



Volkswagen MK4 1.8T Billet Engine Oil Dipstick & Funnel Installation Instructions




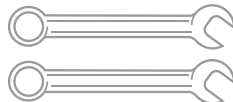


Proper service and repair procedures are vital to the safe, reliable operation of all motor vehicles as well as the personal safety of those performing the repairs. Standard safety procedures and precautions (including use of safety goggles and proper tools and equipment) should be followed at all times 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 our MK4 Volkswagen GTI 1.8T. We're showing it on a GTI, but it'll fit just the same on any MK4 Golf 1.8T or Jetta 1.8T, any New Beetle 1.8T, and also a MK1 Audi TT with a 1.8T. 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.

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

EASY	MODERATE	ADVANCED	PROFESSIONAL
			
BASIC SKILLS REQUIRED	SOME EXPERIENCE RECOMMENDED	ADVANCED SKILLS & EXPERIENCE REQUIRED	PROFESSIONAL SKILLS & SPECIALTY TOOLS REQUIRED

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
VW - [ES#2966487](#)
Audi - [ES#2975661](#)



Polished
VW - [ES#2966484](#)
Audi - [ES#2975659](#)



Silver Anodized
VW - [ES#2966488](#)
Audi - [ES#2975662](#)

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KIT CONTENTS



Billet Aluminum Dipstick Funnel w/O-Ring and Mounting Bracket



Dipstick w/Billet Aluminum Handle

REQUIRED TOOLS

Tool Recommendations: The following list of tools are part of a standard automotive tool set, and are used in various combinations for most automotive repairs. The tools required for this installation are **highlighted in red**, but we recommend you have this complete standard selection to overcome any issues that may arise such as rust, corrosion, or broken and stripped fasteners. The specific tools required for each step will be listed by the step number throughout these instructions, and any tools listed below with a **hyperlink** are 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..... [ES#11417](#)
- 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](#)
- 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](#)
- Bench Mounted Vise
- 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:

Remove the engine cover and pull out the original dipstick.

NOTE

The original engine cover is not on our car but will need to be removed if you have one installed.

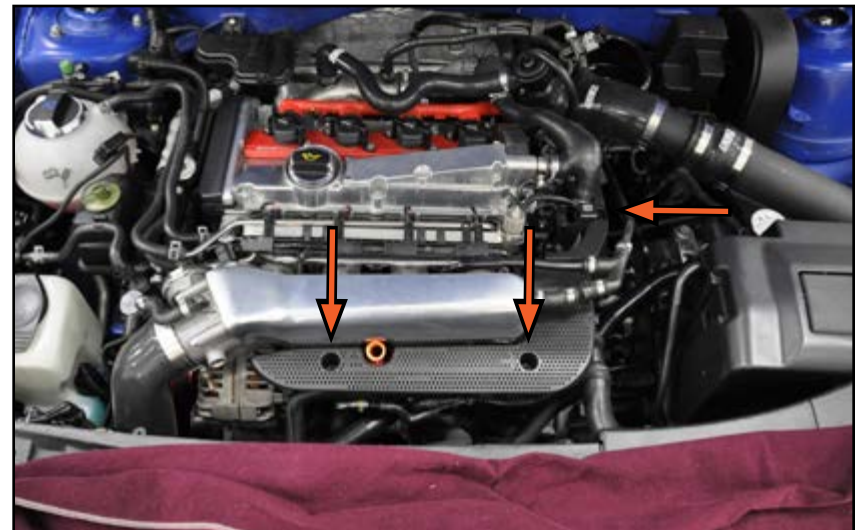


Step 2:

Flat Blade Screwdriver

Loosen the three 1/4 turn fasteners (arrows) on the front engine trim piece, then lift the trim piece upward, pull it forward, and remove it.

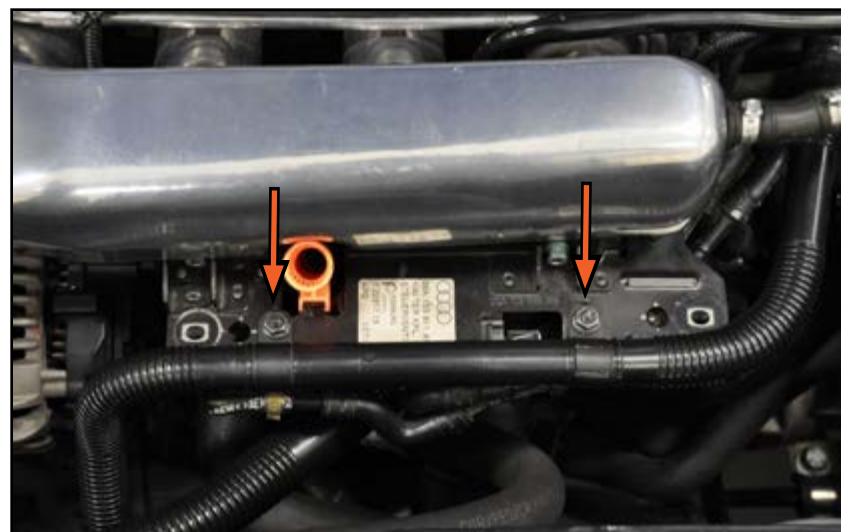
The 1/4 turn fasteners are loosened by simply turning them 1/4 turn counter-clockwise. When they are loose they will “pop” upwards, but they will remain in the trim piece.



DIPSTICK AND FUNNEL INSTALLATION

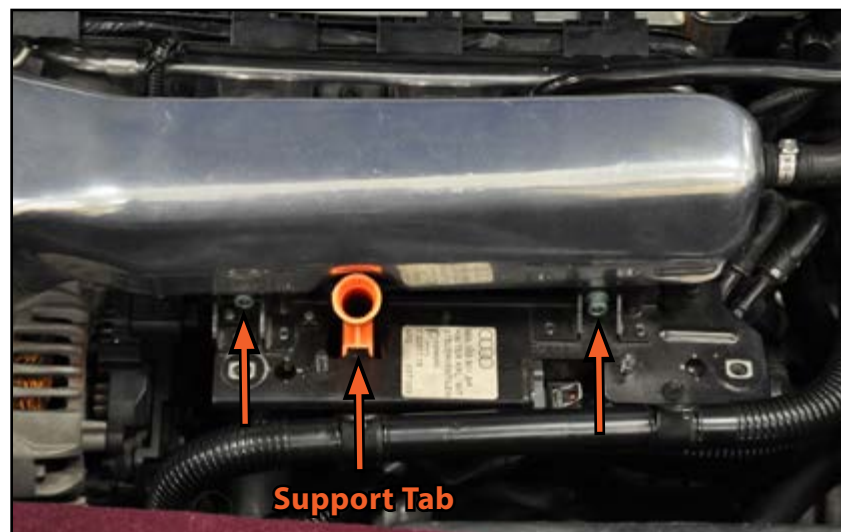
Step 3: 10mm Socket, Ratchet

Remove the two nuts securing the secondary air pipe clamps to the control valve plate, then lift the clamps off of the studs and pull the secondary air pipe slightly forward.



Step 4: 5mm Hex Bit (Allen) Wrench

Remove the two hex bit (allen) head screws that hold the control valve plate to the intake manifold. Note the tab on the plate that supports the top of the dipstick funnel.



DIPSTICK AND FUNNEL INSTALLATION

Step 5:

Lift the control valve plate upwards to slide the tab out of the dipstick funnel, then pull it forward to access the electrical connector on the RH (passenger) side.



Step 6:

Disconnect the electrical connector by squeezing the two metal tabs and pulling the connector off. The photo on the right shows a disconnected view of the connector so you can see the tabs.



DIPSTICK AND FUNNEL INSTALLATION

Step 7:

Grip the original dipstick funnel then pull it upwards and remove it. The dipstick funnel is “snapped” in place on the bottom, and you will have to pull up hard enough to release it. If necessary, grip the top of the funnel with a pair of pliers.



Step 8:

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.



DIPSTICK AND FUNNEL INSTALLATION

Step 9:

First slide the mounting bracket off of the new billet dipstick funnel, then lubricate the o-ring with clean engine oil and insert it into the groove in the bottom.

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.



Step 10:

Slide the new dipstick funnel down onto the dipstick tube. The funnel is angled. Make sure it is angled away from the intake manifold.



DIPSTICK AND FUNNEL INSTALLATION

Step 11:

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.

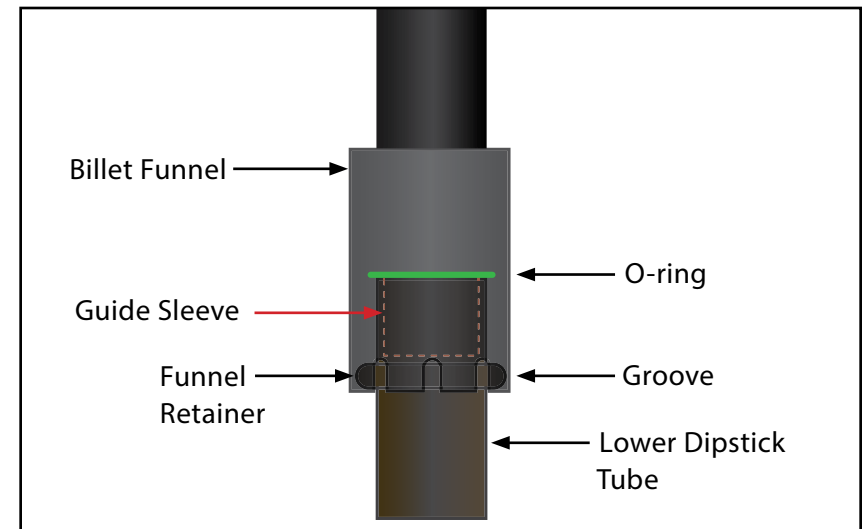
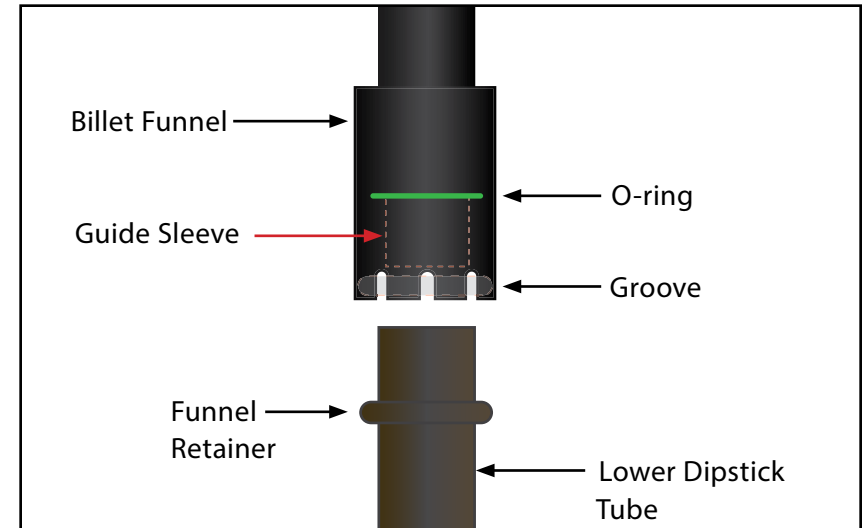
The new billet funnel has an inside groove in the bottom around the fingers. There is also a guide sleeve and the o-ring that you installed in step 9.

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

Step 12:

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.

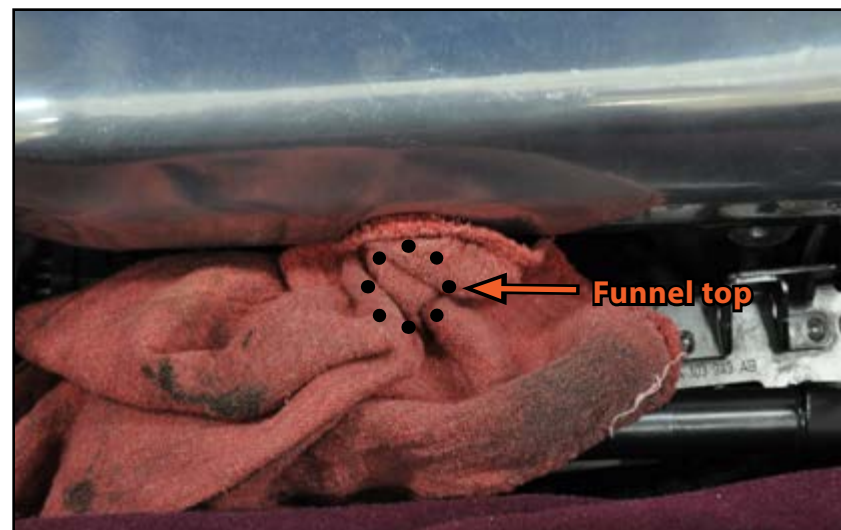
It takes a moderate amount of pressure to seat the two together, but there is a very easy way to do it. Continue with step 13 and we'll show you how.



DIPSTICK AND FUNNEL INSTALLATION

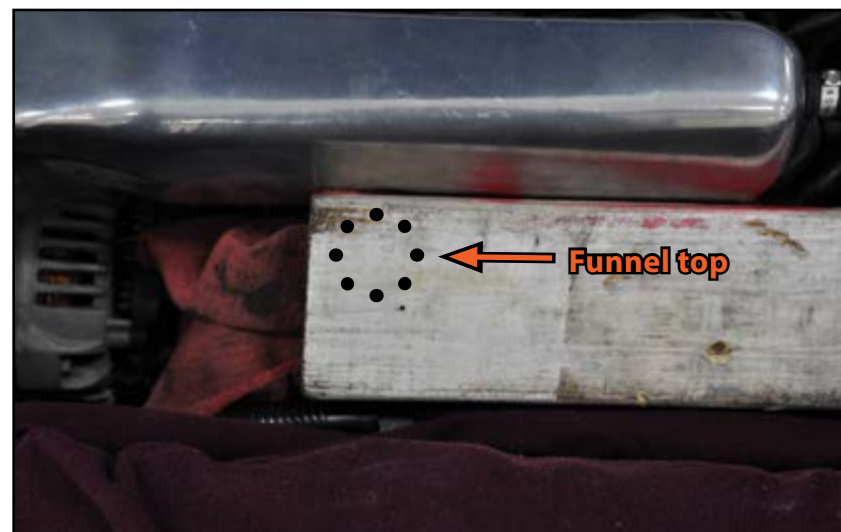
Step 13:

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



Step 14:

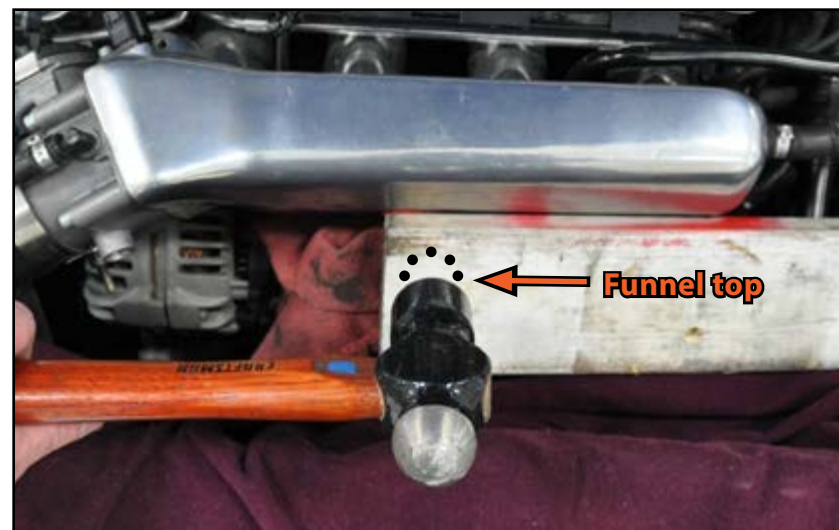
Place a piece of wood (we've used an old 2 x 4) on top of the rag and funnel.



DIPSTICK AND FUNNEL INSTALLATION

Step 15: 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.



Step 16:

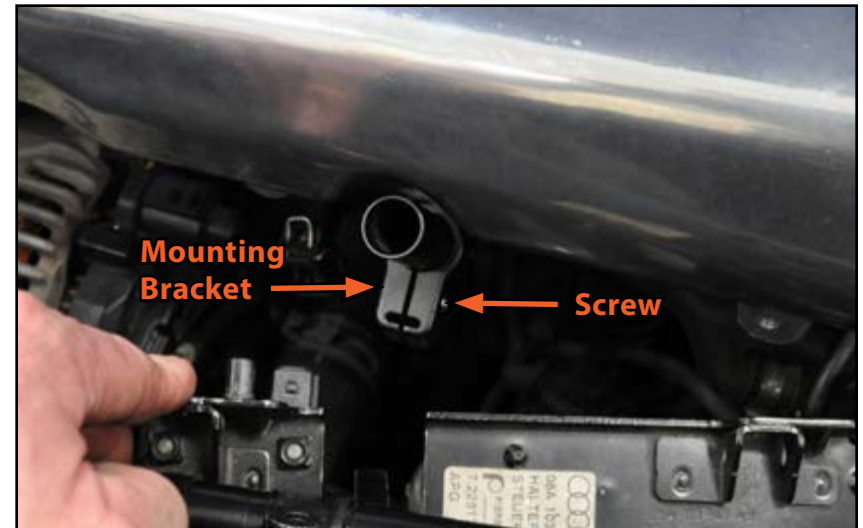
To make sure the funnel is properly seated, simply give it a tug upward, if it doesn't move, you've seated it properly.



DIPSTICK AND FUNNEL INSTALLATION

Step 17:

Slide the mounting bracket over the top of the dipstick funnel as shown. The bracket has a "top" and "bottom" and must be correctly installed. When it is correctly installed, the head of the securing screw will be located on the LH (driver's) side of the car as shown in this photo.



Step 18:

Hold the control valve plate in its mounting location and adjust the height of the dipstick funnel mounting bracket so it lines up with the tab on the control valve plate.



DIPSTICK AND FUNNEL INSTALLATION

Step 19: 2.5mm Allen Wrench

Pull back the control valve plate and tighten the screw on the mounting bracket, just until it is snug on the dipstick funnel.

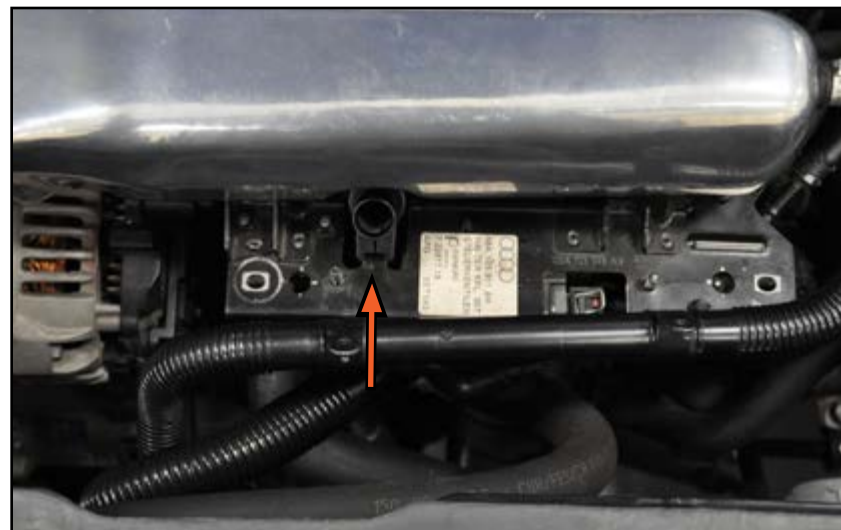


Step 20:

Line up the tab on the control valve plate with the elongated slot in the mounting bracket, then slide the tab through the bracket until the control valve plate is in its mounting location.

NOTE

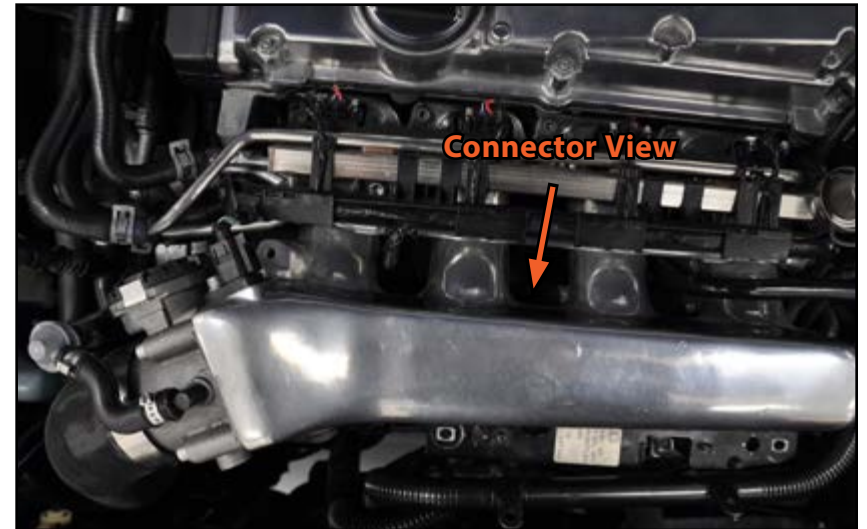
The electrical connector cannot be connected before the valve plate is installed. We will reconnect it in the next step.



DIPSTICK AND FUNNEL INSTALLATION

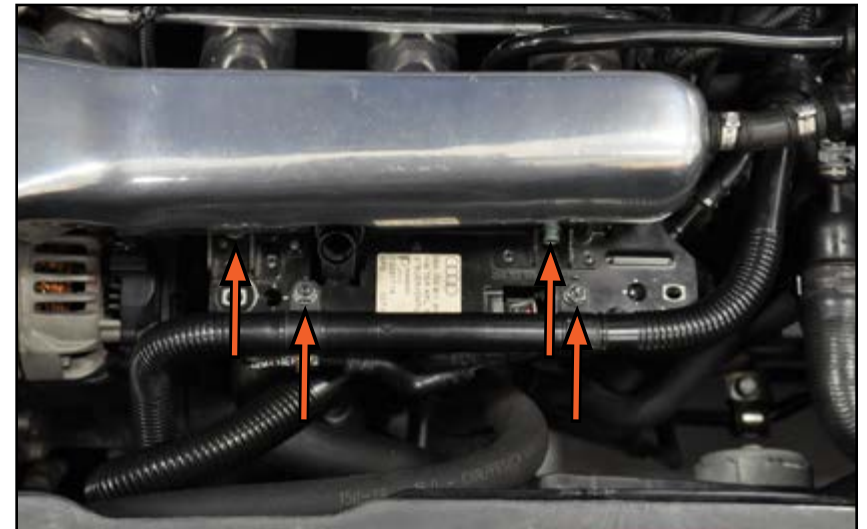
Step 21:

Reconnect the electrical connector. There is plenty of room to reach underneath the control valve plate and intake manifold and you can generally do it by “feel”, however with a light the connector is also visible through the top of the intake manifold.



Step 22: 5mm Allen, 10mm Socket, Ratchet

Install the two control valve plate screws and the secondary air pipe clamps and retaining nuts.



DIPSTICK AND FUNNEL INSTALLATION

Step 23: Flat Blade Screwdriver

Install the front engine trim piece and front engine cover (if removed).



Step 24:

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.

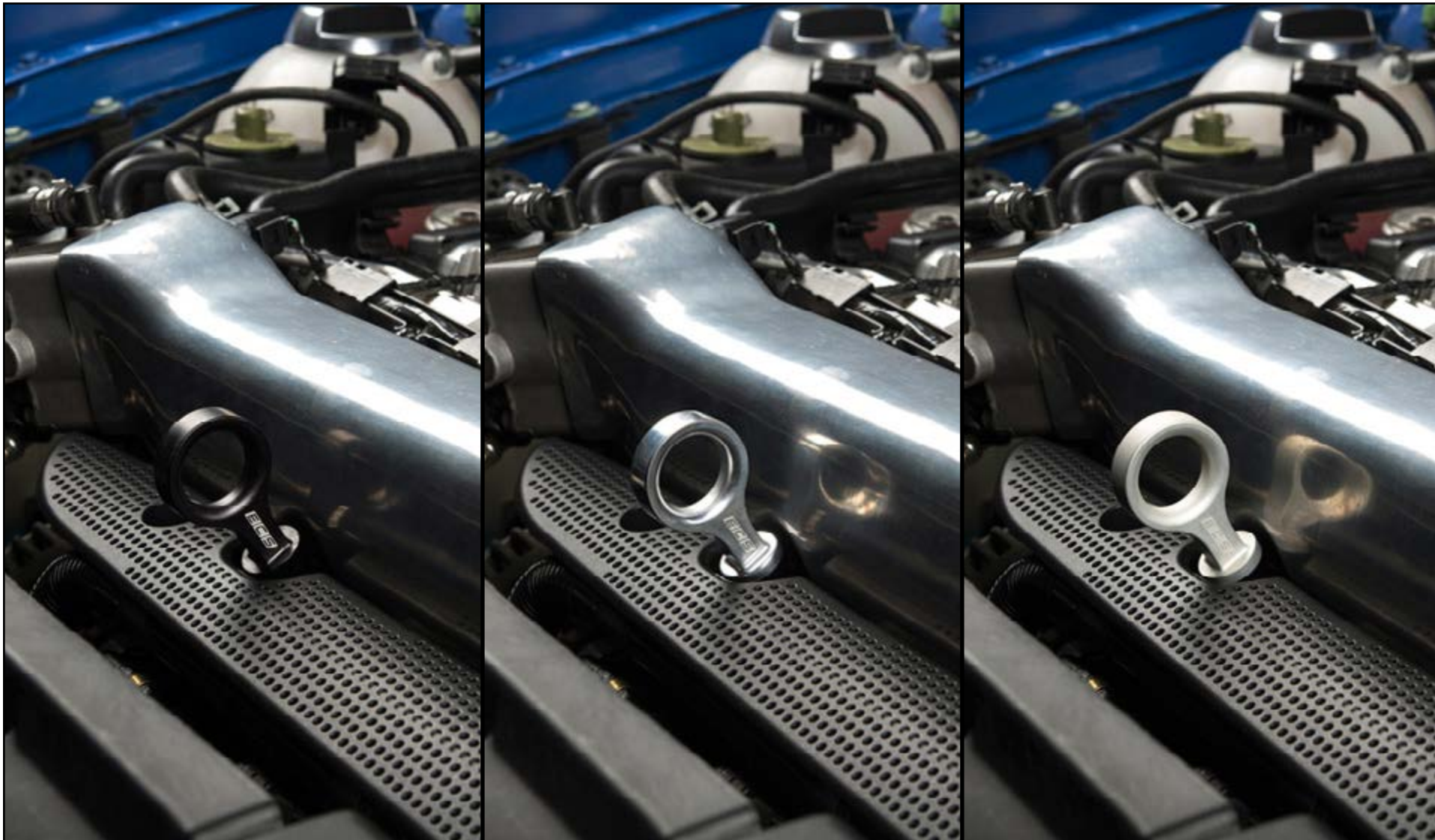


SCHWABEN - BUILD THE ULTIMATE TOOL COLLECTION

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.

					
	Breaker Bar Creepers Gloves Engine Bars Screwdrivers Pressure Bleeders Lighting Pry Bars Coil Spring Compressors Camber Gauge Hose Pinch Pliers Wheel Bolt Pattern Gauge Ball Joint Separator Vanos Solenoid Socket	Scraper, Hook, & Pick Set Camshaft Tools Fan Clutch Wrenches Tie Rod Tools Brake Fluid Catch Bottle Tubing Cutter Booster Cables Oil Filter Tools Service Carts Battery Charger Stethoscope Battery Terminal Brush Wheel Chocks Torx Sockets	Sockets E-Drive Sockets Car Ramps Torx Drivers Jack Stands Circuit Tester Ratchets Exhaust Hanger Pliers Bubble Flaring Tool Thread Chaser Drain Pans Wrenches Impact Sockets Torque Wrenches		
					
					
					

Your MK4 1.8T Billet Dipstick and Funnel Installation is complete!



These instructions are provided as a courtesy by ECS Tuning

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