



Intercooler Upgrade Kit P/N 70071

2004-2007 Subaru WRX STi





READ THIS FIRST: Study these instructions completely before proceeding. Engine and / or turbocharger damage may occur if any component within these instructions is improperly installed. Turbonetics, Inc or any of its distributors cannot be held responsible for damages as a result of negligent or improper installation. This complete turbocharger system can be installed using common tools and automotive procedures, but installer must have a thorough knowledge of automotive engine operation and feel comfortable working on the vehicle. If in doubt, contact Turbonetics' technical support staff at 805-581-0333, between the hours of 8:00AM and 5:00PM PST, Monday through Friday.

Remove the heat exchanger from its carton and inspect for any obvious physical damage. All kit components are thoroughly inspected and carefully packaged prior to shipment from the factory. If any shipping damage is evident, contact your supplier and request that they process a claim with the shipper involved. Be sure to review the parts list to verify that you have all necessary system components to proceed. If any components in the parts list are missing, contact Turbonetics' customer service staff.

The information contained in this publication was accurate and in effect at the time the publication was approved for printing and is subject to change without notice or liability. Turbonetics reserves the right to revise the information presented herein or to discontinue the production of parts described at any time.

SAFETY REQUIREMENTS: It is recommended to follow these precautions.

- Always wear safety glasses & gloves.
- Turn the ignition switch to the OFF position & disconnect the batteries.
- Always use properly rated jack stands when working under the vehicle.
- Prevent unexpected vehicle movement by using wheel chocks and/or parking brake.
- Operate the vehicle only in well ventilated areas.
- Do not smoke or use flammable items near or around the vehicle's fuel system.
- Keep hands, clothing and other objects away from moving parts when engine is running.

SUPPLIES: It is recommended to have the following items before beginning installation.

- Subaru factory service manual, for your model year
- A large table or bench, and plenty of adjacent available workspace

EST. INSTALL TIME: 2 Hr.

PARTS LIST

<i>Part Number</i>	<i>Description</i>	<i>Quantity</i>
70070	Heat Exchanger Assembly	1
30315	License Frame – Turbonetics	1
22202-4	2.75" ID x 2.50" Lg Silicone Hose	1
31290	1/2" ID Rubber Hose, J30R9	2 feet
30973	Barb Tube Fitting, 1/2" Tee	1
30971	Barb Tube Fitting, 1/2" Elbow	1
60208	Install Instructions	1

TOOLS REQUIRED

- 1.) 5/16" or 8mm, 10mm, & 12mm Socket
- 2.) Socket Extension
- 3.) Ratchet
- 4.) Standard selection of automotive tools, primarily metric sizes



INSTALLATION

- 1.) Using a 10mm socket, remove the 3 bolts that secure the factory breather tube that runs along the front top edge of the factory intercooler, as shown. SEE FIGURES 1 & 2

FIGURE 1

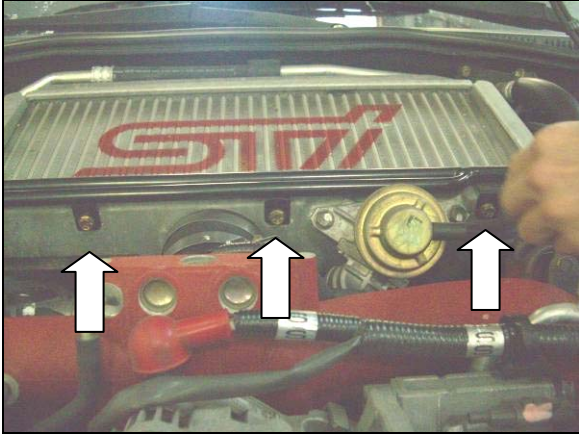


FIGURE 2



- 2.) Loosen the hose clamp on the silicone hose that connects from the intercooler to the turbocharger using a flat screwdriver or a 5/16" / 8mm socket. SEE FIGURE 3

FIGURE 3



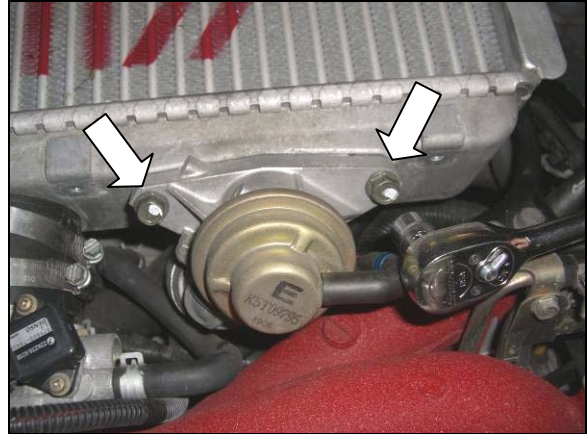


- 3.) Loosen both hose clamps on the silicone hose between the intercooler and throttle body using a flat screwdriver or a 5/16" / 8mm socket. Using a 12mm socket, remove the 2 bolts that secure the factory blow off valve to the factory intercooler. SEE FIGURES 4 & 5

FIGURE 4



FIGURE 5



- 4.) Remove the bolts that hold the factory intercooler to the vehicle using a 12mm socket. There is 1 bolt on each side of the intercooler. SEE FIGURE 6-8

FIGURE 6



FIGURE 7



FIGURE 8





- 5.) Remove the factory intercooler from the vehicle. SEE FIGURES 9-10

FIGURE 9



FIGURE 10



- 6.) Unbolt the factory Y-pipe from the bottom of the factory intercooler by unbolting the 4 bolts using a 12mm socket. Remove the factory Y-Pipe gaskets and set aside - they will be used later. SEE FIGURES 11-12.

FIGURE 11

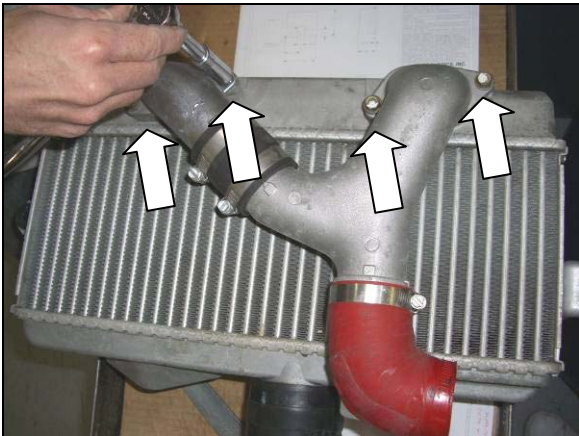
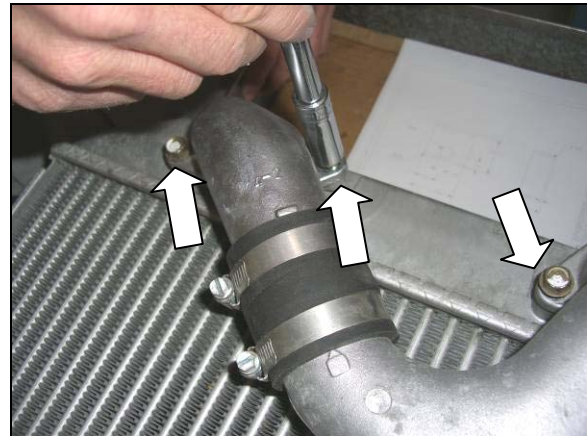


FIGURE 12



- 7.) Remove the rubber grommet from the bracket on each side of the factory intercooler. SEE FIGURE 13

FIGURE 13





- 8.) Re-install the grommets onto the side brackets on the new Spearco intercooler. Make sure the metal grommet faces upward, so the bolt head will contact the metal, not the rubber. SEE FIGURE 14

FIGURE 14



- 9.) Re-install the factory Y-pipe and the factory Y-pipe gaskets to the bottom side of the new Spearco intercooler using the factory bolts and 12mm socket. Loosely re-install the 2 bolts on the 'long' leg of the Y-pipe first, then the 'short' leg. You may also need to loosen the silicone hose clamps to help align the flanges. SEE FIGURES 15-16

FIGURE 15

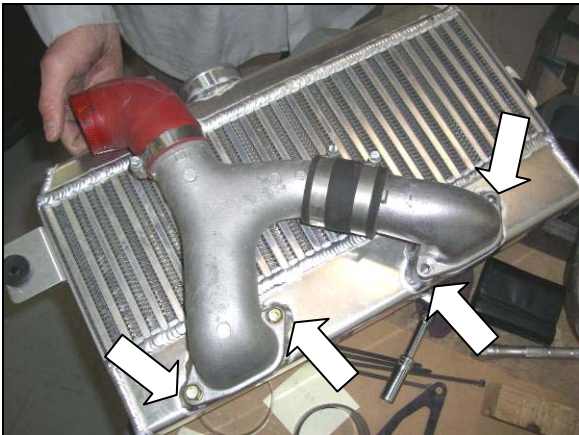


FIGURE 16





- 10.) Loosely re-install the factory hose clamp onto the outlet of the turbocharger. Install the supplied 2.75" silicone hose coupling (P/N 22202-4) onto the throttle body and loosely install the 2 factory hose clamps onto the hose. SEE FIGURES 17-18

FIGURE 17



FIGURE 18



- 11.) Install the new Spearco intercooler into the vehicle. Connect the 90deg silicone hose on the Y-pipe to the turbocharger outlet, and the outlet of the intercooler to the new silicone hose on the throttle body. Tighten the silicone hose clamps. SEE FIGURES 19-20

FIGURE 19



FIGURE 20





- 12.) Re-install the factory blow off valve onto the new Spearco intercooler using the factory bolts and gasket. Tighten bolts using a 12mm socket. SEE FIGURES 21-22

FIGURE 21



FIGURE 22



- 13.) Loosely secure the new intercooler to the vehicle using the factory bolts. Adjust as necessary to align the intercooler to the hood scoop shroud. Tighten bolts using 12mm socket. SEE FIGURES 23-24

FIGURE 23



FIGURE 24



- 14.) Tighten the silicone hose clamps at the throttle body and turbocharger outlet using 5/16" or 8mm socket.

CONNECTING THE ENGINE BREATHER LINES

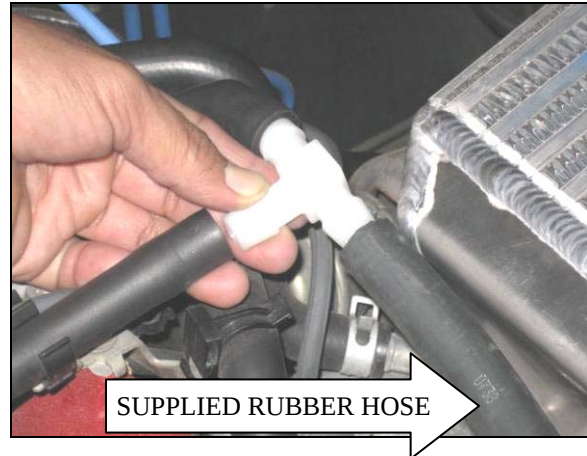
- 15.) Install the supplied tee fitting (P/N 30973) to the factory breather hoses on the passenger side of the engine. Note the orientation of the tee fitting... connect the hoses to the left & bottom legs of the fitting. It may be required or desired to slightly trim the hoses to be esthetically symmetrical. SEE FIGURES 25-26



FIGURE 25

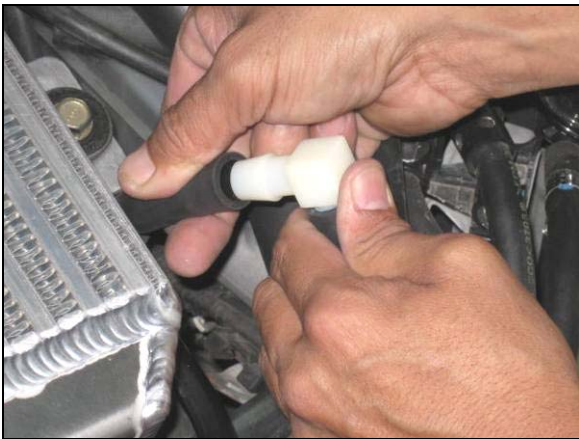


FIGURE 26



- 16.) Install the supplied elbow fitting (P/N 30971) to the factory breather hose on the driver's side of the engine, with the other leg of the fitting facing the passenger side of the engine. SEE FIGURE 27

FIGURE 27





- 17.) Install the supplied 1/2" ID rubber hose (P/N 31290) between the right leg of the tee fitting (passenger side) and elbow fitting (driver side), routing the hose as desired, and cutting shorter if required. NOTE: Recommend routing the hose under the factory intercooler bracket on the driver side, then under the intercooler/throttle body toward the passenger side. SEE FIGURES 28-30

FIGURE 28

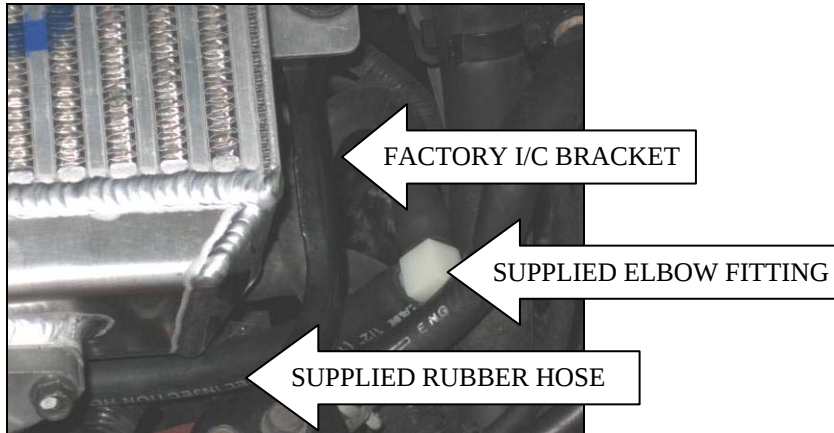


FIGURE 29



FIGURE 30





FINAL CHECKLIST:

- Review these instructions to make sure that all fasteners, clamps connections have been installed correctly.
- Check that all hose routings are free of any kinks or near any hot or abrasive surfaces, which may cause wear over time. Adjust or reroute as necessary to provide adequate slack for engine movement.

“NO FAULT / NO HASSLE” WARRANTY PROGRAM:

TURBONETICS will repair or replace, at our expense, any new TURBONETICS / Spearco products that fail, including products used in racing or competition applications, for a period of one year from the original date of purchase. All turbocharger and cartridge assemblies have a factory installed inline oil filtration device. This filter device must remain in place if any warranty is to be considered under the No-Fault / No-Hassle program. Electrical components that fail due to misuse are not covered under the No-Fault / No-Hassle Warranty Program.

Warranty is limited to TURBONETICS products and does not include progressive or subsequential damage and does not cover removal or installation labor or associated parts. No warranty is made for any other claims for special, indirect or consequential damages including but not limited to component removal or installation equipment downtime, prospective profits or other economic loss.

Warranty will not be granted for recurring damage, malfunction, or failure due to improper installation, misuse, unauthorized repair or alterations, or externally induced physical damage.

Warranty is non-transferable and must be processed via the original purchaser from TURBONETICS.

Remanufactured units, performance upgraded units, and O.E.M. replacement units are covered by a 90-day warranty or the O.E. warranty period.

TURBONETICS highly recommends that the installation of mechanical or electrical parts be performed by trained professionals. Improperly installed products may lead to unsafe and unreliable conditions.

RETURN POLICY:

Only unused and complete merchandise may be accepted for return subject to inspection and acceptance by TURBONETICS. No goods will be accepted without prior return authorization from TURBONETICS. Call for approval and RGA (Returned Goods Authorization) tracking number. No returns will be accepted without an RGA tracking number. No returns will be accepted after ninety (90) days from the original shipping date from TURBONETICS unless approved. All approved returns are subject to a 15% restocking charge – NO EXCEPTIONS. The original invoice must accompany the return. Accepted warehouse / distributor and open account returns will be issued credit only.

RETURNED GOODS AUTHORIZATION TRACKING NUMBER:

TURBONETICS will only accept product returns, repair orders / upgrades, and warranty requests that have been approved and are returned with a corresponding RGA (Returned Goods Authorization) tracking number.

Contact TURBONETICS for approval and the RGA number. Write the RGA number clearly on the outside of the package and include it inside the package. This is very important in allowing us to properly identify and process your request. Failure to comply with this requirement will result in the delay of processing or the product being returned to you.