

**AVO Top Mount Intercooler  
Installation Guide  
PN# S1104K941001T**

**Applied Models:  
05+ Legacy GT & Outback XT  
08+ Impreza WRX  
09+ Forester XT**



You are now the proud owner of a highly tested and proven AVOTurboworld TMIC upgrade kit. While you have made a wise choice in selecting this body part, below we have some suggestions and procedures for you to follow in ensuring its successful installation.

**Tools Required**

Screwdriver Set    Metric Socket Set    Metric wrench Set

**Kitting List**

Note: Check this kit list before starting the install to make that you have all these parts.

<p>1 x S1104K941001T Top Mount Intercooler</p>	<p>2 x BOLT-003 6mmx20mm bolt</p>	<p>2 x WASH-320 6mm x 18mm washer</p>
<p>1 x LEG-2001-110 Turbo compressor Gasket</p>	<p>1 x LEG-2001-109 BOV Gasket</p>	<p>1 x 60/80 Hose Clamp</p>

**A) Orientation**

Before grabbing a bunch of spanners and attacking your car take a moment to

**STOP AND THINK**

Read these supplied installation instructions thoroughly from start to finish – do you understand all of the mechanical operations required? Are you sure that you can adequately complete all of the mechanical operations required?

## Installation

**ALLOW THE VEHICLE TO COOL DOWN BEFORE STARTING WORK.**

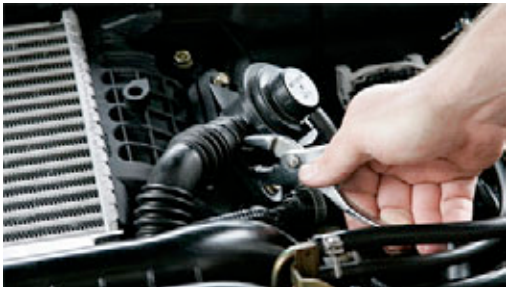


Remove 4 press-in retaining clips from the plastic upper engine cover. Removal of these clips requires a 1/2 turn counter-clockwise while applying very light pressure with a Phillips head screwdriver. Once the center pin pops up the clip can be removed.

Remove the plastic engine cover.



Remove the vacuum hose from **factory Blow-Off-Valve (BOV)**



Remove **two** 10mm headed BOV retaining bolts from the factory intercooler.

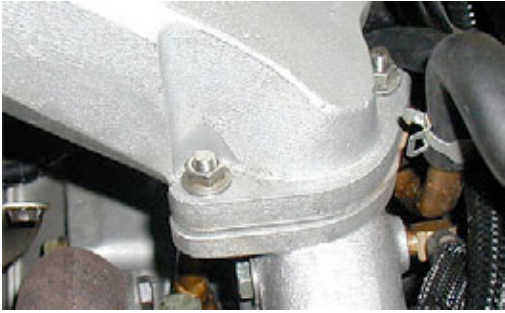
Compress the spring clip and carefully **remove** the factory BOV from the vent return hose.



Remove the 12mm bolt from the intercooler mount.



Next is the throttle body hose. Remove the hose clamp on the intake manifold side of the intercooler. This hose clamp has a rubber grommet underneath, between it and the throttle body hose. **Remove** the rubber grommet! This piece will not be used again. **Replace** the old clamp with the stronger AVO supplied clamp. *NOTE: If you completely remove the throttle body hose, make sure to mark its position on the car. The hose is designed to be on the car at a specific rotation, and if you do not have it at the same point, the TMIC will not line up properly.*



Remove the 2 12mm nuts connecting the turbo to the intercooler (take care to not drop the nuts)

Remove the stock intercooler (cover the opening to the turbo with a clean rag or plastic bag).



Remove the rubber grommet from the stock intercooler.



Fit the rubber grommet to the AVO intercooler.

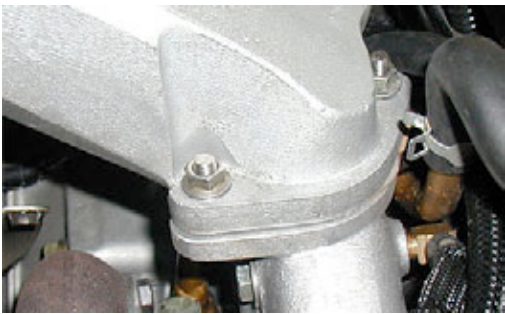
Check that the AVO intercooler is clean and free of any objects (blow compressed air inside of the intercooler).

Fit the new turbo gasket (LEG-2001-109) to the turbo.



Fitting the intercooler: **Start** by pushing in the **intake manifold side onto the throttle body hose**, then line up the **turbo side**.

Fit all the bolts loosely; do not tighten them up yet. Line up the intercooler - make sure it is square and test fit the engine cover. If the intercooler is not square, check to see if the throttle body hose is rotated to its original position. Also ensure that the rubber grommet was removed from the end of the hose! If it is not removed, there will be space issues with getting the throttle body hose on the TMIC properly.



Start by tightening up the **turbo side bolts**, then the **mount bolt** near the BOV. Tighten to 21.6N.M with a torque wrench.





Tighten up the hose clamp on the intake manifold side.

Fit the standard BOV gasket (USE AVO gasket LEG-2001-109 **only** if you are using a AVO BOV)



Fit the BOV tight – torque the two 6mm bolts to 8.8N.M.

(AVO BOV pictured not included in this kit.)

Fit the **BOV return tube** back on the BOV and the **vacuum line** to the top of the BOV



The engine cover will require some minor trimming at the front side off the cover. You can use a box knife to do this (test fit)



Fit the engine cover - use the 2 x **BOLT-003** (6mm x 20mm) bolts with the washers at the **rear** of the engine cover and the **standard clips** at the front of the cover.



Job Done-Enjoy your car!

NOTE! – If in any doubt over the operation or installation of your parts contact AVOTurboworld or official AVO distributor that you purchased the parts from.

AVO Turboworld LLC [www.avoturboworld.com](http://www.avoturboworld.com)  
phone: 425-835-0475  
fax: 425-672-7872