



Dodge Viper Gen V (2013+) Non-Invasive Catch Can Kits

Dodge Viper Gen V Non-Invasive Catch Can Kit:

Blow-by gasses vented from the PCV system contain oil and fuel that can be ingested back into the intake manifold and airbox. This "sludge" can contaminate and reduce flow through the air filter, reduce the effective octane rating of fuel, increase chance of knock / detonation, reduce power, and fuel economy. Catch cans condense and filter oil and fuel from blow-by gasses and reduce or eliminate the amount of contaminants entering the engine.

These kits are a convenient solution to allow you to mount a vented or sealed catch can system without otherwise modifying your 2013+ Viper. Hoses, clamps, fittings, catch can, and brackets required for installation as shown are included.

- Non invasive: No drilling.
- Bracket clamps around the front or side crossbars, the design reduces potential marking or damage of the bar.
- Easy and quick installation, three screws install the bracket.
- Universal fit allows Catch can to be mounted in multiple locations around the engine bay.
- Lightweight, pocketed design; billet aluminum.
- Durable hard anodized finish.

Catch can setup depends on personal preference and expected vehicle usage. Typically a sealed catch can setup is used for a vehicle driven on the street, while a vented setup is preferred for the track. Both setups are equally effective at cleaning blow by gasses.

A *sealed system* keeps the emissions system intact and inserts the can inline to collect oil/fuel.

A *vented system* removes the PCV valve and system and vents the filtered air into the atmosphere instead of back into the engine. Typically used for track only cars and can produce fumes that could be undesired for the street. Relief of excess pressure and drag from the engine components and may provide a performance advantage under high RPM/load. Since the oil is exposed to the atmosphere, more frequent oil changes are recommended as is typical with track-only vehicles. More frequent draining is required due to condensation from the ambient air.

A vented setup will collect oil from both valve covers with one can, while a sealed setup requires choosing between passenger side only or adding the driver side setup.

For those with 2013-2015 Vipers that have not been modified to 2016+ specs a driver's side catch can will prevent oil from entering the airbox and contaminating the air filter which is more likely on these cars. If the vehicle is 2016+ or has been updated, a passenger side can should be sufficient to collect excess oil but the air filter should be monitored for excess oil.



DSE dual input vented and single input sealed catch cans



Catch can installed (sealed driver side)

Specifications:

Bracket: 6061-T6 Aluminum (Black anodize, type III hardcoat), Stainless Steel Hardware

Catch Can: Mishimoto Compact Baffled 2 and 3 Port Catch Can

<http://www.mishimoto.com/compact-baffled-oil-catch-can-2-port.html>

<http://www.mishimoto.com/compact-baffled-oil-catch-can-3-port.html>

Variations / Ordering Information:

<http://dougshelbyengineering.com/Viper.html>

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|--|------------------------|----------|
| Single can vented catch can kit (OFFROAD ONLY) | P/N: DSE-VP-CC-002-SVK | \$575.00 |
| <ul style="list-style-type: none">○ Inputs to the single can from both valve covers with a vented / filtered can output.○ Airbox and intake manifold are capped, PCV valve is removed, hoses from the airbox and manifold are removed.○ The most cost effective and lightweight solution to catch oil from both valve covers.○ Preferred configuration for track performance, however, more frequent oil changes are recommended○ <i>May emit oil odor / fumes / residue from filter under certain driving conditions</i>○ Dual input vented can, bracket, PCV delete adapter, 4 barbed hose splices, 10 feet of hose, 2 caps, ty-wraps | | |
| Dual vented catch can kit (2 cans, OFFROAD ONLY) | P/N: DSE-VP-CC-002-DVK | \$895.00 |
| <ul style="list-style-type: none">○ Two vented catch cans (mount a vented catch can on each side to prevent routing hose across the engine bay)○ More capacity, ability to inspect oil levels individually, less restricted airflow further reducing engine drag | | |
| Single sealed catch can kit | P/N: DSE-VP-CC-002-SSK | \$470.00 |
| <ul style="list-style-type: none">○ Sealed setup inserts catch can inline between the passenger or driver side valve cover and the intake manifold or airbox and keeps the emissions system intact.○ Keeps oil out of the intake manifold or airbox while maintaining a sealed system.○ Dingle input can, bracket, hose barbed splice, 5 feet of hose, ty-wraps | | |
| Dual sealed catch can kit | P/N: DSE-VP-CC-002-DSK | \$885.00 |
| <ul style="list-style-type: none">○ Two single catch can kits used to prevent oil from entering the airbox and intake manifold. | | |

Thank you for your purchase!

Your business is appreciated and customer satisfaction is our top priority! Don't hesitate to contact us via email with any questions or feedback. Word of mouth is the best form of advertising so if you are satisfied please spread the word!

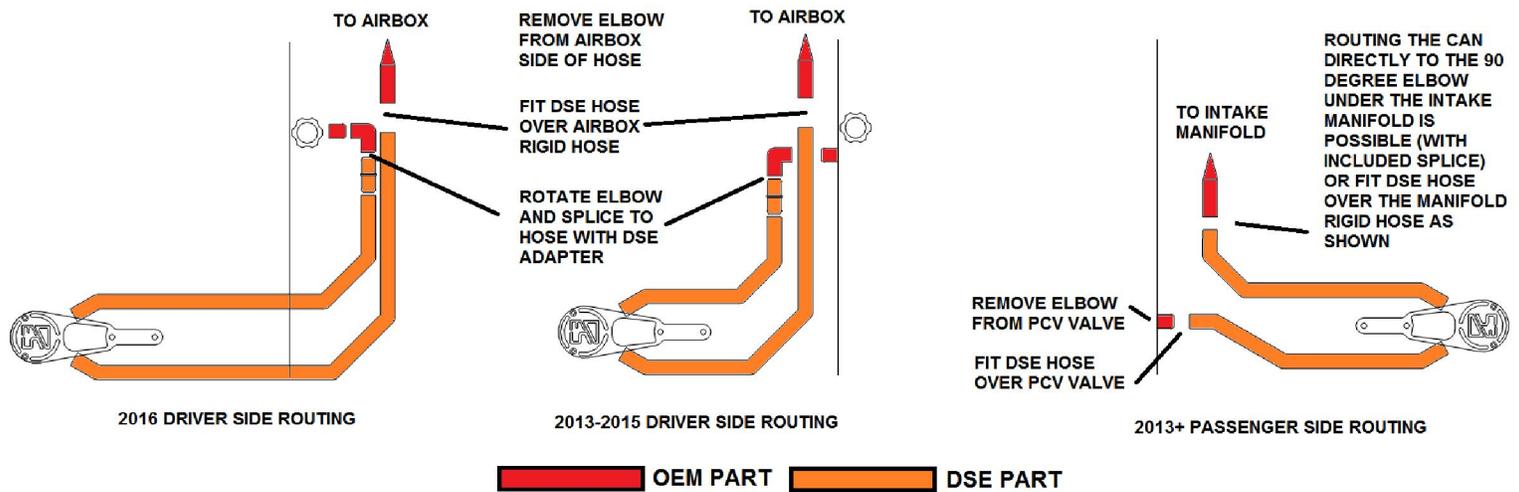
Installation Guide:



Possible mounting locations for the catch can kits.

Side mounting is ideal due to cooler can temperatures resulting in more effective condensation and ventilation of fumes in a vented configuration.

DSE 2013+ GEN V VIPER SINGLE OR DUAL SEALED CATCH CAN PLUMBING DIAGRAM



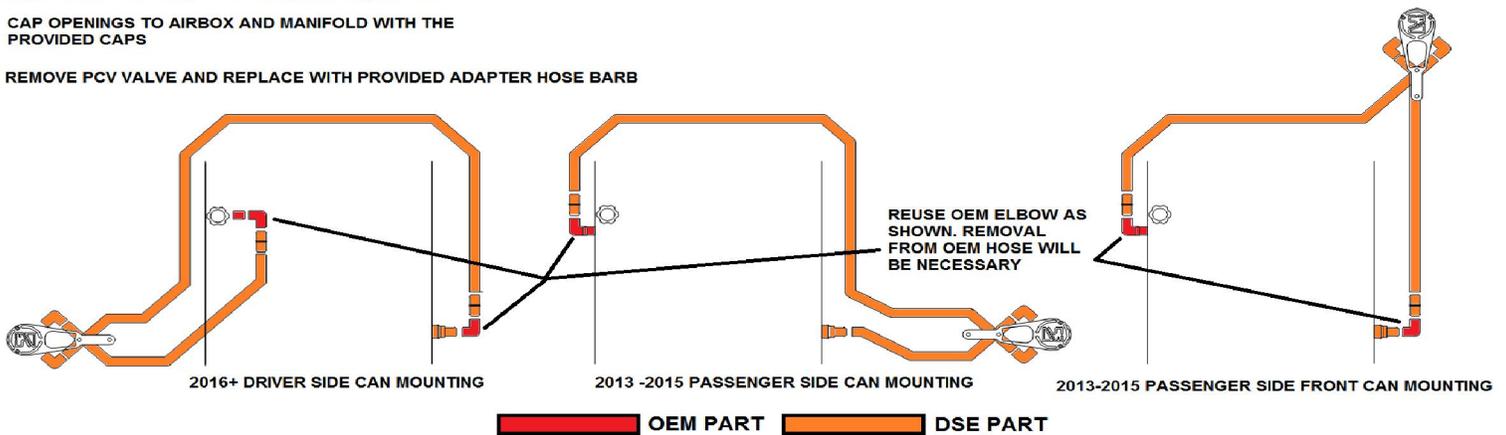
NOTE: USE THE INCLUDED LARGER DIAMETER HOSE ENTIRELY TO THE AIRBOX AND INTAKE MANIFOLD WHEN POSSIBLE. LARGER DIAMETER HOSE REDUCES RESTRICTION AND PRESSURE BUILD IN THE SYSTEM AND PROMOTES OIL SEPARATION

DSE 2013+ GEN V VIPER DUAL INPUT VENTED CATCH CAN PLUMBING DIAGRAM

REMOVE HOSES CONNECTED TO THE BACK OF THE AIRBOX AND UNDERSIDE OF THE INTAKE MANIFOLD

CAP OPENINGS TO AIRBOX AND MANIFOLD WITH THE PROVIDED CAPS

REMOVE PCV VALVE AND REPLACE WITH PROVIDED ADAPTER HOSE BARB



*For P/N: DSE-VP-CC-002-DVK single input vented cans mount a can on each side and run can input directly to the valve cover

Bracket and Can Installation

- Determine the mounting location for your can(s) given the above options. The cans will mount on the front or side frame 1" bars. Be sure to allow for clearance of hoses, test fit everything prior to final installation.
- *Tip: A vented can may benefit from a side bar location in order to extract fumes from the engine bay.*
- *Tip: Mounting the can on the side will allow it to run cooler and be more effective at condensing the oil.*
- Remove the two bracket clamping screws and the set screw; apply Loctite 242 to all screws; and prepare for bracket installation.
- Reinstall the set screw but ensure it does not protrude into the bar area and interfere with clamping.
- Install bracket onto bar. Insert clamping screws and tighten enough to allow the bracket to hold its position.
- *Tip: Use a level to confirm bracket is straight by aligning it with the top of the intake manifold.*
- Finalize catch can location and angle. Tighten clamping screws until the two halves seat together. The bracket should not rotate on bar. Tighten set screw to further protect against rotation.
- Repeat for second can if applicable.

Plumbing Installation

- Please note the "IN" side of the catch can is the "dirty" side from the engine. "OUT" side of the catch can is the clean side and should go to the airbox or intake manifold.
- Research the example configurations shown above and determine the ideal routing for your plumbing.
- *Tip: Using the included 5/8 hose entirely to the airbox and manifold is preferred to any OEM hose due to less restriction on the airflow which reduces system pressure and slows the airspeed to promote oil separation.*

Plumbing Installation (continued)

- Remove or adjust the OEM components as necessary:
 - For sealed configurations remove the elbow(s) on the valve cover from the mating hose(s) that run to the airbox and/or intake manifold and rotate as shown.
 - *Tip: Elimination of elbows is preferred when possible to reduce the number of connections*
 - For the vented configuration remove the hose between the airbox and valve covers, the hose between the intake manifold and the PCV valve, and the plastic PCV valve (not the metal adapter).
 - Take note of reused OEM components (elbows and hoses) depending on configuration.
- Install DSE barbed splices on the elbow(s) and PCV eliminator (vented only). Test fit to measure supplied hoses and cut to length.
- *Tip: Allow for gradual hose bends and clearance around engine components and to avoid hose kinks.*
- *Note: Leave slack from the side bar mounted can to the PCV valve to allow for lateral engine movement.*
- Press fit all hoses and fittings together as shown. Force will be required to push the hose onto the fittings.
- *Tip: For installation of hose onto PCV valve, dip ~1/2" of the hose end in boiling water for several minutes to allow it to soften for easier insertion. Oil on the PCV or other barbs may ease the fitting process. Full insertion to the base of the valve is not necessary to produce a seal.*
- Use the supplied ty-wraps to secure hoses to each other and to provide support and prevent excess movement or contact with other components.
- *Tip: Keep hoses as far away from the headers as possible to avoid extreme radiant heat.*
- Hose clamps are not required, however, using ty-wraps at the hose end adds extra security. For a finished look you can use a Gates 32925 heat shrink clamp if you have access to a heat gun.



Dual Sealed Catch Can Setup Installed on Passenger Side (Left) and Driver Side (Right)

Catch Can Design:

Incoming air is directed in a rotational pattern by the deflector on the input port to allow the oil/fuel more time to condense on the baffle. The aluminum baffle promotes condensation but also serves to contain the liquid at the bottom of the can during track running. Finally the air exiting the can is filtered by a 50 micron bronze filter to ensure complete separation of air and contaminants. All of the components are removable and washable for a lifetime of use.

Maintenance:

Check your catch can often during the first 1000 miles or after every track day to understand how often it will need to be drained. At 1000 miles remove, inspect, and clean the brass filter. Ongoing maintenance will be determined by your findings during the first 1000 miles, vehicle modifications, and usage. After each engine modification or change in how the vehicle is used (track, strip, etc.) keep a close eye on the catch can to understand the amount of oil collected.

Disclaimer of Liability:

Doug Shelby Engineering assumes no liability expressed or implied for the improper installation or use of this product or its components. Doug Shelby Engineering is NOT responsible for any damage, consequential or otherwise for equipment failure after installation.

Vehicle Modification:

Modification of your vehicle with the parts identified above may alter its stock performance; the buyer hereby expressly assumes all risks associated with any such modification.

Disclaimer of Warranty:

Seller disclaims any warranty express or implied with respect to the parts sold hereby whether



as to merchantability, fitness for particular purpose, or any other matter.

Inside view of catch can air deflector, baffle and filter