ECSTUNING Volkswagen MKVI Golf/GTI/Golf R Vent Pod and Boost Gauge Kit Installation Instructions









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.



INTRODUCTION

ECS Tuning Angled Vent Pod and Boost Gauge Kit ES#2834936 ECS Tuning 52mm Color-Match Electronic Boost Gauge ES#2834865 ECS Tuning Angled Vent Gauge Pod ES#2834867

The ECS Tuning Vent Pod and Boost Gauge Kit offers the following features and benefits:

- ECS Tuning Vent Pod designed specifically for a MKVI, angled toward the driver for optimum visibility
- ECS Tuning Boost Gauge with color matched backlighting
- ECS Tuning Billet Aluminum Boost Tap
- All necessary hardware
- Retains vent open/close function
- Easy electrical connections



Installing the ECS Tuning Vent Pod and Boost Gauge Kit is an afternoon project that you can complete in a short couple of hours. Only basic tools and a few electrical connections are required. Keep close tabs on engine operation and boost levels, and add style to the look of your dashboard! Thank you for purchasing our ECS Tuning Vent Pod and Boost Gauge kit. We appreciate your business!



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MKVI BOOST GAUGE KIT CONTENTS



Vent Pod



Boost Gauge



Vacuum Filter



Power Harness



Two Pieces of Gauge Tubing (One long and one short)



Boost Sensor



Boost Tap Kit



Electrical Connectors



REQUIRED TOOLS

Note: The tools required for each step will be listed by the step number throughout these instructions.

Below is a list of the tools we used to install the ECS Tuning Boost Gauge Kit. Be sure to have all tools on hand before beginning.

- Non Marring Trim Tool...... ES#517779
- 1/4" Drive Sockets: 5.5mm
- 1/2" Drill Bit
- Electric Drill
- Allen Wrench: 3mm
- Electrical Tape
- Coat Hanger
- Straight pick or Awl
- Long Needle Nose Pliers
- Wire Crimpers
- Curved Jaw Pliers
- Razor Blade

SHOP SUPPLIES AND MATERIALS

Hand Cleaner/Degreaser	Available at ecstuning.com <u>ES#2167336</u>
• Shop Rags	Available at your local auto parts store
Aerosol Spray Lubricant/Penetrating Oil	Available at your local auto parts store

EGSTUNING[®] VOLKSWAGEN MKVI GOLF/GTI/GOLF R BOOST GAUGE KIT INSTALLATION

INSTALLATION NOTES

- RH refers to the passenger side of the vehicle.
- LH refers to the driver side of the vehicle.
- Always use the proper torque specifications.
- If applicable to this installation, torque specifications will be listed throughout the document and at the end as well.
- Please read all of these instructions and familiarize yourself with the complete process before you begin.

GENERAL PREPARATION AND SAFETY INFORMATION

ECS Tuning cares about your health and safety. Please read the following safety information. This information pertains to automotive service in general, and while it may not pertain to every job you do, please remember and share these important safety tips.

- Park your car in a safe, well lit, level area.
- Shut the engine off and remove the key from the ignition switch.
- Make sure any remote start devices are properly disabled.
- Always wear safety glasses.
- Make sure the parking brake is applied until the vehicle is safely lifted and supported.
- If using an automotive lift, be sure and utilize the factory specified lift points. Lifting a vehicle in an incorrect location can cause damage to the suspension/running gear.
- When lifting a vehicle using a jack, always utilize the factory specified lift points. Lifting a vehicle in an incorrect location can cause damage to the suspension/running gear. Always support the vehicle with jack stands.
- Always read and follow all safety information and warnings for the equipment you are using.



Never get underneath a vehicle that is supported only by a jack. Always make sure that the vehicle is securely supported on jack stands.



Step 1:

Open the hood and remove the upper engine cover by grasping it at the corners and pulling up to release the rubber retaining grommets.



Step 2:

Locate the crank vent hose where it connects to the intake manifold (arrow).





Step 3:

Squeeze the tabs together on the end of the crank vent hose and pull it off the intake manifold.



Step 4:

Unpack the boost tap and inspect it. You will see that it has two pre threaded ports in it. This gives you one port for the gauge and the option of an additional vacuum port for future modifications. Also note the grooves for the retaining clip.



Step 5: 3mm Allen Wrench

Apply a small amount of threadlocker to the threads of the nipple and plug included with the boost tap kit. Thread the nipple in on the left and tighten it with your fingers. Thread the plug in on the right and tighten it.



Step 6:

Push the boost tap onto the intake manifold until it is fully seated, making sure the nipple is pointing straight down.

ΝΟΤΕ

The boost tap will rotate and the nipple orientation can vary. We position it straight down so it will not interfere with the engine cover and so the hose can be routed out of the way.





Step 7:

Install the boost tap retaining clip by aligning it with the slots in the boost tap and pushing it into place.



Step 8:

Push the crank vent hose onto the end of the boost tap until it is fully seated.



Step 9: Straight Pick or Awl

The vacuum hose needs to run from the engine compartment to the inside of the car. Look underneath the dash up into the driver's footwell and locate the main wiring harness that travels through the firewall. Use a straight pick or awl to pierce a hole through the flexible rubber boot.



Step 10:

Push the long piece of vacuum tubing onto one end of the filter, then push the short piece onto the other end.



Step 11: Electrical Tape, Coat Hanger

Insert a short piece of a coat hanger into the end of the long piece of vacuum tubing, then use electrical tape to secure it in place. Coat the electrical tape and the end of the hose with a small amount of spray lubricant or light oil.



Step 12:

Starting from the inside, push the coat hanger and the end of the tubing through the hole in the rubber boot. It will exit the firewall behind the battery. Grab the tubing using a long pair of needle nose pliers and pull it through until you can reach it by hand.



Step 13:

Route the tubing between the battery and master cylinder, underneath the intake ductwork, then forward until it reaches the boost tap. Pull additional tubing through the firewall in small increments as needed to reach the boost tap. Push the tubing onto the nipple on the Boost Tap.

NOTE

Make sure the tubing is not pinched or kinked at any point. You may also choose to secure the tubing with wire ties.

Re-install the engine cover and close the hood.





Step 1<u>4:</u>

Back inside the car, connect the remaining end of the short piece of vacuum tubing to the boost sensor, then place it on the floor out of the way.

-You are now ready to install the Vent Pod and Boost Gauge-

Step 1: Non-Marring Trim Tool

Pry off the end cover on the LH side of the dash.



Step 2:

Inspect the picture on the right. Four of these spring clips hold the LH vent in place. Two on the top and two on the bottom.





Step 3:

Working through the end of the dash, push up on the spring clip on the lower outboard corner of the vent housing, then gently push outwards until the housing begins to come out of the dash.



Step 4: Non-Marring Trim Tool

Although the vent housing may come right out, more often than not the lower inboard spring clip will still hold it in place. Carefully release the inboard clip on the bottom by pushing it up, then pull the housing out of the dash.





Small Flat Blade Screwdriver Step 5:

There are seven tabs that secure the outer vent trim around the perimeter of the vent housing. Carefully pry up on each of the tabs and pull the outer vent trim off the housing.



Small Flat Blade Screwdriver Step 6:

Remove the original airflow louvers from the outer vent trim by gently prying between the trim and the louvers to release the retaining clips.





Step 7:

Snap the new ECS vent pod in place in the outer vent trim.



5.5mm Socket Step 8:

Remove the nuts from the back of the boost gauge, then slide the gauge into the vent pod from the front until the studs protrude through the back. Install and tighten both nuts.

NOTE

It is only necessary to tighten these nuts by hand. The studs are very small and using any type of tool may cause you to break them.



Step 9: Small Flat Blade Screwdriver

Remove the inner vent louvers by gently prying them loose at their locking tabs (arrows) and pulling them out of the vent housing.



1/2" Drill Bit, Drill Step 10:

Drill a 1/2" hole in the vent housing in the location shown in the picture.





Step 11:

If equipped, remove the LH dash pocket by opening it, squeezing the sides together, pulling it past the catches, then pull it off the lower hinge. This will give you additional access behind the dash panel.



Step 12:

Pull the wire from the boost sensor up through the dash and out the opening for the vent housing.





Step 13:

Insert the connector end of the power harness through the new hole in the bottom of the vent housing and pull about six inches out the front of the housing.



Step 14:

Route the other end of the power harness through the vent opening in the dash and out the LH side by the fuse panel. Then insert the boost sensor connector through the new hole in the bottom of the vent housing and pull about six inches out the front. Partially insert the vent housing into the dash just so it is held in place for the next step, but do not push it all the way in.





Step 15:

Connect the four pin power harness connector to the back of the gauge on the RH side, and the three pin boost sensor harness connector to the center of the gauge as shown in the picture.



These connectors will only plug in one way, they have cutouts on the bottom of each connector that fit into tabs on the gauge.



Step 16:

Install the outer vent trim, vent pod, and gauge onto the vent housing while gently guiding the wires through the hole in the bottom of the housing. Press the outer vent trim in place around the entire perimeter of the housing until all tabs are fully engaged.





Step 17:

Push the entire vent assembly back into the dash as you carefully guide the wiring through at the same time so it is not pinched or damaged.



Step 18:

Make sure the headlight switch is in the "off" position.





Step 19:

Firmly push in on the center of the switch knob until it depresses inward, then turn it slightly to the right and release it. The switch knob will stay in this position as shown in the picture.



Step 20:

Pull the headlight switch out of the dash.





Step 21:

You should now have access to the headlight switch wiring and the gauge power harness should be located out the LH side of the dash, as shown in the picture.



Step 22:

Route the gauge power harness back into the dash and out the hole for the headlight switch as shown.





Step 23: Wire Crimping Pliers

Crimp one of the spade connectors onto the pre-stripped end of each of the four wires in the gauge power harness: red, black, white, and green.

NOTE

This harness may have an additional orange wire in it. This wire is not used.

ΤΕCΗ ΤΙΡ

You may choose to install heat-shrink tubing over the end of the spade terminals and wire for a clean appearance.

Step 24:

Depress the locking tab with your thumb (arrow/highlighted), and pull the connector out of the back of the headlight switch. Place the headlight switch to the side.







Step 25: **Razor Blade**

Carfeully trim about 1.5" of electrical tape back on the headlight switch harness to allow for installation of the T-taps. Be sure not to knick or cut any of the wires or insulation.

NOTE

The yellow wire shown in this picture is an additional wire that is installed if you have installed a Bremmen Automatic Headlight Conversion Kit in your car. If you do not have this conversion kit installed, the yellow wire will not be present.



Step 26:

The next step is to install the T-taps onto the headlight switch wiring harness. Begin by familiarizing yourself with the wire locations on the headlight switch connector.

The headlight switch connector is a ten pin connector. The wire/pin locations are each assigned a number one through ten. Look closely at the back of the connector and you will see a reference number at each corner that will allow you to identify the specific wires/pins in between.





Step 27:

You will be installing four T-taps onto the headlight wiring harness. Install one T-tap onto each of the wires shown in the diagram. Inspect the diagram, then follow the T-tap installation procedure in steps 28 and 29.



Step 28:

Select one of the wires shown in step 27 and place a T-tap underneath with the wire located in the groove of the blade as shown in the picture.





Curved Jaw Pliers Step 29:

Fold the top of the T-tap over then squeeze it together just until you hear a click indicating that the T-tap is fully closed.



Step 30:

Repeat the procedure until all four T-taps are installed. With the T-taps and spade connectors installed, you are now ready for final connection.

NOTE

For a clean appearance, we have installed heat shrink tubing over then ends of the spade terminals.





Step 31:

Connect the four spade connectors to the T-taps using the diagram at the right for wire location and step 32 for the connection procedure.

Gauge Wiring	Function	Headlight Switch Wire
• White:	12V Constant	Red/White Position 8
• Red:	12V Switched	Black/Purple Position 4
• Green:	Dash Lighting	Gray Position 10
• Black	Ground	Brown Position 6



Step 32:

Push each spade connector onto the correct T-tap. Firmly support the T-tap as you press the spade connector into place. These are a tight fit so you will have to push fairly hard to fully seat the spade connectors.





Step 33:

The final connections should look like the picture on the right.



Step 34:

Connect the headlight switch and carefully guide it back into the dash. Make sure that the wires fall freely back into the dash and do not get caught on anything. Push on the switch until you hear a click indicating that it is fully seated in the dash.





Step 35:

Turn the ignition on and make sure the gauge needle goes to "zero". Start the car and check the gauge operation and lighting.



Step 36:

Complete reassembly by performing the following steps:

Install the dash end cover

If removed, install the LH dash pocket



Your MKVI Golf Vent Pod and Boost Gauge Kit installation is complete!



These instructions are provided as a courtesy by ECS Tuning.

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