

Garrett- Advancing Motion Direct Fit Performance Intercooler 2013 - 2018 2.0L Ford Focus ST

#### **Bill of Materials and Precautions**

#### Application: 2013 – 2018 Ford Focus ST 2.0L

#### Part Number: 880736-6001

This performance intercooler requires removal of the lower grill shutters.

Part List:			Tools Needed
1	Description Intercooler MAP Sensor Bolt	QTY 1 2	<ul> <li>Ratchet and metric sockets: 7mm, 8mm</li> <li>Socket extensions, various sizes</li> <li>Screwdrivers and pick tools: flat blade and Phillips, various sizes, and trim panel tool.</li> <li>Floor jack and 2 jack stands rated for weight of vehicle, or vehicle lift</li> </ul>

# **IMPORTANT INFORMATION - PLEASE READ CAREFULLY**



We recommend that this Garrett product be installed by a qualified automotive technician. If you have any doubts as to your ability to install this product, consult with a local automotive repair company. Please be sure to carefully read all of the attached instructions prior to starting the installation process. If you have any questions about the enclosed parts or the instructions, call the distributor that you purchased the kit from for clarification. Prior to the Garrett product installation, be sure that the vehicle is parked on a level surface and the engine is cool. Engine fluids and components can be extremely hot following normal vehicle operation. Avoid direct contact of engine fluids or components with your skin which may cause personal injury.



## **Import Information – Please Read Carefully**

**Return Policy** Only unused and complete merchandise will be accepted for return subject to inspection and acceptance by Garrett - Advancing Motion Turbo Technologies. No goods will be accepted without prior return authorization from Garrett - Advancing Motion Turbo Technologies. No returns are accepted after thirty (30) days from original ship date from Garrett. All accepted returns are subject to a 20% restocking charge - NO EXCEPTIONS.

**Damaged Shipments** The customer must file a claim with the shipping company if goods arrive in a damaged condition. The customer must also notify the distributor from which the goods were purchased with pertinent information.

**Refused Shipments** Sending a shipment back to The Garrett Garage (or Garrett ) does not automatically give rise to a complete refund or credit. Garrett Turbo Technologies may, at its sole discretion require different payment means for any shipment refused and then reshipped. It is the customer's responsibility to make all arrangements with Garrett Turbo Technologies for disposition of refused shipments.

**Shortage or Discrepancy Claim** Shortage or Discrepancy claims must be reported within forty-eight (48) hours of receipt of goods to the distributor from which the goods were purchased. The Garrett distributor will determine the best solution on how to address shortages or discrepancies.

Limited Warranty Garrett Motion, Inc. warrants to the original purchaser of its Turbocharger Products that such Turbocharger Products will, for a period of 1 year from date of shipment and subject to the Limitations on Warranty, be free from defects in materials and workmanship. For approved warranty claims Garrett Motion, Inc. will, at its sole discretion, either credit the original purchaser in an amount equal to the original purchase price, or replace the applicable product free of charge, within 60 days of Garrett Motion, Inc. approval. This is the purchaser's sole and exclusive remedy and provides the complete financial responsibility of Garrett Motion, Inc. for a warranty claim. To be eligible for reimbursement, Customer must (a) submit all warranty claims to Garrett Motion, Inc. within 30 days of the discovery of the alleged product defect; and (b) complete and return a Returned Material Authorization Form. Consumers are required to work through a Garrett Motion distributors in order to process any warranty claims. When Garrett Motion, Inc. requires the examination of a failed part, Garrett Motion, Inc. will promptly notify Customer and will await receipt of the failed part before further processing the warranty claim. If Garrett Motion, Inc. ultimately determines that the failed part is covered under the Limited Warranty, Garrett motion, Inc. will reimburse Customer for the actual cost of ground shipment for any part found to be defective.



### **Import Information – Please Read Carefully**

**Limitations on Warranty** The Limited Warranty does not apply to any parts: (a) not used in accordance with Garrett Turbo Technologies' written instructions (b) for which no fault is found; (c) that have been modified in any manner not specifically approved by Garrett Turbo Technologies; (d) for which an inspection indicates that reasonable and proper installation and/or preventative care and maintenance has not occurred; (e) that have been subject to damage attributable to or caused by misuse, abuse or vandalism; mishandling, improper shipping or other transit related damage; acts of god or insurrection; foreign object entry; any part not supplied by Garrett Turbo Technologies; or any other acts that are beyond Garrett Turbo Technologies; or any other acts that are beyond Garrett Turbo Technologies. Garrett Turbo Technologies expressly disclaims any and all warranties relative to the foregoing circumstances.

Garrett Turbo Technologies shall not be liable to Customer under any circumstances for any special, incidental or consequential damages, including without limitation, damage to or loss of property other than for Thermal Products; damages incurred in installation, repair or replacement; lost profits, revenue or opportunity; loss of use; losses resulting from or related to downtime of Thermal Products; the cost of replacement transportation, power, or compression; the cost of substitute products; or claims of third parties for such damages, howsoever caused, and whether based on warranty, contract, and/or tort (including negligence, strict liability or otherwise).

The Limited Warranty is the only warranty made by Garrett Turbo Technologies for any of its thermal related parts and/or services, and is in lieu of and excludes all other warranties, expressed or implied, including warranties of merchantability or fitness for a particular purpose. Garrett Turbo Technologies hereby disclaims all other warranties not expressly set forth. Some jurisdictions do not allow for the exclusion of implied warranties, so the above exclusions may not apply to you, however if implied warranties do apply they are limited to the original purchaser and for a period of one (1) year from the date of shipment.

**Diagnosing Your Vehicle** Do not rely on diagnostic software without seeking the advice of an ASE certified mechanic. Diagnostic software should only be used as a general guideline to help you facilitate the repair of your car. If you experience or suspect any malfunction of vital safety equipment, such as your brakes, exhaust, motor, transmission, fuel delivery system, your car's structural integrity or any other potentially life threatening malfunction, cease use immediately.



## **Import Information – Please Read Carefully**

**Other Precautions** Observe all safety precautions and warnings contained in the installation instructions. Wear eye and ear protection and appropriate protective clothing. When working under or around the vehicle support it securely with jack stands. Use only the proper tools. Exercise extreme caution when working with flammable, corrosive, and hazardous liquids and materials.

**Legal Information** You are responsible for ensuring that the use of this product complies with all applicable federal, state or local laws, regulations and ordinances. This product may also be used on racing vehicles that will never be driven on public roads or highways.

**Contact Information for Questions** Please contact the Garrett distributor from which the equipment was purchased for any questions regarding this Shipping/Returns/Cancellation Policy, for notifications to Garrett Turbo Technologies, and for instructions on processing damaged shipments and authorized returns.

**Important Product Information:** Garrett Vehicle Specific Intercoolers are professional aftermarket products only designed for certain vehicles. Any vehicle modifications using Garrett Vehicle Specific Intercoolers are AT YOUR OWN RESPONSIBILITY and AT YOUR OWN RISK. Only use Garrett Vehicle Specific Intercoolers in compliance with all applicable laws, regulations and ordinances (including but not limited to emission, noise, operating license, performance, safety and type-approval aspects). A vehicle modification using Garrett Vehicle Specific Intercoolers may particularly affect or void a vehicle's warranty, operating license or type-approval. You should particularly consult the owner's manual and service manual of your vehicle. You should also contact your vehicle's manufacturer to determine what effects modifications may have on important aspects such as safety, warranty, performance etc.

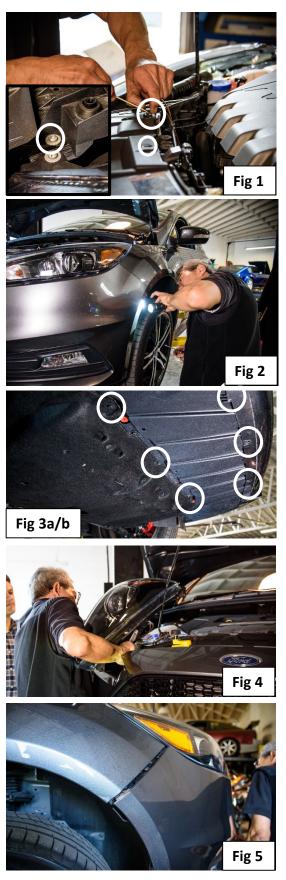
Garrett Advancing Motion 2525 190th St. HTT-U4 Torrance, CA 90504 www.GarrettMotion.com



### **Installation Instructions**

#### Removing the front bumper:

- Using a trim panel tool remove the (4) pop clips on the top of the bumper cover located in the engine bay. Also remove (2) total T30 Torx bits from each side of the upper cover. (Fig 1)
- 2. Detach the hood release cable using a flathead screwdriver. Then remove the hood release cable from the lever.
- Remove the fenderwell hardware on both fenders
   (4) T30 Torx and (2) pop clips total. (Fig 2)
- 4. Safely raise the car to access the lower bumper and air shrouds.
- 5. Using the trim panel tool remove the (6) pop clips under the front bumper. (Fig 3a)
- 6. To disconnect the lower air shroud, remove the(3) T30 Torx holding it in place. (Fig 3b)
- 7. Remove (8) T30 Torx holding the plastic under panel in place.
- 8. Remove the final plastic under panel by removing the (4) T30 Torx.
- Remove both headlights. there are (2) T30 torx holding each in place. Gently slide forward and up to remove. Disconnect wiring connector for each headlight. (Fig 4)
- 10. Unclip the bumper on both sides. but don't fully remove it. (Fig 5)





## **Installation Instructions**

- 11. To remove the bumper, locate the two tabs previously covered by the headlights. Gently lift the tab until the bumper can slide off the guide. (Fig 6)
- 12. Disconnect the fog light electrical connectors and set bumper to the side.

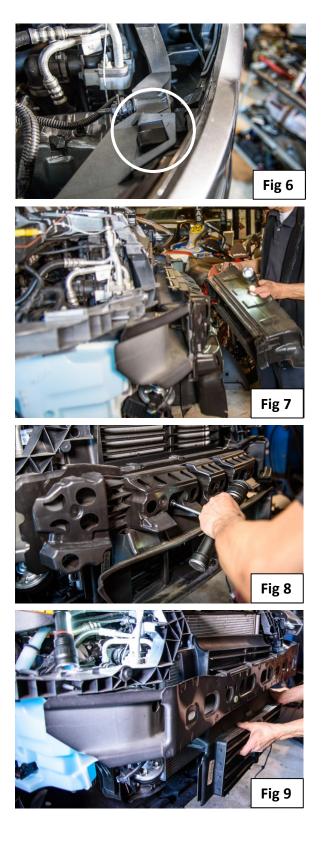
#### Remove air shrouds and lower grill shutters:

- 13. Remove the upper air shroud by releasing the two clips on the ends. (Fig 7)
- 14. Remove the lower air shroud by removing (2) T30 Torx. (Fig 8)
- 15. This install requires removal of the grille shutters. Squeeze the four tabs to remove the bumper guard, disconnect the electrical connector, remove the two tree clips securing the wire and connector, then remove the grill shutter assembly.

#### **Remove OEM Intercooler:**

- 16. Disconnect the electrical harness for the MAP sensor on the cold side of the intercooler.
- 17. Loosen the worm gear clamps on the cold and hot side charge air pipes connected to the intercooler.
- Remove the (2) 8mm lower intercooler mount bolts (Fig 10)







# **Installation Instructions**

- Loosen the connection between the charge air tubes and the end tanks, then disconnect them. (Fig 11)
- 20. To remove the intercooler tilt the bottom away from the car then down to remove it from the vehicle.
- 21. Remove MAP sensor from the stock intercooler by removing (1) T25 Torx
- 22. Install the OEM MAP sensor to the Garrett intercooler using one of two supplied bolts. Ensure the sensor is snug to the end tank. (Fig 12)

#### Install the Garrett core:

- 23. Install the Garrett intercooler with the lower part of the core angled away from the car and guide the upper tabs on the radiator into the top hangers on the intercooler, then sit the lower core mounts on top of the frame mount. (Fig 13)
- 24. Tighten the (2) 8mm bolts to secure the core to the lower frame brackets. (Fig 14)
- 25. Reinstall the cold and hot charge air tubes to the intercooler inlet and outlet and tighten the worm gear clamp (2)
- 26. Reconnect the MAP sensor harness.





## **Installation Instructions**

#### **Reinstall front Bumper:**

- 27. Install the bumper guard and snap it into place. Next install the lower air shroud and secure it with (2) T30 Torx. Then install the upper air shroud and snap the clips into place. (Fig 15)
- 28. Install the front bumper: first, connect the fog light harnesses. Ensure the tab locks over the guide located below the headlight are secure. (Fig 16)
- 29. Insert headlights and connect the harness. Secure each headlight with (2) T30 Torx.
- 30. Tighten the (2) T30 Torx upper bumper bolt and (4) pop clips. (Fig 17)
- 31. Pop the left and right bumper sides into place.
- 32. Connect the hood release cable.
- 33. Attach fenderwell hardware on both fenders (2) T30Torx and (1) pop clips each side.
- 34. Attach the front undertray with (6) pop clips and(4) T30 Torx. (Fig 18)
- 35. Attach the rear undertray (8) T30 Torx.
- 36. Attach the air diverter (3) T30 Torx.







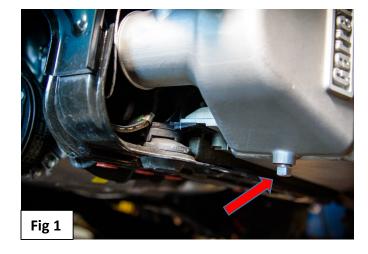




### **Installation Instructions**

#### **Inspection and Drain Plug feature:**

- Double check all connection points to ensure tight air seal. Leaks can affect the performance of the vehicle. With the engine on, and at idle, and the transmission in park, use your hand to check for any air leaks at both inlet ports.
- This intercooler is outfitted with a drain plug at the bottom of the passenger side end tank. This drain plug can be removed to relieve any condensation buildup in the intercooler. This is a common problem in some regions of the country. To remove bolt use 3/8 open ended wrench. (Fig 1)



- 3. Test for condensation:
  - 1. Remove drain plug.
  - Turn engine on, leave at idle, and the vehicle in park. Place a catch can under the opening and monitor for fluid. If fluid is present, gently rev the engine several times to dispel the liquid. Be sure to dispose of the fluid with your local waste management facility.