

2017-04-20

Thank you for purchasing this PERRIN product for your car! Installation of this product should only be performed by persons experienced with installation of aftermarket performance parts and proper operation of high performance vehicles. If vehicle needs to be raised off the ground for installation, the installer must use proper jacks, jack-stands and/or a professional vehicle hoist for safety of the installer and to protect property. If the vehicle is lifted improperly, serious injury or death may occur! Please read through all instructions before performing any portion of installation. If you have any questions, please contact our tech department prior to starting installation. We can be reached in any of the following methods:

> Email <u>Tech@PERRINperformance.com</u> Instant Chat off the main page of <u>www.PERRINperformance.com</u> Or simply call our tech team at 503-693-1702

SPECIAL NOTES

• Make sure there is clearance with engine and other sensors that charge pipe runs next to. Failure to add clearance will lead to engine damage and damage to charge pipe.

Parts Included with the PERRIN Charge Pipe:

- (1) PERRIN 2015+ WRX Charge Pipe
- (1) PERRIN Turbo Adapter Flange
- (1) PERRIN Charge Pipe Coupler
- (1) 2.75" Coupler
- (2) Size 48 or 60-80mm Hose Clamp
- (1) Size 36 or 50-70mm Hose Clamp
- (1) Size 32 or 40-60mm Hose Clamp
- (1) Size 24 or 30-45mm Hose Clamp
- (1) Size 20 or 23-35mm Hose Clamp



Installation of PERRIN Charge Pipe:

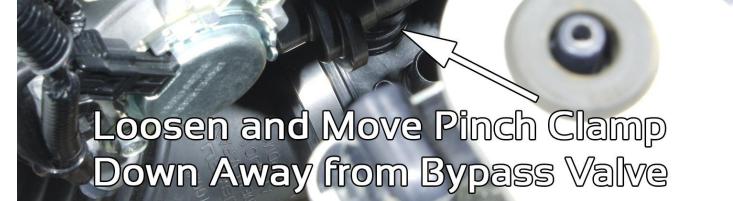
- 1) Loosen hose clamp that secures OEM plastic charge pipe to intercooler.
- 2) Remove (2) fasteners holding fresh air intake scoop to car, and remove scoop.
- 3) Remove (2) 10mm bolts holding right side radiator fan to radiator. Unplug electrical connector and remove fan from engine bay.
- 4) Using a long extension, remove (2) 12mm bolts securing OEM plastic charge pipe to turbo.

Bolt Hidden Behind Charge Pipe

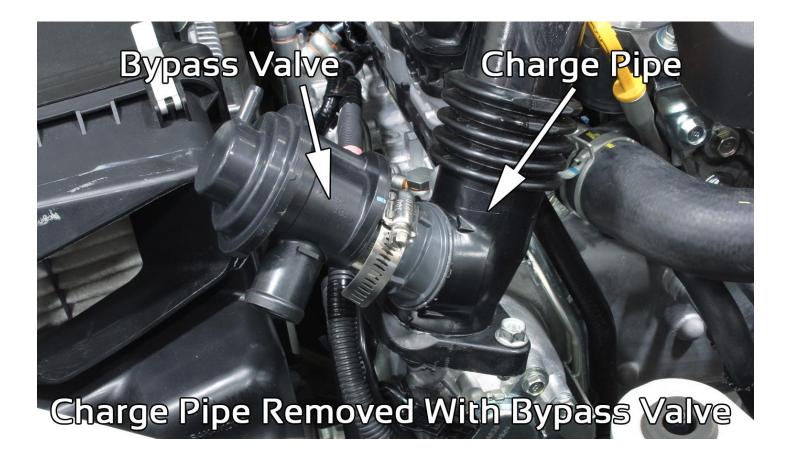
Remove (2) Bolts Securing Charge

Pipe To Turbo

5) Using long needle nose pliers, pinch and move down hose clamp securing bypass valve to the plastic turbo inlet pipe. NOTE: This step can be difficult as orientation of clamp may be in a hard to reach spot depending on tools being used. Alternatively, you can remove the lower splash guard to access clamp.



- 6) Remove vacuum hose from bypass valve and (2) crank case vent hoses on plastic turbo inlet pipe.
- 7) Remove OEM plastic charge pipe from intercooler. NOTE: This connection can be very tight and spraying a small amount of penetrating oil around coupler can aid in removal.
- 8) Carefully remove charge pipe with bypass valve attached from engine bay.



9) Install 2.75" coupler and (2) size 48 or 60-80mm hose clamps over coupler.

10) Remove O-Ring from OEM charge pipe and place into supplied PERRIN adapter flange.

Turbo Compressor Outlet Shown With Charge Pipe Removed

Install Supplied Flange Here

- 11) Install flange to turbo using (2) bolts removed in earlier steps. Tighten bolts to 15ft-lbs.
- 12) Remove bypass valve from OEM charge pipe. NOTE: This connection is very tight and will require some decent force to remove.
- 13) Install size, 36, 32 and 24 hose clamps onto charge pipe coupler, then install bypass valve into coupler. Orient bypass valve similar to picture, as this will aid in the next step. Leave clamps loose for now.



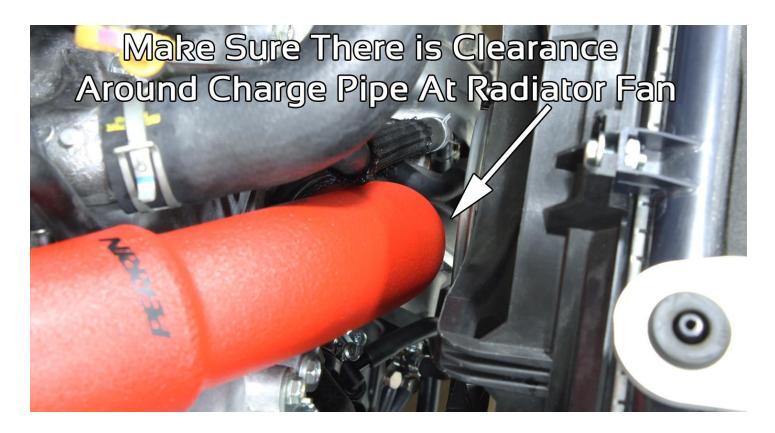
14) Remove pinch clamp that secures bypass valve to plastic turbo inlet. Install supplied size 20 hose clamp onto plastic turbo inlet.



- 15) Install charge pipe coupler with bypass valve to turbo adapter flange at the same time. Note: This step is tricky lining up all 3 components together. Take time ensuring coupler is completely on turbo adapter flange and bypass valve is seated into plastic turbo inlet pipe.
- 16) Tighten size 32 or 40-60mm clamp to secure coupler to turbo adapter flange. Tighten size 24 or 30-45mm clamp to secure bypass valve to coupler. Finally tighten size 20 or 23-45mm clamp securing bypass valve to plastic inlet pipe.
- 17) Connect bypass valve vacuum line to bypass valve. Connect (2) crank case vent hoses to plastic turbo inlet pipe.
- 18) Install large end of PERRIN Charge Pipe into coupler installed onto intercooler. Make sure that coupler does not get folded under tube. Using a bent awl to ensure coupler is seated properly around tube is highly recommended.



- 19) Align charge pipe by rotating it, pushing and pulling it in and out of the couplers, making sure to add clearance to all sensors and engine parts.
- 20) Slide hose clamps over beads on tubes and tighten hose clamps. If there is not enough room to install hose clamp behind bead on tube, readjust charge pipe in couplers.



- 21) Reinstall radiator fan to radiator, making sure that small round tabs on the bottom are lined up with lower holes on radiator. Install (2) bolts removed earlier to secure fans to radiator. Plug in electrical connection on fan.
- 22) Start car and check for leaks. If no leaks are found and engine is running as it was before, the installation is complete. If engine is running rough double check all hose connections.

Questions, Comments and Suggestions Contact: <u>Tech@PERRINperformance.com</u> Call Our Tech Team at 503-693-1702