

## UPR 2016-UP LT4 Oil Catch Can Installation

## **Billet PCV Diverter Installation**

\*\* To complete the installation of this UPR Dual Valve catch can kit, the factory PCV valve must be replaced with the UPR Billet PCV Diverter. To install the Billet PCV Diverter, the Supercharger assembly needs to be unbolted and lifted about 3 inches to access and replace the factory PCV. If you are uncomfortable with performing this operation, UPR recommends installation by a qualified performance shop or repair facility. UPR Recommends replacing the Torque-toyield supercharger bolts with GM part number 12679527 or equivalent. Read all instructions before attempting installation.

- 1. Remove the air intake tube from the Throttle Body.
- 2. The Supercharger belt is removed by using a 15mm wrench or socket on the tensioner. Take note of the belt routing before removing the belt from the supercharger pulley.
- 3. There are (20) 10mm bolts on the supercharger cover. Remove all 20 bolts. Some of the bolts along the firewall will be difficult to reach, so a little patience and a wobble extension or swivel will help.
- 4. After removing the supercharger cover, you will then remove the (10) 10mm bolts for the supercharger/ intake manifold assembly. UPR recommends replacing the bolts with GM part number 12679527.
- 5. Before attempting to lift the front of the supercharger, recheck that all necessary bolts are removed and the belt is clear from the pulley.
- 6. Carefully lift the front of the supercharger just enough to gain access to the factory PCV valve ( about 3"), and support it while removing the PCV. Take note, there are charge air cooler lines and wiring harnesses that will move with the supercharger, so be aware of their location so they will not be damaged during this step. It is not necessary to disconnect or remove the cooler lines from the supercharger for this step. If you choose to disconnect the cooler lines, you will need to follow the factory procedure for Charge Air Cooling System Draining and Filling ( LT4)
- 7. Using a 14mm allen, remove the stock PCV valve assembly.
- Add a small amount of engine oil to the O rings and threads on the UPR Billet PCV Diverter, and install it by hand until it bottoms. Turn the fitting counter-clockwise to position the port so it faces the passenger side of the car.
  Do not install the barb fitting into the diverter at this time.
- **9.** Apply a small amount of pipe thread sealant (tape or liquid is ok) to the threads on the barb fitting. Thread the barb fitting in until snug do not over tighten. Once the barb fitting is in, be sure the PCV Diverter is rotated to allow the barb to face the passenger side of the engine.
- 10. Attach the 3/8 "Dirty Side" hose onto the barb fitting this is the long hose without a check value in it. Be sure to push the hose all the way onto the barb and route the hose so it will not be caught or pinched by the supercharger. Proper routing will result in the hose being snug along the engine and harness, but not compressed by anything.
- 11. Before lowering the supercharger back into place, check to make sure the intake O ring gaskets are in place and there are no hoses or wires in the way. Lower the supercharger back into place. Make sure there is no binding of the hose and/ or fitting on the supercharger. You should be able to wiggle the hose and fitting a little with the supercharger in place. If not, pick up the supercharger to look for interference, and address any issues.

12.



- 13. Tighten the Supercharger / intake manifold bolts to 10 Nm (89 Lb in) in a criss cross pattern (see photo below). Make a second pass in the same pattern at the same 10 Nm (89 Lb in). UPR recommends replacing the bolts with GM part number 12679527 or equivalent aftermarket upgrade bolts.
- **14.** Reinstall the Supercharger cover and tighten the bolts to 10 Nm (89 Lb in ) in a criss cross pattern.
- **15.** Reinstall the Supercharger belt and check all connections.

## UPR 2016-UP Camaro ZL1 Oil Catch Can Installation

- 1. Mount the catch can L Bracket (with the 'long' part of the L facing out) to the driver side shock tower brace at the Firewall using the supplied bolt. Attach the catch can to the L Bracket with the large allen bolt. There are allen head screws on the top of the catch can to allow moving/clocking the catch can. Leave these screws and the mounting bolt a little loose at this time to allow some movement while fitting the hoses. You will tighten up the mounting bolts and screws once the install is finished.
- **2.** Route the 'Dirty side' hose from the PCV Diverter around the back of the supercharger and connect the Plug and Play fitting to the top fitting on the catch can.
- 3. Find the vacuum port at the top of the throttle body. It will be a plastic line with a check valve in it. You will cut this line between the throttle body and check valve and install the supplied T fitting. To make it easier to install this fitting, you can use a heat gun on LOW setting or other heat source to lightly heat the hose to make it more pliable.
- **4.** Connect the 'clean line' to the T fitting using the supplied UPR billet hose end and pushing the hose all the way onto the fitting. Be sure the arrow on the check valve faces away from the catch can. Connect the Plug and Play fitting to the side of the catch can that is closest to the engine.
- 5. Connect the Wide Open Throttle (WOT) hose to the other side of the catch can, and route it to the Air Inlet Tube from the Air filter box or Cold air intake.
- **6.** Install the supplied UPR Plug and Play fitting into the air inlet tube. For a Factory air intake, remove the barb fitting from the intake tube and screw in the ¼ NPT to Plug and Play fitting. For a Rotofab<sup>™</sup> Big Gulp Intake, Install the 1/2NPT to Plug and Play fitting.
- **7.** Reinstall the air inlet tube onto the throttle body and connect the WOT hose to the Plug and Play Quick tap fitting. Connect the factory separator hose to the UPR WOT hose fitting
- **8.** Check all connections. Make sure all hoses are routed away from headers, drive belts, or other hazards.
- **9.** Tighten the catch can mounting bolt and allen head screws.
- **10.** Start the vehicle and check for any vacuum leaks or oil leaks.

Check the catch can every 500 to 1000 miles to be able to get a feel for your vehicle's needs. Do not allow the catch can to over fill.

# **NEVER RETURN OIL FROM THE CATCH CAN BACK INTO THE ENGINE**







Remove the air intake tube. Use a 15mm wrench or socket on the tensioner to remove the belt from the supercharger.













Using a 14MM allen, remove the factory PCV fitting.



Add a small amount of engine oil to the O rings and threads on the UPR Billet PCV Diverter, and install it by hand until it bottoms. Turn the fitting counter-clockwise to position the port so it faces the passenger side of the car.





Apply a small amount of thread sealant or use thread sealant tape on the barb fitting. Use an 11mm socket to install the barb fitting.



Install the UPR Billet hose end onto the longest hose and install the hose onto the PCV diverter barb. The hose needs to be routed towards the passenger side of the engine.





Once the supercharger is lowered back in place, before bolting it down, be sure the hose is routed so that it is not being compressed or interfering with anything. It will be a snug fit around the wiring harness and supercharger, but you should be able to wiggle the hose slightly to make sure it is routed properly.



Tighten the Supercharger / intake manifold bolts to 10 Nm (89 Lb in) in a criss cross pattern. Make a second pass in the same pattern at the same 10 Nm (89 Lb in). UPR recommends replacing the bolts with GM part number 12679527 or equivalent aftermarket upgrade bolts.





Reinstall the Supercharger cover and tighten the bolts to 10 Nm (89 Lb in ) in a criss cross pattern.

Reinstall the Supercharger belt, and reconnect all harness connections. Check to ensure the harnesses and hoses are routed in such a way that they will not interfere.







Route the PCV hose around the back of the supercharger towards the driver side of the engine compartment.







Using the provided bolt and washer, Install the L Bracket onto the firewall.

Install the Catch Can mounting bracket using the provided 10mm allen screw and washer.



Adjust the brackets as needed to position the Catch Can.





Install the PCV hose onto the top fitting in the catch can.



To install the vacuum hose T fitting, Locate the vacuum hose that is connected to the fitting just behind the throttle body. Using a hose cutter or razor knife, cut the tube between the throttle body and factory check valve.



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Once the T is installed, install the vacuum hose for the catch can. It will be a 3/8" hose with a UPR check valve in it and a 45-degree Plug and play fitting on one end. Install the UPR Billet hose end collar and push the hose all the way onto the barbed portion of the T.



Route the hose to the side fitting on the catch can and install with the Plug and Play connector.





Remove the factory barbed fitting from the air intake tube. Install the provided 90-Degree 1/4NPT to Plug and Play fitting by screwing it into the rubber tube. Once it is screwed in so that there are no threads showing, it will be very secure.



Rotate the fitting so that it is facing up at an approximate 45-Degree angle.





Install the 5/8" WOT hose onto the catch can with the arrow on the check valve facing away from the catch can and route the hose along the driver side lower inner fender as shown. Be sure to avoid routing the hose near any belts or pullies.



Connect the WOT hose to the Plug and Play fitting on the air intake tube. Connect the Factory clean side separator hose the male 3/8 Plug and play on the UPR 3 way fitting.



## For ROTOFAB and ROTOFAB BIG GULP:





Insert the Provided UPR Plug and Play fitting into the ROTOFAB intake tube. 1/4NPT for the standard ROTOFAB, 1/2NPT for the BIG GULP.



Connect the UPR 3-way fitting to the ROTOFAB intake. Remove the factory fitting from the factory separator to intake tube hose. You will re-use this fitting in the provided UPR braided rubber hose. Connect the straight Plug and Play fitting to the UPR 3-way fitting. Insert the factory fitting into the hose and install onto the

separator



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