

# PERRIN

## PERFORMANCE

### 02-07 WRX, 04-15 STI Turbo Inlet Hose

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.

#### GENERAL MODIFICATION NOTE

Modifications to any vehicle can change the handling and performance. As with any vehicle extreme care must be used to prevent loss of control or roll-over during sharp turns or abrupt maneuvers. Always wear seat belts, and drive safely, recognizing that reduced speeds and specialized driving techniques may be required. Failure to drive a vehicle safely may result in serious injury or death. Do not drive a vehicle unless you are familiar with its unique handling characteristics and are confident of your ability to maintain control under all driving conditions. Some modifications (and combinations of modifications) are not recommended and may not be permitted in your state or country. Consult the owner's manual, service manual, instructions accompanying these products, and local laws before purchasing and installing these modifications. You are responsible for the legality and safety of the vehicle you modify using these components.

#### SPECIAL NOTES:

- Due to the PERRIN inlet hose being larger diameter than the OEM inlet hose, it may touch on the intake manifold and power steering pressure line. This is completely normal and nothing to worry about. The multi layer silicone hose is very resistant to abrasion type wear.
- The PERRIN turbo inlet hose has wire reinforcement throughout hose. During installation, if the hose gets bent, simply bend hose back into shape using your hands.

#### Parts Included with the PERRIN Turbo Inlet Hose:

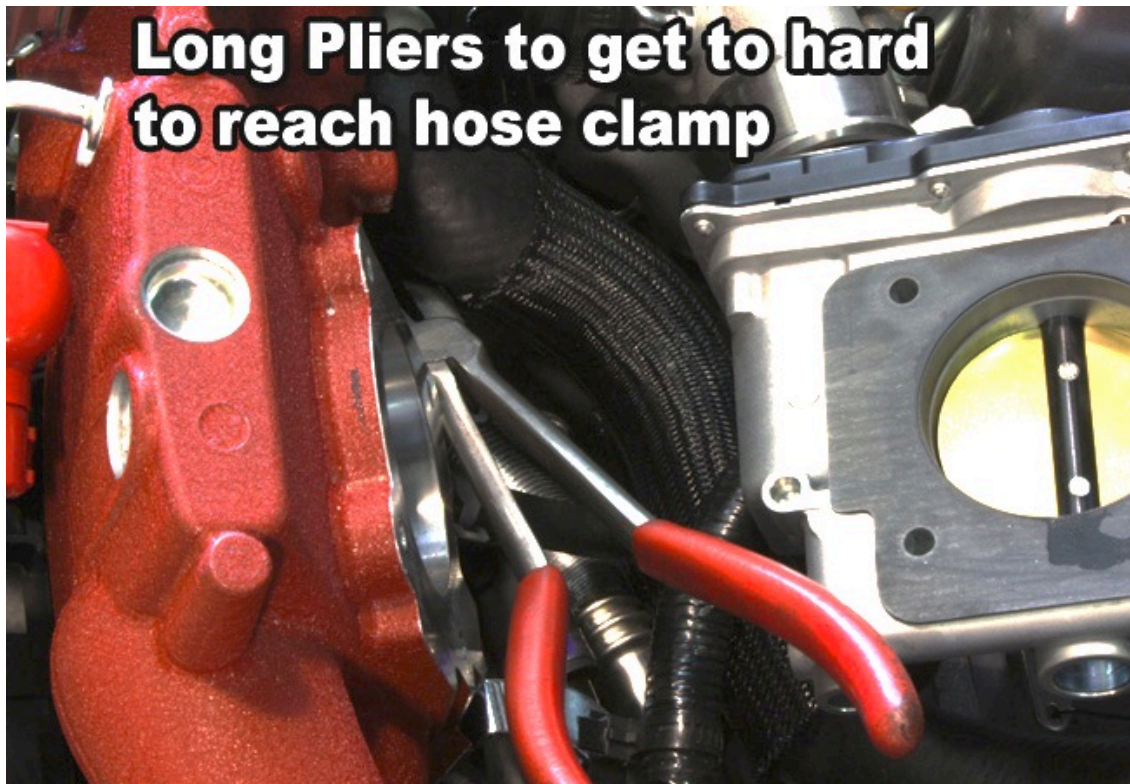
- (1) PERRIN Turbo Inlet Hose
- (1) 2.75" aluminum coupler
- (1) Size 36 hose clamp
- (1) Size 48 hose clamp
- (1) Size 3 hose clamp
- (2) 1/2" 90 degree connectors
- (2) 1/2"-3/8" 90 degree connectors
- (1ft) 1/2" Fuel Vapor Hose

#### Installation

1. Remove installed intake system up to OEM inlet hose. Prepare to remove top mounted Intercooler (If front mounted type intercooler is installed, take steps to remove boost tube at turbo and throttle body). Loosen hose clamp on turbo outlet and intercooler coupler leaving throttle body coupler secured to throttle body.
2. Remove (2) 12mm bolts holding each side of intercooler to engine. Remove (2) 12mm bolts holding BOV to intercooler and remove intercooler from car.



3. Remove (4) bolts holding throttle body to intake manifold. Pull throttle body off manifold and set on top of engine block leaving coolant lines installed. This is done to access BOV return hose clamp. **NOTE: Cars with drive by cable throttle bodies will need to remove cables from throttle cam.**
4. Locate BOV return hose clamp and pinch using long pliers as shown in picture. This clamp is very tight and hard to get, having long 45 degree bent pliers makes this job go much easier. With clamp pinch, pull clamp away 2" from OEM inlet hose.



5. Using a bent awl, free BOV return hose from inlet hose. Some twisting and pulling of hose will also help.
6. Locate and remove crank case vent hose from turbo inlet hose, (this is the hose that goes from crank case to inlet hose directly in front of turbo charger inlet) and leave connected to crank case.
  - a. 02-03 cars simply unplug from OEM inlet hose and insert supplied 1/2" 90 degree connector into crank case hose.
  - b. All other cars, unplug PCV diagnosis connector from inlet hose and remove plastic connector (white or grey) from crank case hose. Insert 1/2" 90 degree connector into hose, this will be inserted into inlet hose in later steps.
  - c. Remove PCV diagnosis plug /wire harness from inlet hose by twisting off. Take note of female pins exposed.

- d. Using needle nose pliers remove small electrical pin inside of PCV diagnosis connector (white or grey connector removed earlier). Insert pin into female pins on PCV diagnosis plug and harness. Tape end of plug to secure pin and keep pin from grounding out on engine. Move harness out of way toward right side of car.

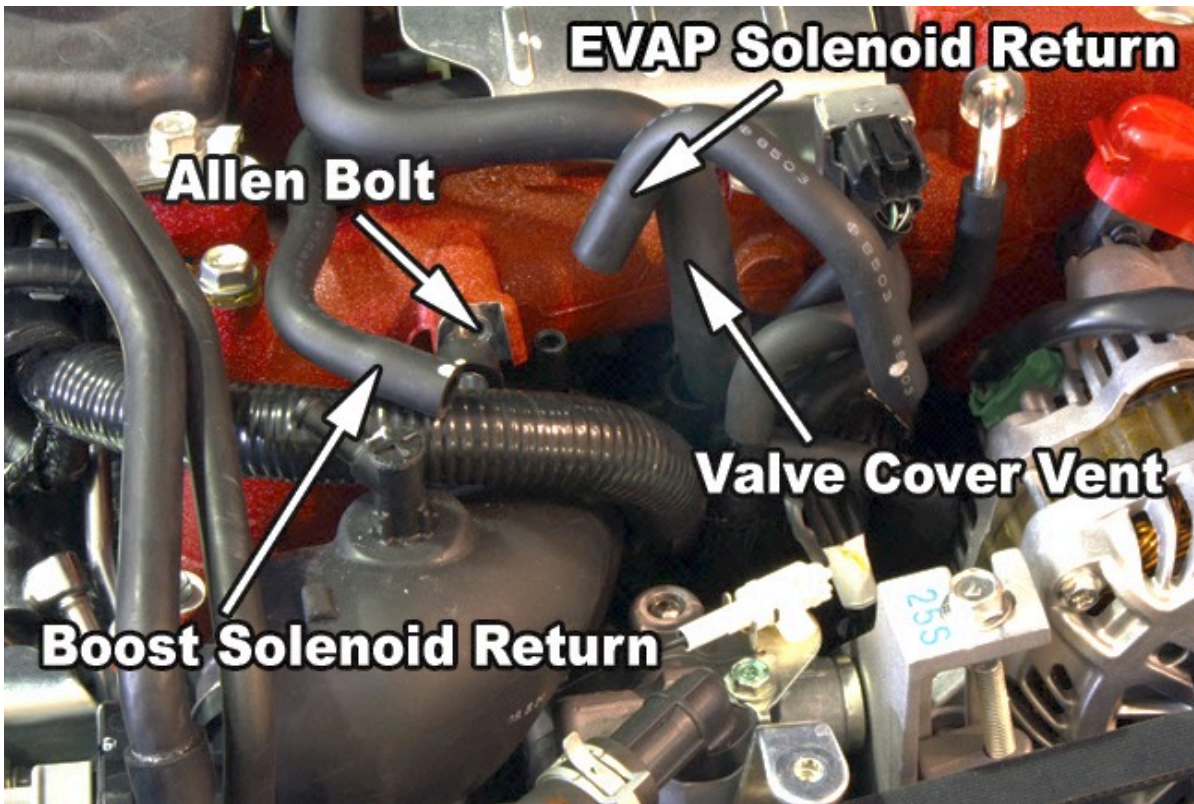


Pin shown being removed from PCV diagnosis connector



Pin shown inserted into PCV diagnosis harness.

7. Using large pliers, break off remaining plastic fitting molded into OEM inlet hose. This needs to be removed as close to the inlet hose as possible as this aids in removal of OEM inlet hose.
8. Loosen hose clamp securing inlet hose to turbo inlet (use a 10mm nut driver to loosen clamp)
9. Remove (3) remaining hoses from front side of inlet hose. (1) Large valve cover vent hose, (1) Small EVAP solenoid vent hose, and (1) Small boost solenoid vent hose.



10. With hoses removed, use large pliers and break off large crank case vent /valve cover breather located on side of OEM inlet hose. This is done to aid in removal of inlet hose.



11. Remove 6mm Allen bolt holding inlet hose to intake manifold and carefully remove OEM inlet hose from engine. Some twisting and pulling of hose will be necessary to remove.
12. Locate and remove 12mm bolt securing EVAP solenoid to front of intake manifold. This is done to aid in installation.

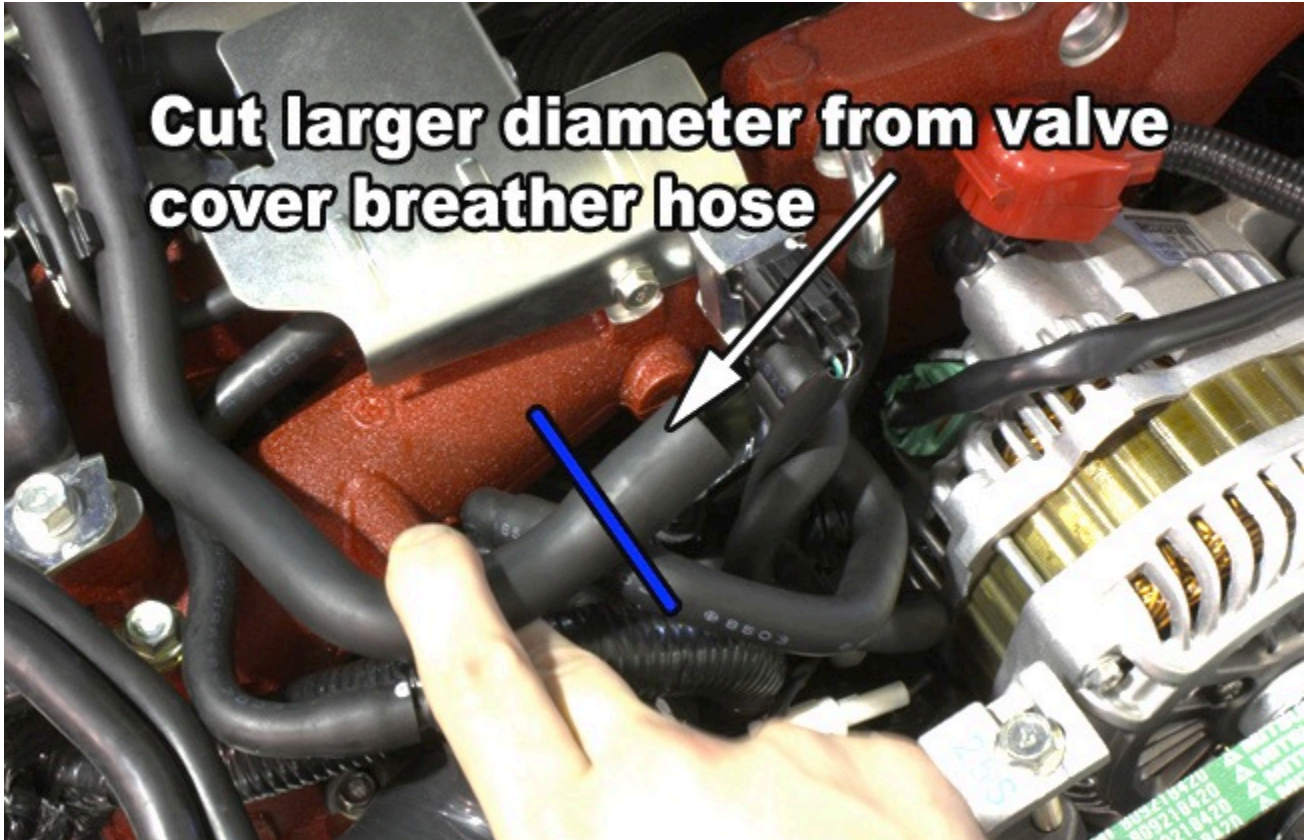


13. Load (1) size 36 hose clamp onto PERRIN inlet hose and slide PERRIN inlet hose under intake manifold and onto turbo inlet (**Note: Use a bent awl to aid in getting hose around turbo inlet. Some pushing and twisting of hose to maneuver around fuel lines is necessary and may cause some minor bending of embedded wire in inlet hose. Do not worry about this as it can be straightened out after hose is installed.**) Also make sure wire harness is on top of hose not under.
14. Install BOV return hose onto aluminum male fitting on PERRIN inlet hose making sure to orient hose the same as it was removed. Using pliers, pinch hose clamp and slide up to body of PERRIN inlet hose to secure. Make sure that hose is pushed completely onto PERRIN inlet hose before releasing pinch clamp or a vacuum leak will occur and cause check engine lights. **NOTE: This area will be tight due to the BOV return hose, crank case pipe/hose, and PCV hose all passing through. You can add more space to this area by bending the black steel crank case pipe toward the turbo.**
15. Insert 1/2" 90 degree connector (inserted previously into crank case vent hose) into vertical spigot on PERRIN inlet hose. **Note: This is the spigot that is between intake manifold and turbo on PERRIN inlet hose.**

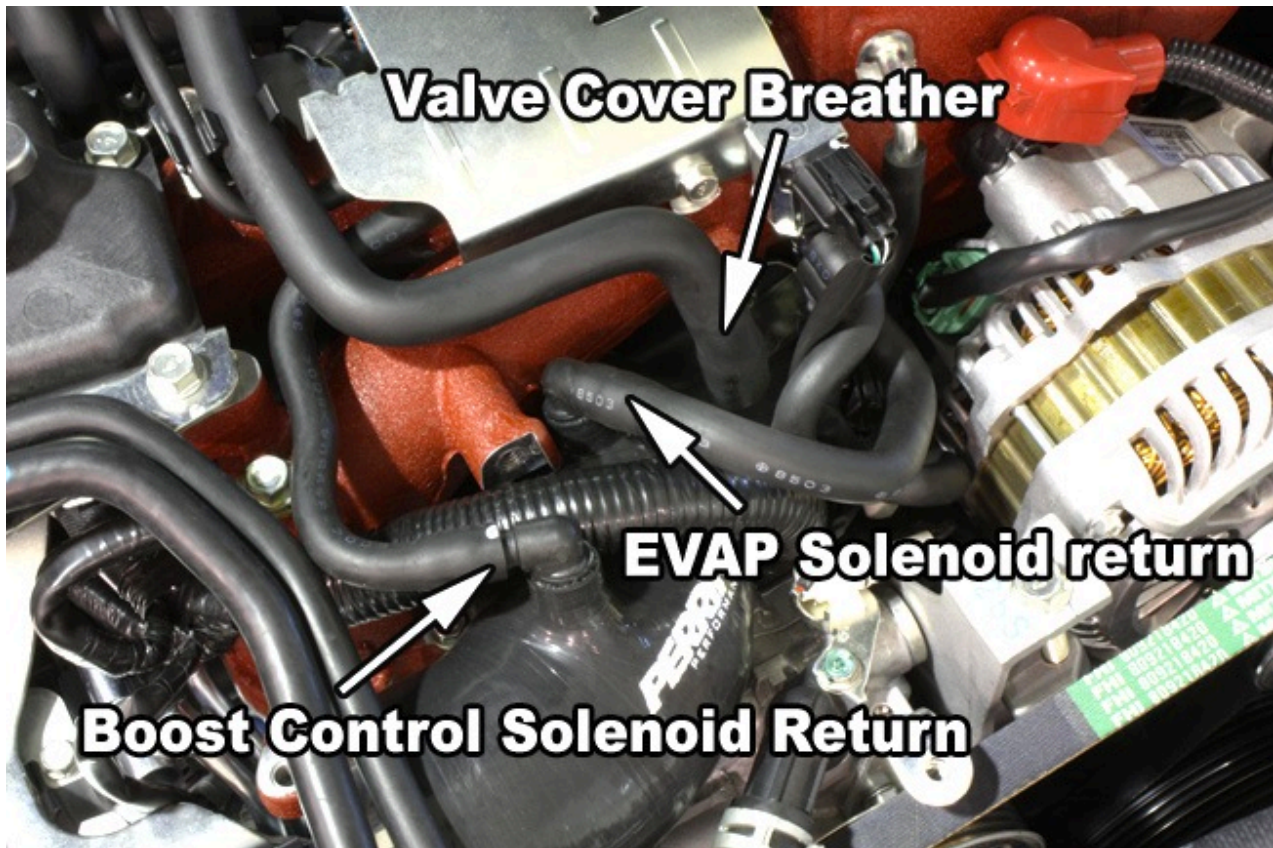


90 degree connector and crank case vent hose not shown in picture to show clarity.

16. Connect PCV hose (had PCV Diagnosis connector in it) to 90 degree plastic fitting. **NOTE: Depending on the mileage of your car, you may want to remove OEM hose and install supplied 1/2" fuel vapor hose. This may be necessary if your OEM hose has gotten hard or brittle over time.**
17. Reinstall throttle body making sure to put gasket between manifold and throttle body. **Note: This gasket is reusable as long as it did not get damaged during installation. If damaged occurred, install a new gasket. Drive by Cable throttle bodies make sure and reattach cables that were removed earlier. Do not over tighten bolts as these require very light torque. Tighten to just beyond hand tight, or 12ft-lbs.**
18. Locate large valve cover vent hose and remove roughly 1" of hose (Larger diameter on end of hose). Insert 1/2" 90 degree connector in end of hose and clamp down using supplied #3 hose clamp. Its normal for the hose to be slightly loose on fitting before hose clamp is tightened down. **NOTE: On all 02-07 cars this hose will have tight clearances next to evap diaphragm.**



19. Insert valve cover vent hose and 90 degree connector into spigot on side of PERRIN inlet hose.
20. Reinstall bracket holding EVAP solenoid to intake manifold.
21. Insert (1) each 1/2"-3/8" 90 degree connectors in remaining (2) spigots on PERRIN inlet hose.
22. Insert EVAP solenoid return hose onto connector next to intake manifold, and insert boost control solenoid hose onto connector toward large end of inlet hose.



23. Reinstall intercooler to turbo and throttle body. This step can be tricky, but make sure to loosen hose clamps, and slide onto turbo first. Once intercooler is installed, make sure and install BOV to intercooler as well as (2) 12mm bolts holding intercooler to engine.
24. Installation of intake will vary depending on intake installed. Included with PERRIN inlet hose is an aluminum coupler which can be inserted into hose for use with stock intake systems, or can be removed of using an aftermarket intake. In either situation, make sure that a proper seal is made to ensure no vacuum leaks. **NOTE: It may be normal to have some misalignment with your intake system depending on how it is installed. Try adjusting brackets or other things that may help with alignment.**
25. After installation is complete, start engine and if engine starts and runs normal take car for test drive.
26. If car doesn't start make sure all sensors are plugged, then look for vacuum leaks. Restart engine and test for other leaks if engine runs poorly. If nothing obvious is found, please contact our tech department.