



INSTALLATION GUIDE

1998-2002 Audi B5 A4/S4 Vent Boost Gauge Kit

Congratulations on your purchase of the AWE Tuning Vent Boost Gauge Kit for the 1998-2002 B5 chassis Audi A4 and S4.

Exquisite build quality with industry leading performance distinguishes this gauge kit from all others.

Contact us with any installation questions.

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PARTS AND TOOL LIST

- 1 preassembled AWE Tuning vent and gauge pod
- 1 boost hose
- 1 gauge sending unit
- 1 gauge wiring harness
- 1 fume 7lter
- 1 t-7tting
- 1 16" long red wire
- 1 16" long black wire
- 2 wiring loop terminal
- 2 red butt connector
- 6 small zip tie

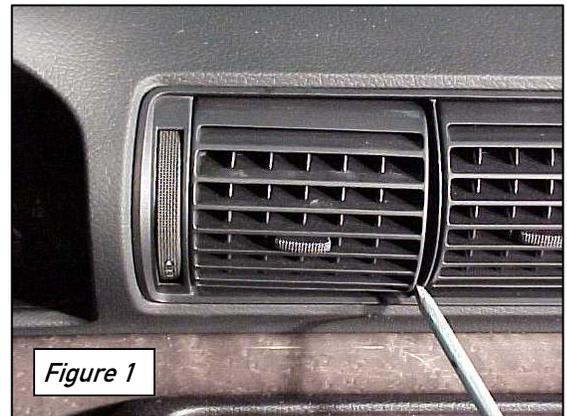
Required tools and materials:

- Medium =athead screwdriver
- 8 mm, 10 mm sockets and ratchet
- X-acto knife
- Wire strippers/cutters
- Scissors
- WD40
- Electrical tape
- Drill
- 3 mm drill bit
- 12 mm drill bit

Step 1

Remove the factory vent by popping it out from the sides with the =athead screwdriver. Pop one side, then the other.

The picture and following steps detail an install in the left side vent, but the gauge kit can be installed in any of the 3 center vents.



Step 2

Remove entire vent housing by grabbing the assembly through the open vent hole and pulling outwards from the dash. There is a lighting wire at the left end of the housing with enough slack to allow you to pull the entire assembly out and let it dangle to the side.



Step 3

Remove the driver side knee bolster below the steering column, and the fuse panel cover on driver's end of dash. There are four 8 mm bolts that fasten the bolster to dash (at arrows in **Figure 3**), with two hidden behind oblong trim pieces on bolster. Pop trim out with flat head screwdriver to access these bolts.

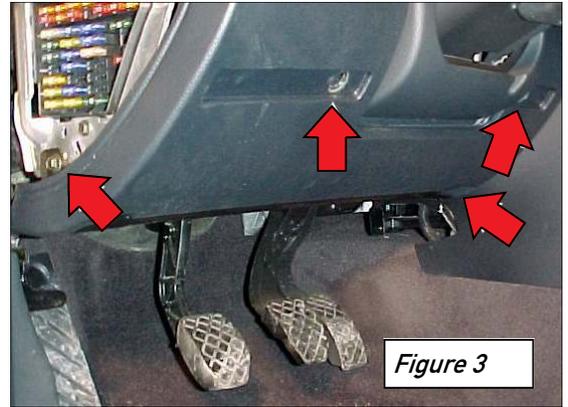


Figure 3

Step 4

Cut a 12 mm hole in the left rear corner of the vent opening. The vent opening has some sharp edges, so laying some masking tape down on the opening edges will save your knuckles.

An alternative here is to use a drill with a 12 mm bit to make the hole. There is 3-4" of empty space behind the vent ducting, so do not worry about hitting anything immediately upon drilling, but drill with great caution!

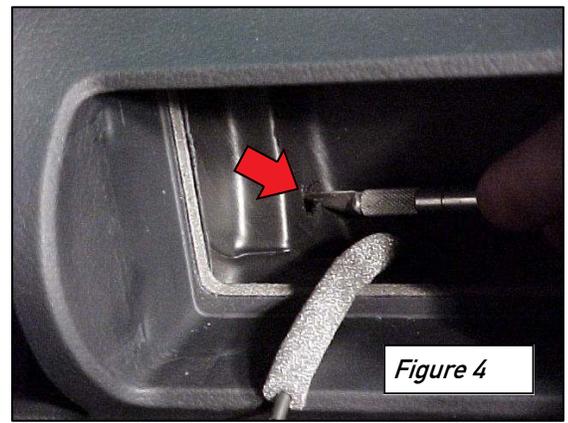


Figure 4

Step 5

Tape the gauge wiring harness and sender wiring harness together, and feed both upwards through the hole in the vent opening. Ensure that the white plastic connectors on the ends of the wiring harnesses are fed through the hole first so they can attach to back of gauge.

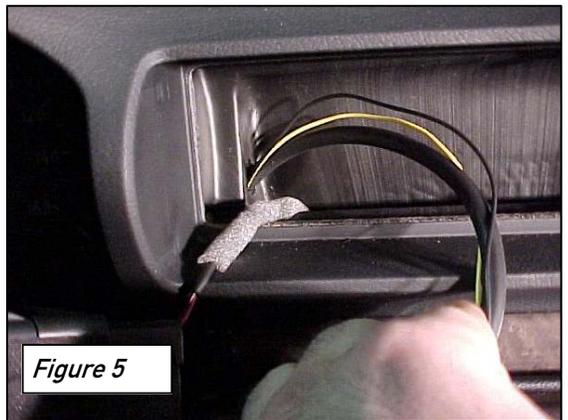


Figure 5

Step 6

Strip the green, white, and red wire ends, twist together, and attach with a butt connector the length of red wire. On the other end of the red wire, attach a loop terminal.

Make sure keys are out of ignition and install this wire end at terminal 75X below relay panel (**Arrow A in Figure 6**) with 10 mm socket. This is a switched 12V power source and will turn the gauge light on with the instrument lights.

(Alternatively, to allow the needle to return to zero with the key off, attach the green wire to a constant 12V power source.)

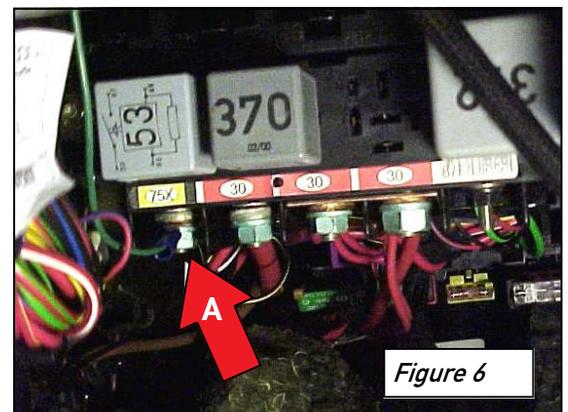
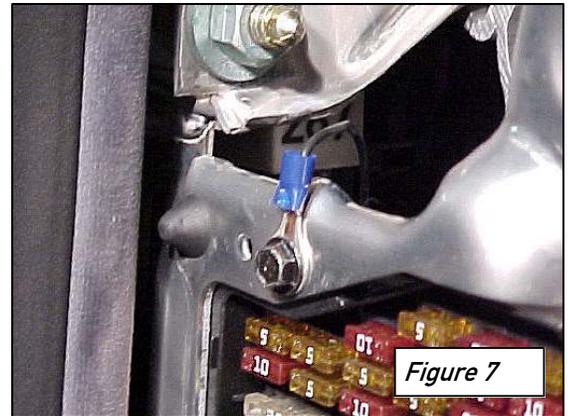


Figure 6

Step 7

Attach the length of black wire to the black ground wire of the gauge harness with a butt connector. Attach a loop terminal on the other end of the black wire and install under the 8mm upper fuse box bolt (see Figure 7).



Step 8

Pop the hood and open the ECU housing. Remove black, perforated trim piece that runs in front of the windshield. First remove the rubber weather stripping in front of it by pulling forward to front of car. Then remove the trim by sliding forward and out.

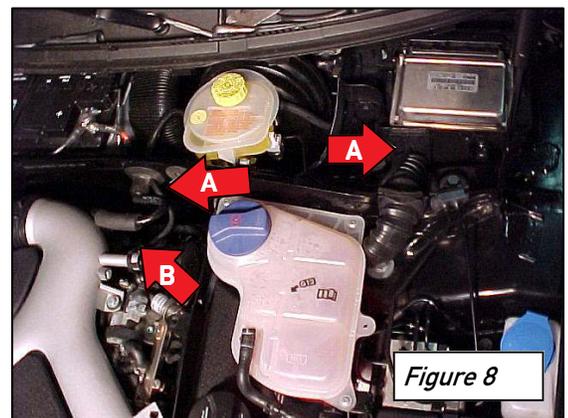
In front of the driver side of the windshield there is a black box in the rain gutter. Remove all 7ve 8mm lid bolts. The plastic trim beneath the wipers must be loosened by popping off a silver clip on driver side. This will allow the trim to be lifted up enough to insert a socket wrench behind the ECU box to access the 7th bolt. Pull the cover off the black box. You will see the ECU in the box. It is silver and has 2 big wiring harnesses going into it. Pop off the large metal clip holding the ECU in its box with a flat head screwdriver. Lift the ECU out of the housing with the wiring harnesses still attached.

With a shop light shining in from under the dash, you will be able to see from the ECU housing where you can feed one end of the boost hose downwards to under the dash. Make sure the hose clears the pedals and steering when routing it under the dash.

Note the rubber nipples at **Arrows A** in **Figure 8**. Cut the ends off of these nipples with your wire cutters and route the boost hose through them. You may have to slice the openings a little wider with the X-acto knife to fit the hose.

Route the other end of the hose to **Arrow B** in **Figure 8**.

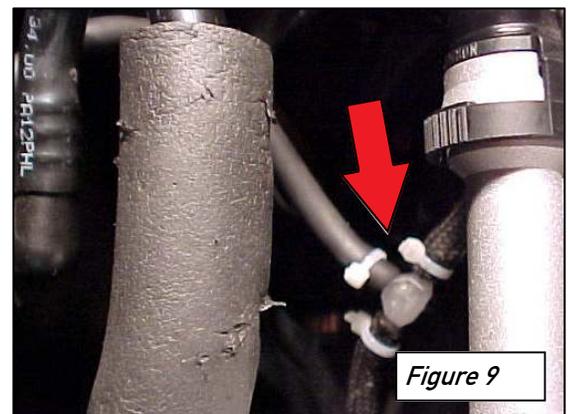
Note: S4 engine bay shown, but locations for A4 are similar.



Step 9

Under the hood, locate the fuel pressure regulator hose (at **Arrow B** in **Figure 8** above, the only 3 mm cloth covered hose in that area).

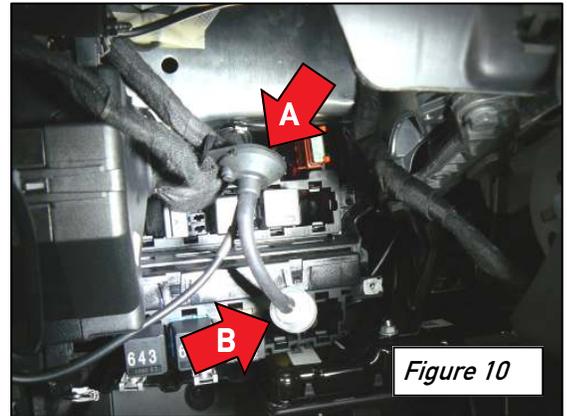
Cut the hose and insert the supplied T-fitting. Use a little WD40 to help the hoses slip over the fitting ends. Use enclosed zip-ties at hose ends, as shown in **Figure 9**.



Step 10

Under the dash, cut a 3" long piece of hose off the end of the boost hose. Attach the cut piece of hose between the oil fume filter, at **Arrow A** in **Figure 10**, and the inlet of the enclosed boost sender unit, at **Arrow B** in **Figure 10**. Zip tie the sender unit under the dash, with the inlet nipple facing downwards. Discard any remaining hardware in the same bag as the filter.

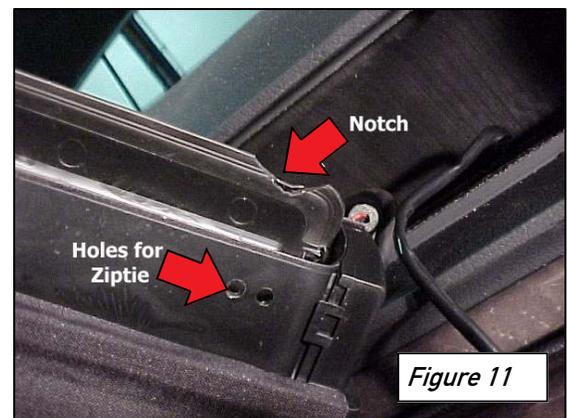
IMPORTANT: Installation of the oil fume filter as well as the sender orientation pointing downwards is mandatory to ensure long term gauge functionality.



Step 11

In order to let the vent flap fully close, you'll need to notch the flap to allow clearance for the wires going to the gauge. Cut a 3mm notch on the bottom of the flap with scissors or wire cutters.

To hold the wires in place in front of the flap, poke or drill two small holes in the floor of the vent housing for a zip tie, as will be installed in Step 12.



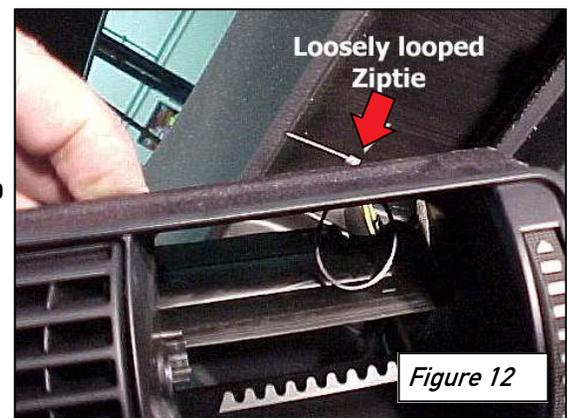
Step 12

Loosely loop the zip tie through the two holes (vent housing in **Figure 12** is shown flipped upside down). Feed 3" of wires through the back of the housing and through the zip tie loop. Gently pull the zip tie snug and snip off excess. The idea is to hold the wires in place, but allow you to slide the wires to take up the slack during housing reinstallation.

Plug the wire connectors into the back of gauge. Pop the vent and gauge assembly into the housing and pull up the slack in wires from behind. Reinstall the vent housing in the dash while pulling up the slack in the wires from below the dash.

Check for operation of the gauge at this time. You should see ~17-22 in/hg of vacuum at idle, and the gauge lighting should turn on and off with the key.

Double check your work and reassemble everything, securing the boost hose where necessary under the hood and under the dash with supplied zip ties. Reassembly of the car is simply the reverse of disassembly.



Troubleshooting Guide

Issue	Remedy
Slow needle response and/or incorrect boost and inHg reading.	Block or kinked boost hose. Check that zip ties are not too tight or that hose is not being crimped.
Needle sweeps at start up but sticks at one boost or inHg reading and will not move.	Block or kinked boost hose. Check that zip ties are not too tight or that hose is not being crimped.
Needle sweeps at start up but returns to -30 inHg mark and will not move.	Disconnected or loose Red Wire connection. Double check installation of that wire.
Needle not at -30 inHg mark when gauge is first received.	Gauge will sweep during initial use and recalibrate itself.
Gauge pod droops downward. will not stay centered.	Spring clip on side of gauge pod missing or deformed. Swap in spring from old vent.

ENJOY

A boost gauge is a valuable tool in determining your car's state of performance.



Any questions or comments,
please do not hesitate to contact us:

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Thank you for choosing AWE Tuning as your performance automotive parts supplier. Please remember that a performance car is only as strong as its weakest link. Therefore, it is vital that you maintain your vehicle to factory specifications.

By installing or using the purchased product, the Consumer accepts this warranty and any specific Manufacturer warranties enclosed.

Limited Warranty

The following warranty is valid only in the United States.

The Manufacturer's full warranty applies to all products sold.

Secor Ltd. (AWE Tuning) warrants to the original retail purchaser (Consumer) this product (Audi B5 A4/S4 Vent Boost Gauge Kit) against manufacturing defects for one year from date of original purchase.

Upon verification of warranty coverage, AWE Tuning will repair or replace the defective product at their discretion, without charge. This is the only remedy the Consumer has for any loss or damage, however arising, due to nonconformity in or defect of the product. This warranty does not cover consequential damage, loss of time or revenues, installation labor costs, inconvenience, loss of use of vehicle, shipping costs, installation labor costs, damage to the vehicle or components, or other incidental or indirect damage.

All warranties are void if the product was not installed by a certified auto mechanic, improperly serviced, modified, or used in a way not intended by the Manufacturer. Use of product in Motorsports or Racing conditions is grounds for warranty denial. Motorsports and Racing is an inherently abusive operational condition, and it is impossible to warranty for this type of usage.

The Consumer is responsible for ensuring that the product is installed in a safe and proper manner, and should cease usage of the product immediately if an unsafe or improper condition is noted. If an unsafe or improper condition is noted, the Consumer should then immediately contact the facility where the product was installed or AWE Tuning directly.

Please contact the original place of purchase for any warranty claims or explanations of this document.