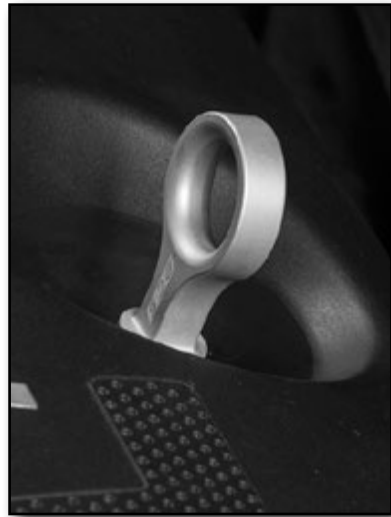




# Volkswagen MK4 TDI (ALH & BEW) Billet Aluminum Dipstick and Funnel Installation Instructions



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

### The Project:

Today we're going to install one of our billet aluminum engine oil dipstick and funnel combinations on a MK4 Jetta TDI Volkswagen with the ALH engine code, but it'll fit any MK4 TDI Golf, Jetta, or New Beetle with either the ALH or the BEW engine. This is an easy project that only requires a few standard tools, and these easy to read instructions will take you through it step by step and make the installation a breeze.

### ECS Difficulty Gauge



1 - Easy

Pro - 4

2 - Moderate

Advanced - 3

**Thank you for looking to ECS Tuning for all of your performance and repair needs. We appreciate your business!**

The quality and precision of these dipsticks and funnels is second to none, and you'll enjoy both the function and the feel of them. The dipstick handles are available in three finishes: Black Anodized, Silver Anodized, and Polished. These are the perfect touch under your hood!



Black Anodized  
[ES#2966497](#)



Polished  
[ES#2966495](#)



Silver Anodized  
[ES#2966498](#)

## TABLE OF CONTENTS

Kit Contents.....	<a href="#">pg.4</a>
Required Tools and Equipment.....	<a href="#">pg.5</a>
Shop Supplies and Materials.....	<a href="#">pg.6</a>
Installation Notes and Safety.....	<a href="#">pg.7</a>
Dipstick and Funnel Installation.....	<a href="#">pg.8</a>
Schwaben Tools.....	<a href="#">pg.16</a>

## KIT CONTENTS



Billet Aluminum Dipstick Funnel w/O-Ring



Dipstick w/Billet Aluminum Handle

**REQUIRED TOOLS**

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

**Standard Automotive Tools**

**Required For This Install**

**Available On Our Website**

- Protecta-Sockets (for lug nuts)..... [ES#2221243](#)
- 3/8" Drive Ratchet ..... [ES#2765902](#)
- 3/8" Drive Torque Wrench..... [ES#2221245](#)
- 3/8" Drive Deep and Shallow Sockets ..... [ES#2763772](#)
- 3/8" Drive Extensions..... [ES#2804822](#)
- Hydraulic Floor Jack ..... [ES#240941](#)
- Torx Drivers and Sockets ..... [ES#11417/8](#)
- 1/2" Drive Deep and Shallow Sockets ..... [ES#2839106](#)
- 1/2" Drive Ratchet
- 1/2" Drive Extensions
- 1/2" Drive Torque Wrench ..... [ES#2221244](#)
- 1/2" Drive Breaker Bar ..... [ES#2776653](#)
- Air Nozzle/Blow Gun
- Bench Mounted Vise
- Crows Foot Wrenches
- Hook and Pick Tool Set..... [ES#2778980](#)

- **1/4" Drive Ratchet**..... [ES#2823235](#)
- **1/4" Drive Deep and Shallow Sockets**..... [ES#2823235](#)
- **1/4" Drive Extensions** ..... [ES#2823235](#)
- **Plier and Cutter Set**..... [ES#2804496](#)
- **Flat and Phillips Screwdrivers** ..... [ES#2225921](#)
- Jack Stands..... [ES#2763355](#)
- **Ball Pein Hammers**
- Pry Bar Set..... [ES#1899378](#)
- Electric/Cordless Drill
- Wire Strippers/Crimpers
- Drill Bits
- Punch and Chisel Set
- Hex Bit (Allen) Wrenches and Sockets..... [ES#11420](#)
- Thread Repair Tools ..... [ES#1306824](#)
- Open/Boxed End Wrench Set..... [ES#2765907](#)

## SHOP SUPPLIES AND MATERIALS

**Standard Shop Supply Recommendations:** We recommend that you have a standard inventory of automotive shop supplies before beginning this or any automotive repair procedure. The following list outlines the basic shop supplies that we like to keep on hand. Shop supplies with a hyperlink are available on our website.

- Hand Cleaner/Degreaser - [Click Here](#)
- Pig Mats - for protecting your garage floor and work area from spills and stains - [Click Here](#)
- Spray detailer - for rapid cleaning of anything that comes into contact with your paint such as brake fluid - [Click Here](#)
- Micro Fiber Towels - for cleaning the paint on your car - [Click Here](#)
- Latex Gloves - for the extra oily and dirty jobs - [Click Here](#)
- Medium and High Strength Loctite Thread lock compound - to prevent bolts from backing out - [Click Here](#)
- Anti-Seize Compound - to prevent seizing, galling, and corrosion of fasteners - [Click Here](#)
- Aerosol Brake/Parts Cleaner - for cleaning and degreasing parts
- Shop Rags - used for wiping hands, tools, and parts
- Penetrating oil - for helping to free rusted or stuck bolts and nuts
- Mechanics wire - for securing components out of the way
- Silicone spray lube - for rubber components such as exhaust hangers
- Paint Marker - for marking installation positions or bolts during a torquing sequence
- Plastic Wire Ties/Zip Ties - for routing and securing wiring harnesses or vacuum hoses
- Electrical tape - for wrapping wiring harnesses or temporary securing of small components

## 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.**



## DIPSTICK AND FUNNEL INSTALLATION

### Step 1:

Pull the dipstick out of the dipstick funnel.

#### NOTE

The procedure shown features the engine cover for engine code ALH. For removal of the engine cover for engine code BEW (2004-2006), see [pg.15](#).



### Step 2:

#### Small Flat Blade Screwdriver

Remove the three trim caps (arrows) on the engine cover by prying them off. There is a small cutout on each cap that will allow you to insert a small screwdriver (see inset photo).

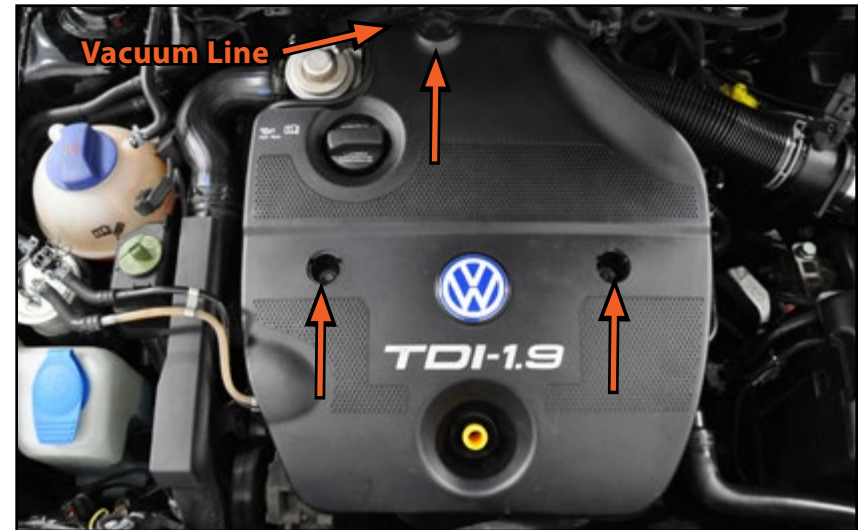




## DIPSTICK AND FUNNEL INSTALLATION

### Step 3: 10mm Socket, Ratchet

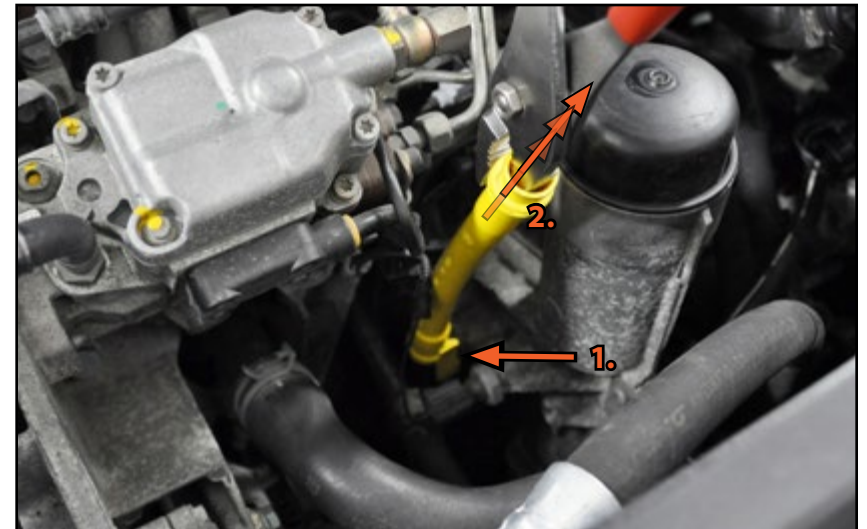
Pull the vacuum line out of the clip on the rear of the engine cover, then remove the three nuts that secure the engine cover (arrows). Lift the cover off, while guiding the rubber grommet over the dipstick funnel.



### Step 4: Pliers

**Before beginning, note the position and angle of the original funnel, as a reference for the new funnel installation.**

Firmly grip the top of the dipstick funnel and twist it clockwise to release the securing tab (1), then pull the funnel straight up and off of the dipstick tube (2).



## DIPSTICK AND FUNNEL INSTALLATION

### Step 5:

It is very common for the center portion of the original dipstick funnel to break off and remain in the lower dipstick tube that is installed in the engine block.

Shine a light down into the lower dipstick tube and make sure it is clean and that no portion of the original dipstick funnel remains. Remove any pieces of the original funnel by pulling them out with a small pick tool.

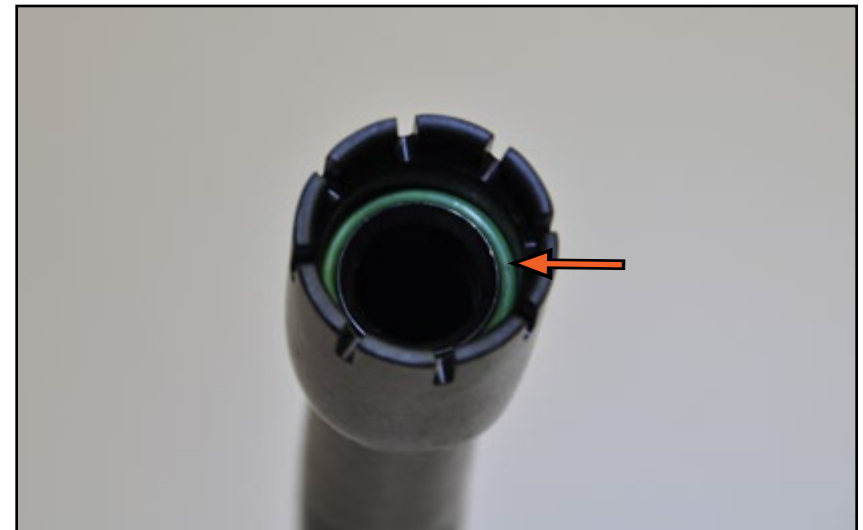


### Step 6:

Lubricate the o-ring with clean motor oil, then place it into the groove in the bottom of the new billet dipstick funnel.

**NOTE**

Your o-ring may be a different color. We used green here for good visibility. It is also not necessary to completely seat the o-ring, it will seat itself upon funnel installation.



## DIPSTICK AND FUNNEL INSTALLATION

### Step 7:

Now we need to seat the new funnel onto the dipstick tube, but let's first look at how the two fit together. Inspect the drawings on the right.

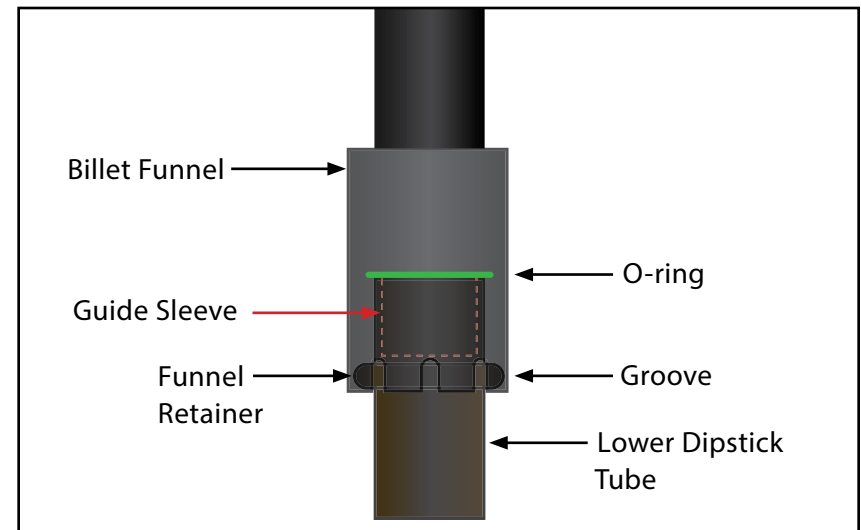
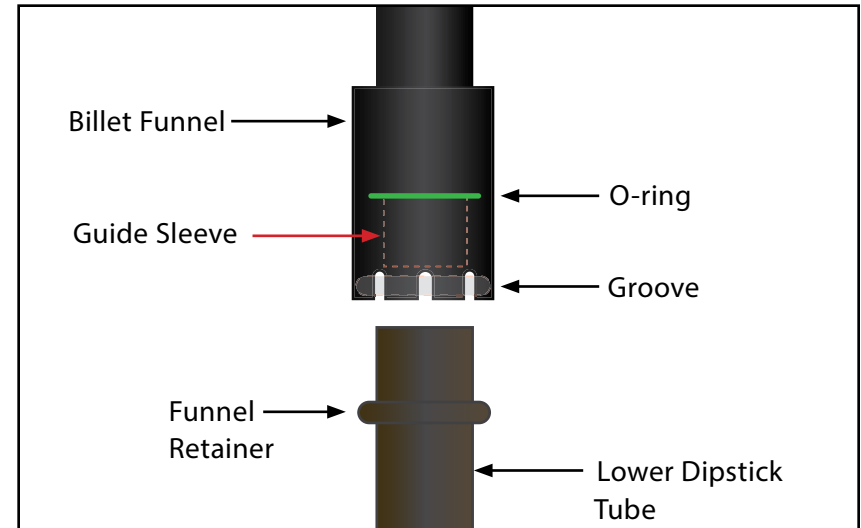
The new billet funnel has an inside groove in the bottom around the fingers. There is also a guide sleeve and the o-ring that you installed in step 4.

The lower dipstick tube has a funnel retainer around its circumference.

### Step 8:

When seating the two together, the guide sleeve will center the funnel as you slide it down onto the lower dipstick tube. The groove in the funnel will "pop" in place over the funnel retainer and the o-ring will seal between the funnel and the lower dipstick tube.

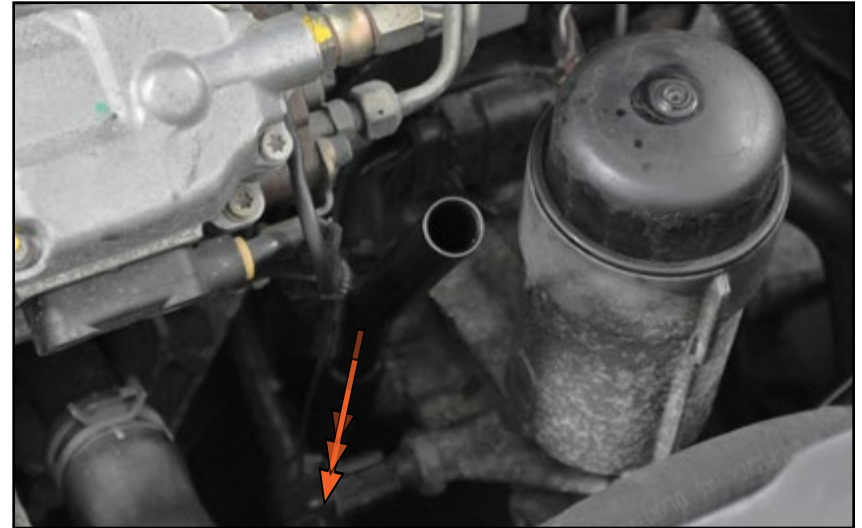
It takes a moderate amount of pressure to seat the two together, but there is a very easy way to do it. Continue with step 9 and we'll show you how.



## DIPSTICK AND FUNNEL INSTALLATION

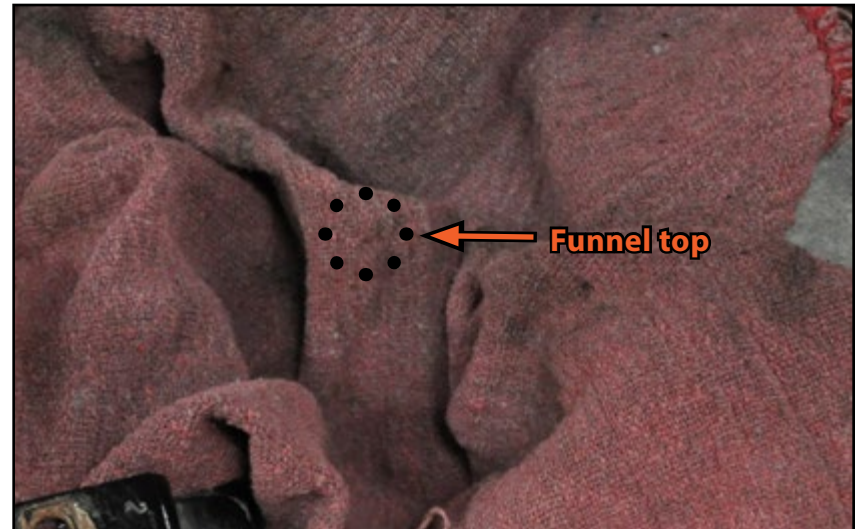
### Step 9:

Align the dipstick funnel in the same position as the original, then slide it onto the dipstick tube.



### Step 10:

Place a shop rag over the top of the billet funnel.



## DIPSTICK AND FUNNEL INSTALLATION

### Step 11:

Place a wood block (we've used a piece of an old 2 x 4) on top of the rag and funnel.



### Step 12: Ball Pein Hammer

Strike the top of the wood directly above the top of the funnel. There is no need to use excessive force here. One light hit and the funnel should "pop" into place.

To make sure the funnel is properly seated, simply give it a tug upward, if it doesn't move, you've seated it properly.





## DIPSTICK AND FUNNEL INSTALLATION

**Step 13:** 10mm Socket, Ratchet

Reinstall the engine cover and trim inserts.



**Step 14:**

Apply a thin layer of clean engine oil onto the o-rings of your new ECS billet dipstick, then slide it into your new billet funnel and your installation is complete!

### CAUTION

Do not use your original dipstick with the ECS Tuning billet funnel. You will not obtain a proper oil reading.



## BEW ENGINE COVER REMOVAL

### Step 1: 10mm Socket

Loosen the nut (1). Pull up on the front section to release the grommets from the mounting studs located underneath the cover (2).



### Step 2:

Lift the lower section of the cover and guide the grommet over the dipstick tube (3), then pull the clip on the upper section from the grommet (4), and lift the cover out. Installation is reverse of the removal.

Continue with [step 4](#).





# SCHWABEN - BUILD THE ULTIMATE TOOL COLLECTION

At ECS Tuning, we carry a line of high quality Schwaben tools and equipment to help you build your ultimate tool collection. Never before has affordability and quality been so closely related. Our entire Schwaben line is subjected to strict in house testing for strength and durability. See what we have to offer and equip your garage without breaking the bank.



## Your VW MK4 TDI Dipstick and Funnel Installation is complete!



These instructions are provided as a courtesy by ECS Tuning

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.

Although this material has been prepared with the intent to provide reliable information, no warranty (express or implied) is made as to its accuracy or completeness. Neither is any liability assumed for loss or damage resulting from reliance on this material. SPECIFICALLY, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER WARRANTY IS MADE OR TO BE IMPLIED WITH RESPECT TO THIS MATERIAL. In no event will ECS Tuning, Incorporated or its affiliates be liable for any damages, direct or indirect, consequential or compensatory, arising out of the use of this material.