



## **Top Mount Intercooler Legacy GT & Outback XT 2005+**

07/08/10

Thank you for purchasing the PERRIN top mount intercooler system. Installation of this system should only be performed by persons experienced in the installation and proper operation of SUBARU engines and related systems. **WARNING:** PERRIN performance is not responsible for any damages as a result of misuse of this part.

**WARNING:** This part is designed, manufactured, and sold solely for use on off-road and racing vehicles not controlled by federal and or local emissions laws. It is not intended for use on vehicles that operate on public streets and highways. Use of this part on emissions controlled vehicles may be in violation of federal or local law! ASMC, LTD. is not responsible for any damages as a result of misuse of this part. Check your local laws prior to use or installation.

### **SPECIAL NOTES:**

- The use of a factory service manual is highly recommended. These can be purchased or downloaded online at <http://techinfo.subaru.com>.
- This intercooler will have slight fitment issues with some aftermarket turbos. Slotting or re-drilling of holes may be necessary do to the incorrect placement of turbo outlet flange.
- Take time when trimming plastic shroud, this will pay off with a professional looking install.

### **Parts Included with the PERRIN Legacy TMIC:**

- (1) Legacy GT Top Mount Intercooler
- (1) O-ring 2-136N70
- (2) M6x25mm SS button head bolts
- (4) M6 SS washers
- (2) M8 SS washers
- (2) M6 SS nuts

Checked By \_\_\_\_\_

### **PERRIN™ Intercooler Installation:**

- 1) Raise hood and disconnect battery.
- 2) Remove engine cover. (4) plastic pop-it fasteners.
- 3) Remove (2) bolts (10mm head) securing BOV to intercooler. Remove (1) bolt (12mm head) securing intercooler to bracket on left side of vehicle. Remove (2) bolts (12mm head) securing intercooler to turbo outlet.
- 4) Loosen hose clamp securing intercooler outlet to short rubber boost tube. An 8mm socket is best used to reach this clamp.
- 5) Remove intercooler from car, take care not to damage fins while removing.
- 6) Remove short rubber boost tube from throttle body, take note as to orientation of coupler.
- 7) Remove the rubber caps on either end of short boost tube. (NOTE: They are lightly glued to the rubber boost tube and a heat gun may aid in the safe removal.)
- 8) Reinstall short boost tube back onto throttle body in same orientation as it came off, and tighten clamp at throttle body.
- 9) Locate wire harness directly bolted to intake plenum (In front of previously installed intercooler) with a black plastic cover. Trim harness cover or remove it to add additional clearance to front side of PERRIN™ Intercooler.
- 10) Use supplied o-ring seal (at turbo connection) and place into the corresponding groove on PERRIN™ Intercooler. The O-ring should snugly press into groove, and stay put while installing back into car.
- 11) Using factory hardware removed earlier, install PERRIN™ Intercooler onto engine. Be sure to align intercooler before final tightening of each hose clamp and bolt. If intercooler doesn't align (horizontal to ground) slight re-clocking of the turbos compressor housing may be necessary. This is done by slightly loosening small bolts around the compressor housing and twisting it until it is in the desired position. Do not loosen the bolts on the compressor housing more than 1 full turn!! Once adjusted, make sure to tighten bolts back down.
- 12) Reinstall BOV using factory bolts removed earlier.
- 13) *Locate* factory engine cover and trim inside edge of plastic cover until it sits flush with the intercooler. Once lined up, drill (2) .25" holes in tabs on either side of the PERRIN intercooler. Use supplied nuts and bolts to secure plastic shroud to PERRIN Intercooler.
- 14) Reconnect battery.
- 15) Start engine and while under hood listen for any audible signs of vacuum/boost leaks.
- 16) Proceed with test drive. Again, if foreign whistles or sounds are noted re-check all connections.

### **PERRIN Performance Highly Recommends These Complimentary Products:**

- PERRIN Short ram intake system.
- PERRIN front and rear swaybars 22mm and 25mm
- Custom PERRIN tuned map

**For questions & comments please contact [TECH@PERRINPERFORMANCE.COM](mailto:TECH@PERRINPERFORMANCE.COM)**

**503-693-1702**

**AIM contact ALTAPERRINSALES**

