

# PERRIN

## Top Mount Intercooler for 08+ STI

2020-11-02

PSP-ITR-302

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 [Tech@PERRIN.com](mailto:Tech@PERRIN.com)

Instant Chat off the main page of [www.PERRIN.com](http://www.PERRIN.com)

Or simply call our tech team at 503-693-1702

### GENERAL MODIFICATION NOTE

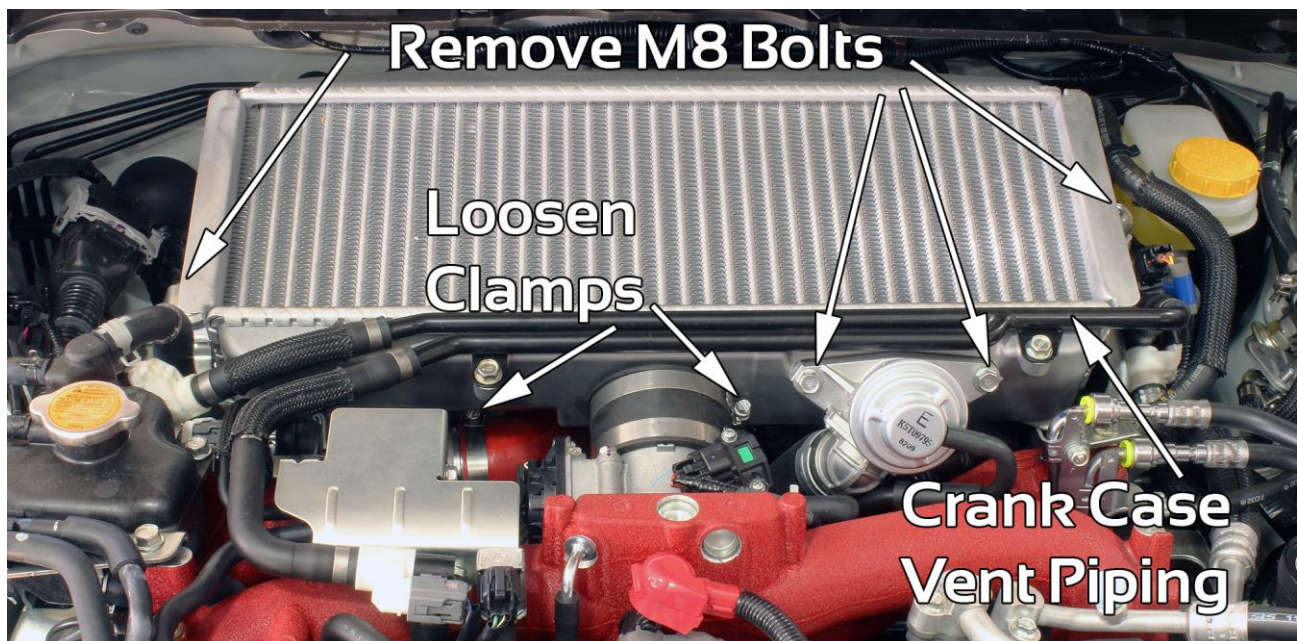
Modifications to any vehicle can change the handling and performance. As with any vehicle extreme care must be used to prevent loss of control or roll-over during sharp turns or abrupt maneuvers. Always wear seat belts, and drive safely, recognizing that reduced speeds and specialized driving techniques 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.



**WARNING:** This product can expose you to chemicals including Lead which is known to the State of California to cause cancer birth defects or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

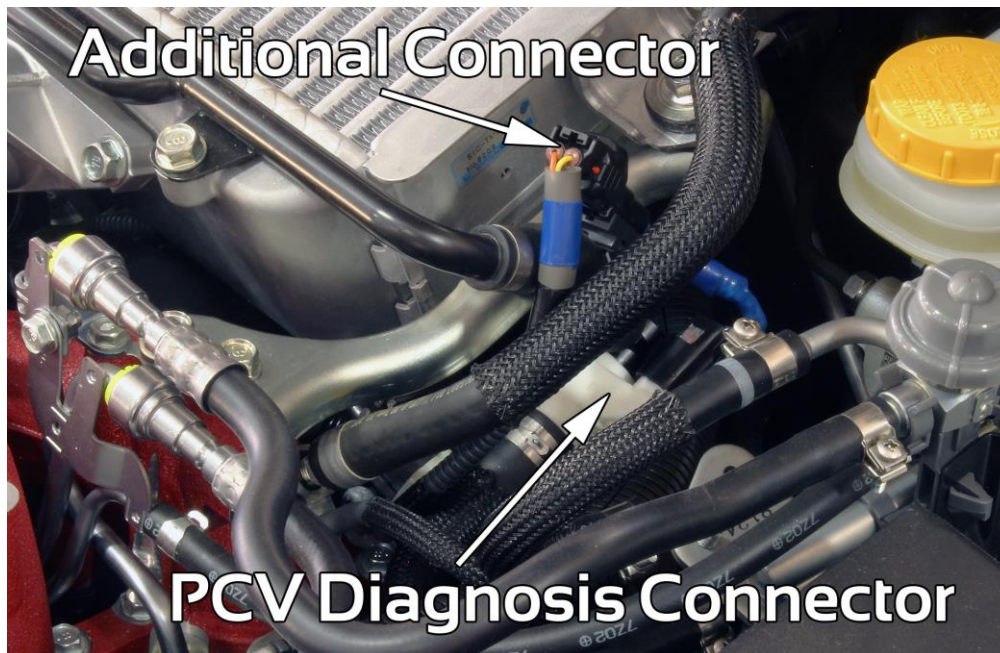
### Parts Included With PERRIN Top Mount Intercooler

- (1) PERRIN TMIC
- (1) PERRIN Stencil
- (1) Black Spacer
- (1) PERRIN 2.75"ID x 2.0" Coupler
- (2) Clamps size 48 or 60-80
- (26") 1/2" Emissions Hose
- (1) 1/2" Tee Fitting
- (1) 1/2" Y Fitting
- (1) 1/2" Straight Fitting
- (1) 1/2" 90 Degree Fitting
- (2) M8x40 Hex bolts
- (2) M8x20 Socket Screws
- (1) M8x20 Flat Head Screw
- (2) M8 fender washers



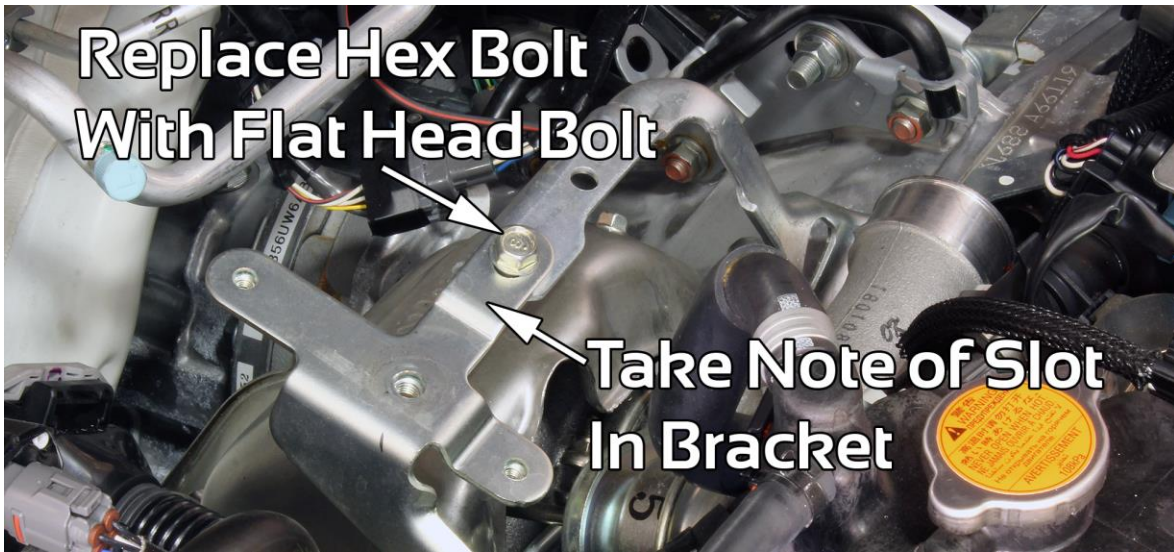
## Removal of OEM TMIC

1. If there is strut bar installed, remove at this time.
2. Locate (2) 12mm bolts on either side of intercooler and remove. Loosen (2) bolts securing intercooler bracket to engine.
3. Locate (2) 12mm bolts securing Blow off valve to intercooler and remove.
4. Locate and loosen ONLY the hose clamp holding throttle body coupler to intercooler. Leave hose clamp securing coupler to throttle body.
5. Locate and loosen hose clamp holding hot side intercooler coupler to turbocharger outlet.
6. Locate steel crank case vent pipe and hoses bolted to the top of intercooler. Disconnect hoses from steel pipes
  - a. For models with pinch type clamps, simply remove clamp from hose where it meets the steel piping in 3 locations as shown.
  - b. For models (2018+) with seamless band clamps securing hoses to steel pipes, follow hoses to the three electrical connectors (PCV diagnosis connectors). Remove both the electrical connection and hose connection together. Take care as these can be tricky to push the button and pull the connector out at the same time. **NOTE: On right side, there is an additional plug to remove see pictures below showing this.**



7. Lift up on sides and back of intercooler to free from both the throttle body and turbo outlet. Wiggle and pull on intercooler until both the throttle body coupler and turbo outlet coupler are free. Remove intercooler from engine bay. **NOTE: This step can be difficult, make sure that the hose clamps are very loose to ensure they are not holding anything up.**
8. Loosen hose clamp securing coupler to throttle body and remove coupler from engine.
9. Remove M8 bolt securing right side intercooler bracket together with engine mounted bracket. See picture below for reference.





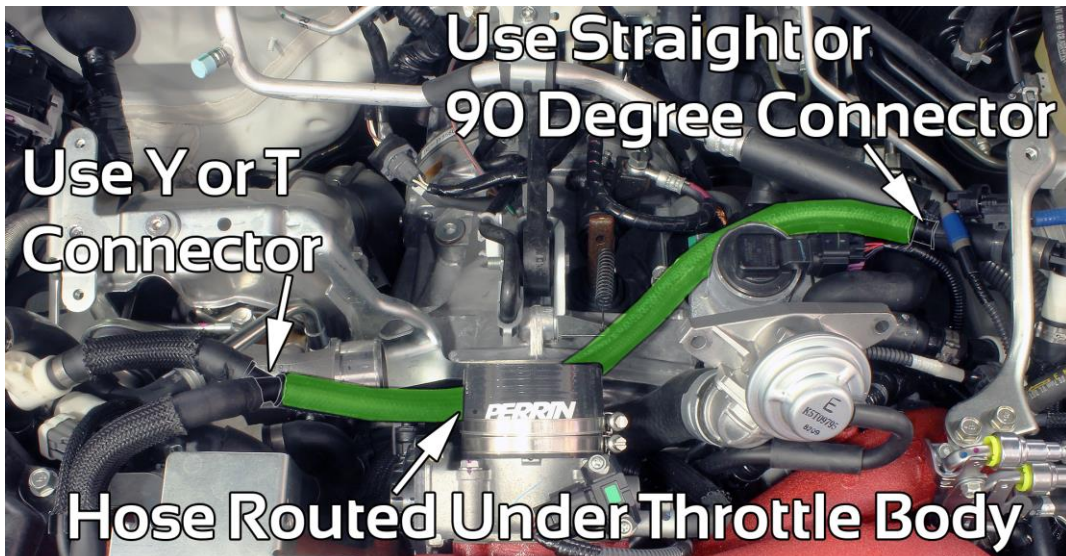
10. Install supplied M8 flat head bolt into slot and tighten. **NOTE: Take note of the location of the bolt in the slot. this can affect where the right-side mounting location of the intercooler well end up. This may need to be adjusted (to push the bracket toward the outside of the car) in future steps.**
11. Locate and remove M8 bolt securing plastic wire harness cover on left side of intake manifold. Carefully cut electrical tape securing plastic cover to wire harness, then remove cover from car.



12. Remove (4) bolts securing Y pipe to bottom of intercooler. Remove Y pipe along with gaskets from Intercooler. These gaskets are typically reusable but if these are damaged during removal replace with OEM gaskets.

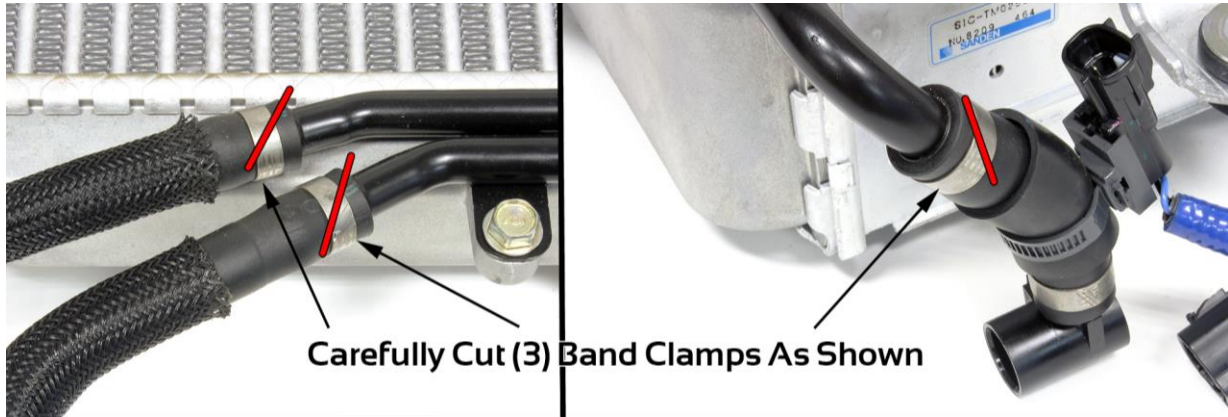
### Installation of PERRIN TMIC

1. Install PERRIN coupler to throttle body and install both supplied clamps. Tighten clamp at throttle body making sure to place the clamp behind the bead on the throttle body. Leave remaining clamp loose for now.





2. Using supplied plastic connectors and 1/2" emissions hose, connect crank case vent hoses together. See picture above showing routing of hose and fittings. This will vary slightly from 2008-17 models versus 2018+ models.
  - a. For models with pinch type clamps.
    - i. Install Tee fitting on right side of engine (joining two OEM hoses together).
    - ii. Install straight fitting into OEM hose on left side.
    - iii. Install supplied 1/2" emissions hose to Tee fitting, and route hose down between throttle body and turbo then across to straight fitting as shown in picture. **NOTE: Extra connectors are supplied for different setups and you may not use all of them.**
  - b. Models (2018+) with seamless band clamps and PCV diagnosis connectors.
    - i. Using a Dremel or small cutoff wheel, cut clamps very carefully where they are clamped onto the OEM steel crank case piping. Cut each clamp at an angle and most of the way through. Try not to generate too much heat of the hose will start to melt and damage the hose. Take light cuts until your tool just starts to break through the clamp. See picture below for reference.



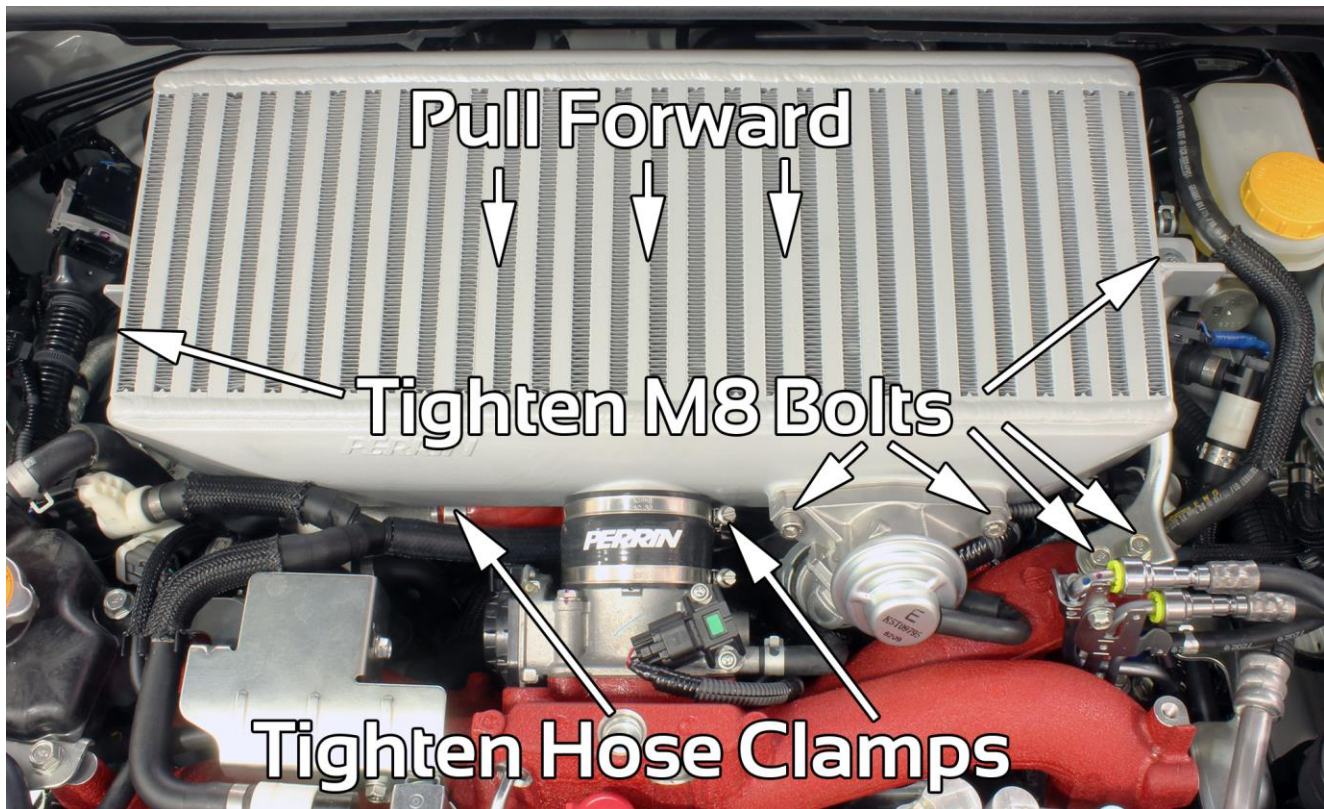
- ii. Using a flat head screwdriver or pliers, twist clamp apart and remove from hose.
  - iii. Remove hoses and fittings from steel crank case piping and reconnect them (electrically and physically) to their respective locations on the engine. **NOTE: Don't forget to plug in the additional plug on right side.**
  - iv. Install supplied Y fitting to both OEM hoses on right side and straight fitting into hose on left side.
  - v. Install supplied 1/2" emissions hose to Y fitting, and route hose down between throttle body and turbo then across to straight fitting as shown in picture. Trim hose to best fitting length that does not create kinks in the hose. **NOTE: Extra connectors are supplied for different setups and you may not use all those supplied.**
3. Test fit PERRIN TMIC onto engine. Make sure to slide TMIC outlet fully into throttle body coupler then snug hose clamp.
  - a. Take note of right-side mounting tab and bracket mounted to intake manifold.
  - b. If these do not line up, remove intercooler, then loosen the M8 flat head bolt securing the two brackets together.
  - c. Adjust the location of the bracket as necessary then tighten M8 bolt.
  - d. Remove PERRIN TMIC from engine.
4. Using OEM bolts removed previously, install OEM Y-pipe to PERRIN TMIC making sure to use the OEM gaskets between the connections. If these gaskets are damaged, replace with OEM parts only. **NOTE: Do not use silicone or other gasket making materials as they can damage the engine.**
5. Install PERRIN TMIC onto engine. This step requires both the throttle body coupler and turbo outlet coupler (red elbow) being connected at the same time, while making sure the couplers are not folded under themselves. This step can be very tricky and having a bent awl to ease couplers over their respective fittings is a very good idea. **NOTE: A slight lengthening of the turbo outlet coupler (red elbow) may aid in installation. If this is required, loosen hose clamp on Y-pipe and slide coupler off slightly. Make sure to leave enough room for the hose clamp to fully tighten behind the bead on the Y-pipe.**
6. Place supplied spacer between right side mounting tab and bracket. Loosely install M8 bolt fender washer through bracket and spacer to secure intercooler. **NOTE: This may require some pushing and pulling of core and brackets to get it to line up.**



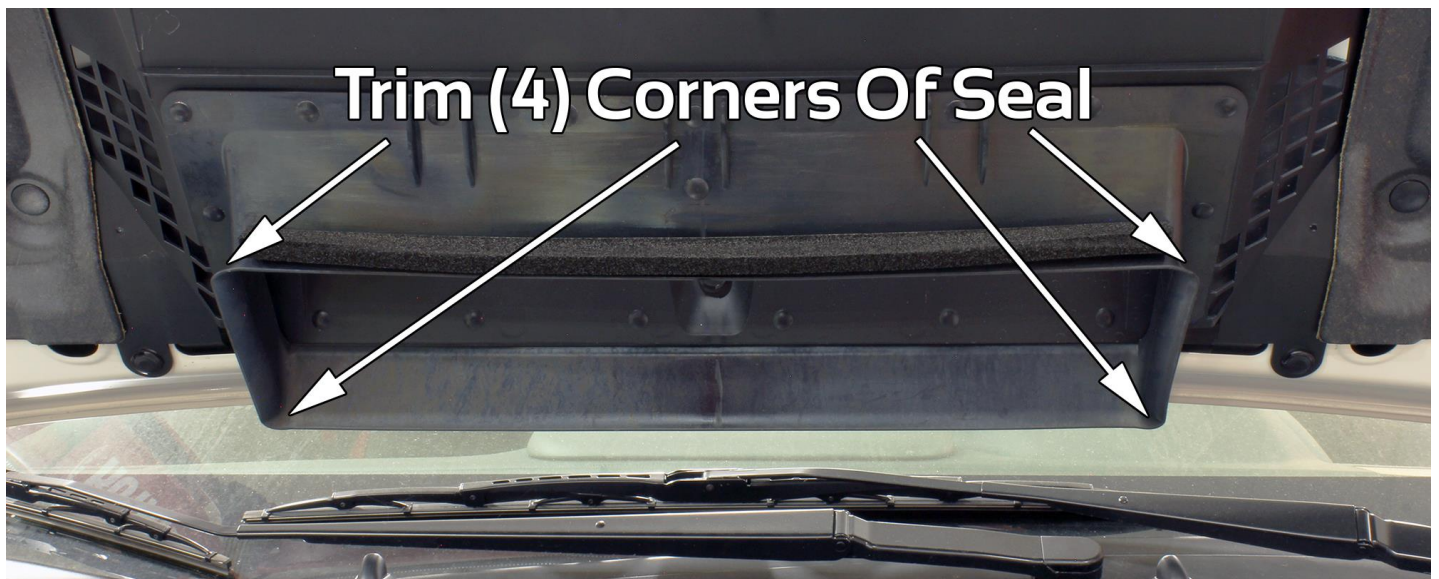
7. Loosely install supplied M8 bolt and fender washer into left mounting tab. **NOTE: This may require some pushing and pulling of core and brackets to get it to line up.**



- Using supplied M8 socket head bolts, secure BOV to intercooler making sure to install gasket between the both of them.
- Pull forward on intercooler and tighten hose clamp on throttle body.



- Tighten (2) bolts securing left bracket to intake manifold, then fully tighten (2) M8 bolts securing intercooler to brackets.
- Tighten hose clamp securing the turbo outlet coupler to the turbo (red elbow).
- Since the PERRIN TMIC is larger than the stock part, we recommend cutting the corners on rubber hood seal to allow the seal to better fit over the intercooler when the hood is closed. Cutting each of the (4) corners back by roughly 1/2" to 3/4".



- If strut bar was installed previously, you can now re-install it.
- Start car and make sure that car idles smoothly, and no check engine lights appear. If you get a check engine light, it might be from one of the sensors on the crank case vent hoses (for those cars that have them) or leaks at the couplers or Y-Pipe. Double check all plumbing is fully connected tight and secure. Clear Check Engine Light. Restart car. If car now idles smoothly and no Check Engine Lights illuminate, proceed to a gentle test drive.
- If test drive goes properly, simply double check all hose clamps for being tight and your installation is complete.
- If problems persist after again following Steps 14-15, contact Tech@PERRIN.com.

Questions, Comments and Suggestions Contact: [Tech@PERRIN.com](mailto:Tech@PERRIN.com)  
Visit Our Website for Instant Chat Options at [www.PERRIN.com](http://www.PERRIN.com)  
Call Our Tech Team at 503-693-1702