

Audi B8 S4/S5 3.0T ECS Center X-Pipe Installation Instructions



Skill Level 2 - Moderate

Some Experience Recommended













INTRODUCTION

The Project:

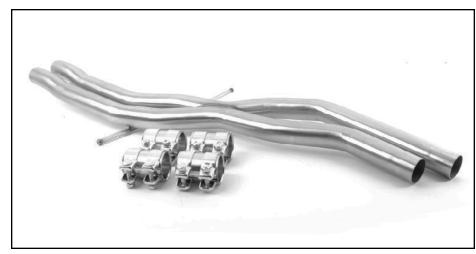
Today we are going to install our ECS Tuning B8 3.0T Center X-Pipe onto our B8 S4, but keep in mind that this procedure applies to the B8 S5 as well. Our in-house engineered performance X-Pipe installs in place of the stock resonator, and offers serious upgrades in both sound as well as performance. This X-Pipe is a great way to make your B8 3.0T sound better without breaking the bank, and it's easy to install, only requiring a few basic tools. We've bumped up the skill level on this job a little, not so much because of true difficulty, but because of the patience and attention to detail which are required for proper installation.

Take your time and enjoy the project, it'll only take you a couple of hours or less. Be sure to read these instructions completely before you begin. Thank you for looking to ECS Tuning for all your performance and repair needs, we appreciate your business!

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KIT CONTENTS



Center X-Pipe (QTY 1) Exhaust Sleeves (QTY 4)



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>	• ¼" Drive Ratchet <u>ES#2823235</u>
• 3/8" Drive Ratchet <u>ES#2765902</u>	• ¼" Drive Deep and Shallow Sockets <u>ES#2823235</u>
• 3/8" Drive Torque Wrench <u>ES#2221245</u>	• ¼" Drive Extensions <u>ES#2823235</u>
• 3/8" Drive Deep and Shallow Sockets ES#2763772	• Plier and Cutter Set <u>ES#2804496</u>
• 3/8" Drive Extensions <u>ES#2804822</u>	• Flat and Phillips Screwdrivers <u>ES#2225921</u>
Hydraulic Floor Jack ES#240941	• Jack Stands <u>ES#2763355</u>
• Torx Drivers and Sockets <u>ES#11417/8</u>	Ball Pein Hammers
• ½" Drive Deep and Shallow Sockets <u>ES#2839106</u>	• Pry Bar Set <u>ES#1899378</u>
• ½" Drive Ratchet	Electric/Cordless Drill
• ½" Drive Extensions	Wire Strippers/Crimpers
• ½" Drive Torque Wrench <u>ES#2221244</u>	• Drill Bits
• ½" Drive Breaker Bar <u>ES#2776653</u>	 Punch and Chisel Set
Bench Mounted Vise	 Hex Bit (Allen) Wrenches and Sockets<u>ES#11420</u>
Crows Foot Wrenches	• Thread Repair Tools <u>ES#1306824</u>
Hook and Pick Tool Set <u>ES#2778980</u>	Open/Boxed End Wrench Set ES#2765907

Specialty Tools

- Exhaust Hanger Removal Pliers ES#2784927
- Reciprocating Saw w/Metal Cutting Blade
- Die Grinder OR Metal File



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.

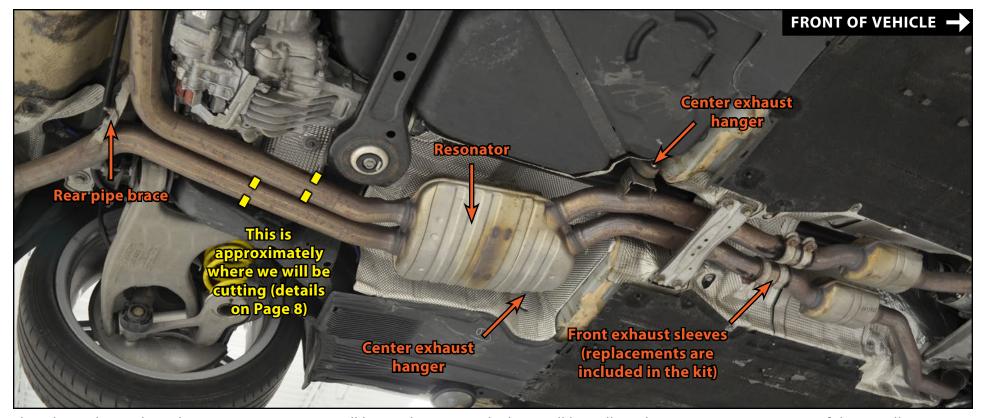
- Park your car in a safe, well lit, level area.
- Shut the engine off and remove the key from the ignition switch.
- Make sure any remote start devices are properly disabled.
- **ALWAYS** wear safety glasses.
- Make sure the parking brake is applied until the vehicle is safely lifted and supported.
- 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.



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. Measure and cut the stock exhaust pipes.
- 2. Remove the resonator.
- 3. Install the new X-pipe.
- 4. Adjust the system for proper fitment.
- 5. Tighten all clamps and hardware.

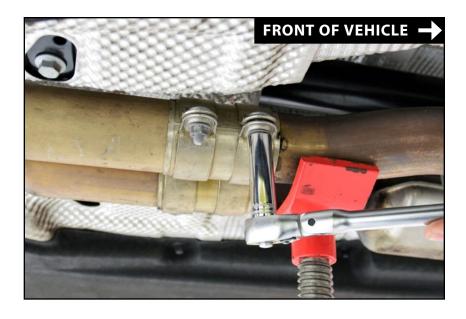
Now let's get to it!



13mm Socket & Ratchet Step 1:

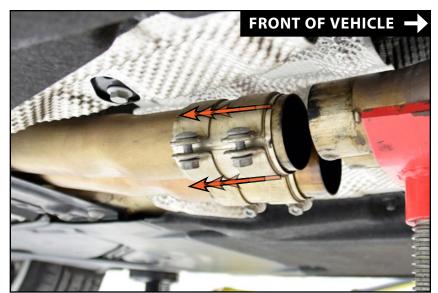
Safely lift and support the vehicle. Support the exhaust system from below.

Loosen the two nuts on each of the stock exhaust sleeves until they can rotate and slide freely on the pipes.



Step 2:

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





CENTER X-PIPE INSTALLATION

Step 3: **Exhaust Hanger Removal Pliers**

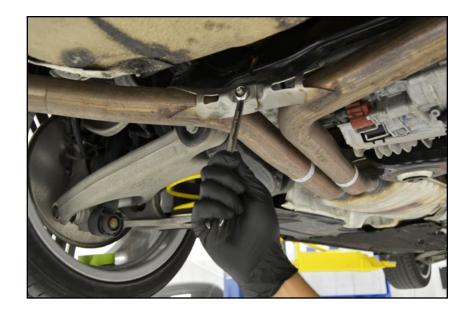
Remove the exhaust hangers from the resonator, leaving the hangers attached to the vehicle.





13mm Socket & Ratchet - OR - 13mm Wrench Step 4:

Loosen the nut on the rear pipe brace. This will make the adjustment procedure easier later on.



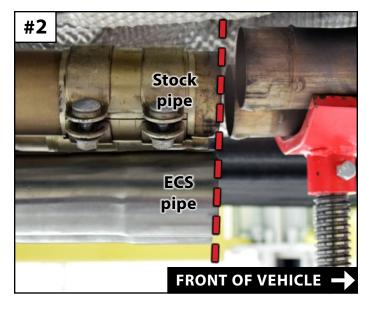
Step 5:

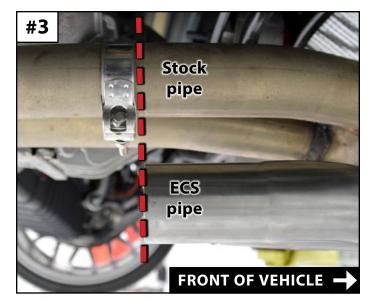
Mechanic's Wire

- **#1:** Lift the new ECS X-Pipe up to the center resonator and secure it by wrapping mechanic's 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.







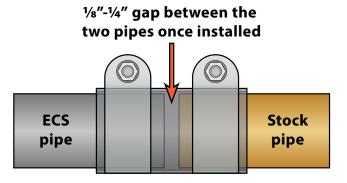


CENTER X-PIPE INSTALLATION

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.



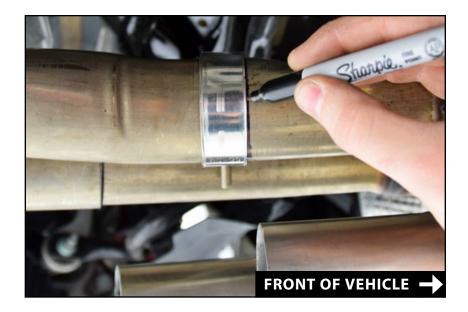


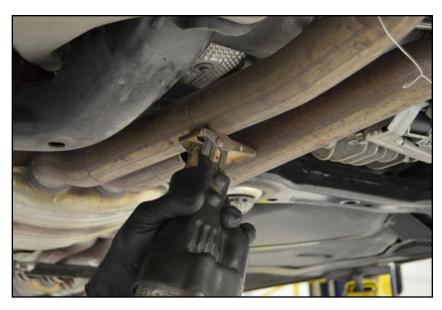
Exhaust Pipe Cutter - OR - Reciprocating Saw



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.

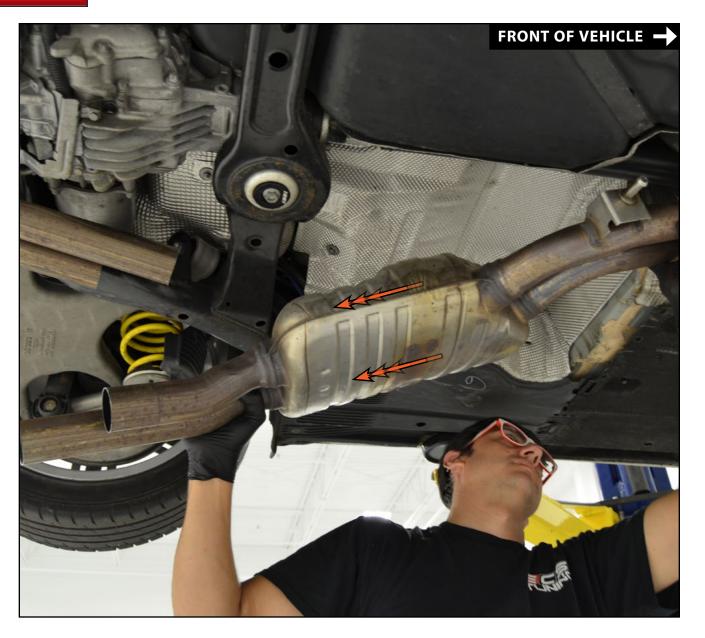






Step 8:

Remove the resonator from the vehicle by first lowering the rear, then sliding the entire unit down and out as shown in the photo. Remove and discard the front exhaust sleeves, these will be replaced by the sleeves included in the kit.

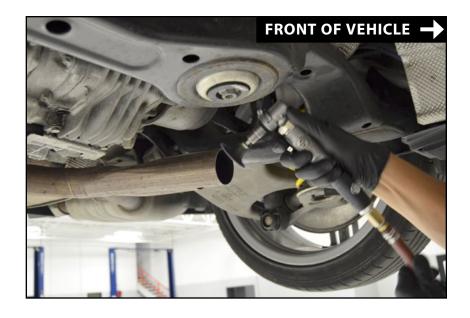




Step 9:

Die Grinder - OR - Metal File

Remove any burrs from the exhaust pipes, this will ensure a proper fit and seal once the new X-pipe is installed.



Step 10:

Slide two of the new exhaust sleeves over the rear muffler pipes, making sure the nuts are facing downward and positioned on opposite sides of the pipes as shown.



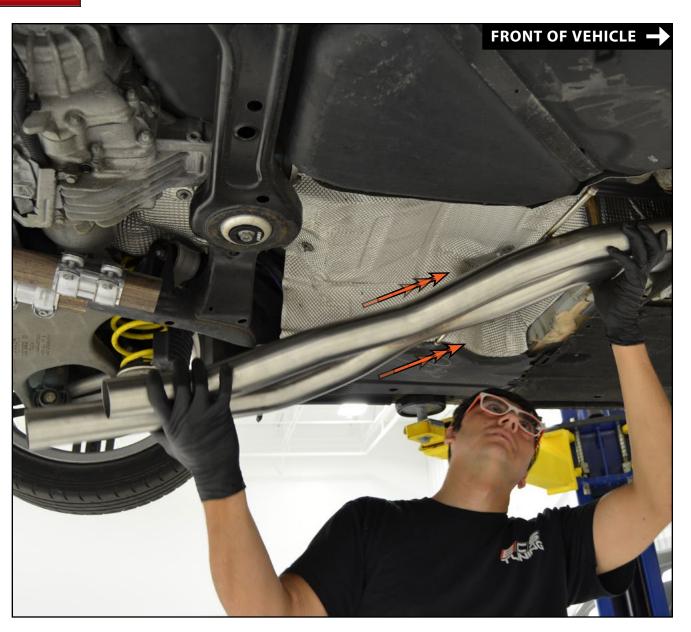


CENTER X-PIPE INSTALLATION

Step 11:

Slide the other two new exhaust sleeves which are included with the kit onto the front of the X-pipe (not pictured).

Lift the X-pipe into position as shown, guiding it over the chassis brace, then continue to the next page.

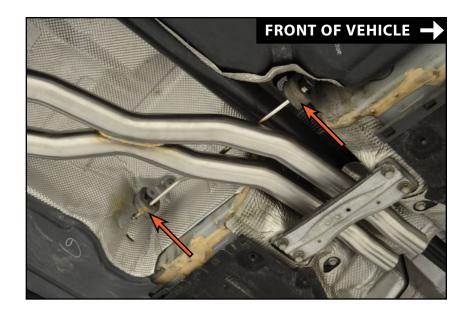




CENTER X-PIPE INSTALLATION

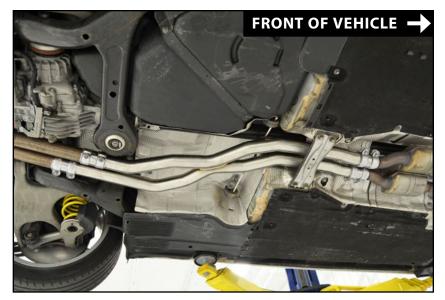
Step 12:

Install the center exhaust hangers onto the X-pipe to hold it in place.



Step 13:

Slide the exhaust sleeves into position so they cover the gaps between the X-pipe and the stock exhaust sections, but leave everything loose at this time.

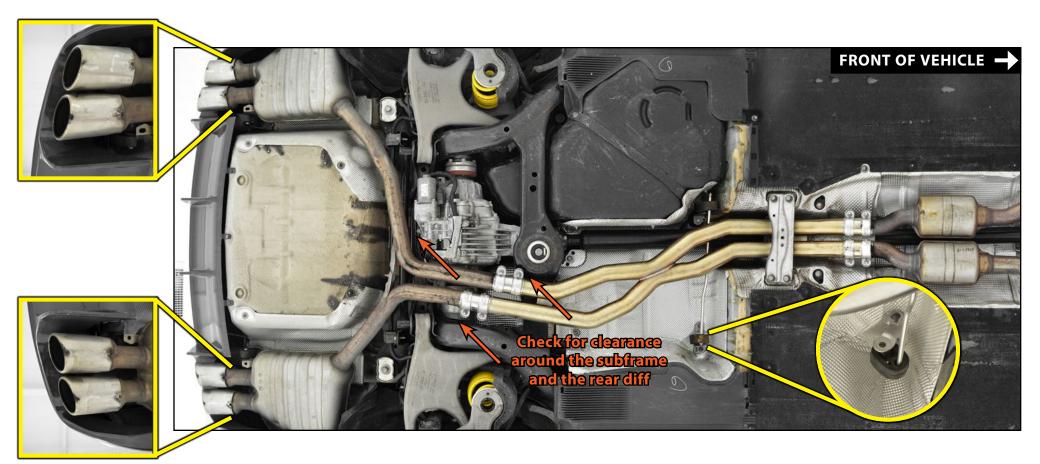




EXHAUST SYSTEM ADJUSTMENT

Before tightening any of the sleeves, read the adjustment tips below. Keep in mind that this takes some trial and error, it may take some patience in order to:

- Achieve 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 tilted forward slightly to allow for heat expansion (more details in step 14 on Page 15).
- 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).

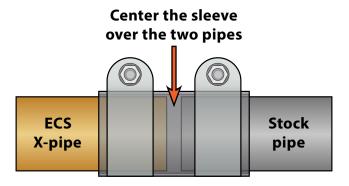




CENTER X-PIPE INSTALLATION

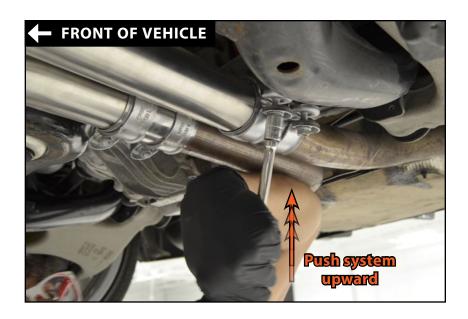
Step 14: 13mm Socket & Ratchet

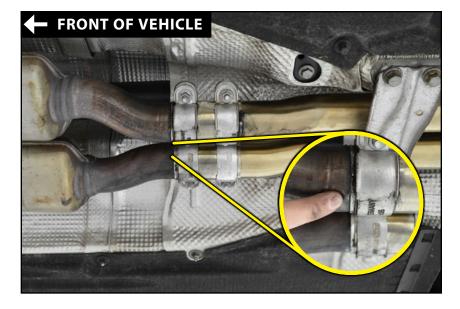
Center the rear exhaust sleeves between the X-pipe and the rear exhaust section (shown below), then push upwards (for maximum ground clearance) and tighten the sleeve nuts. After tightening, the system will settle to a natural resting state.



Step 15:

Ensure that the new front exhaust sleeves are slid forward until they bottom out on the locating bump on the downpipes (shown in the inset photo on the right).



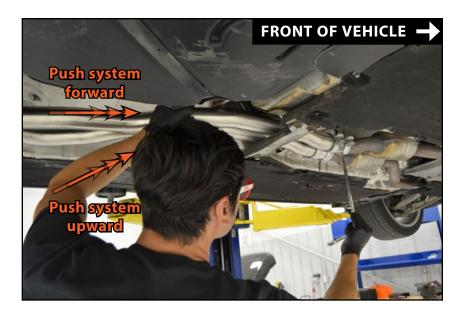


CENTER X-PIPE INSTALLATION

Step 16: 13mm Socket & Ratchet

Ensure that the front and rear exhaust hangers are tilted towards the front of the vehicle, as the exhaust system heats up it will expand rearward as much as an inch or more. This forward angle will allow the exhaust to move as required when it expands and contracts.

Push the X-pipe forward and up while tightening the front exhaust sleeve nuts, this will help angle the exhaust hangers forward for heat expansion.

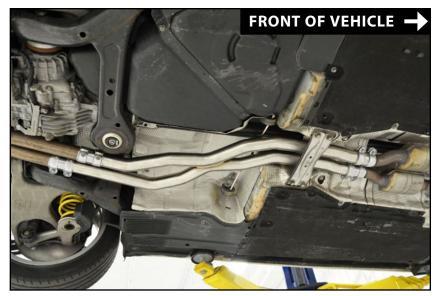


13mm Socket & Ratchet Step 17:

Tighten the rear pipe brace nut (not shown).

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 Center X-Pipe installation is complete!

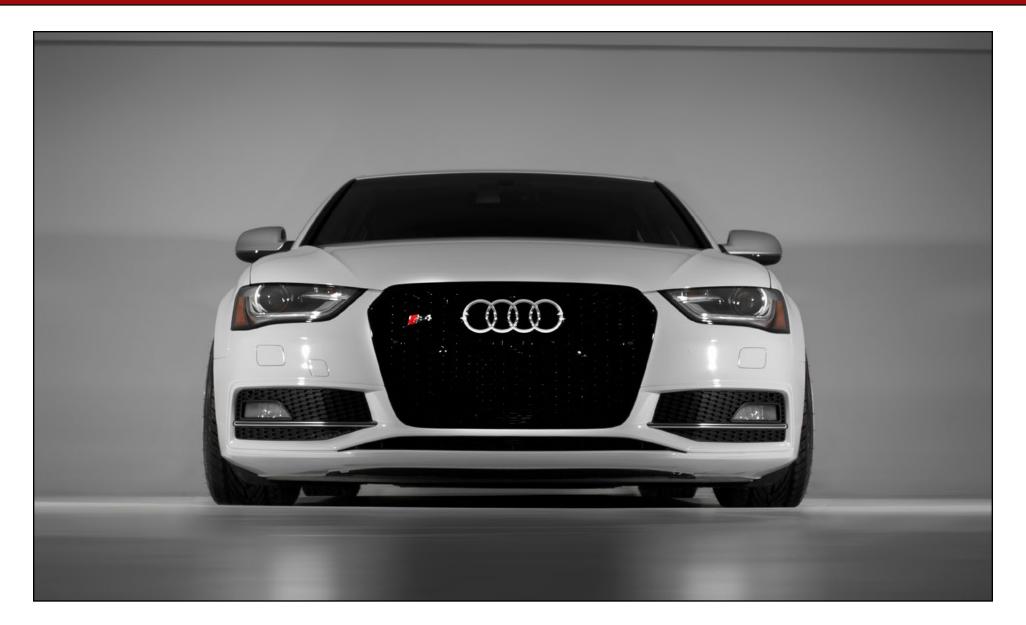




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Your ECS Center X-Pipe installation is complete!



These instructions are provided as a courtesy by ECS Tuning

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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