



Vent Pod Boost Gauge

Installation Instructions

**Audi
B5A4**

Part Number **ES2681639**
(1996-2001)



best viewed with Acrobat Reader

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Proper service and repair procedures are vital to the safe, reliable operation of all motor vehicles as well as the personal safety of those performing the repairs. Standard safety procedures and precautions (including use of safety goggles and proper tools and equipment) should be followed at all times to eliminate the possibility of personal injury or improper service which could damage the vehicle or compromise its safety.

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This pdf is broken into three sections:

- **Install the Vent Pod and Gauge**
- **Run the Hose from the Engine to the Vacuum Transducer**
- **Connect to Power and Ground**

Your kit **ES2681639** includes:

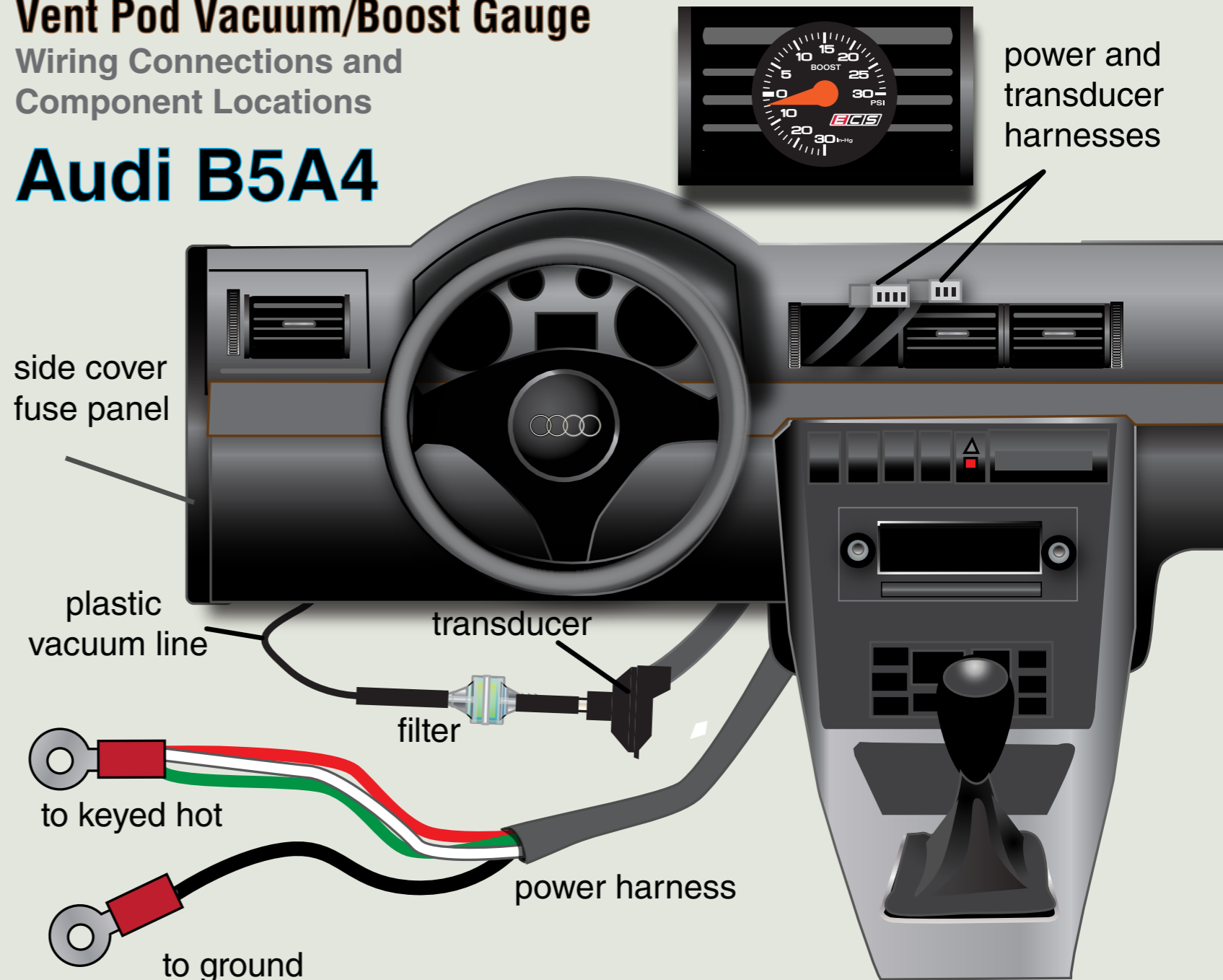
- Boost gauge
- Vent pod
- Vacuum tee
- Rubber vacuum hose
- Rigid wall plastic vacuum line
- Transducer with integral wire harness
- Power harness
- Inline filter
- Wire terminals (eyelets)

The illustration to the right shows general component locations inside the cabin, and routing of wire harnesses and the vacuum/boost sensing line coming from the engine to the transducer.

Note: The transducer converts pressure changes into an electrical signal used by the gauge.

In **Section 2**, we'll show how to install the vacuum sensing line from the engine to the underdash area. A separate illustration later in the pdf provides an overview of component locations and vacuum line routing.

Vent Pod Vacuum/Boost Gauge Wiring Connections and Component Locations Audi B5A4



Install the Vent Pod and Gauge

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Step 1 - Remove fuse panel cover

Use a non-marring trim removal tool to pry the front edge of the dashboard side panel away from the dash. Pop the snap clips loose, then remove the cover.



Step 2 - Remove the underdash side bolt

Use an 8mm socket to remove the side bolt (arrow) from the underdash panel.



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Step 3 - Drop underdash panel

Pry out the two concealment plugs from the underdash panel (arrows) using a trim removal tool. The flexible vinyl plugs are a "push" fit in the panel; there are no clips or fasteners to fight.

Note: ECS Tuning sells two sets of plastic trim tools, perfect for removing dashboard and other trim panels without damaging them. ([ES2500877](#) and [ES517779](#))



Step 4 - Unbolt the underdash

This photo of the underdash panel removed from the car shows the location of the three remaining bolts that hold it in place.

Use an 8mm socket and short extension to remove the three bolts.



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Step 5 - Drop the underdash

With all the underdash bolts removed, pull the underdash panel toward the driver seat until it pops free, then let it drop down into the left footwell.

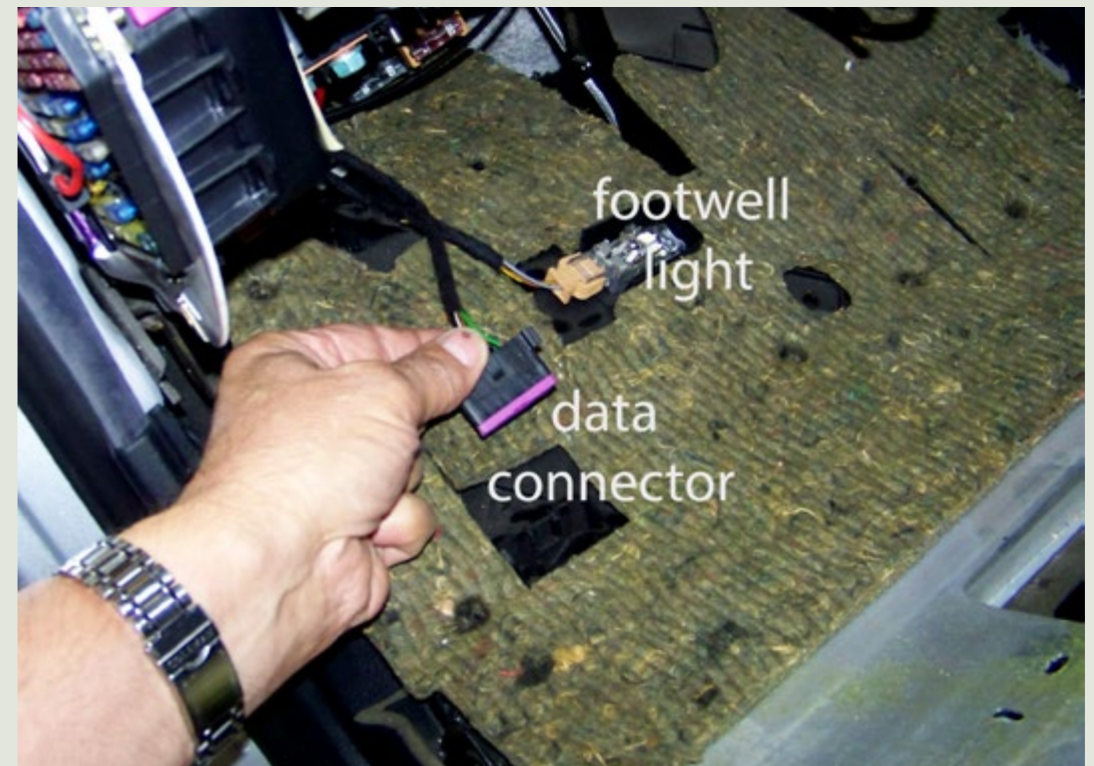


Step 6 - Drop the underdash

Working at the back of the lowered underdash panel, disconnect the footwell light and data link connector.

Service Tip: The data connector is easily removed by squeezing the black plastic tabs at top and bottom, then pulling it straight out of the panel. Push the footwell light from the rear until it pops loose, then turn it sideways and pull it through the hole. No need to unplug the electrical connector.

Remove the underdash panel from the car and set it aside for now.



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Step 7 - Remove the center vents

Alternately pry at both ends of the center vent assembly to walk it out of the dash.

Service Tip: A pair of non-marring trim tools are a big help getting the vent assembly moving, and help prevent damage to the plastic vent assembly. Once the vent is pried out an inch or so, pull it the rest of the way with your fingers.



Step 8 - Remove the center vents

Use a thin screwdriver or similar tool to flex the vent housing far enough to remove the vent.



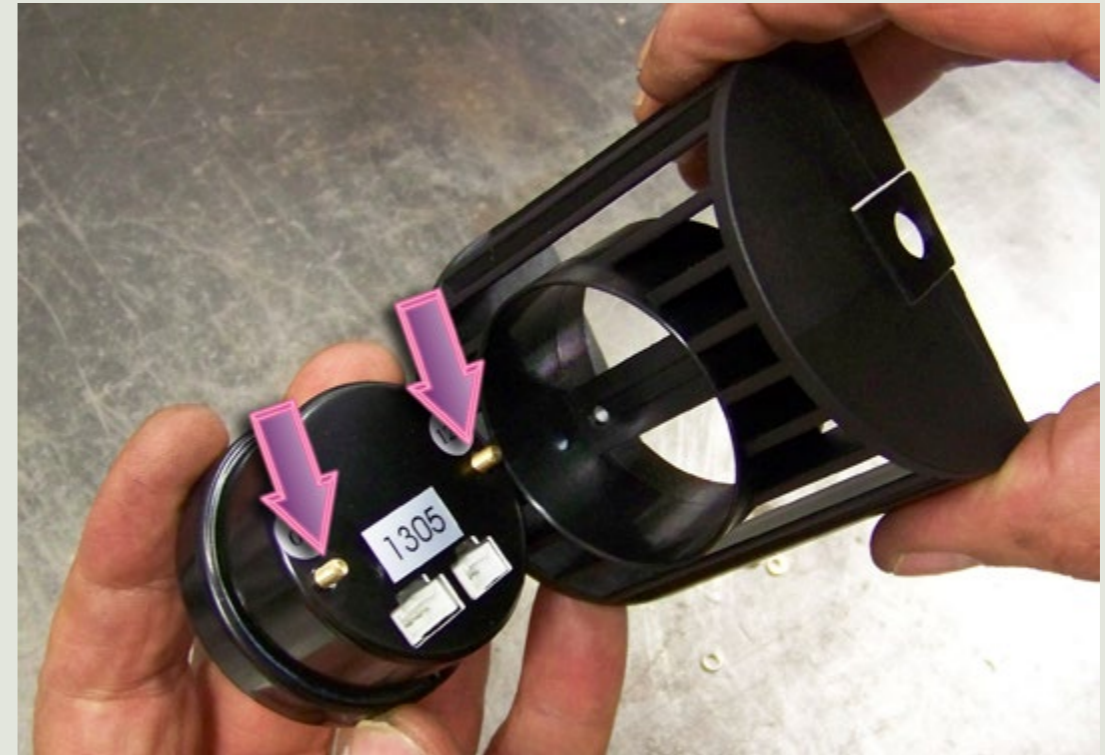
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Step 9 - Install the Gauge in the Vent Pod

Remove the nuts and washers from the threaded pins on the back of the gauge. Insert the pins (arrows) into the mating holes in the vent pod.



Step 10 - Install the Washers and Nuts

Secure the gauge to the cross bar in the vent pod using the washers and nuts.

Use a 6mm socket to tighten the nuts. Not too tight; a small thumb ratchet like this is all you'll need.

Lay the assembled gauge and vent pod aside for now.



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Step 11

Drill a 13mm (1/2-inch) hole in the left side of the vent duct. This hole will be used to route the transducer and power cables to the gauge.

Be careful to stop the drill as soon as it breaks through to avoid damaging anything behind the duct. The plastic is very thin.



Step 12

Fish the rigid wall flexible plastic vacuum line from your installation kit through the hole to the underdash area.

Angle it downward and toward the driver side footwell so it comes out beneath the dash on the left side.

feed plastic line
through drilled hole



pull out here and
tape to harnesses

Install the Vent Pod and Gauge

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Step 13

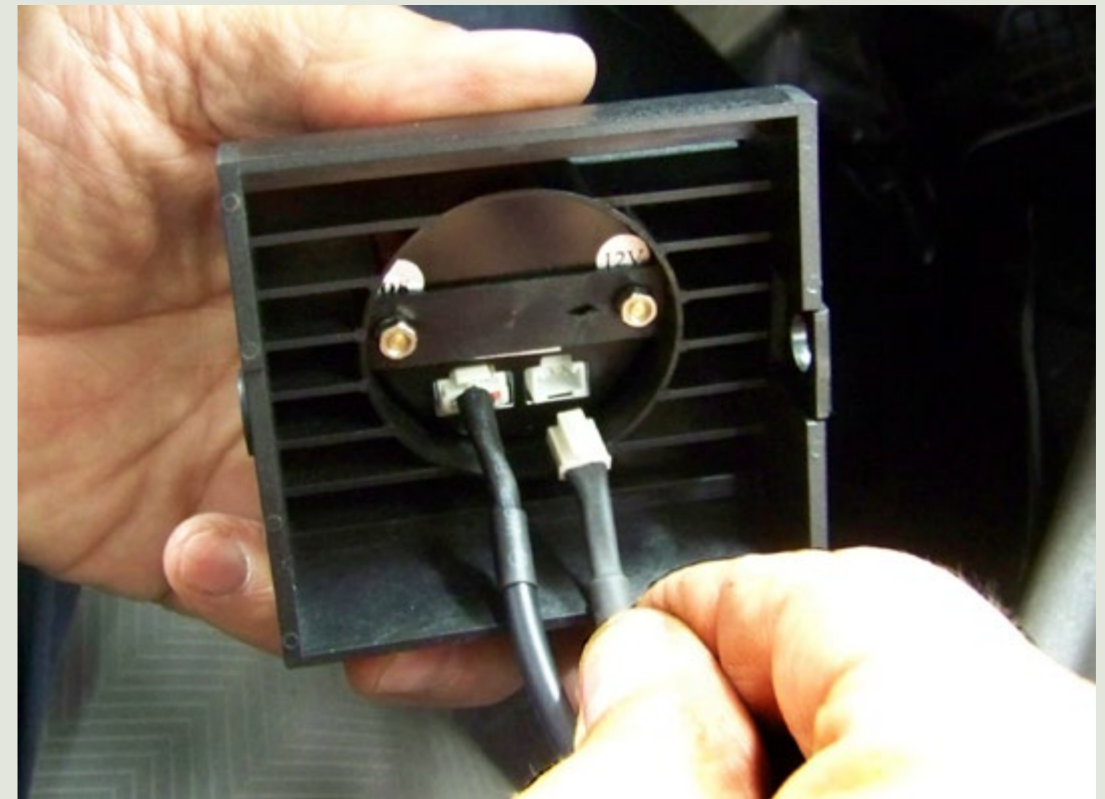
When the line comes out beneath the dash, tape the white connectors from the power and transducer harnesses to the plastic line. Then pull the line until the harnesses come through the hole in the air duct.

Service Tip: You may find it easier to pull the lines through individually if they stick or bind when pulled together.



Step 14

Connect the power cable and transducer cable connectors to the back of the gauge. The two plugs and mating receptacles in the gauge body are different widths with locking tabs so they will plug in only one way.



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Step 15

Insert the vent pod assembly into the main center vent housing. Push the vent pod into the housing until it snaps in place.

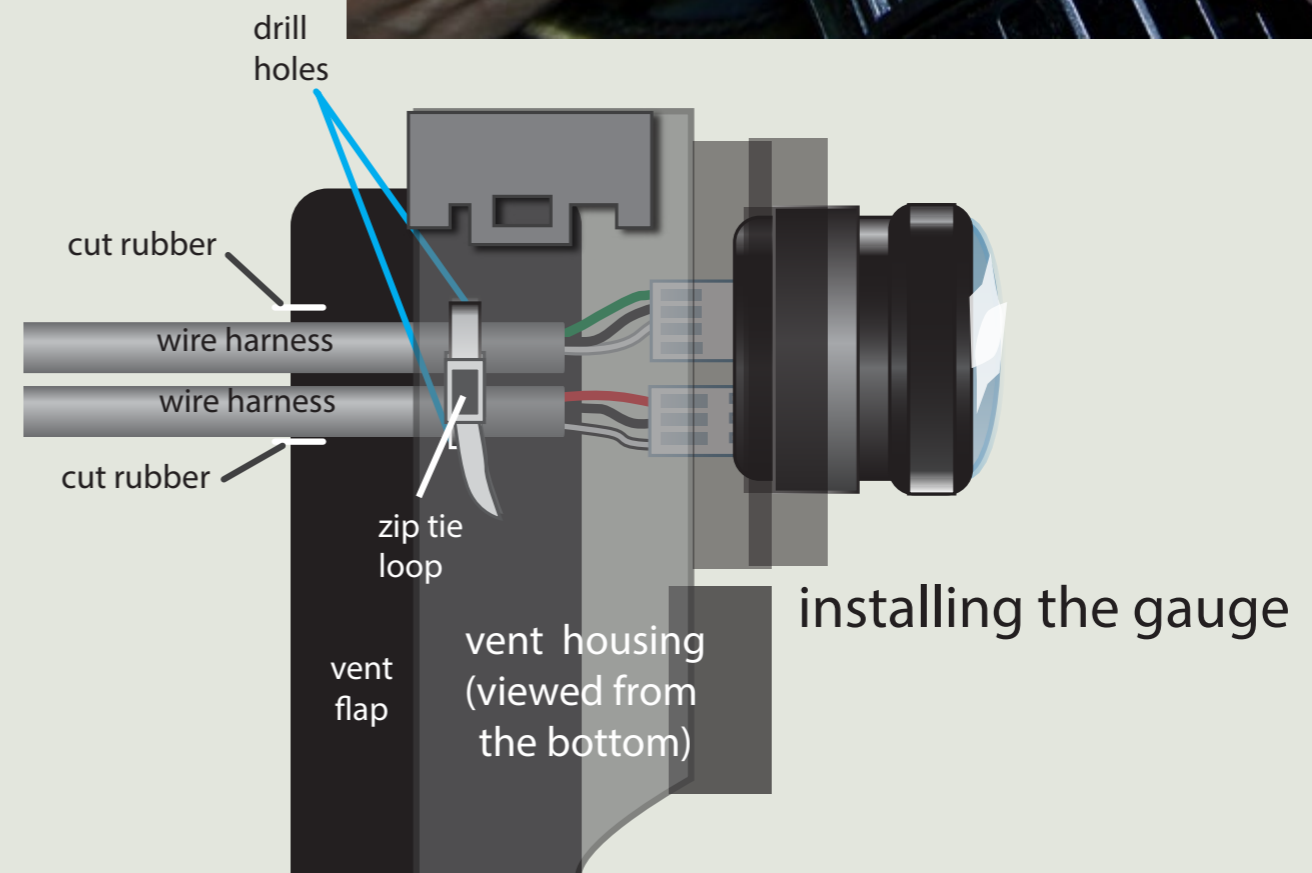
Service Tip: The process may require a little side-to-side wiggling and prying until the pod drops in all the way. Be patient, it will fit.



Step 16

The illustration to the right shows the entire vent assembly, viewed from the bottom.

- Pull the slack out of the wire harnesses where they exit through the vent opening.
- Drill two small holes in the vent housing on either side of the harnesses. Use the holes to make a zip tie loop that secures the harnesses to the duct wall.
- Use a scissors or sharp knife to cut two slits in the vent flap rubber seal, as shown here. That way, the rubber can flex as the vent flap closes.



Install the Vent Pod and Gauge

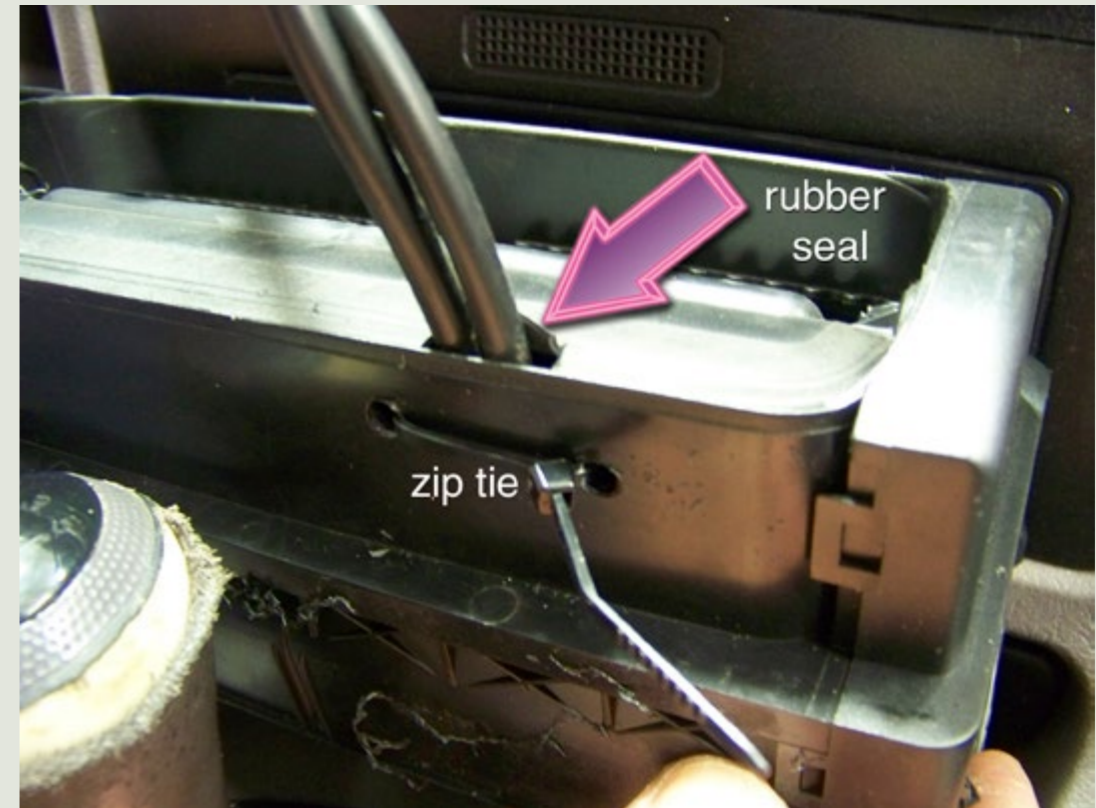
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Step 17

Here is the vent assembly from the rear, showing the wire harnesses zip tied to the housing.

Note how the two cuts in the vent flap rubber seal allow the rubber to flex over the wires as the flap closes.



Step 18

Push the vent assembly straight into the dash opening. Pull gently on the ends of the harnesses from beneath the dash to remove slack. This will keep the wire harnesses from bunching between the rear of the vent assembly and duct behind it.

Service Tip: Vents originally came from the factory with strips of cloth tape at top and bottom to keep them snug in the dash opening. On some older cars, the cloth tape no longer sticks in place. You may want to replace it with a strip or two of fresh electrical tape.



Install the Vacuum/Boost Line

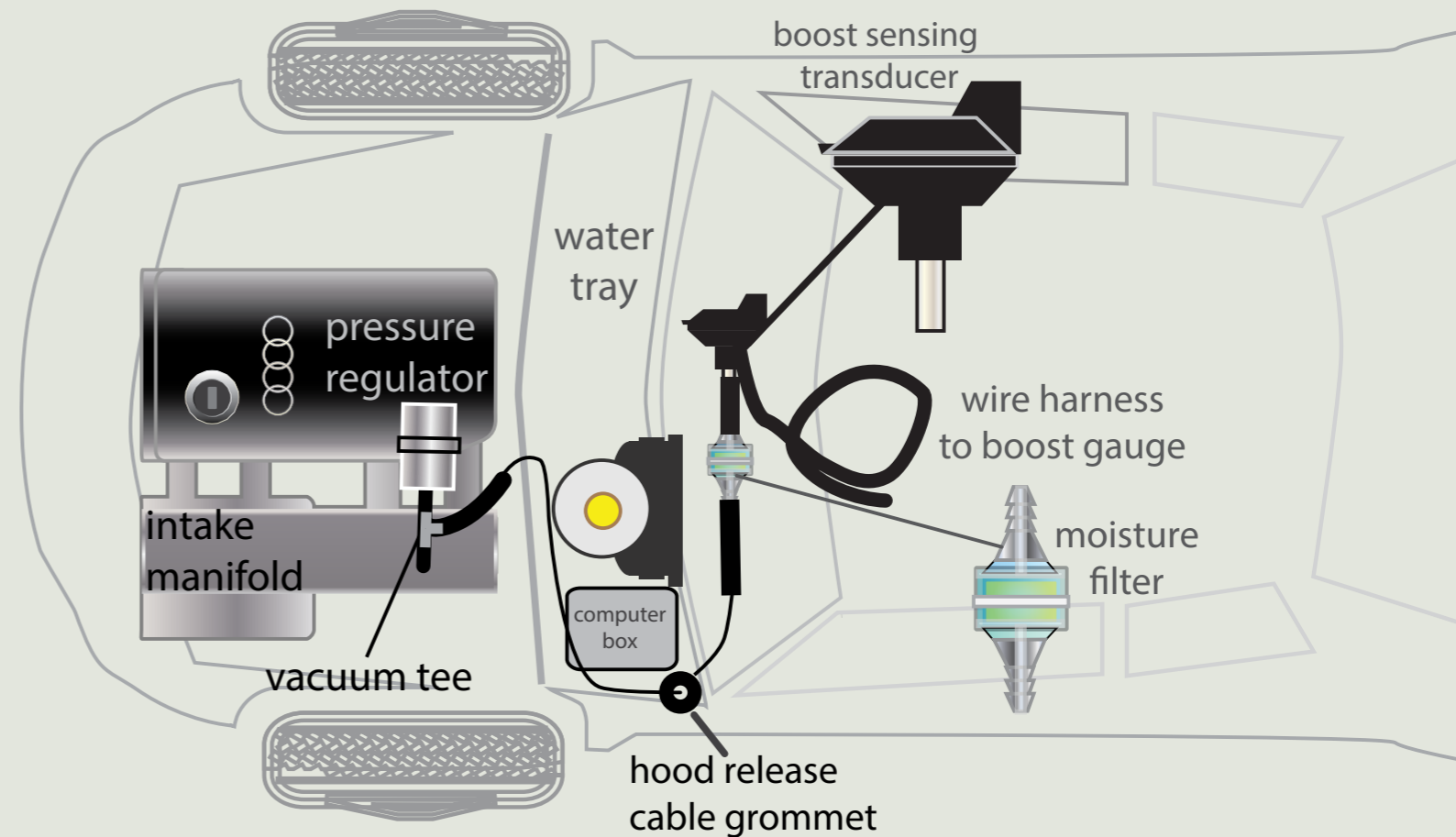
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In this section we will connect the vacuum/boost sensing hose to a vacuum source at the intake manifold.

Then we will run the line from the engine compartment to the cabin area, beneath the dash.

Use the schematic to identify major component locations and hose routing as we proceed.



Step 1

Open the hood.

Remove the cover from the water tray by lifting the front edge and pulling it forward.



Install the Vacuum/Boost Line

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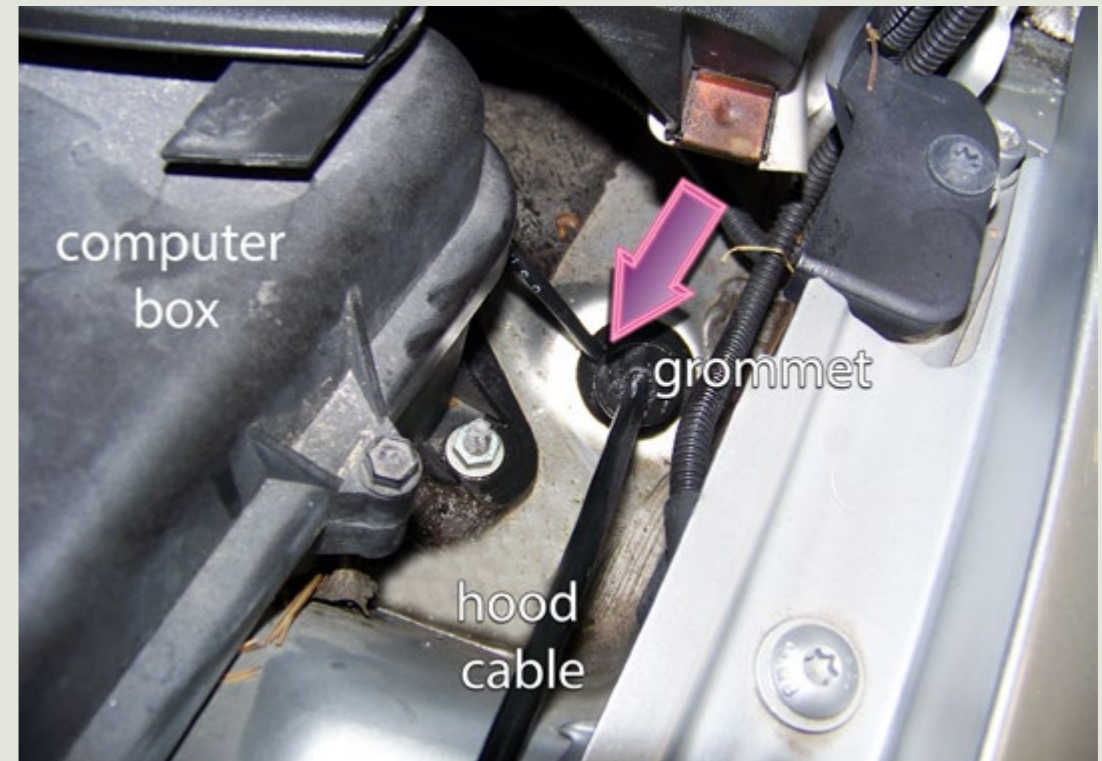


Step 2

Use a small diameter (5-6mm) punch to poke a hole through the hood release cable grommet, located in the extreme left rear corner of the water tray, next to the computer box.

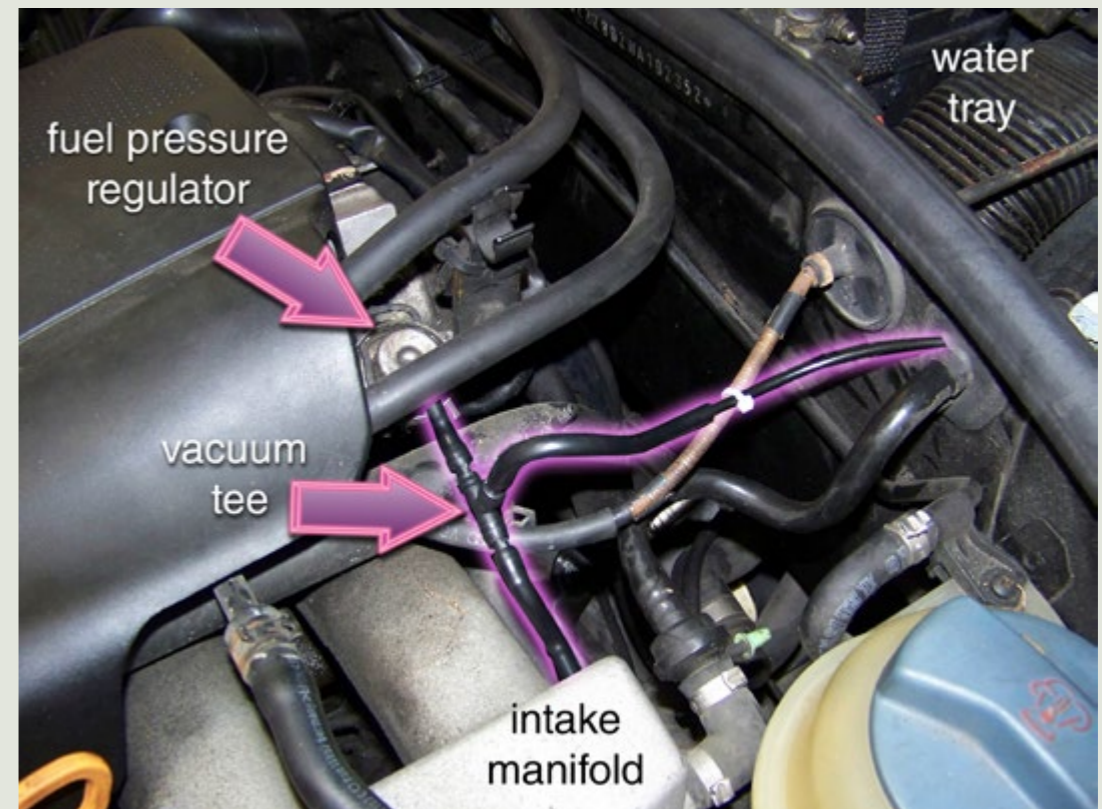
Push the rigid-wall flexible plastic line from the kit through the grommet hole (arrow). This is the same length of tubing you used to fish the gauge harnesses into the vent duct earlier.

Have an assistant watch under the dash and grab the line as it comes through the grommet and enters the area beneath the left side of the dash.



Step 3

- Route the plastic line across the water tray to the rubber grommet in the front of the water tray, next to the brake booster vacuum hose.
- Punch a small hole, and push the line through the brake line grommet into the engine compartment, about 2-3 inches.
- Remove the vacuum hose between the fuel pressure regulator and intake manifold. Use the vacuum tee from the kit with three short lengths of hose to connect the plastic line to the vacuum source. (See next photo for detail.)
- Use zip ties to secure the new vacuum hose at several points and reinstall the water tray cover.



Install the Vacuum/Boost Line

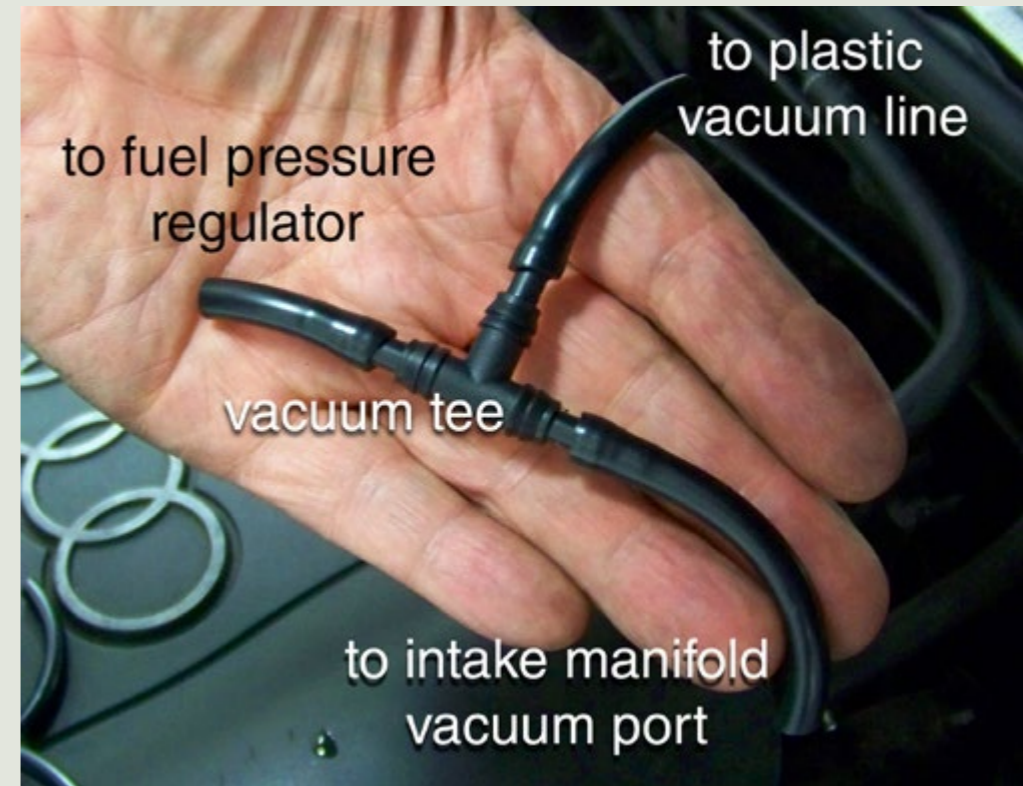
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Step 4

This closeup shows the vacuum tee with short lengths of rubber hose attached. It also identifies where each hose is connected.

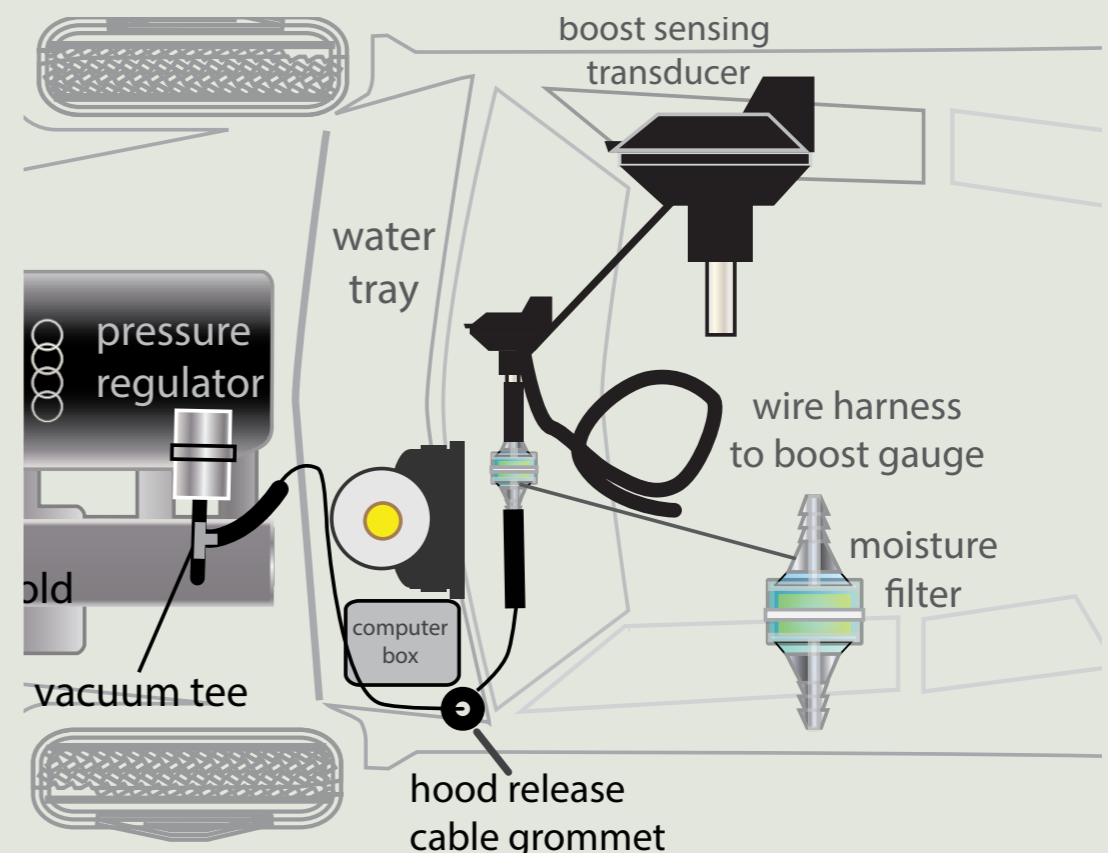
Service Tip: Push the hoses onto the tee nipples as far as possible so the ringed barbs grip the inside diameter of the hose lengths tightly. Don't cut the hose lengths too short; make them long enough to create a small bend in the hose when they are installed. The extra rubber will flex better with engine movement and absorb vibration.



Step 5

Go back inside the car, beneath the dash. Use a short length of rubber hose to connect the plastic line from the engine compartment to the inline moisture filter, and another short length of hose to connect the filter to the vacuum transducer.

Service Tip: The plastic vacuum line is longer than it needs to be for this application. Trim away the excess length as needed.



Connect to Power and Ground

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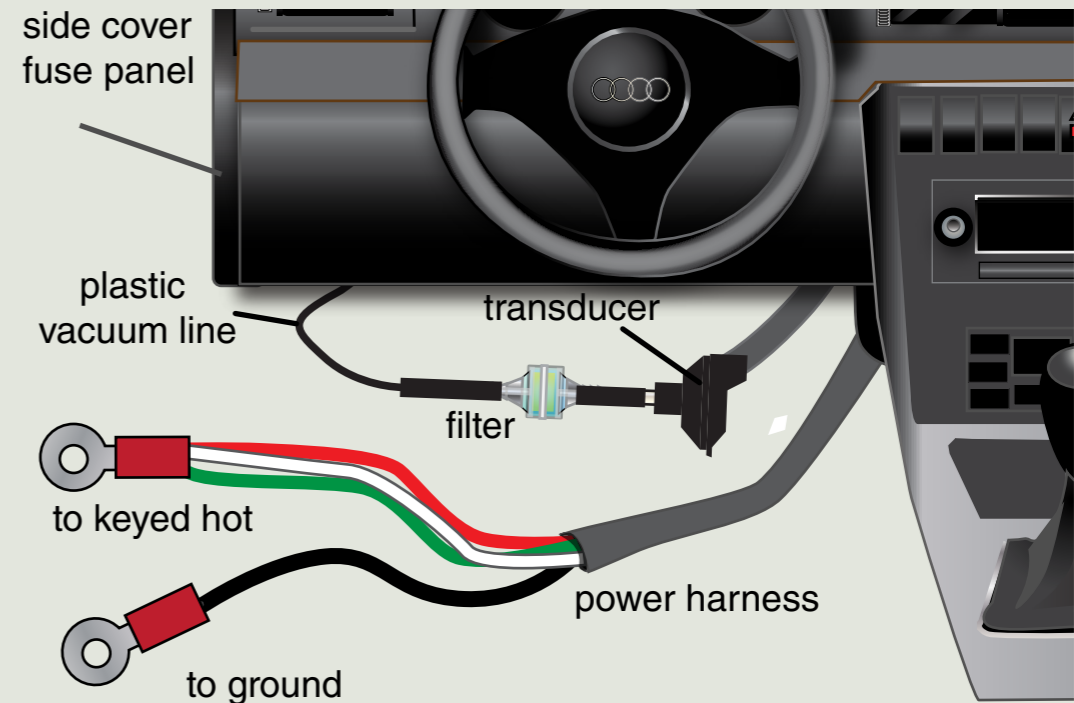


In this final section, we'll connect the power harness to power and ground. There are several ways to do this, but we will demonstrate our favorite method.

Step 1

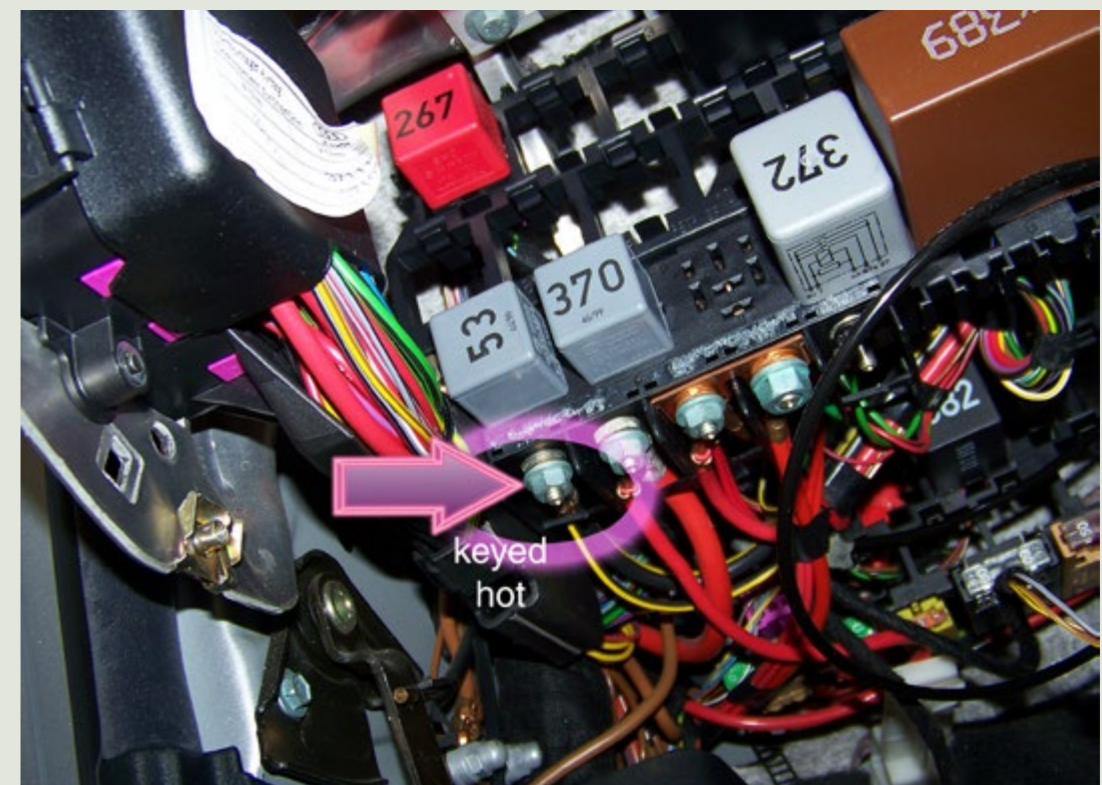
Strip back the insulation from the red, white, and green wires and crimp them securely in one of the insulated eyelets included in the kit.

Do the same with the black (ground wire), using the second eyelet.



Step 2

- Locate the keyed power terminal at the far left underside of the fuse panel. Look for a threaded stud and nut securing a black wire with yellow tracer (arrow).
- Loosen and remove the nut from the stud. Do not remove the black/yellow wire.
- Place the eyelet with the red/white/green wires onto the stud and replace the nut. Tighten the nut.
- Secure the wires with zip ties in a safe location where they cannot rub.



Connect to Power and Ground

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Step 3

The hood release cable mounting bracket is located just to the left of the fuse box connection made in the previous step (right arrow).

Remove the bolt from the hood release lever mounting bracket (left arrow).

Bolt the eyelet to the metal bracket, routing the wire safely away from the hood release mechanism. Add a zip tie or two to secure the wires safely.



Step 4

Finishing touches:

- Before reinstalling the underdash panel, take time to secure the wire harnesses and vacuum hose so they can't get tangled in the pedal mechanisms or snag on the steering shaft as it rotates. Use the zip ties in the kit as needed.
- Reinstall the underdash panel in reverse order of removal.
- Remove the transparent plastic cover from the gauge face.



Test Your Gauge

When the ignition switch is turned to the ON position or the engine is started, the gauge should illuminate and go through an initialization:

- The gauge needle will sweep fully counterclockwise to 30.
- Then the needle will sweep clockwise to 30, pausing briefly at the opposite extreme.
- The needle will return to zero and stay there key-on engine off, or indicate vacuum or boost key-on engine running.

This completes your vent pod boost gauge installation.



Thank you for purchasing an
**ECS Tuning Vent Pod
Boost Gauge.**

We appreciate your business,
and hope this tutorial has
been helpful and informative.

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