



## Dodge Viper Gen V (2013+) Catch Can Kits Application Note

### 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. In addition, under high RPM/throttle/load crank case pressure can build which robs engine power – some of the systems can reduce or eliminate that side effect.

While the catch cans, fittings, and hoses in these kits are almost identical, the plumbing to the CCV system sets them apart from each other. This is the main decision to make after deciding to go with a DSE catch can kit for your 2013+ Viper.



The following summary attempts to highlight the pros and cons of each system.

#### Single sealed catch can kit

**P/N: DSE-VP-CC-002-SSK**

##### Pros:

- Passenger side installation will condition gasses that enter the intake manifold
- Keeps the emissions system intact, including the PCV valve
- Cost effective

##### Cons:

- Only working when the PCV valve is open
- Does not address WOT condition where PCV valve can close (see below)
- PCV valve may close at Full Throttle / High RPM / High Load (when highest volume of blow by gas is generated):
  - untreated blow by gasses are forced back into the airbox
  - crank case pressure may build if airbox line is too restrictive, robbing performance
  - Any modification that adds torque or HP will increase the odds of this scenario

##### Recommended for:

- Mild street driving for stock or mildly modified engines

#### Dual sealed catch can kit

**P/N: DSE-VP-CC-002-DSK**

##### Pros:

- Passenger side installation will condition gasses that enter the intake manifold
- Driver side installation will condition gasses that enter the airbox
- Keeps the emissions system intact, including the PCV valve

##### Cons:

- More expensive than the single kit
- Address the results of the WOT condition where PCV valve closes, but not the cause (see below)
- PCV valve may close at Full Throttle / High RPM / High Load (when highest volume of blow by gas is generated):
  - blow by gasses are forced back into the airbox through driver side can
  - crank case pressure may build if airbox line is too restrictive, robbing performance

##### Recommended for:

- All stock Vipers driven with a decent amount of spirited street or track driving
- All Vipers that have been more than mildly modified

### **Single can vented catch can kit (OFFROAD ONLY) P/N: DSE-VP-CC-002-SVK**

#### Pros:

- No crankcase air is entering the intake manifold or airbox
- Cost effective way to reduce crankcase pressure build
- IAT will be lower than and of the sealed kits

#### Cons:

- Single can
  - will not have the ability to flow or clean as much as a dual sealed PCV delete or vented setup
  - lower capacity, more frequent emptying
  - installation is not as clean as a dual vented setup as hoses cross the engine bay
- PCV valve is removed, intake manifold and airbox are capped, therefore emissions system is modified
- Open to atmosphere, recommend increased oil changes after every event
- Possible fumes / residue / smoke from filters

#### Recommended for:

- Offroad use only, track vehicles with regularly changed fluids

### **Dual vented catch can kit (2 cans, OFFROAD ONLY) P/N: DSE-VP-CC-002-DVK**

#### Pros:

- Better flow and pressure reduction than the single vented kit
- Higher capacity than the single vented kit
- Cleaner installation than the single vented kit
- No crankcase air is entering the intake manifold or airbox
- IAT will be lower than any of the sealed kits

#### Cons:

- More expensive than the single vented kit
- PCV valve is removed, intake manifold and airbox are capped, therefore emissions system is modified
- Open to atmosphere, recommend increased oil changes after every event
- Possible fumes / residue / smoke from filters

#### Recommended for:

- Offroad use only, track vehicles with regularly changed fluids

### **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.