

AF-01, Air Filter Housing and Air Flow Sensor - Removal and Installation

Introduction

This procedure is used to remove the air filter housing and air flow sensor on 944s and 944 Turbos. Thanks to Tom Harrison for taking the time to provide feedback to correct several mistakes and to make the procedure more user friendly.

Tools

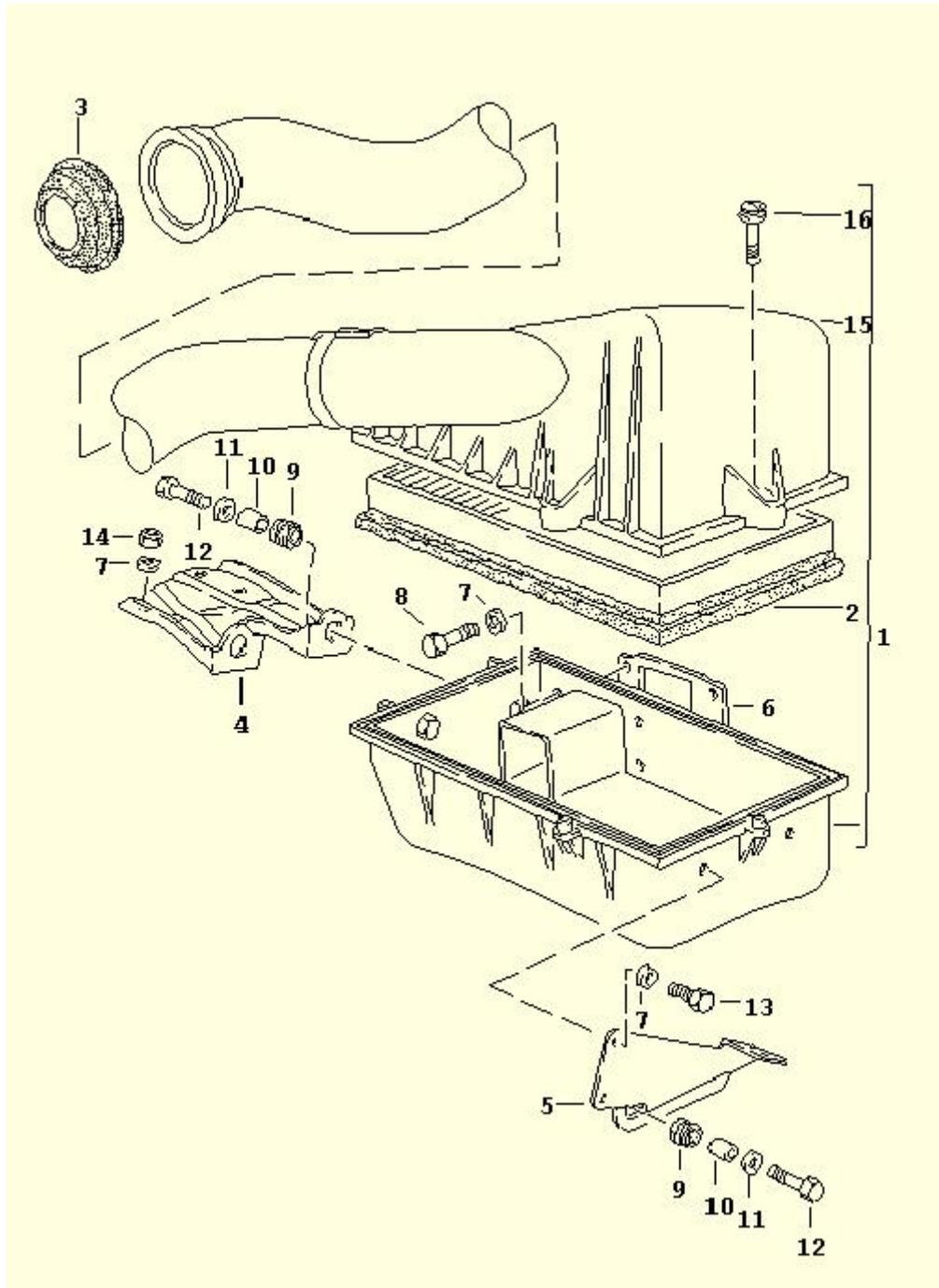
- Medium flat tip screwdriver
- 10mm socket and ratchet
- 13mm socket and ratchet
- 5mm Allen head socket or hex key (TURBO ONLY)
- 17mm socket and ratchet or 17mm wrench (TURBO ONLY)
- Flat tip jeweler's screwdriver or straight probe

Removal

1. Normally aspirated cars:
 - a. Remove the air filter cover, filter, and breather hose. It's only necessary to remove the breather hose but, you'll likely find it easier to remove the cover and breather hose together. *(Comment from TMH)*
 - b. Loosen the clamp which holds the rubber inlet plenum boot to the air flow sensor.
 - c. Using the jeweler's screwdriver or straight probe, push back the ends of the wire retaining clip on the air flow sensor electrical connector until they rest on the side of the connector. Slide the connector off the plug.

NOTE

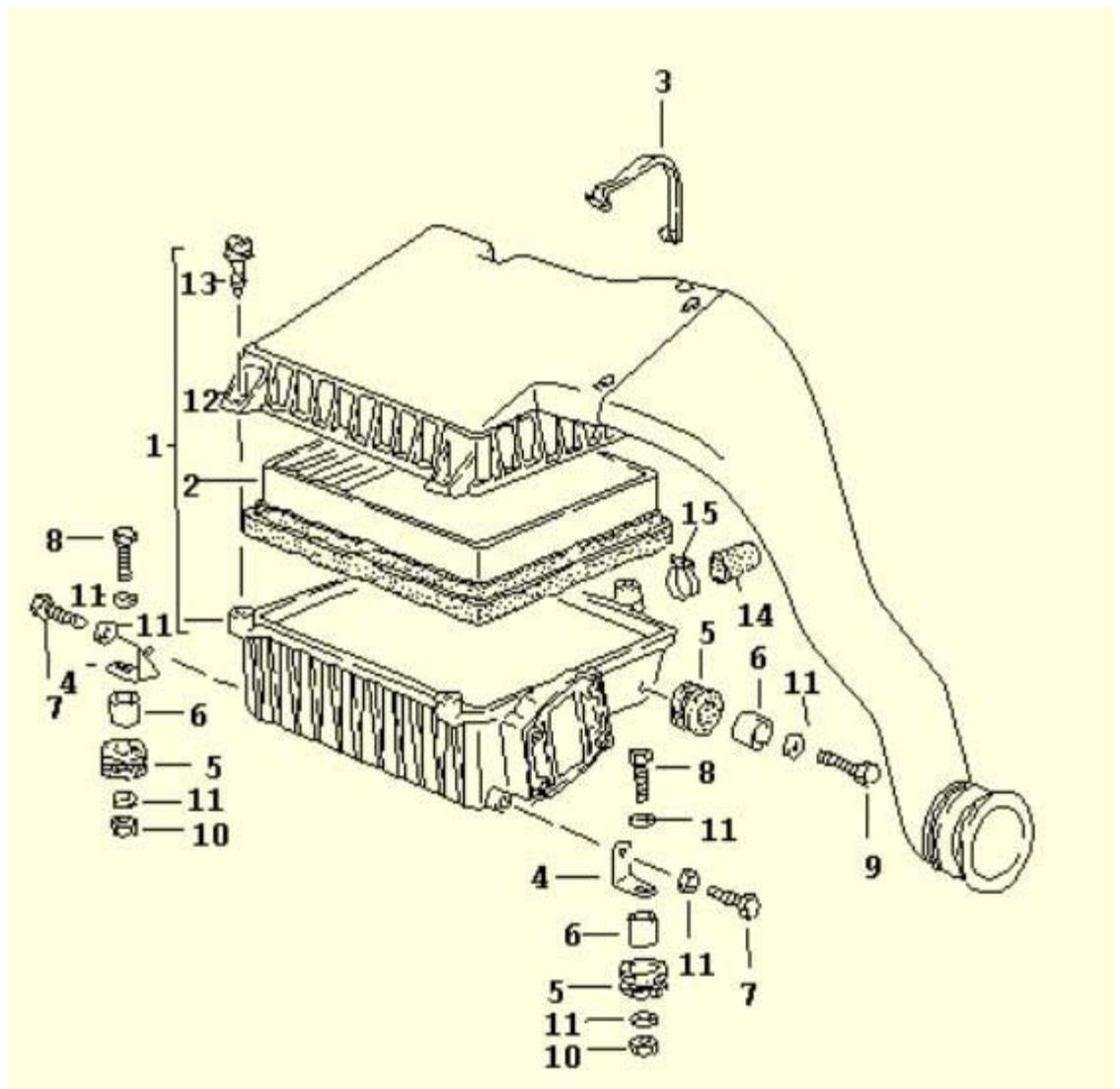
Two electrical wires are secured to the air flow sensor via a small red plastic clip and L-bracket. You can either try to pull the clip from the small L-bracket that it mounts to, or you can remove the L-bracket from the air flow sensor assembly. I recommend the later, as it is a single bolt, and when I attempted to do the former, I broke the red plastic clip.
(Comment from TMH)



- d. Remove the bolts at the front of the air filter housing (attaches the air filter housing to the bracket at the radiator cross-member). *(Comment from TMH)*
- e. Remove the two M6 bolts at the back of the air filter housing (attaches the air filter housing to a mounting bracket). *(Comment from TMH)*
- f. Lift the air flow sensor and air filter housing out of the car as a unit.

2. Turbocharged cars:

- . On top of the air filter housing, remove the screw for the metal strap that holds the filter housing to the turbocharger discharge to intercooler pipe.
- a. Loosen the two clamps on either end of the turbocharger discharge pipe (one behind the air filter housing, one near the top of the radiator).
- b. Using a 17mm socket and ratchet or 17mm wrench, remove the banjo bolt on the turbocharger discharge pipe. Be careful when removing the bolt. There are two metal seal rings on either side of the banjo connector that can easily be dropped when the bolt is removed. They can be nasty to retrieve if they fall in the wrong spot.
- c. Remove the turbocharger discharge pipe from the car.



- d. Using the jeweler's screwdriver or straight probe, push back the ends of the wire retaining clip on the air flow sensor electrical connector until they rest on the side of the connector. Slide the connector off the plug.
- e. Using the 5mm Allen head socket or hex key, loosen the filter housing retaining bolts. There are actually four bolts. However, due to it being so difficult to remove and install, you may find the last bolt is missing. If it is installed, you'll find it by looking behind the sensor housing on the right side of the air filter housing. Chances are you'll have to remove the top of the air filter housing to even see it. The short end of a 5mm hex key is about the only thing that will access it. Don't completely remove the bolts as it will simplify the installation.
- f. Loosen the clamp that holds the rubber inlet plenum boot to the air flow sensor.
- g. Lift up on the left side of the air filter housing and slide the entire assembly toward the left side of the car as you lift it out. Some folks remove the filter housing inlet tube prior to removal to make things a little easier. If you wish to do so, remove the two Phillips screws on top of the air filter housing first.

Installation

1. Normally aspirated cars:
 - a. Lower the air flow sensor/air filter housing assembly into the car. Ensure the air flow sensor outlet is inserted into the end of the rubber inlet plenum boot.
 - b. Locate the filter assembly mounting bracket on to the studs on the upper radiator cross-member. Install and tighten the bracket retaining nuts. Tighten the clamp on the rubber inlet plenum boot for the air flow sensor.
 - c. Ensure the wire retaining clip on the air flow sensor wiring harness connector is properly positioned and slide the connector on to the sensor plug.
 - d. Connect the breather hose to the air filter housing and tighten clamp.

2. Turbocharged cars:

- . Lower the air filter housing assembly into the car and slide the air flow sensor outlet into the rubber inlet plenum boot. As you lower the air filter housing into the car, the mounting bolts (Allen head) should insert into the notched mounting brackets. This ensures the housing is properly aligned. If your model is equipped with a timing belt cover breather hose, attach the hose to the bottom of the filter housing as you lower the unit into the car.

NOTE

Later model cars are not equipped with the breather hose and will have the hose connection on the bottom of the housing capped. Also, some early models may still have the attachment on the timing belt cover but, it has been capped as well.

- a. If the air filter housing inlet tube was removed install the tube on the housing using the two Phillips head screws. Tighten the air filter housing mounting bolts (Allen head - 5mm) and the clamp for the air flow sensor outlet on the rubber inlet plenum boot.
- b. Install the turbocharger discharge pipe. It's easier to install if you insert the end into the rubber hose near the radiator first. Tighten the hose clamps on either end of the tube. Attach the banjo bolt connection to the discharge pipe (17mm wrench or socket). Be sure to install the seal rings on the either side of the banjo bolt connector.
- c. On top of the air filter housing, install the metal strap for the turbocharger discharge pipe and attach to the housing using the retaining screw.
- d. Ensure the wire retaining clip on the air flow sensor wiring harness connector is properly positioned and slide the connector on to the sensor plug.

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