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# 2015-2019 Corvette C7 ZO6 **Granatelli Intercooler Expansion Tank / Heat Exchanger Install Instructions** Part # 500200 / Part # 500200R





#### Parts Included in System:

Qty Description

Aluminum Expansion Tank - Wrinkle Black

- 1 Powder Coat
- 8 10/32 Nylock Nuts - Part # 500200 Only M10 Stainless Steel Washers - Part # 500200
- 8
- 24" Clear Drain Hose 3/8" dia

#### Description Qty

- Tank Lid with Glass Window Part #
- 500200 Only
  - O-Ring for Lid Installed at factory Part # 500200 Only
- 90\* 1/4 NPT Drain Cock
- #12 Hose Clamps

#### **Suggested Tools:**

Wrenches - 3/8", 10mm & 15mm / Sockets - 10mm, 11mm, 13mm / Ratchet and Extensions / Drain Pan / Professional Hose Cutter or Sharp Straight Edge Razor Blade.

Familiarize yourself with the installation location of your Granatelli Intercooler Expansion Tank / Heat Exchanger Photo 1 below:

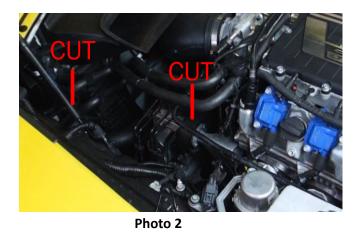


Photo 1

**Note:** There is no easy way to drain the coolant from the factory heat exchanger system so plan on losing about a quart of fluid while doing this installation - We have tried multiple options and our way is the most direct and simple.

#### Step 2:

You will note there are (2) 1" hoses that extended from the front of the manifold (just behind the throttle body), pointing towards the driver's side fender and then they make 90\* turns and go towards the front of the car. **See Photo 2** 





#### Photo 3

#### Step 3

You will note the hose closest to the manifold has a small fill cap that is captured by a retainer clip. (In most cases this is purple) This is the only hose that requires modification. Following **Photo 3**, your first step is to cut the hose 2 inches back as measured from the inside on the bend and shown in Photo 3. Once you cut this hose a small amount of GM coolant will leak out. The small 90\* section (still attached to the motor) can be rotated upwards to prevent further spillage while working on the installation. Also, bending the long straight piece downward, you will be able to fill approximately 1 quart of fluid into a drain pan. We do not recommend re using it but rather using new GM approved (same color) coolant.





Photo 4 Photo 5

See Photo 4 & Photo 5 above for a better understanding of where to make your 2nd cut in the SAME hose. You will see this hose is clipped in by a plastic retainer fastened to the radiator shroud. After making (2) 90\* turns to get around the radiator shroud, there is then a long piece of hose (about 12') that continues towards the nose of the car. The hose needs to be cut right after the 2nd tight 90\* bend in order to create the longest piece of factory hose possible. See arrows in photo 4 and photo 5.

Note: The modified hose is GM Part # 22768479. In the unlikely event you chose to go back to stock, this is the only part that you will need to purchase from the dealer. It is under \$100.00 at retail.

#### Step 5

After you have made your 2nd cut you will now have a loose piece of hose (the center section) that needs to be removed. To do this you will need to cut and remove the factory zip tie that holds the 2 pieces of Factory Heat Exchanger coolant lines together as well as to release the factory hose clip that holds the cut section to the radiator shroud. **See Photo 6** below. This will leave you with a "reverse J" looking section as seen in **Photo 7** below





Photo 6 Photo 7

#### Step 6

Looking back at Photo 1, you need to remove the 10mm bolt pictured at the bottom of the image and the 13mm at the driver side of the radiator support. These bolts are reused, please keep them close by. Also **photo 8** below:



Photo 8

#### Step 7

You are ready to test fit the installation of your Granatelli Heat Exchanger Tank. Most of you will just want to get it into place because you will see by this point it is just that simple. Before installing your Granatelli tank, take a moment to install the supplied 90\* 1/4 NPT Drain Cock into place and the supplied 24" of clear drain tubing. Now simply drop the Granatelli Heat Exchanger Tank into place making sure you have a clean path for your drain tubing to go straight down. See **Photo 9** below



Photo 9

Note: Use Teflon tape or thread sealer on your 1/4" NPT threads before screwing it into place in tank. See notes at the bottom of installation instructions for more information on why we supply a drain hose.

#### Step 8

Once you have dropped the tank into place, you will see the built in brackets of the system line up exactly with the 2 bolts (holes) you removed the front 13mm and rear 10mm bolts from. Simply re-install the (2) factory bolts you removed to complete this portion of the installation.

## Step 9

Starting from the top, re connect the portion of the hose from the factory supercharger (with the little fill cap) to the top nipple of the Granatelli Heat Exchanger. Using one of the supplied #12 size hose clamps, "clamp" the hose to create a secure connection. Next, go to the bottom hose and do the same. The section of hose remaining should line up perfectly with your Granatelli heat Exchange reservoir tank. Slide your #12 clamp on to the hose and then push the hose over the barb until it sits flush with the tank and secure the hose tightly to prevent leaks.

#### Step 10

Confirm the drain cock valve is closed. Fill your new Granatelli Heat Exchangers Expansion Tank with the proper AC Delco "Dex-cool" fluid #12346280. It should take 1 full gallon. Now add approximately 1/2 gallon of water. Before you install the lid, start the engine and allow the fluid to circulate. This will "vent" air from the system and allow you to fill it to the brim. Don't be alarmed if a little fluid splashes out while the system is venting. This entire process should be under 45 seconds. Once the system is full, install the windowed lid and fasten with the supplied (8) 10/32 nylock nuts and stainless washers.

#### **See Notes Below for Operating Uses**

One of the benefits of the #500200 / 500200R Granatelli Intercooler Expansion Tank / Heat Exchanger is the tank sits slightly higher than the cooling tubes going to the factory heat exchangers built into the factory manifold and therefore it becomes the highest point when filling. Once filled to the top, all the air in the system will be evacuated. When the lid is removed (unscrewed) if you do not see the fluid moving, check to confirm your factory pump is working. Note: On initial startup, the pump will not transfer fluid until the engine has been running for at minimum 15 seconds and as long as 30 seconds. The pump ordinarily does not flow fluid in the "key on engine off" position.

This entire installation can be viewed as a video at the following link: <a href="https://www.youtube.com/watch?v=eSkCwSaoaBc">https://www.youtube.com/watch?v=eSkCwSaoaBc</a>

**Special Notes about your drain:** Under normal conditions there will never be a reason to drain your tank. Once filled with the proper fluid and at the proper levels the system acts as an added reservoir helping the factory heat exchangers cool fluid. For those that plan to use the Granatelli #500200 / 500200R system for drag racing or road racing events, we offer the drain cock as a simple way to drain ice water that has been created while racing. The idea of this system is to allow the user to remove the (8) 3/8 nuts and stainless washers in order to pack the tank with ice, therefore producing the coldest water possible to circulate through the factory or aftermarket superchargers and creating the most dense air charge. After each session or when you see fit, simply drain the fluid and refill with Ice and Water.

**PLEASE NOTE:** This system <u>MAY NEVER RUN DRY</u>. You most always have fluid going through the system. When performing normal driving always run a blend of GM approved coolant and water per GM specifications. Failure to have the proper amount of fluid in the system could cause the pump to run dry and damage the pump.

#### LIMITED WARRANTY:

Granatelli Motor Sports warrants that all products shall be free from defects in materials and/or workmanship for ninety days from the date of purchase (except in-tank and in-line fuel pumps purchased at dealer or wd prices as these items have no warranty and roller rocker arms which have a 12-month limited warranty). The following requirements and exclusions apply: (1) You must be the original purchaser and must complete the warranty registration form (located at www.GranatelliMotorSports.com/warranty.asp) and return the defective product within 10 days after the expiration of the product warranty. Failure to do so voids all warranty, either express or implied set forth herein. (2) You must reside in the United States or Canada and use the product as described in the warranty registration. (3) The product must not have been altered, disassembled, modified, or converted for any other use than intended by Granatelli Motor Sports. (4) The product, or any part thereof, is not used in accordance with the operating parameters specified by Granatelli Motor Sports (5) The product or any part thereof is damaged or rendered unserviceable due to negligence, vandalism, theft, fire, debris, flood, Act of God, or other peril, malfunction of equipment, or by any cause within the Customer's control. (6) The serial number (if applicable) must not have been altered or removed. The extent of Granatelli Motor Sports' liability under this warranty shall be limited to the prompt correction or replacement, at Granatelli Motor Sports' option and at no cost to the customer other than return shipment, of any defective part of the product determined to be necessary by Granatelli Motor Sports This only applies if written Granatelli Motor Sports received notice of the claimed defect prior to expiration of the warranty period. All warranties of merchantability and fitness for a particular purpose are expressly excluded. The duration of any and all implied warranties is limited to the duration of this express warranty. All incidental and consequential damages including but not limited to loss profits even if it has been advised of the possibility of such damages are hereby excluded. Regardless of the form of the claim, Granatelli Motor Sports liability for any damages to the customer for such product is limited to the guidelines herein. This stated, expressed warranty is in lieu of all liabilities or obligations of Granatelli Motor Sports for damages arising out of or in connection with delivery, use or performance of the product. This warranty cannot be amended or changed by any Granatelli Motor Sports representative, employee, or agent and any promises inconsistent with this warranty are void and unenforceable against Granatelli Motor Sports. Some states do not allow limitations of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may have other rights that vary from state to state. Your sole remedy for the above warranties is the repair or replacement of the defective product only, at Granatelli Motor Sports' sole discretion.

#### **RETURN POLICY:**

Before you return a product for a warranty claim, contact our service department M-F 8AM-5PM (PST) at 805-486-6644 or techsupport@GranatelliMotorSports.com for an RGA number. No returns are accepted without a pre-approved RGA (return goods authorization). No returns on special orders, electrical items or after 90 days from date of original shipment. All returns must be safety packaged in original packaging (if available) and clearly marked with your RGA number on the top and two sides of the box. Please insure your shipment for full replacement value as lost, stolen or items damaged in shipment are not covered by our limited warranty. We recommend using FedEx (www.FedEx.com) or UPS (www.UPS.com) for shipping. Lost, stolen or damaged items claims must be made by the customer and resolved by the freight company and not Granatelli Motor Sports. All returns may be subject to a restocking fee of up to 25%. The balance will be returned in the form of a company check or may be applied as credit towards another purchase.

#### PERFORMANCE CONSUMER'S BILL OF RIGHTS:

Legally, a vehicle manufacturer cannot void the warranty on a vehicle due to an aftermarket part unless they can prove that the aftermarket part caused or contributed to the failure in the vehicle (per the Magnuson Moss Warranty Act, www.GranatelliMotorSports.com/magnusonmoss.htm (15 U.S.C. 2302(C)). For best results, consider working with performance oriented dealerships with a proven history of working with customers. If your vehicle manufacturer fails to honor emission/warranty claims, contact EPA at (202) 260-2080 or www.epa.gov. If federal warranty protection is denied, contact the FTC at (202) 326-3128 or www.ftc.gov. For additional information, check out www.GranatelliMotorSports.com/TechSupport.htm.

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