

# TECBLOG WHICH SIDE IS UP?

## THE FEL-PRO® 'BREAK ROOM' ONLINE FORUM INCLUDES SEVERAL POSTINGS ABOUT THE DIRECTION A GASKET SHOULD FACE WHEN INSTALLED.

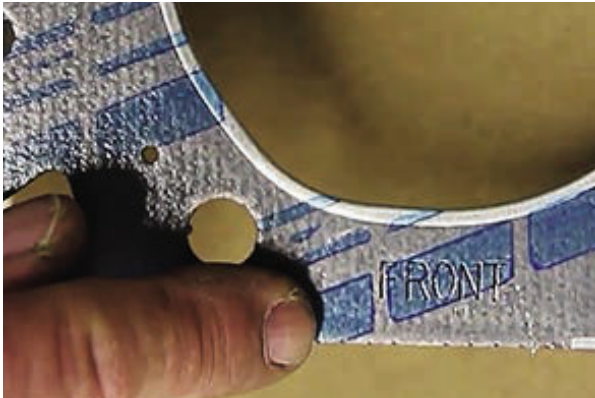
Some gaskets are asymmetric and the correct orientation can be visually distinguished. Sometimes gaskets for the same engine might appear very similar, but they will not function properly if installed in the wrong direction. It is important to install these gaskets in the correct orientation. Other times you will find gaskets that can be installed with either side facing up and are able to seal either way.

So how do you know which way a Fel-Pro gasket is supposed to face when it's being installed? Fortunately, in the case of head gaskets and intake manifold gaskets, Fel-Pro gaskets have directional markings to help install them correctly when the gasket's orientation is critical to the repair.

Before we take a look at the different markings you'll find on Fel-Pro gaskets, let's talk about what we mean when we say front, left, right, top and up. Front, left, right, top and up – why so many? Different nameplates use different nomenclature in their OE service manuals for directional markings. For consistency in leveraging repair information, Fel-Pro works to follow the nameplate reference.

### FRONT

What is the front of the engine? This can be confusing, especially when dealing with a transversely mounted engine (which most front-wheel-drive vehicles have). The answer is quite simple though – the front of the engine is the end where the drive belts are located.



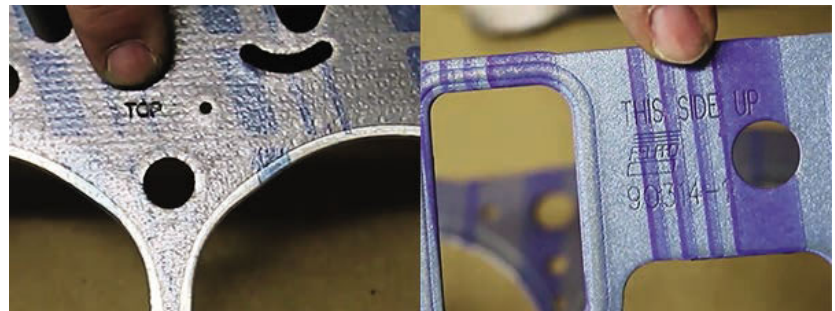
### LEFT AND RIGHT

Left and right are determined from the driver's perspective. That's the industry standard. If you were to install your gaskets on the left or right side based on looking at the engine from the front of the vehicle, the gaskets would be incorrectly installed.



### TOP / THIS SIDE UP

"Top" or "This Side Up" means that's the side of the gasket that should be facing you once it's installed.



### UP

This stamp is found on Fel-Pro head gaskets for Subaru engines (which have horizontally opposed cylinders). The edge of the gasket with the "Up" stamp must be kept up toward the top of the engine block.



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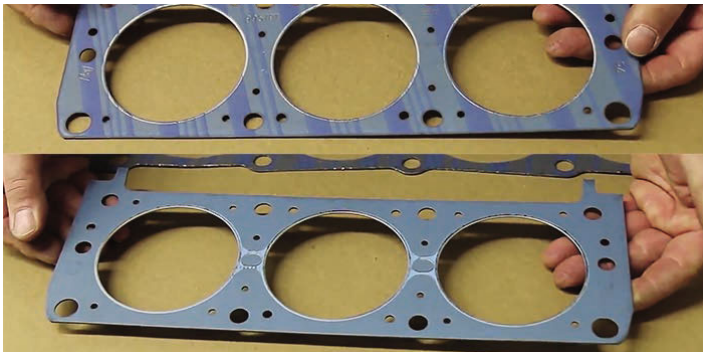
## EXHAUST MANIFOLD GASKETS

Exhaust manifold gaskets are another gasket type we get questions on. When installing Fel-Pro exhaust manifold gaskets, if there is a smooth, metallic side and a composite side, the metallic side should be installed facing out, meaning toward the exhaust manifold. The smooth surface of the shiny side will allow the flange of the exhaust manifold to slide as it expands and contracts during heat cycling from engine operation.



## NON-DIRECTIONAL GASKETS

In some cases, head gaskets or intake gaskets won't have any directional indicators on them. They may have Blue Stripe® coating or be a different color. In these cases, it does not matter which direction the gasket is installed. If it were crucial it would be marked. For example, the Small Block Chevy and the GM 3.4L V6 head gaskets (pictured below) can be installed with the Blue Stripe coating facing the cylinder heads or the engine block. There are no directional markings on the gaskets.



## WATER OUTLET AND THERMOSTAT GASKETS

Water outlet/thermostat gaskets can be installed with the striping facing either direction as well, again, as long as there are no directional indicators. If there are bypass holes (as seen in the image below), the gasket must be installed in the correct orientation to allow coolant flow.

