

PowerMax Direct Fit Performance Intercooler for 2015+ BMW M3 / M4

Bill of Materials and Precautions

Application: Performance Intercooler for 2015+ BMW M3 / M4

Part Number: 888883-6001 (silver) / 6002 (black)



Part List:			Tools Needed
<u>Item</u>	Description	QTY	 Ratchet, wrench, sockets: 12mm, 13mm, 10mm, 9mm, 8mm, T25, E10 Socket extensions, various sizes Pliers, Screwdrivers and pick tools: flat blade and Phillips, various sizes, Floor jack and 2 jack stands rated for weight of vehicle, or vehicle lift Catch pan for fluids
1	Intercooler	1	
2	Bolt M6x1.0x10mm	2	
3	Bolt M6x1.0x12mm	7	

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. No goods will be accepted without prior return authorization from Garrett - Advancing Motion. 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 Garrett Advancing Motion does not automatically give rise to a complete refund or credit. Garrett Advancing Motion 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 Advancing Motion 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 Advancing Motion warrants to the original purchaser of its Products that such 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 Advancing Motion 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 Advancing Motion approval. This is the purchaser's sole and exclusive remedy and provides the complete financial responsibility of Garrett Advancing Motion for a warranty claim. To be eligible for reimbursement, Customer must (a) submit all warranty claims to Garrett Advancing Motion 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 Advancing Motion distributors in order to process any warranty claims. When Garrett Advancing Motion requires the examination of a failed part, Garrett Advancing Motion will promptly notify Customer and will await receipt of the failed part before further processing the warranty claim. If Garrett Advancing Motion ultimately determines that the failed part is covered under the Limited Warranty, Garrett Advancing Motion 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 Advancing Motion's written instructions (b) for which no fault is found; (c) that have been modified in any manner not specifically approved by Garrett Advancing Motion; (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 Advancing Motion; any repair, maintenance or service by anyone other than Garrett Advancing Motion; or any other acts that are beyond Garrett Advancing Motion' reasonable control; or (f) attributable to parts not supplied by Garrett Advancing Motion. Garrett Advancing Motion expressly disclaims any and all warranties relative to the foregoing circumstances.

Garrett Advancing Motion 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 Advancing Motion 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 Advancing Motion 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

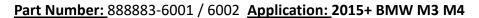
Other Precautions Observe all safety precautions and warnings contained in the installation instructions. Wear eye and ear protection and appropriate protective clothing. When working under or around the vehicle support it securely with jack stands. Use only the proper tools. Exercise extreme caution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

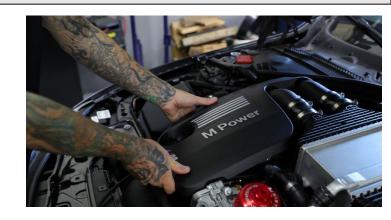
Garrett Advancing Motion attn IAM 2525 190th St. B4 Torrance, CA 90504 www.GarrettMotion.com



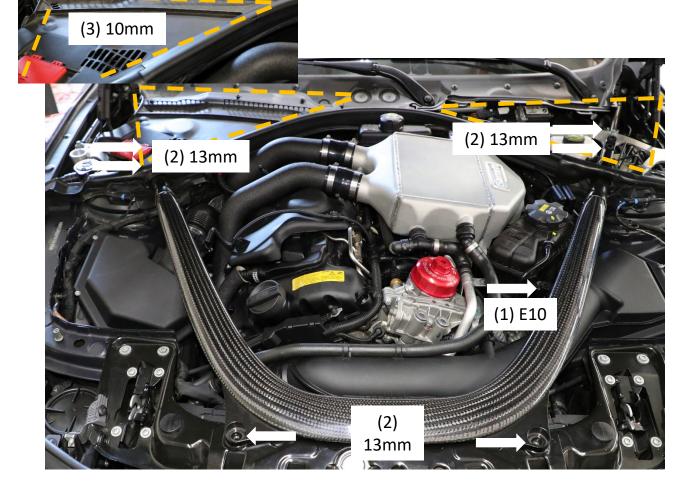


Installation Instructions

- 1. With the vehicle in park, the engine off, and cool, open the hood and make sure it is supported. Remove the plastic engine cover by gently lifting up on each corner and detaching it from the four clips on each corner.
- 2. Remove the (2) triangular plastic covers from each corner of the engine compartment near the firewall. Using a 10mm socket turn the (3) bolt heads ¼ of a turn to loosen. The covers can be removed. Location of covers are highlighted by the dashed lines below.



3. Remove the carbon fiber strut brace:
Using an E10 socket and ratchet remove
the (1) bolt that secures the fluid reservoir.
Using a 13mm socket remove a total of (6)
bolts, 2 on each end near the firewall, and
two on the radiator support. Remove the
strut brace. See diagram below.





Installation Instructions

Move Fluid Reservoir

4. Using a T25 bit, remove (1) bolt securing the fluid reservoir. Gently move the reservoir towards the front of the car until the hose no longer has slack. You can use a bungee cord or a zip tie to hold it in position.





Removing The OEM Intercooler

- 5. Loosen the upper worm gear clamp on the intercooler outlet so it slides down the urethane boot.
- 6. Disconnect the sensor harness from the sensor.
- 7. Loosen the (2) upper worm gear clamps on the inlet side of the intercooler. Slide both clamps towards the lower boot.



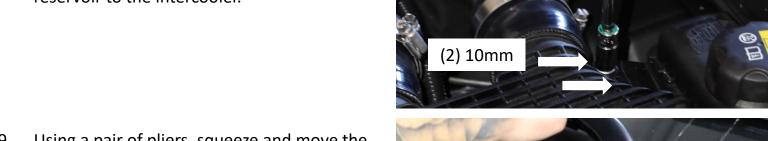






Installation Instructions

8. Remove the (2) 10mm bolts that secure the reservoir to the intercooler.



9. Using a pair of pliers, squeeze and move the hose clamp towards the reservoir, remove the hose that is connected to the intercooler fitting.



10. Using a small screw driver, lift up the (2) spring clips on the water hoses. Do not remove the clips because this can damage the hose connection.





Installation Instructions

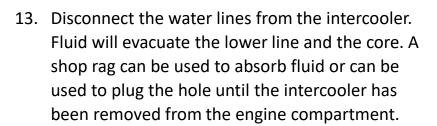
11. Separate the intercooler outlet from the hose boot.



12. Separate the intercooler inlets from the hose boots.



Catch can needed for the next step or you can use an aux pump to drain the reservoir before removing the fluid lines.





14. The intercooler can now be removed from the engine compartment. Drain the fluid in to the catch pan.





<u>Part Number:</u> 888883-6001 / 6002 <u>Application:</u> 2015+ BMW M3 M4

Installation Instructions

- 15. Use a shop rag to dry off any coolant that got on the engine or any other parts. Pay special attention to the inlet and outlet tubes, make sure these do not have any fluid in them. Failure to inspect or remove fluid will cause engine failure.
- 16. Remove (2) 10mm bolts securing the MAP sensor. Gently remove MAP sensor from the OE intercooler being careful not to damage the Oring.
- 17. Remove the brackets attached to the bottom of the OE intercooler by removing the T25 bolts.
- 18. Install brackets onto the Garrett Intercooler using the supplied (5) M6x12mm bolts.

Note: Observe the rubber bushings on the brackets. When reinstalling the intercooler on the engine, these must align and snap in to the opposite mount on the engine.

19. Lubricate the o-ring on the sensor and insert into the Garrett intercooler. Secure the sensor with the (2) supplied M6x10mm bolts.









Installation Instructions

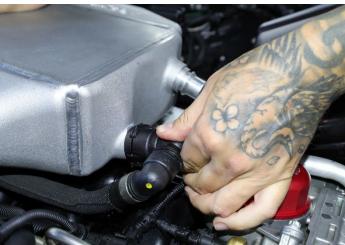
Installing the Garrett Intercooler

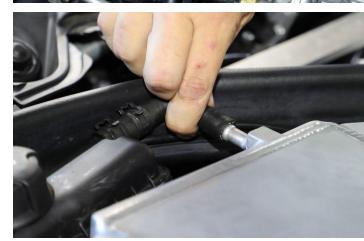
- 20. Double check all bracket bolts and sensor bolts are tight then insert the intercooler inlet tubes into the silicone boots on the charge air tubes. If necessary, use a small screw driver to stretch the boots over the tubes on the intercooler. Make sure the boots are properly seated with a minimum of 2 inches past the barb allowing the clamp to properly tighten. Tighten both worm gear clamps.
- 21. Reconnect lower water line to the intercooler.

 Double check the water line is not pinched between the intercooler and engine. Push the line onto the fitting on the intercooler and lock down the spring clip.

22. Connect the hose from the reservoir to the barb on the back of the intercooler. Use a pair of pliers to squeeze the clamp, slide it over the hose and release once it is over the barb.





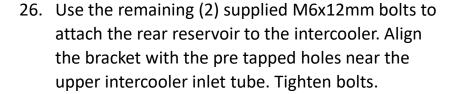




Installation Instructions

Installing the Garrett Intercooler

- 23. Reconnect the sensor harness to the sensor.
- 24. Attach the upper water line and lock in the spring clip.
- 25. Insert the intercooler outlet tube into the rubber boot. If necessary, use a small screw driver to stretch the boot over the tube on the intercooler. Make sure the boots are properly seated with a minimum of 2 inches past the barb allowing the clamp to properly tighten. Tighten the worm gear clamp.



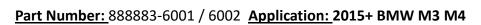
27. Use (1) T25 bolt to connect fluid reservoir to the appropriate bracket.









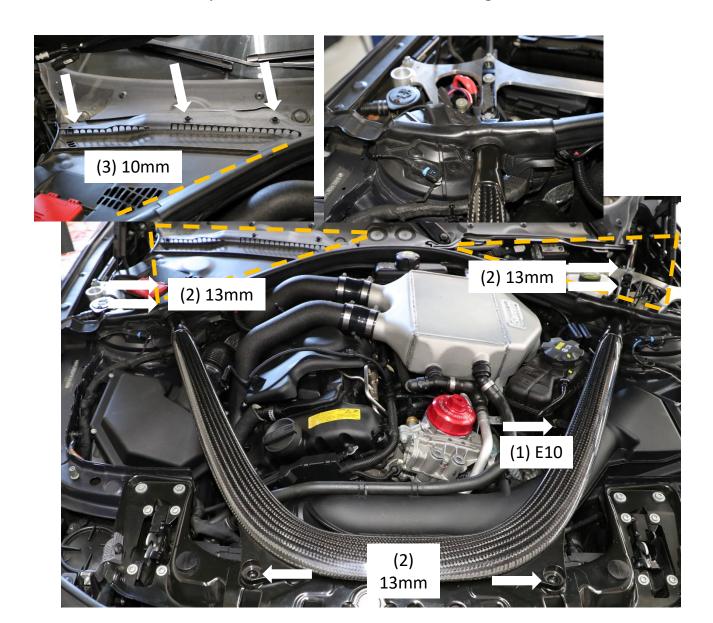




Installation Instructions

Installing the Garrett Intercooler

- 28. Place the carbon fiber strut brace back into place by aligning it with the 6 predrilled holes on the car. Hand tighten the (6) bolts. Next tighten all 6 bolts with appropriate socket and ratchet to manufacturers torque specs.
- 29. Using an E10 socket and (1) E10 bolt, attach the reservoir to the strut brace.
- 30. Install the triangular plastic covers to both corners of the engine compartment. This covers the upper bolts of the strut brace. Place covers in correct locations and use a 10mm socket to fasten the bolts. These only need $\frac{1}{4}$ $\frac{1}{2}$ of a turn. Do not over tighten.





<u>Part Number:</u> 888883-6001 / 6002 <u>Application:</u> 2015+ BMW M3 M4

Installation Instructions

Installing the Garrett Intercooler

- 31. Do a visual inspection of your work so far. Check that all worm gear clamps are tight, all spring clips are locked, all reservoirs are bolted in, sensor is installed, and coolant hoses are attached to the brackets. Now install the plastic engine cover and make sure the (4) clips are popped in place.
- 32. Refill the reservoir with BMW approved coolant and purge system of air bubbles. This can be done by removing the cap to the expansion tank and allowing the auxiliary pump to run and circulate the coolant.
- 33. Start the vehicle and check the system for air and or coolant leaks. Do not drive the car if either are observed.

