BMW E46 Non-M ECS Silicone Radiator Hose Set
Installation Instructions - ES4315269

Skill Level
1 - Easy

Basic Skills Required

INTRODUCTION

BMW E46 M3 ECS Tuning Silicone Radiator Hose Kit

The ECS Tuning Silicone Radiator Hose Kit offers the following features:

- 3-ply black silicone upper and lower radiator hoses
- Brand new OE style hose connectors
- Brand new 304 stainless steel hose clamps
- Longer service life compared to OE hoses
- Higher resistance to breaking down and softening
- Peace of mind knowing that these common coolant leak sources have been replaced

Replacing the radiator hoses on your BMW E46 Non-M is a rewarding project that an experienced technician will be able to complete in a few hours, plan accordingly based on your experience level. Before you begin, read and familiarize yourself with these instructions and make sure you have all the required tools on hand. Thank you for purchasing our BMW E46 Non-M silicone radiator hose kit, we appreciate your business!

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KIT CONTENTS

Upper radiator hose w/clamps **(QTY 1)**

Lower radiator hose w/clamps **(QTY 1)**

Upper hose 90° connector **(QTY 1)**

Straight connector w/sensor bung **(QTY 1)**

Straight Connector **(QTY 2)**

REQUIRED TOOLS

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

Standard Automotive Tools

- Protecta-Sockets (for lug nuts) ..... ES#2221243
- **⅜" Drive Ratchet** ..... ES#2765902
- ⅜" Drive Torque Wrench ..... ES#2221245
- **⅜" Drive Deep and Shallow Sockets** ..... ES#2763772
- **⅜" Drive Extensions** ..... ES#2804822
- **Hydraulic Floor Jack** ..... ES#2834951
- **Torx Drivers and Sockets** ..... ES#11417/8
- ½" Drive Deep and Shallow Sockets ..... ES#2839106
- ½" Drive Ratchet
- ½" Drive Extensions
- ½" Drive Torque Wrench ..... ES#2221244
- ½" Drive Breaker Bar ..... ES#2776653
- Bench Mounted Vise
- Crows Foot Wrenches
- **Hook and Pick Tool Set** ..... ES#2778980

Required For This Install

- ¼" Drive Ratchet ..... ES#2823235
- ¼" Drive Deep and Shallow Sockets ..... ES#2823235
- ¼" 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

Available On Our Website

Specialty Tools

- **Coolant Refill/Air Purge Tool** ..... ES#2712734

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.
- Whether lifting a vehicle using an automotive lift or a hydraulic jack, be sure and 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, and ALWAYS make sure that the vehicle is securely supported on jack stands.

INSTALLING THE NEW SILICONE RADIATOR HOSE SET

Step 1:

Wait for the engine to cool. Remove coolant reservoir cap, intake air duct and air box (highlighted in **GREEN** in the photo on the right).

INSTALLING THE NEW SILICONE RADIATOR HOSE SET

Step 2:

Safely lift and support the vehicle.

Drain the coolant from the expansion tank and radiator drain plugs (arrows).

INSTALLING THE NEW SILICONE RADIATOR HOSE SET

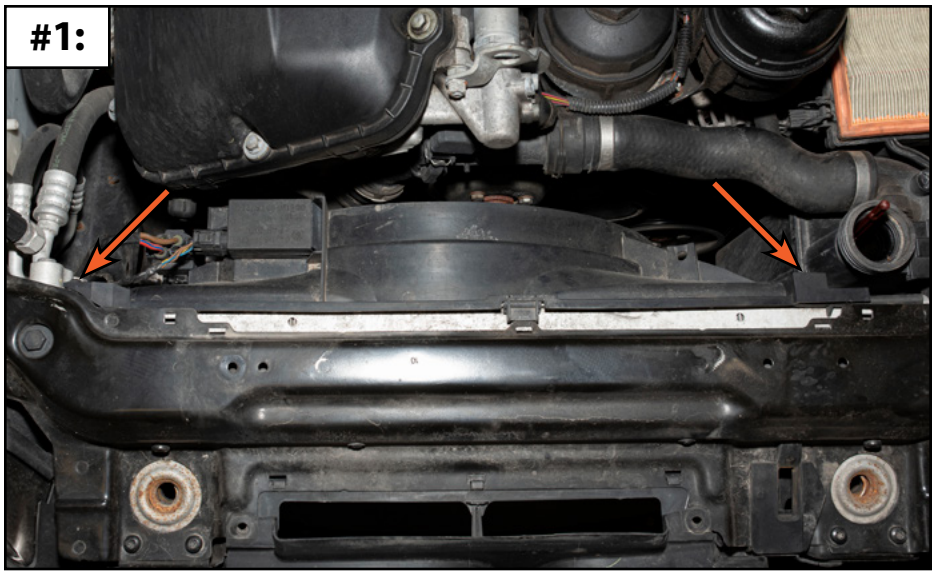
Step 3:

Remove the two T25 screws which secure the fan shroud to the radiator (arrows in **photo #1**).

Disconnect the electrical connectors from the lower radiator hose and fan shroud (arrows in **photo #2**).

Carefully lift the fan shroud out of the engine bay (**photo #3**).

#1:



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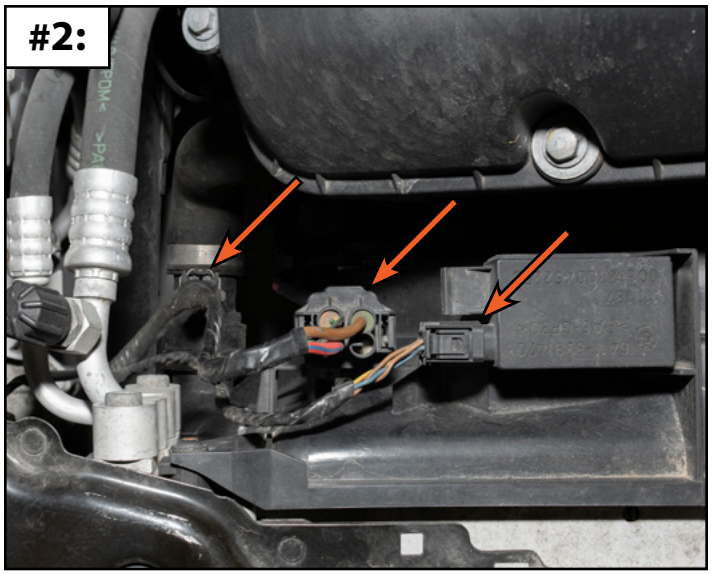

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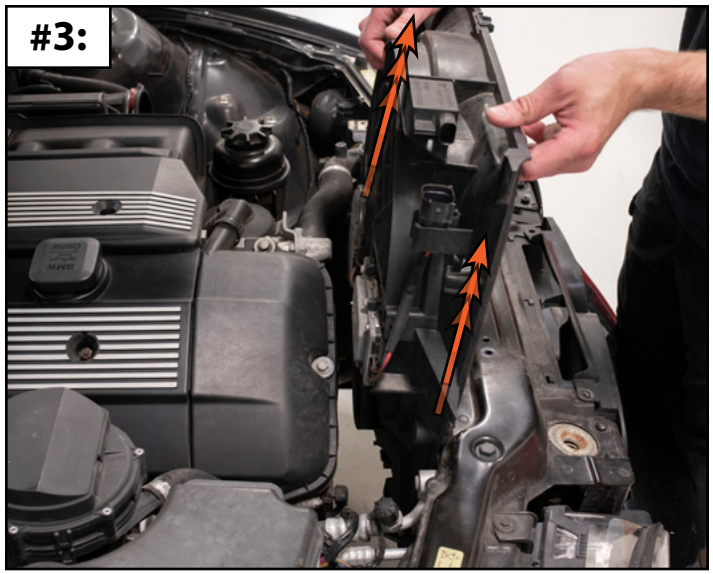


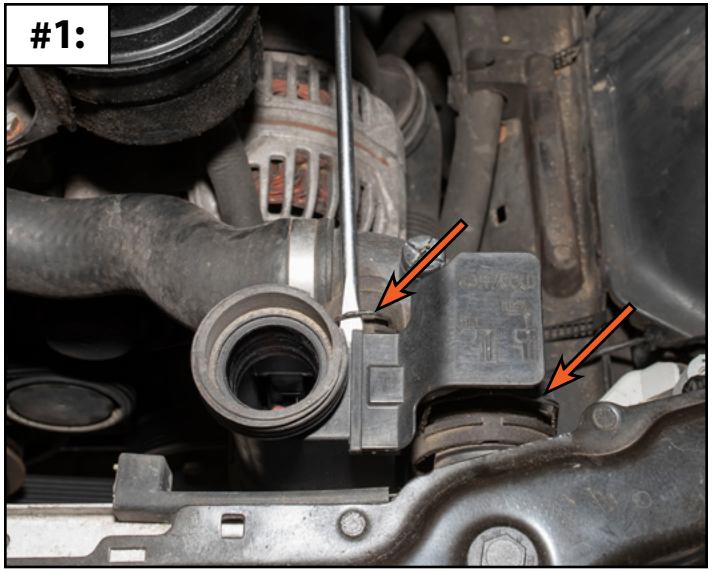
INSTALLING THE NEW SILICONE RADIATOR HOSE SET

Step 4:

Lift upward on the clips which secure the upper radiator hose to the radiator and expansion tank (**photo #1**), then remove the hose by gently rocking/twisting it up-and-down, and side-to-side while pulling it off with firm, even force (**photo #2**).

Repeat this process to remove the upper radiator hose from the thermostat assembly (**photo #3 & photo #4**).

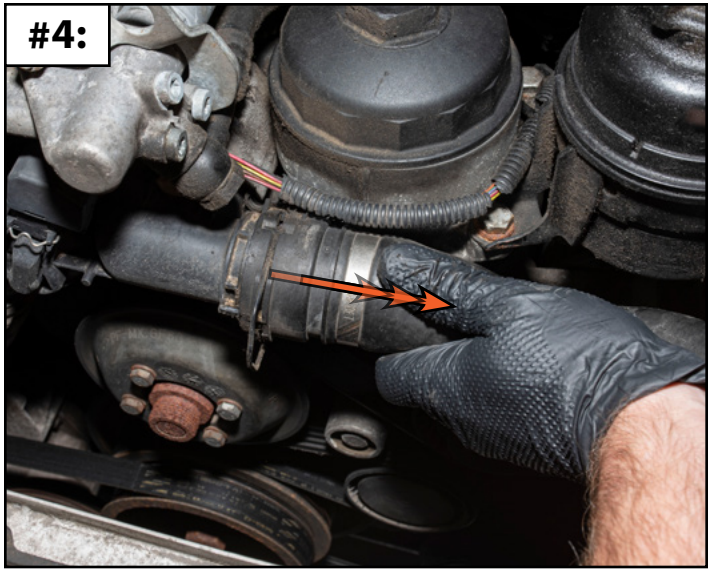
#1:



#2:

#3:

#4:



INSTALLING THE NEW SILICONE RADIATOR HOSE SET

Step 5:

Loosely assemble the new silicone upper radiator hose, do your best to mimic the orientation of the hose and fittings to the shape of the old hose (**photo #1**). Loosely install the provided hose clamps, being mindful of where they will be once installed, we don't want them to interfere with anything around them.

Lubricate the o-rings in both hose connectors with a small amount of clean coolant (not shown). Install the new silicone upper hose into place (**photo #2**). Be sure to fully seat each of the plastic connectors before locking them into place with the clips.

#1:

#2:

INSTALLING THE NEW SILICONE RADIATOR HOSE SET

Step 6:

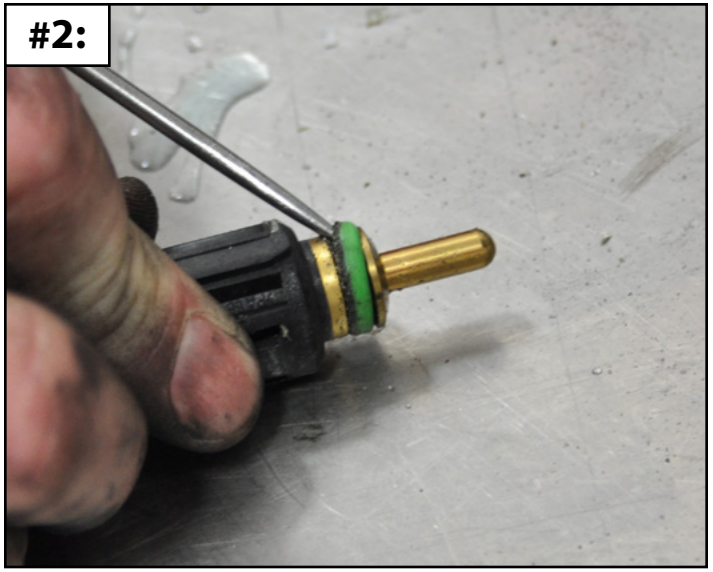
Repeat the process from steps 4-5 to assemble the new silicone lower radiator hose (**photo #1**). Don't forget to transfer the coolant temperature sensor (arrow in **photo #1**) over to the new hose, or install a new sensor if you've gone that route.

The o-ring on the coolant temperature sensor is a common source of leaks, so it is a good idea to replace it now while it is out of the vehicle (**photo #2**).

Lubricate the o-rings in both hose connectors with a small amount of clean coolant (not shown). Install the new silicone lower radiator hose into place (**photo #3**). Be sure to fully seat each of the plastic connectors before locking them into place.

#1:

#2:



#3:

INSTALLING THE NEW SILICONE RADIATOR HOSE SET

Step 7:

Reinstall the fan shroud, reconnect the electrical connectors, and reinstall the intake air duct and air box (**photo #1**).

With the engine OFF, loosen the bleeder screw approximately ½ turn (**inset photo**), then pour a fresh mix of 50/50 antifreeze and water into the expansion tank, allowing the air bubbles to escape out of the bleeder. Close the bleeder screw once the stream of coolant shows no bubbles, then top off the coolant reservoir to the appropriate level. Reinstall the coolant reservoir cap, then start the engine and allow it to warm up to operating temperature, and inspect the system for any coolant leaks.

#1:

TECH TIP

An alternative method to fill your cooling system without any air bubbles would be to use our Schwaben Coolant Evacuation Tool Kit with the "cone shape" adapter, which can be found on our website by clicking HERE.

Your ECS Silicone Radiator Hose Set 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.

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