

Audi B9 S4 ECS X-Pipe Installation Instructions



Skill Level 2 - Moderate

Some Experience Recommended





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 are going to install our ECS Tuning Center X-Pipe for the Audi B9 S4. This pipe has been designed by the engineering team at ECS Tuning to free up the flow of exhaust to give your B9 S4 a more aggressive sound without breaking the bank. This job requires only a few basic tools and we provide all the clamps so installation is a breeze! Patience and accuracy are crucial when cutting out the old resonator so take your time and enjoy the project.

The photo below shows the new ECS resonator delete pipe laid next to the stock resonator that we will be removing in these installation instructions. As you can see, the new pipe will be a direct replacement for the stock center resonator, utilizing the stock mounting hanger locations.



Be sure to read these instructions completely before you begin the project, and don't be afraid to refer back if you get stuck. Thank you for choosing ECS Tuning for all your performance and repair needs, we appreciate your business!



KIT CONTENTS





60mm Exhaust Sleeve (QTY 2)



ECS X-Pipe (QTY 1)

55mm Exhaust Sleeve (QTY 2)

TABLE OF CONTENTS

Required Tools and Equipmentpc	<u>j.4</u>
Installation and Safety Information	<u>j.5</u>
Project Overviewpc	<u>j.6</u>
Center X-Pipe Installationpc	<u>j.7</u>
Schwaben Toolspc	<u>j.17</u>



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)	<u>ES#2221243</u>
• ³ / ₈ " Drive Ratchet	<u>ES#2765902</u>
• ³ / ₈ " Drive Torque Wrench	<u>ES#2221245</u>
• ³ / ₈ " Drive Deep and Shallow Sockets	<u>ES#2763772</u>
• ³ / ₈ " Drive Extensions	<u>ES#2804822</u>
Hydraulic Floor Jack	<u>ES#2834951</u>
Torx Drivers and Sockets	<u>ES#11417/8</u>
• ¹ / ₂ " Drive Deep and Shallow Sockets	<u>ES#2839106</u>
• ¹ / ₂ " Drive Ratchet	
• ¹ / ₂ " Drive Extensions	
• ¹ / ₂ " Drive Torque Wrench	<u>ES#2221244</u>
• ¹ / ₂ " Drive Breaker Bar	<u>ES#2776653</u>
Bench Mounted Vise	
Crows Foot Wrenches	
Hook and Pick Tool Set	<u>ES#2778980</u>

1/" Drive Datch at	FC#202222F
• ¹ / ₄ " Drive Ratchet	
• ¹ / ₄ " Drive Deep and Shallow Sockets	<u>ES#2823235</u>
• ¹ / ₄ " Drive Extensions	<u>ES#2823235</u>
Plier and Cutter Set	<u>ES#2804496</u>
Flat and Phillips Screwdrivers	<u>ES#2225921</u>
Jack Stands	
Ball Pein Hammers	
Pry Bar Set	<u>ES#1899378</u>
Electric/Cordless Drill	
Wire Strippers/Crimpers	
• Drill Bits	
 Punch and Chisel Set 	
Hex Bit (Allen) Wrenches and Sockets	<u>ES#11420</u>
Thread Repair Tools	<u>ES#1306824</u>
Open/Boxed End Wrench Set	<u>ES#2765907</u>

Specialty Tools

 Exhaust Hanger Removal Plier 	<u>s ES#2784927</u>
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- Die Grinder OR Metal File

ES#3521607

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.



ES#3521607

PROJECT OVERVIEW



This photo shows the exhaust components we will be working on and what we'll be calling them. Here's an overview of the installation procedure:

- 1. Remove the stock exhaust sleeves
- 2. Mark and cut the stock exhaust pipes.
- 3. Remove the center resonator.
- 4. Install the new X-pipe.
- 5. Ensure proper fitment.
- 6. Tighten all clamps and hardware.

Now let's get to it!

Step 1:

Before removing the center resonator, properly support both ends of the exhaust so that it does not hang and cause damage.





Step 2: Exhaust Hanger Removal Pliers

Remove the two exhaust hangers from the center resonator, leaving them attached to the body.



ES#3521607

CENTER RESONATOR DELETE KIT INSTALLATION

Step 3: 13mm Socket & Ratchet

Loosen the two nuts on each stock exhaust sleeves until they are loose and rotate freely.



Step 4:

Slide the sleeves rearward onto the resonator pipe to separate the two exhaust sections.



Step 5: Mechanic's Wire

1 - Lift the new ECS X-Pipe up to the center resonator and secure it by wrapping mechanics wire around the exhaust hanger posts.

2- Align the front edges of the two pipes.

3- Looking at the rear end of the pipe you can see where we will be cutting the center resonator pipes. If you have an extra exhaust clamp, it can be attached at this point to act as a placeholder for where we will be cutting, otherwise, a piece of masking tape can be used.

Proceed to the next step **BEFORE** making any cuts.







Step 6:

Marker

Using the band clamps (or tape) to guide your line, make a mark on both stock pipes where you plan to cut. Keep in mind that there should be a small gap between the two pipes to allow for heat expansion.



Step 7: **Exhaust Pipe Cutter**



It is **absolutely imperative** that you take your time here and double or triple check your marks before you cut anything. There is no turning back once the pipes have been cut, so measure twice, cut once!

Make sure you properly secure the exhaust to prevent the center resonator from falling during cutting. Then, using an exhaust cutter, cut along the line we made in the previous step, being sure to cut as straight as possible until you cut all the way through the pipe. Then, using the same method, cut the other pipe to free the center resonator from the rest of the exhaust.





Step 8:

Remove the center resonator section by sliding it rearward over the chassis brace and lowering it down and out.



Step 9:

Best practice is to always compare the removed parts to the new ones, to ensure proper orientation and interchangeability. Compare the stock resonator with the new ECS X-pipe to ensure that the mounting hangers line up.





Step 10: Metal File or Die Grinder

Use a metal file or die grinder to remove any burrs from the exhaust pipes that we cut, this will ensure a proper fit and seal once the X-pipe is installed.



Step 11:

Slide the new 60mm sleeves onto the straight end of the X-pipe with the clamps' nuts facing downward.



Step 12:

Slide the new 55mm sleeves on the rear end of the stock pipe as far as they will go.



Step 13:

Lift the new X-pipe into place, sliding it forward over the chassis brace.



Step 14:

Install the exhaust hangers to hold the exhaust in place while installing exhaust clamps.



Step 15: 17mm Socket, 13mm Socket & Ratchet

Slide the exhaust sleeves into position so they cover the gaps between the X-pipe and the stock exhaust sections. But do not tighten them at this time.



Lightly snugging the bolts on the exhaust sleeves can help hold the X-pipe in place, making adjustment in the next step easier.



EXHAUST SYSTEM ADJUSTMENT

Step 16:

Adjust the position of the exhaust system to meet the following requirements for correct fitment:

- Ensure maximum clearance between the exhaust system and surrounding components such as the cross brace, rear subframe, and the rear differential.
- Ensure that all of the exhaust hangers are all angled forward slightly to allow for heat expansion(shown in inset photo below).
- Ensure that the rear section of the exhaust is properly aligned, this can easily be checked by looking at the exhaust tips and seeing if they are sitting parallel to one another (shown in the LH photos below).



Step 17: 13mm Socket & Ratchet

Center the rear exhaust sleeves between the X-pipe and the rear exhaust section (shown below), then push system upward and tighten down the rear sleeve nuts. After tightening, the system will settle to a natural rest state.



Step 18: 17mm Socket & Ratchet

Push the whole exhaust system forward while securing front exhaust sleeve, this will help angle the exhaust hangers forward to allow for heat expansion. Once tightened, the system will settle to its final resting position.

Wipe any oil, grease, or fingerprints from the exhaust system.

After approximately 500 miles, be sure to inspect the system for signs of leaks, and ensure that all of the sleeves are tight.

Your ECS X-Pipe installation is complete!





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Your ECS Center X-Pipe installation is complete!



These instructions are provided as a courtesy by ECS Tuning

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