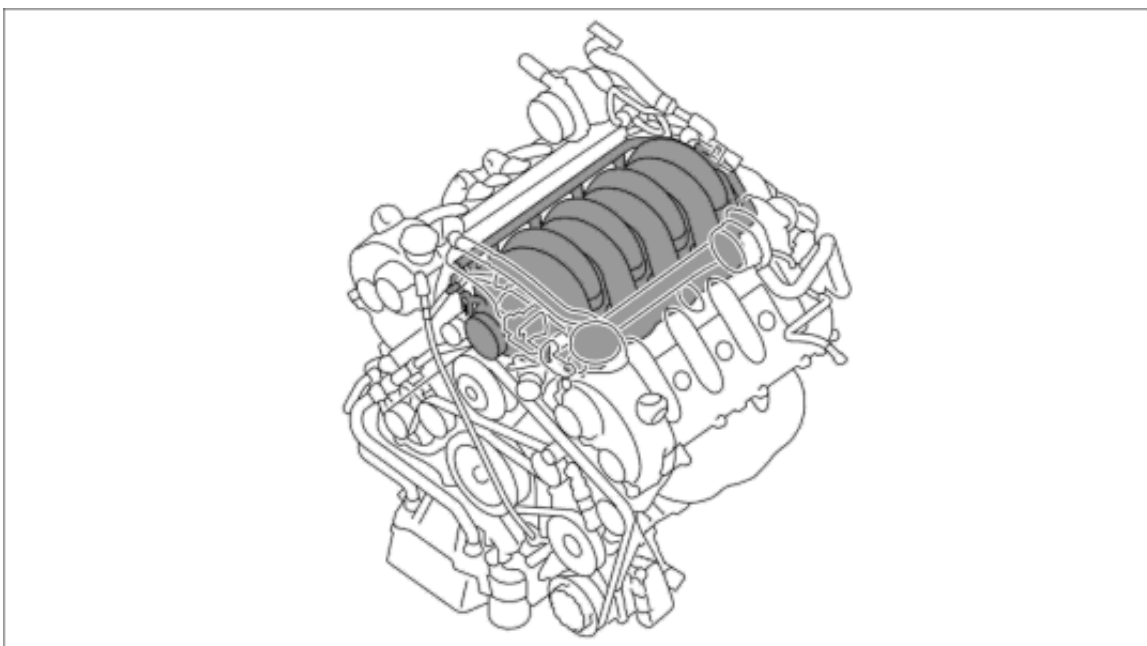
### **Preliminary work**

#### **Preliminary work for removing intake distributor**

1. Remove design cover → 108319 Removing and installing engine cover - "Removing" section.

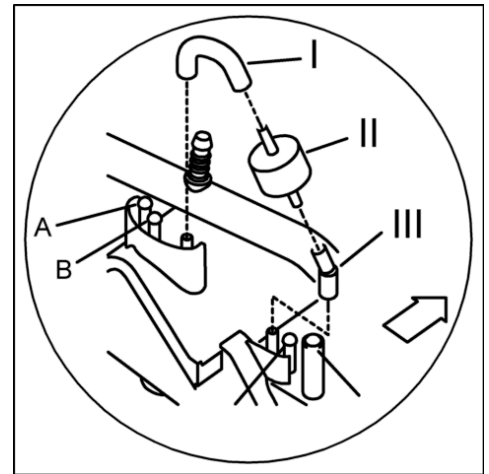
### **Information**

#### **Component overview**

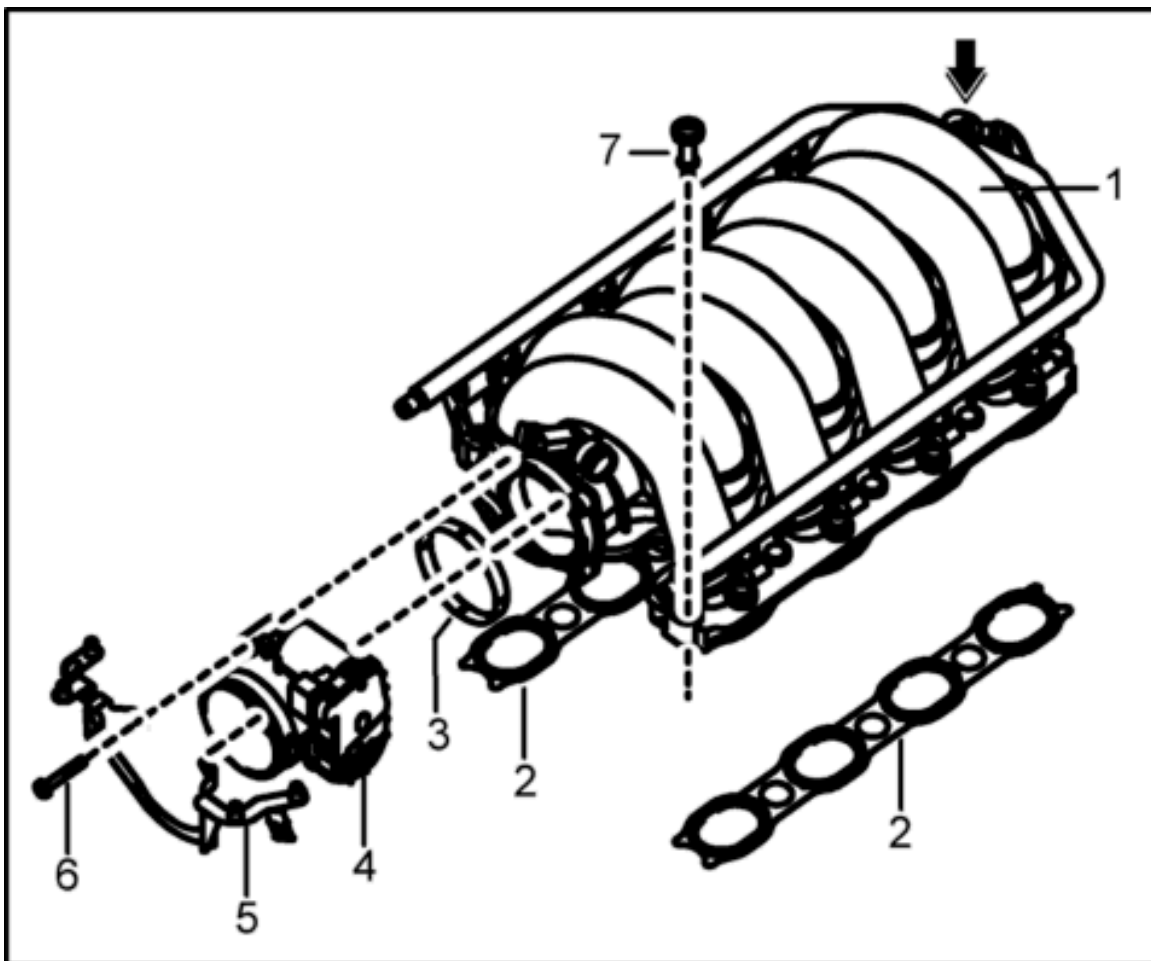


*Installation location for intake-air distributor*

- I - Curved hose
- II - Check valve
- III - Hose
- A - Vacuum line closed
- B - Vacuum line closed



Vacuum line



Suction module

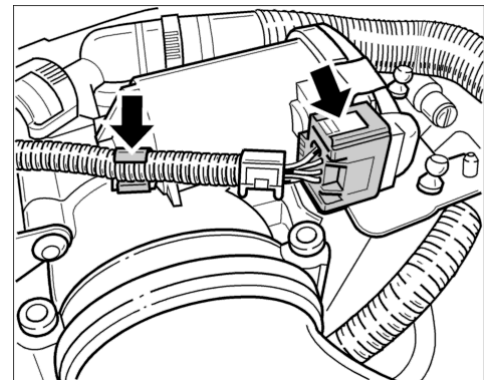
- 1 - Intake-air distributor and throttle housing
- 2 - Seals for intake-air distributor; replace
- 3 - Seal for throttle adjuster; replace
- 4 - Throttle adjuster; do not actuate by hand
- 5 - Support for throttle body cover; secure with the fastening screws for the throttle adjuster
- 6 - Fastening screw, M6 x 45
- 7 - Fastening screws

## Removing intake-air distributor

**Note**

- The ignition must be switched off when working on the fuel system.
- Absorb any escaping fuel using a suitable binding material or a cloth.
- Cloths which have absorbed fuel must be disposed of according to the applicable national laws.
- The fuel system must be depressurised before starting work on it.
- Only work on the fuel system in well-ventilated rooms.
- Any seals which have been removed must always be replaced.

1. Separate the electric connection from the throttle adjuster. To do this, press on the plug at the top and bottom and, at the same time, pull it off. Unclip the cable from the sheetmetal holder.



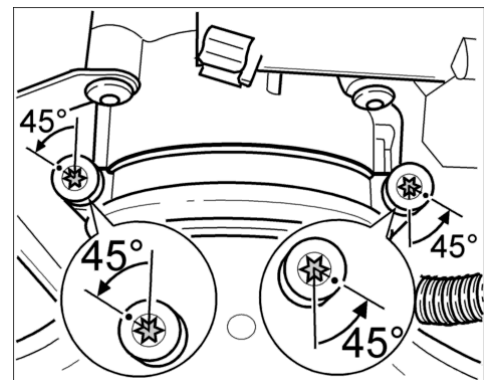
Cable plug for throttle housing

**ATTENTION****Risk of damaging the fastening bolts!**

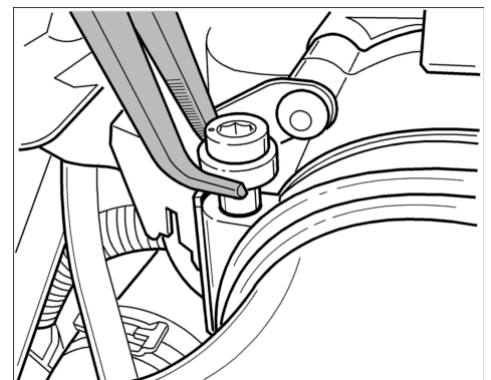
- The fastening bolts will break if they are turned in the wrong direction.

→ Only turn the fastening bolts in the correct direction of rotation for opening and closing.

2. Release the fastening bolts on the throttle body. To do this, twist the right and left pin through 45° in an anti-clockwise direction.
3. Remove the fastening bolts. To do this, take hold of the bolt by the rubber ring with pliers and pull it out.
4. Pull off the Y-shaped pipe from the throttle body.

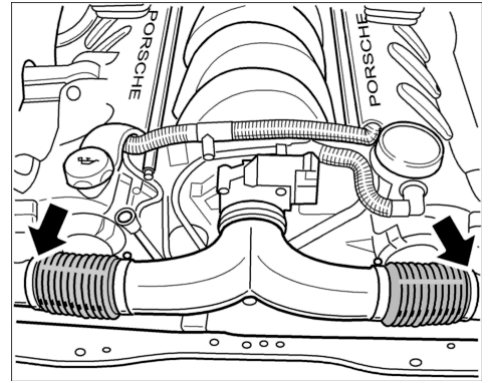


Direction of rotation for fastening bolts

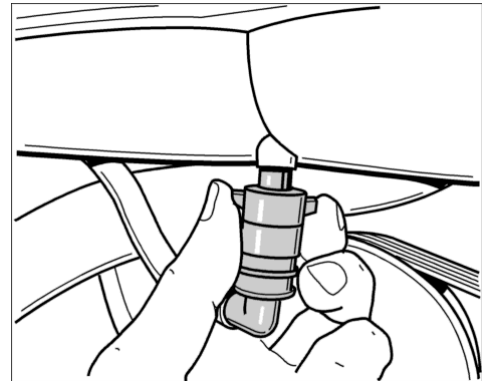


Fastening bolts

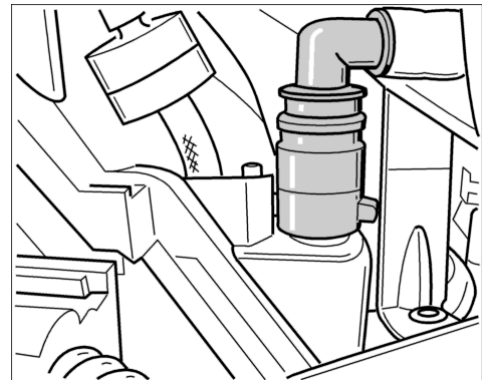
5. Disconnect the air flow sensor connections. To do this, undo the hose clamps to the left and right on the bellows and pull the bellows off the air flow sensors.

*Bellows*

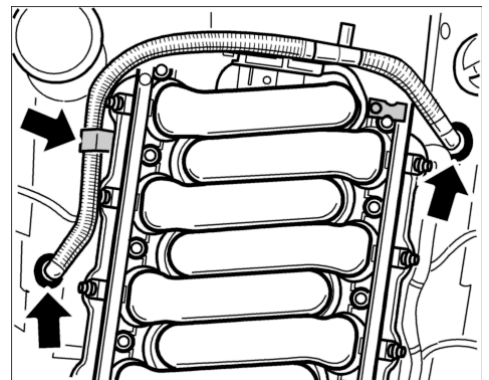
6. Remove the vacuum line on the Y-shaped pipe. To do this, press the button and disconnect the vacuum line.

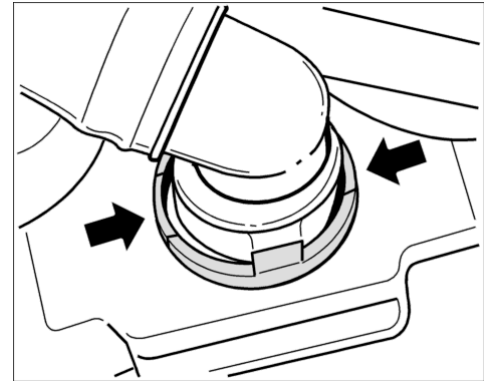
*Vacuum line connection*

7. Disconnect the vacuum line on the rear of the intake system.

*Vacuum line on rear side of suction module*

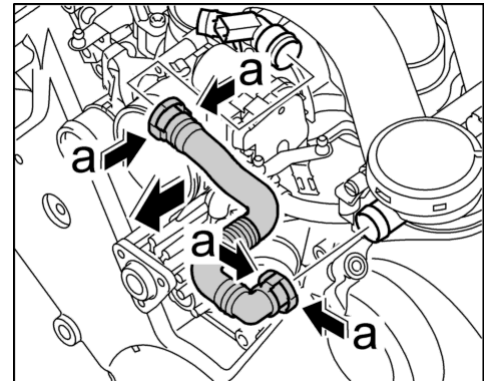
8. Disconnect positive crankcase ventilation line on the two valve covers. To do this press the plastic ring and pull the connections. Then remove the positive crankcase ventilation line from the retaining clip.

*Positive crank case ventilation*



*Positive crank case ventilation line connection*

9. Then remove the line between the oil mist collector and the intake distributor.



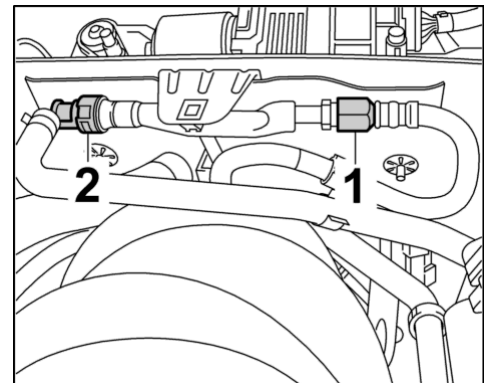
*Line for oil mist separator*



**DANGER**

### **Danger of fire from fuel!**

- Keep clear of ignition sources.
- Do not smoke.
- Disconnect battery.
- Danger of fire due to naked flames and sparks, e.g. during welding or grinding work.
- Danger of fire due to escaping fuel, e.g. on hot engine components or due to electrostatic charge. Allow engine to cool down.
- Secure the vehicle, e.g. with a warning sign.
- Change any clothing soaked with fuel immediately.
- In case of fire, use CO<sub>2</sub> or dry powder fire extinguishers.



*Fuel lines*



**DANGER**

### **Danger of poisoning from fuels!**

- Gasoline is toxic.
- Inhaling vapours can cause irritation of the mucous membranes and eyes.
- It can be carcinogenic. It represents a serious risk to health when inhaled, touched or swallowed over longer periods.
- Only work on the fuel system in well-ventilated rooms.
- Wear protective gloves that are fuel-resistant.
- Wear a breathing mask with active charcoal filter; do not breathe in any fuel vapours.
- Ensure that there is adequate ventilation and extract all fuel vapours.

- Before opening the fuel lines or fuel hoses, relieve the fuel pressure.
- Collect escaping fuel, absorb it if necessary with a suitable binding material and dispose of properly.
- Pay attention to cleanliness when working on the fuel system.



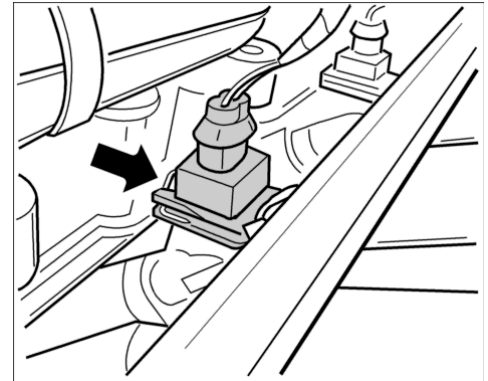
### Note

- Before the lines are opened, place a cloth or a suitable container underneath them!
- Collect escaping fuel.

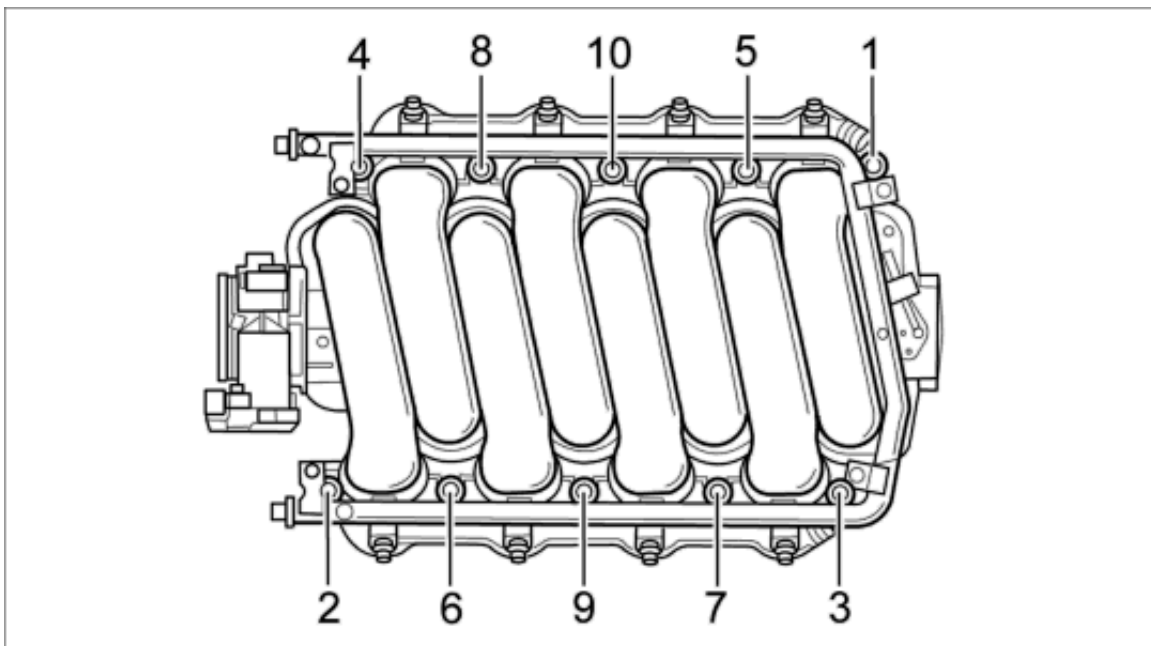
10. Disconnect fuel line **-1-** and line **-2-** to the carbon canister on the radiator tank splash panel.

11. Disconnect the electric connectors to the eight fuel injectors. To do this, press the metal clip on the plug and pull off the plug.

12. Unscrew the fastening screws on the intake distributor in the sequence shown below. → [Loosening order for suction module](#)



Cable plug for injection valves



Loosening order for suction module

13. Remove intake distributor from the engine in an upward direction.

## Installing intake-air distributor



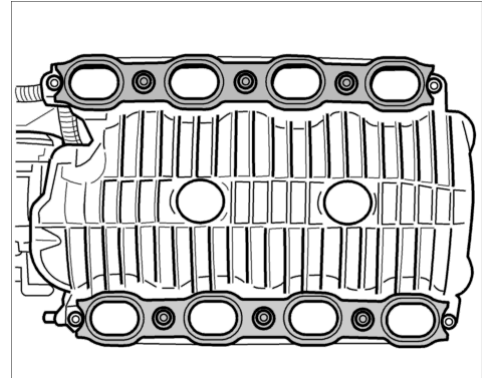
### Note

- The ignition must be switched off when working on the fuel system.
- Absorb any escaping fuel using a suitable binding material or a cloth.

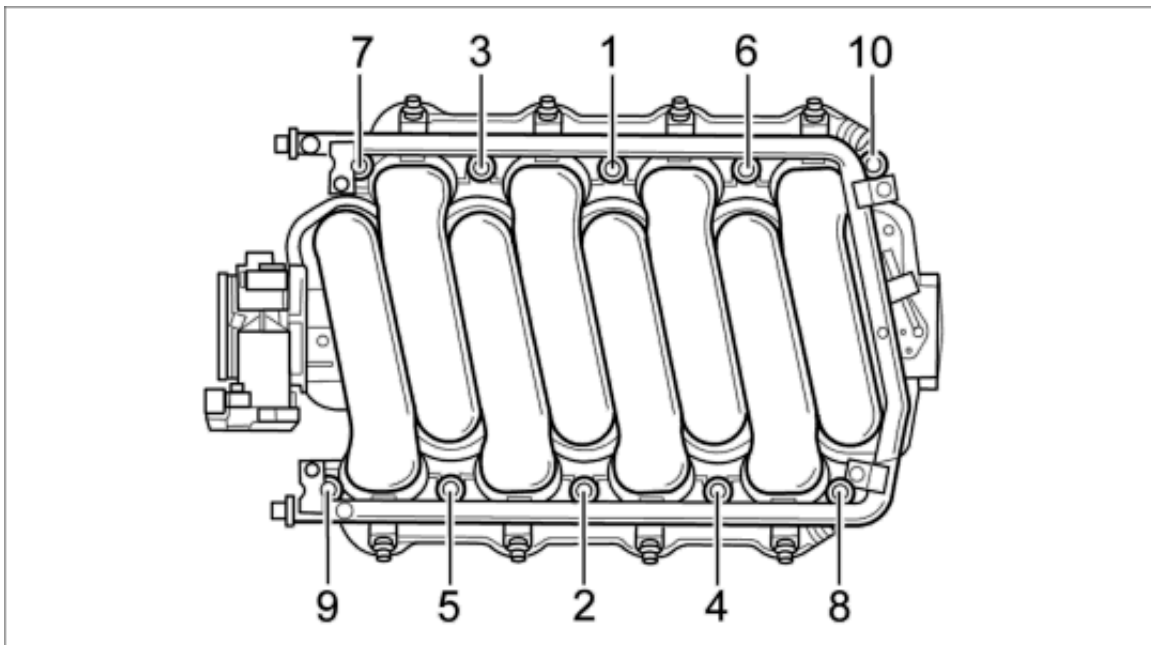


- Cloths which have absorbed fuel must be disposed of according to the applicable national laws.
- The fuel system must be depressurised before starting work on it.
- Only work on the fuel system in well-ventilated rooms.
- Any seals which have been removed must always be replaced.

1. Replace intake distributor gaskets.
2. Place intake-air distributor on the engine and tighten the screws in the sequence shown below. → *Tightening sequence for suction module* → **Initial tightening: 7.5 ftlb.** → **Final tightening: 11 ftlb.**

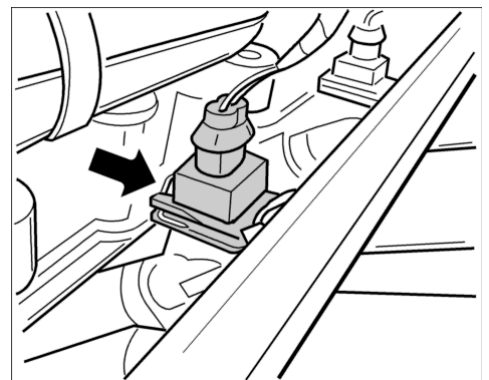


*Installation position for seals*



*Tightening sequence for suction module*

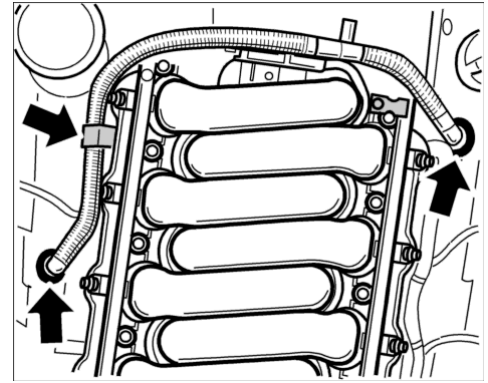
3. Connect the 8 electric connectors to the injection valves. The connectors must engage audibly.



*Cable plug for injection valves*

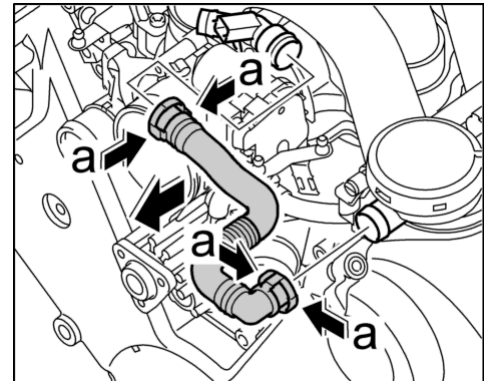
4. Install positive crankcase ventilation line. The 2 connections must audibly engage. Then close the mounting clip.





Positive crankcase ventilation

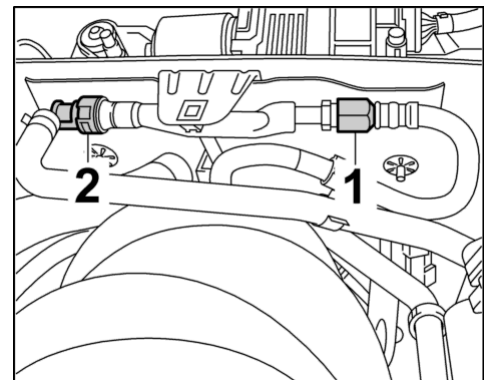
5. Install line between intake distributor and oil mist collector.



Line for oil mist separator

**DANGER****Danger of poisoning from fuels!**

- Gasoline is toxic.
- Inhaling vapours can cause irritation of the mucous membranes and eyes.
- It can be carcinogenic. It represents a serious risk to health when inhaled, touched or swallowed over longer periods.
- Only work on the fuel system in well-ventilated rooms.
- Wear protective gloves that are fuel-resistant.
- Wear a breathing mask with active charcoal filter; do not breathe in any fuel vapours.
- Ensure that there is adequate ventilation and extract all fuel vapours.
- Before opening the fuel lines or fuel hoses, relieve the fuel pressure.
- Collect escaping fuel, absorb it if necessary with a suitable binding material and dispose of properly.
- Pay attention to cleanliness when working on the fuel system.

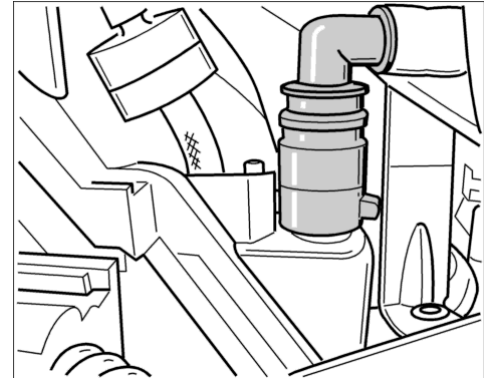


Fuel lines

**DANGER****Danger of fire from fuel!**

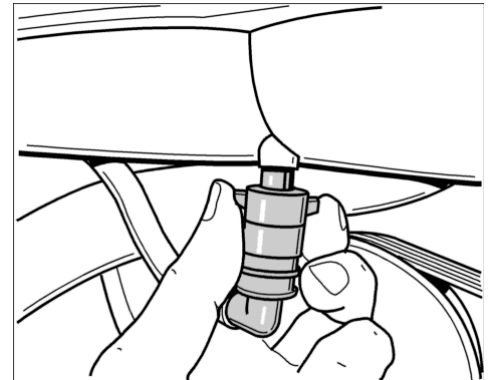
- Keep clear of ignition sources.
- Do not smoke.
- Disconnect battery.
- Danger of fire due to naked flames and sparks, e.g. during welding or grinding work.
- Danger of fire due to escaping fuel, e.g. on hot engine components or due to electrostatic charge. Allow engine to cool down.

- Secure the vehicle, e.g. with a warning sign.
  - Change any clothing soaked with fuel immediately.
  - In case of fire, use CO<sub>2</sub> or dry powder fire extinguishers.
6. Connect fuel line **-1-** and line **-2-** from the carbon canister on the radiator tank splash panel.
  7. Connect vacuum line to the rear of the intake distributor. The plug must engage audibly.



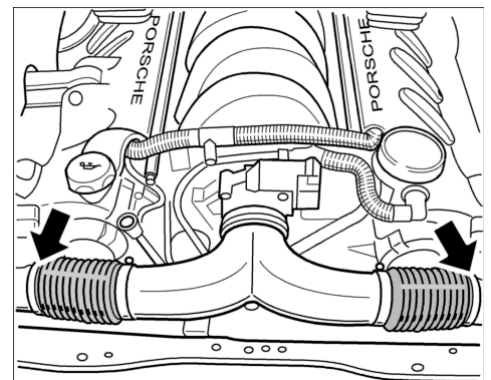
*Vacuum line on rear side of suction module*

8. Attach the vacuum line to the underside of the Y-shaped pipe.



*Vacuum line connection*

9. Slide the bellows onto the air flow sensors and tighten the hose clamps.



*Bellows*

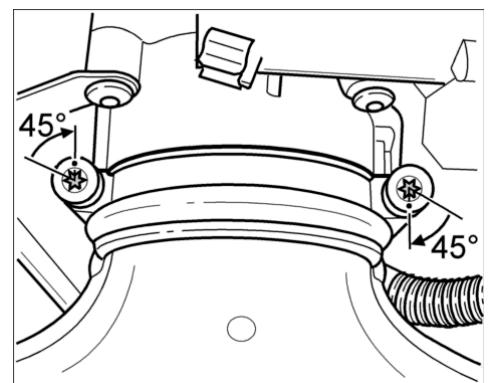
### **ATTENTION**

#### **Risk of damaging the fastening bolts!**

- **The fastening bolts will break if they are turned in the wrong direction.**

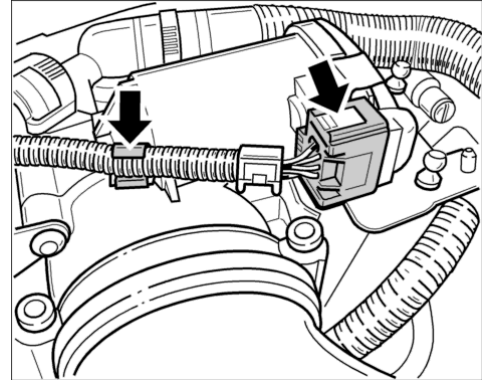
- Only turn the fastening bolts in the correct direction of rotation for opening and closing.

10. Slide the Y-shaped pipe onto the throttle adjuster. Then insert the left and right fastening bolts. Turn the right and left bolts 45° clockwise.



*Direction of rotation for fastening bolts*

11. Connect the throttle adjuster. The connector must engage audibly. Clip the connecting cable into the sheetmetal holder.



*Cable plug for throttle housing*

## Subsequent work

### Subsequent work for installing intake distributor

1. Install design cover → 108319 Removing and installing engine cover - "Installing" section.

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9PAAE1, 9PAAE7, 9PAAF1, 9PAAJ1

as of MY 2003

Country C00, C02, C05, C07, C08, C09, C10, C11, C12, C13, C14, C15, C16, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C32, C33, C34, C35, C36, C37, C38, C39, C45, C46, C98, C99