



# Intake Exhaustion

A clever intake manifold solution ends the cycle of excessive oil consumption

When General Motors' Ecotec engines started to exhibit higher than normal oil consumption, owners and technicians alike had reason to panic. Assuming the worst – that the engines' internals were wearing prematurely, almost certainly indicating catastrophic damage – techs were relieved to discover the root of the problem was far simpler.

It turns out the small non-return valve built into the intake manifold as part of the PCV system routinely becomes dislodged once the engine had some age and



**615-380**

Buick 2019-13, Chevrolet 2019-12

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miles on it. This valve, little more than a simple rubber flap with a retainer tab on one side, drops out of its mount with nothing to secure it in place. Once this valve is gone (it's typically sucked through the intake system and combusted), vaporized oil is free to pass through the engine, resulting in the higher oil consumption.

Replacing the original intake manifold with a new factory part may take care of the immediate problem, but it virtually ensures the owner will be making the same repair again in the future. Once Dorman's



## AFTERMARKET CASE STUDY

ideation team looked at the source of the problem, they developed a smart solution to keep the valve located, even if its retainer should wear out. By incorporating a restraining pin into the intake manifold, the valve in this improved design is now captive, eliminating the chance it will ever become dislodged.



**Dorman's OE FIX** intake manifold takes care of the inherent problem in the OEM design, but the team's engineers discovered the troubles didn't end by just replacing the manifold. The original failure has a side effect, causing damage to other critical components.

When the valve in the factory intake manifold disappears it creates excessive vacuum, and that damages the fragile diaphragm integrated into the valve cover's PCV cap. The result is a rough running condition from air being drawn into the engine through this opening.

The proper fix is to replace both the intake manifold and the valve cover at the same time. With Dorman's OE FIX intake manifold (615-380) and direct replacement valve cover (264-968), owners can end the cycle. **D**

## PLASTIC INTAKE MANIFOLD



### OE Problem:

The original integrated umbrella PCV diaphragm becomes dislodged over time, resulting in multiple engine trouble codes and damage to PCV diaphragm in the valve cover.



Inserted tooling to hold the PCV umbrella valve in place to prevent failures in the future.

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