

#### **V10 FRUNK WATER TANK**

# **INSTALL INSTRUCTIONS**

Audi R8 & Lamborghini V10

#### Introduction ///

The goal of AMS Performance is to provide the highest quality, best performing products available. By utilizing research and development, and rigorous testing programs AMS Performance will never compromise the quality or performance of our products. In addition, AMS Performance will only provide the finest customer service offering only parts and advice that are in the best interests of the customer. AMS Performance was built on a foundation of integrity. This is who we are. This is what you can count on.

A vehicle modified by the use of performance parts and tuning may not meet the legal requirements for use on public roads. AMS Performance makes no claims of compliance unless otherwise stated on a perproduct basis. Use or installation of performance parts and tuning may adversely affect the drivability and reliability of your vehicle, and may also affect or eliminate your insurance coverage, factory warranty and new OEM part warranty. There is no stated or implied guarantee by AMS of continued OEM vehicle warranty, insurance coverage, or emissions compliance, due to the stress placed on your vehicle by performance parts and our inability to monitor its use, tuning or modification.

These instructions are not intended to be a comprehensive guide for installation as there are many variables that may affect your particular vehicle, including but not limited to model year differences, sub-model/ trim/optional equipment differences, the presence of non-OEM parts, or other modifications that may have previously been completed. A basic understanding of automotive parts and systems and novice mechanical skills should be all that is necessary for installation, but certain circumstances may necessitate professional installation.

AMS Performance is committed to providing quality support for our products. If you are in need of technical support, installation help, or a replacement component, our Customer Service Team is available directly via telephone at 847-709-0530, or digitally via the contact form linked here: <u>amsperformance.com/support</u>

#### 2. Disassembly

- 4. Tank Harness Install
- **11.** Tank Assembly
- 14. Tank install
- 16. Wiring

18. Solenoid Removal20. Solenoid Reinstall

# Table of contents ///



#### DISASSEMBLY ///

(All install photos are of an Audi R8)

1. Remove front bumper, all frunk pieces and all trim surrounding the frunk area.





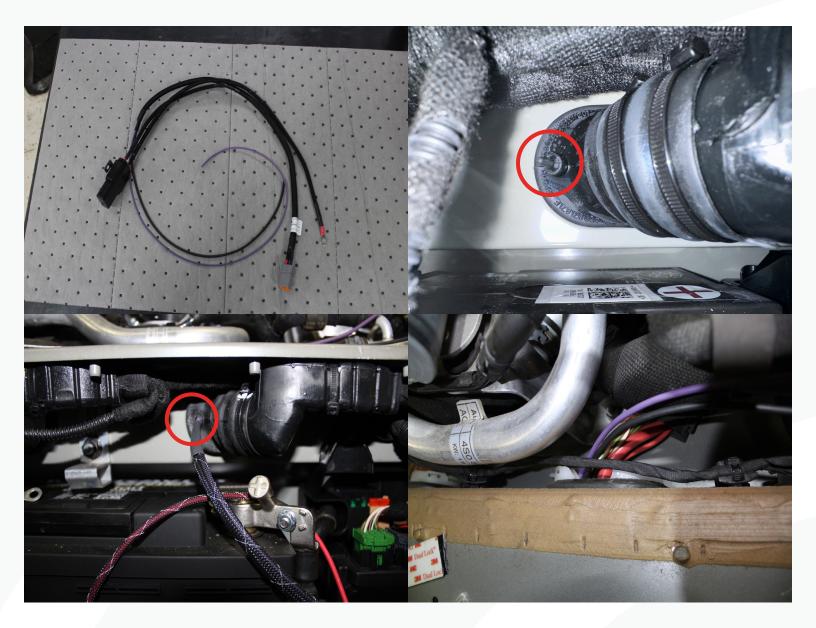
2. Remove the inside release, by remove the 8 screws and then locating the 2 black boxes that contain the cable connections, undo these and then disconnect the electrical connection from the release and remove the release unit and set it aside.





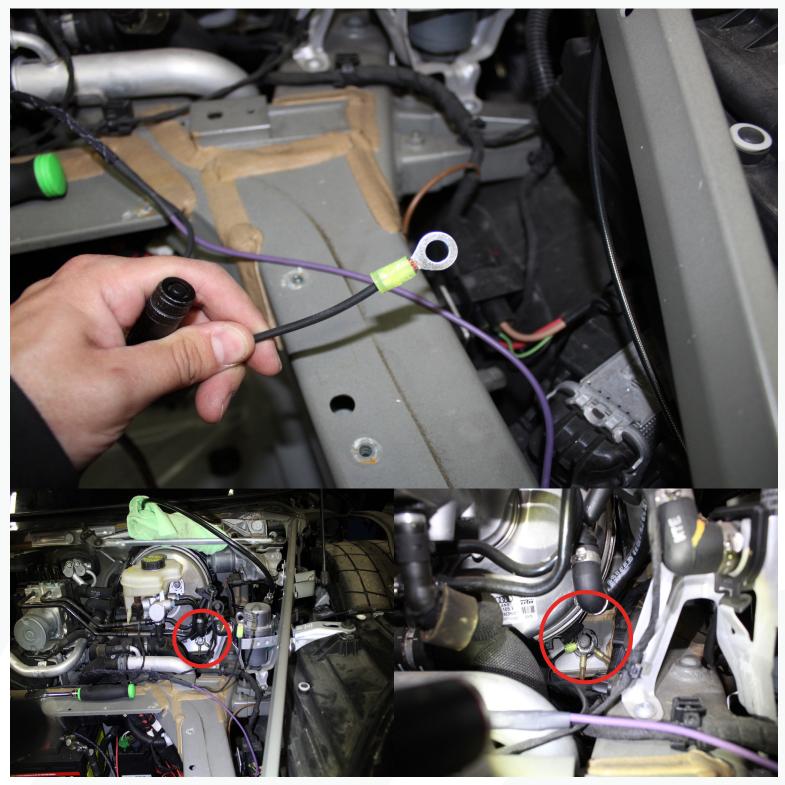
## TANK HARNESS INSTALL

3. Grab the water tank harness and locate the grommet above the positive terminal on the battery. Pull off the nub using some pliers and feed the purple and black wires through the grommet.



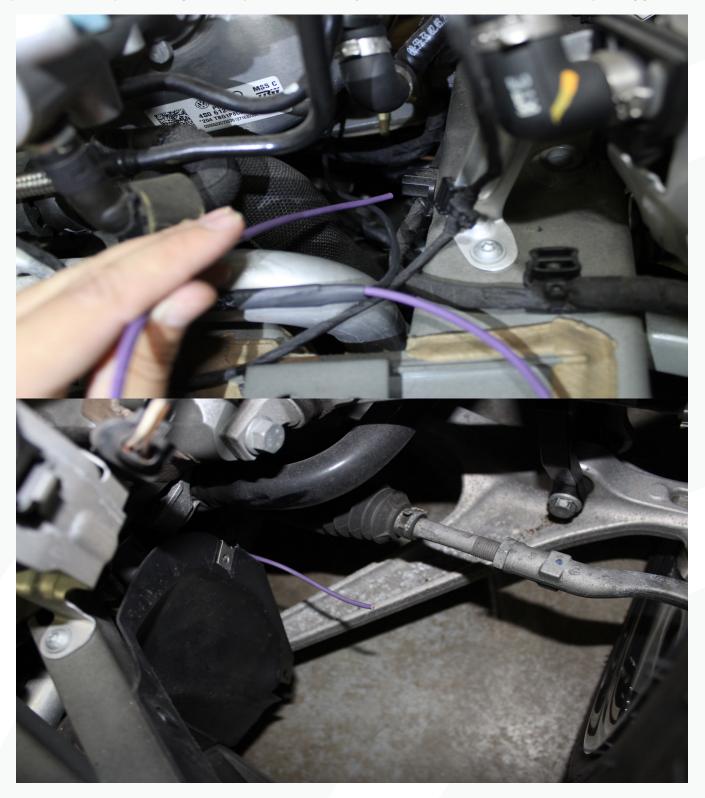


4. With the wires on the other side of the grommet, crimp on the provided ring terminal to the black wire. Then locate the ground point underneath the brake booster and attach the black wire ring terminal there.





5. Route the purple wire safely down towards the bottom of the car in the open area where it will be later connected. (Note: This wire is the control wire and can be hooked up to the oil pressure switch included in the Alpha turbo kits (see wiring section) or controlled by a stand-alone ecu, or even a simple toggle switch)



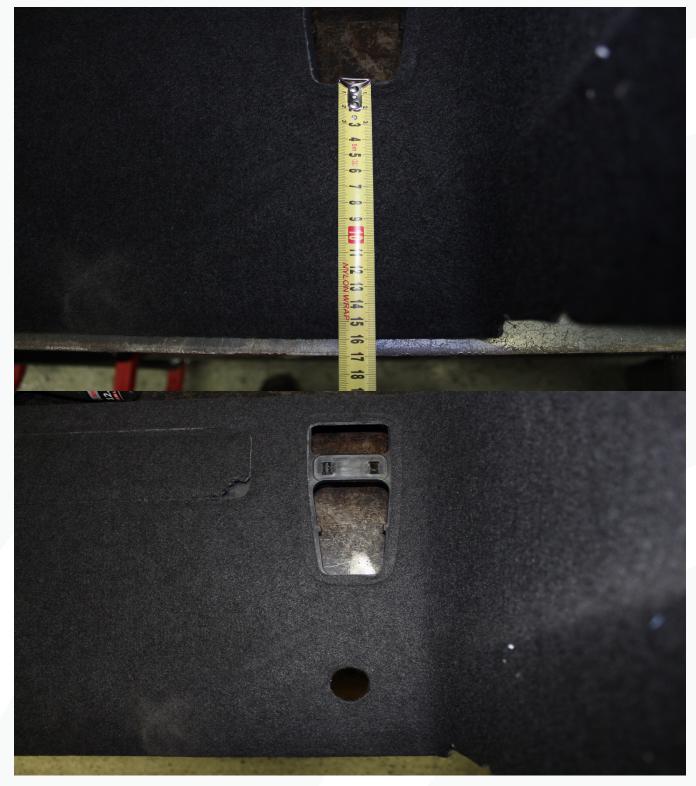


6. Secure the maxi fuse holder to the top of the battery using the provided strips of dual lock. The area to the left of the positive terminal is a good location for the fuse holder. Attach the red power wire to the stud on the positive battery lead. Route the EMP connector down to the bottom of the frunk (as pictured in the last photo) this is where it will pass into the frunk area. Make sure to give yourself as much length as possible.

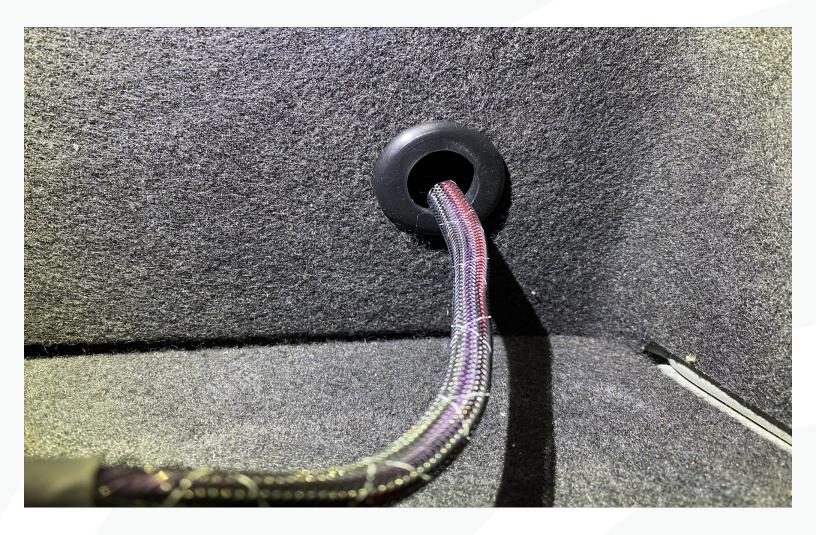




7. To pass the harness into the frunk area, a small hose will need to drilled into the back panel. Use a 1-1/4" hole saw about 100mm below the center of the opening on the frunk panel. This will place the hole slightly above the false bottom on the R8. (Use the first photo as a reference.) With the hole drilled, reinstall and frunk trim and tub panels and install the rubber grommet and reinstall the frunk panels. (Note: Huracan has a intergrated bottom so placement is more flexible.)

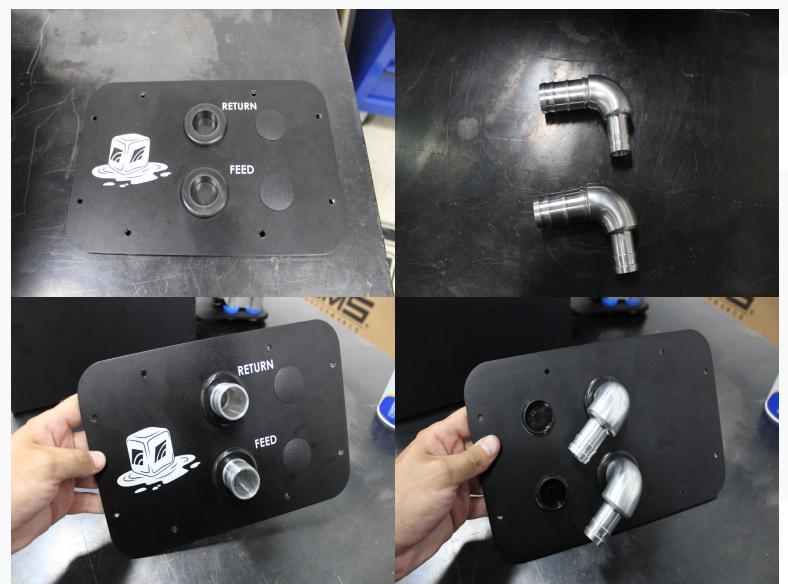








8. Install the two water fittings into the water plate. Insert the fittiings from the back and install it in place of the release panel using the provided T25 bolts.

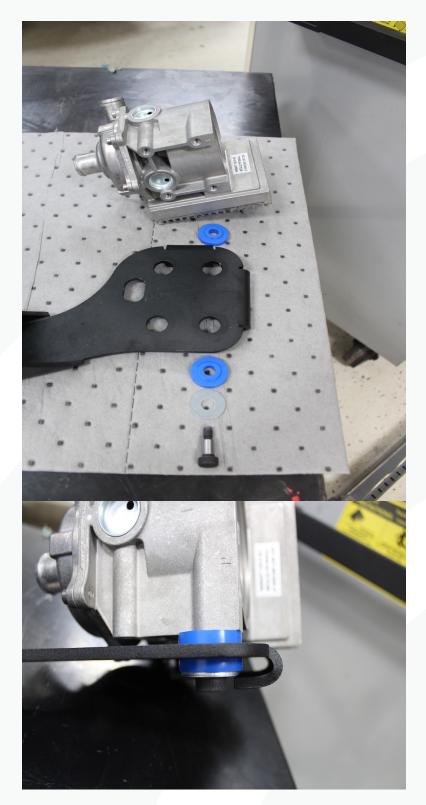






#### TANK ASSEMBLY ///

9. Attach the EMP pump to the pump bracket using the provided hardware. The order of hardware from bottom to top is bolt, washer, isolator, bracket, second isolator and then the pump. Tighten the bolts until the shoulder of the bolt tightens into the pump.





10. Attach the pump feed hose to the tank and then to the pump with the supplied #12 & #16 worm clamps. Next bolt the bracket to the tank. Now attach the feed and return hoses for the pump and tank, the return hose is S shaped and connects to the tank (2nd & 3rd photos). The other hose is the feed and connects to the pump (photos 4 & 5). Loosely secure the hoses with the supplied clamps, you will tighten them after the tank is in the car and connected to the water plate.









### TANK INSTALL

11. Insert the tank into the frunk pump side first and connect the harness to the EMP pump. Then lay the tank down into the frunk.





12. Attach the feed and return hoses from the tank and pump to the water plate, tighten the worm clamps. Lastly, if you are not running a fire suppression system you can attach the provided logo plate with the 4 remaining button head bolts.





#### WIRING ///

12. Controlling the water pump with the oil pressure switch (standard configuration)

a. Using the long single wire included in the kit, connect it to the purple wire left in step 5 using the supplied butt connector.

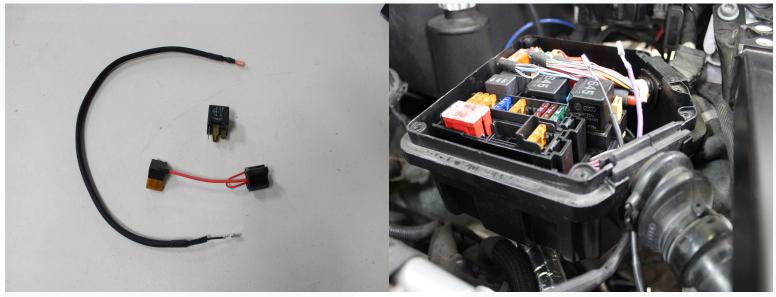
b. Safely route the wire through the tunnel towards the back of the car away from the driveshaft using the provided zip ties. Use the provided corrugated loom to protect the wire.

c. Route it up the passenger side, away from heat and towards the passenger side fuse box.

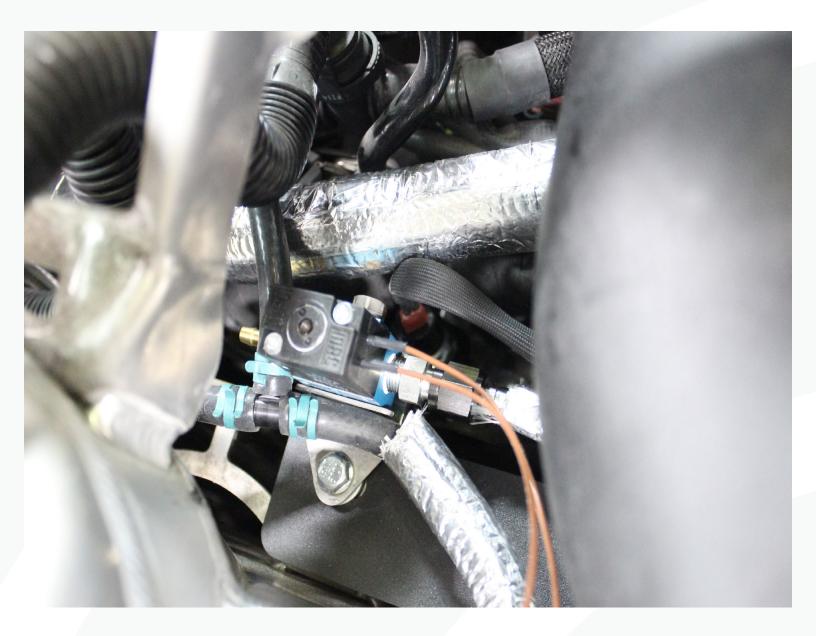
13. Remove the passenger side engine bay fuse box cover. Locate the three small plugs in the factory wire grommet boot at the fuse box. Using needle nose pliers, remove the lower plug. Then feed the purple wire into the fuse box.



14. Next, grab the single black wire from the water pump wire harness kit. Feed the non-insulated end into the fuse box next to the purple wire. Route the other insulated end down to the pressure switch just below the boost controller. Secure to the engine harness with zipties.









## SOLENOID REMOVAL

15. Now remove the frunk lockout solenoid from the frunk release unit. Remove the 4 torx screws and peel off the back panel to expose the solenoid. The adhesive used to seal the unit is strong, a pry tool will help to separate the unit.





16. Remove the x2 torx bolts holding the solenoid into the release unit. Then using a pin punch, hammer out the pin that attaches the arm to the solenoid. Remove the arm, it will not be reused.







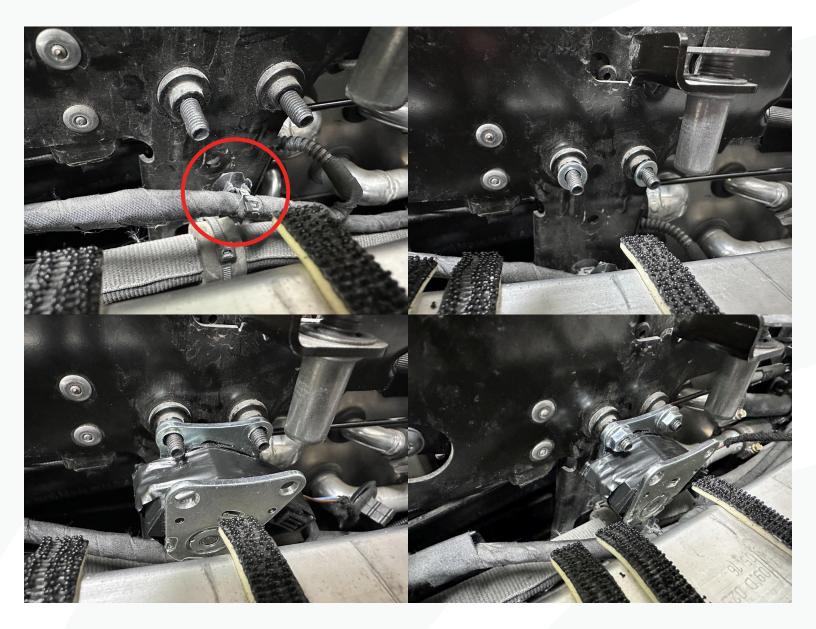
#### SOLENOID REINSTALL

# Note: The frunk solenoid reinstall is different between R8 and Huracan. The next step will cover the R8 install. For Huracan skip to step 18.

17. First, drill out the holes on the plunger side (circled in the 1st photo below) of the solenoid to 9/32". The solenoid will be installed below the center frunk latch, unclip the harness (circled in the 2nd photo) to make room for the solenoid. Install the provided washers first then the solenoid and secure with the provided nuts. Plug in the solenoid.









18. On a Huracan, the solenoid will be secured to the car using the provided bracket. Locate the secondary frunk release bracket (circled in the first photo). To remove it, first unbolt the frunk latch to gain access to the bolt underneath the latch (circled in the third photo.) Remove the bracket.





19. With the bracket removed, now attach the solenoid to the provided bracket using the provided hardware. Mount the solenoid in place of the release bracket that was removed in the previous step, reusing the factory bolts to secure it. Plug in the solenoid. This completes the install process enjoy your new AMS Performance V10 Water Tank System!

