

# Oil Fill, Breather, and PCV Information For PML Small Block Chevrolet® Center Bolt Valve Covers

The following information applies to these PML small block Chevy™ center bolt valve covers:

- Part Number 10534, fin top
- Part Number 11040, CHEVROLET script lettering and fins
- Part Number 11041, CORVETTE® script lettering and fins

PML Part Number 11040 (CHEVROLET script and fins valve covers) are used as the example for this document but the information applies to all of the above part numbers.

To accommodate the needs of a variety of applications, these valve covers do not come with holes for PCV, breathers or oil fill. Since some applications require PCV, oil fill or breather holes, the valve covers are designed to accommodate holes on the intake side, front or rear.

Note that if you have a PCV or breather hole, a separate oil fill hole isn't needed. Oil fill can be done through the PCV or breather hole.

Below is a picture of a cover that has been machined. This is the intake side of the valve cover:



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Whether you have a hole machined or not, your valve covers will come with built in baffles. The picture below shows the interior of these valve covers:



You can also see in the above picture that the cover has had a hole machined. Holes can be machined on the intake side in the front or the rear.

PML machines holes for a clean appearance and a good fit. To achieve this, PML sets up on each cover and uses four different tools. Holes are back-faced and spot faced.

If you need holes, PML can machine them for you. PML charges \$40 per hole machined. You will need to place your order over the phone.

Many configurations are possible and PML can machine covers customized to your particular requirements.

A common configuration has one hole machined in each cover, near the front on the driver's side and the passenger's side. A push-in breather is used on the driver's side and the PCV is fitted in the hole on the passenger's side. The following shows this possible configuration.

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This picture shows a PCV valve plumbed to carburetor on the passenger's side and a baffled breather grommet shown installed on the driver's side.

Both holes are on the intake manifold side towards the front of the engine.



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This shows a close up of the passenger's side where the PCV valve is plumbed to a port at the base of the carburetor.



This shows a close up of the driver's side with the push-in breather. This is one way to vent the cover.

Other possibilities include a second PCV valve or an angled fitting in the valve cover with a hose to the air cleaner.

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When the push-in breather is used with the valve cover it would be almost flush with the side of the valve cover as shown at left.



This is a GM 350 ZZ4 engine in a 1964 Corvette. PML machined a hole on the front intake manifold side of the driver's side cover for PCV.

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This picture and the one below show the installation of PML small block Chevrolet center bolt valve covers on a 1993 Corvette.

PML Part Number 11041 with Corvette script and fins were installed but other PML center bolt valve covers would fit the same.

This shows the passenger's side of the engine.



This picture shows the driver's side.

This is a close-up of the alternator bracket that has been moved.

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## PCV Grommet and Push-In Breather

Here are close-up images of the PCV grommet (left) and push-in breather (right):



The PCV Grommet and the Push-In Breather are \$5 each.

### Features:

- The PCV grommet and the push-in breather both are 1¼ inch outer diameter.
- The breather is baffled on the inside.
- The breather foam piece can be removed for cleaning.
- The PCV grommet inner diameter is ¾" to fit PCV connectors.
- PML sells these for \$5 each with your order.
- When installed, these are nearly flush with the side of the valve cover.

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## Oil Fill

After removing the grommet or breather, a hole machined for a PCV or breather can be used for oil fill. A flexible, expanding tube makes accessing the holes on the side of the covers easy. Auto parts stores sell these for a couple dollars. This is a picture of an oil filler tube made by Blitz:

