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CFM Performance 1-0305-2-FB

CFM Performance Baffled Billet Valve Cover Breather User Manual

Model: 1-0305-2-FB

PRODUCT OVERVIEW

The CFM Performance Baffled Billet Valve Cover Breather is designed to efficiently vent crankcase pressure in compatible vehicles, specifically the 2015-2023 Dodge Charger SRT Hellcat 6.2. This innovative breather replaces the factory oil fill cap, providing a superior solution for managing engine crankcase ventilation.

It features a unique one-way check-valve mechanism that prevents unmetered air from entering the crankcase under vacuum conditions, mimicking the sealed operation of the factory oil cap. The breather activates only when positive crankcase pressure is present, ensuring optimal engine performance and longevity. An integrated three-layered baffle and stainless steel mesh disc media effectively contain oil particles, preventing them from escaping with vented gases.

KEY FEATURES

- Relieves positive crankcase pressure effectively.
- Direct replacement for the factory oil cap, ensuring easy installation.
- Incorporates a one-way check ball, ideal for MAF (Mass Air Flow) based cars, preventing unmetered air entry.
- Internal three-layered baffle and stainless steel mesh disk media for superior oil/air separation.
- Retains the factory PCV (Positive Crankcase Ventilation) system's integrity.

SETUP AND INSTALLATION

Installation of the CFM Performance Baffled Billet Valve Cover Breather is straightforward, designed as a direct replacement for your vehicle's existing oil fill cap.

Installation Steps:

1. Ensure the engine is cool before beginning installation.
2. Locate and carefully remove the factory oil fill cap from the valve cover.
3. Separate the rubber top piece with the filter from the aluminum base of the new CFM Performance breather. This is

crucial for proper installation.

4. Thread the aluminum base of the CFM Performance breather into the oil fill port on the valve cover. Hand-tighten until snug. Do not overtighten.
5. Reinstall the rubber top piece with the filter onto the aluminum base, ensuring it is securely seated.
6. Verify that the breather is firmly in place and there are no loose connections.

Note: While designed for racing applications, this breather offers beneficial crankcase pressure ventilation for any motor. Professional installation is recommended if you are unsure about any steps.



Image: The CFM Performance Baffled Billet Valve Cover Breather, showing the main breather unit and the billet adapter that replaces the oil fill cap.



Image: Close-up view of the CFM Performance Baffled Billet Valve Cover Breather installed on a Hellcat engine's valve cover.



Image: A wider view of the CFM Performance Baffled Billet Valve Cover Breather installed in the engine bay of a compatible vehicle, showcasing its integration.



Image: Another perspective of the CFM Performance Baffled Billet Valve Cover Breather installed, highlighting its sleek appearance within the engine compartment.



Image: A display of various color options available for the CFM Performance Baffled Billet Valve Cover Breather, including Flat Black, Chrome, and other finishes.

OPERATING PRINCIPLE

The CFM Performance Baffled Billet Valve Cover Breather operates on a sophisticated principle to manage crankcase pressure. Under normal engine operation, particularly when the crankcase is under vacuum, the integrated one-way check-valve remains closed. This prevents unmetered air from entering the intake system, which is crucial for vehicles with MAF (Mass Air Flow) sensors to maintain proper air-fuel ratios.

When positive crankcase pressure builds up (e.g., during high RPMs or heavy engine load), the check-valve opens, allowing the excess pressure to vent safely to the atmosphere. The internal three-layered baffle and stainless steel mesh disc media work in conjunction to separate oil particles from the exiting air, minimizing oil mist discharge and keeping the engine bay cleaner.

MAINTENANCE

To ensure optimal performance and longevity of your CFM Performance Baffled Billet Valve Cover Breather, regular maintenance of the filter element is recommended.

Cleaning the Filter Element:

- The filter elements are washable and can be re-oiled, similar to many aftermarket performance air filters (e.g., K&N).
- Periodically inspect the filter for dirt and debris accumulation. The frequency of cleaning will depend on driving conditions and environment.
- To clean, carefully remove the filter element from the breather assembly.
- Use a dedicated filter cleaning solution to clean the element. Follow the instructions provided with your chosen cleaning kit.
- Rinse the filter thoroughly with water until clean. Allow it to air dry completely. Do not use compressed air, as this can damage the filter media.

- Once dry, lightly re-oil the filter element using a compatible filter oil. Apply oil evenly and sparingly.
- Reinstall the clean and oiled filter element onto the breather assembly.

Regular cleaning ensures unrestricted airflow and efficient crankcase ventilation.

TROUBLESHOOTING

If you encounter any issues with your CFM Performance Baffled Billet Valve Cover Breather, consider the following troubleshooting steps:

- **Excessive Oil Mist:** Ensure the filter element is clean and properly oiled. An over-oiled filter can sometimes lead to oil mist. Verify that the internal baffle and mesh disc media are intact and not damaged.
- **Unusual Noises:** Check that the breather is securely tightened to the valve cover and that all components are properly assembled. Loose parts can cause vibrations or rattling.
- **Check Engine Light (CEL):** While unlikely with this product due to its design, if a CEL appears after installation, double-check that the one-way check-valve is functioning correctly and that no vacuum leaks are present around the installation point. Ensure the factory PCV system remains intact and functional.
- **Difficulty Installing:** Refer to the "Setup and Installation" section. Ensure you have separated the filter top from the billet base before threading the base into the oil fill port.

If problems persist after performing these checks, it is recommended to contact CFM Performance customer support or consult with a qualified automotive technician.

SPECIFICATIONS

Attribute	Detail
Brand	CFM Performance
Model Number	1-0305-2-FB
Compatible Vehicles	2015-2023 Dodge Charger SRT Hellcat 6.2
Item Weight	9.6 ounces
Package Dimensions	4.75 x 3.25 x 3.25 inches
Exterior Finish	Stainless Steel (internal components), Billet Aluminum (external)
Filter Type	Washable and Re-oilable
Key Feature	One-way check-valve, Baffled oil separation

WARRANTY INFORMATION

Specific warranty details for the CFM Performance Baffled Billet Valve Cover Breather are not provided in this manual. For information regarding product warranty, including coverage, duration, and claims process, please refer to the official CFM Performance website or contact their customer service directly.

It is recommended to retain your proof of purchase for any warranty claims.

CUSTOMER SUPPORT

For technical assistance, installation queries, or any other support needs related to your CFM Performance Baffled Billet Valve Cover Breather, please contact CFM Performance customer support.

You can typically find contact information, including phone numbers, email addresses, and support hours, on the official CFM Performance website. When contacting support, please have your product model number (1-0305-2-FB) and purchase details readily available.



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