



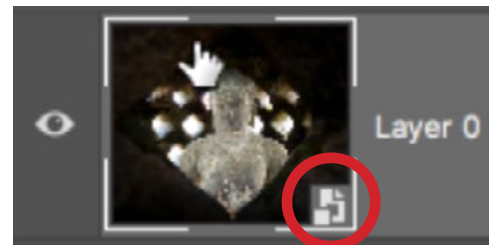
Blending Mode Tips & Tricks

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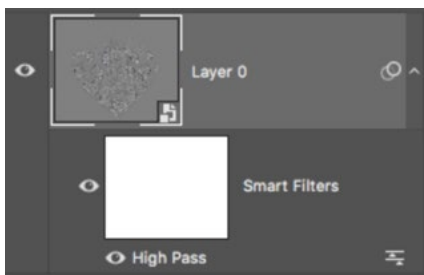
In this lesson, you're going to learn some tips and tricks for working with blending modes. There are actually three earlier Masters Academy lessons that deal with the individual blending modes, how they're organized, etc. This lesson will cover all of the smaller nuggets of information that we didn't have time to include in the other videos.

Blending Modes & Filters Usually, when you apply a filter, the filter is directly applied to the layer that is currently active. Because of this, people will commonly duplicate an image layer, apply the filter to the duplicate and then change the blending mode of that duplicate so that it can blend in with the underlying layer. Let's learn a better method for achieving the same result.

Convert the image layer into a smart object by going to the Filter menu and choosing Convert for Smart Filters. An icon will appear in the bottom corner of the image thumbnail, indicating that the layer is a smart object. You can think of a smart object as a protective container for the original content. Whatever you directly do to the layer will not modify the contents of the smart object. It will instead act as an accessory on the outside of the "container."



When you convert a layer into a smart object, this icon will appear in the bottom right corner of the layer thumbnail.

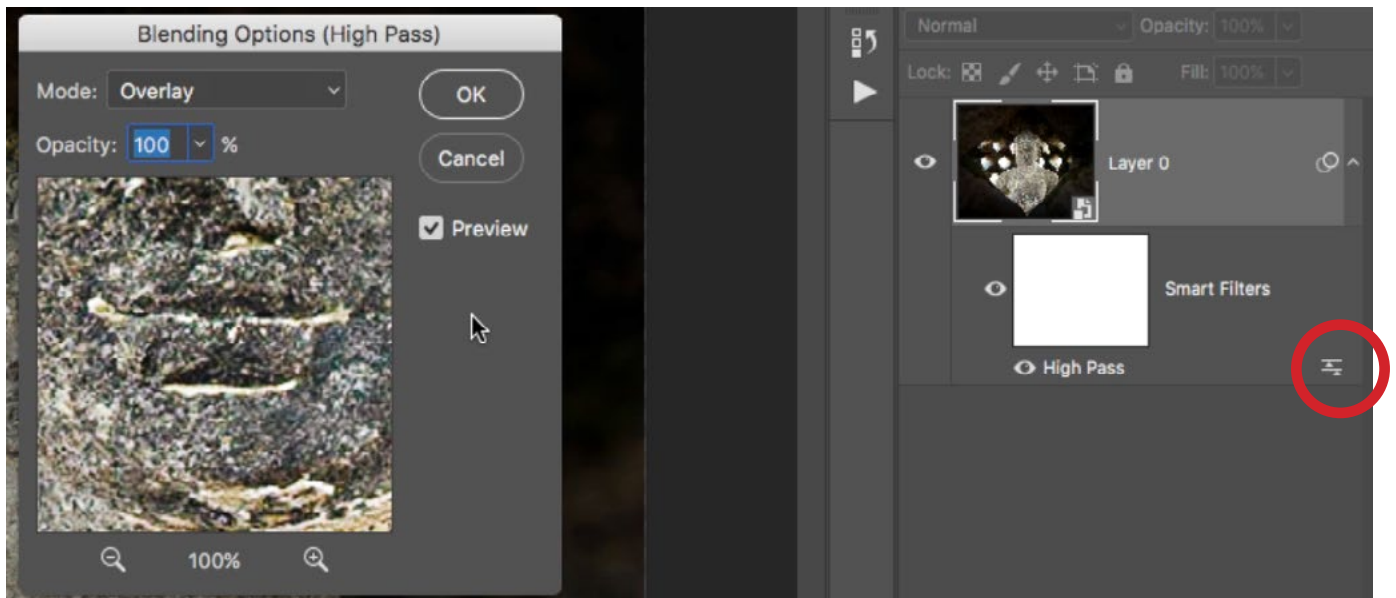


When you apply a filter to a smart object, it will appear as a smart filter, indented below the thumbnail for the smart object layer.

Now it's time to apply a filter. Go to the Filter menu and choose Other > High Pass. In the High Pass dialog, move the Radius slider up a bit. The eventual result of this will be to add a sharpening effect. Click OK. The High Pass filter, by default, gives a gray-looking result that usually requires a change in blending mode in order to make it look normal.

When ever you apply a filter to a smart object, you will see the filter appear as a separate thumbnail beneath the smart object thumbnail in the Layers panel. The fil-

ter thumbnail is a mask and you can add black paint to the mask in order to limit where the filter is applied. To the right of the filter name is a little icon. Click on the icon to bring up the Blending Options dialog for that particular filter. Here, you can set the blending mode and opacity for the filter. For the High Pass filter, set the blending mode to Overlay in order to make all the gray areas disappear and then click OK. If you ever need to change the strength of the High Pass filter, double-click on the filter name to bring up the filter settings dialog again.



Click on the icon to the right of the smart filter name (circled) in order to bring up the Blending Options for that filter.

There are several advantages to using a smart filter instead of applying a regular filter to a duplicate of the image layer. You can turn off and on the eyeball icon to the left of the smart filter in order to see a before and after view of the effect. You can also go back and modify the filter settings at any time. Had we applied the filter directly to an image layer, those settings would be locked in and unchangeable. Because the image layer is a smart object, you can make changes to the image and the smart filter will be updated to reflect those changes. To make changes to a smart object, double-click on the smart object icon in the layers panel and it will open in a separate Photoshop document. You can then make any changes you'd like, save and close the image. When you save the document, it will update within the original document.

Aligning layers using the Difference blending mode Blending modes can be used to align two or more images in a document. In the video example, I wanted to line up two graphics in order to see where they differ. These images will have to be placed as separate layers in the same Photoshop document and you can achieve this by selecting the images in Bridge, going to the Tools menu and choosing Photoshop > Load Files into Photoshop Layers. When the images are moved into Photoshop, each of the selected images will be placed on a separate layer. There are a few ways to ensure that the two layers align properly. You can lower the opacity of the top layer and then use the Move Tool and/or the Free Transform command to manually line them up. Alternatively, you can use a blending mode. I usually use the Difference blending mode when trying to get two layers to align. When you set the blending mode of the top layer to Difference, the solid black areas will represent the areas that match. The areas that are not black are different and therefore not perfectly aligned. With this view, you can better position the images to make sure they align perfectly. Here is a tip for using the Free Transform command to line up the images. First, choose one part of the image to align and use the Move Tool to make sure that one spot is perfectly aligned. Then, activate the Free Transform command (Command+T on Mac, Ctrl+T on Win) and move the crosshair that appears in the center of the free transform rectangle to the exact location you lined up. Now, hold down the Shift and Option keys (Shift and Alt on Win) and use the free transform handles to position the overlying layer. Holding down those keys will ensure the location where you placed the crosshair will stay anchored in place.



Left: The top layer is set to the Difference blending mode. The black areas indicate where the two layers are the same and the other areas indicate where they're different. **Right:** The free transform command is being used and we're positioning the crosshair to the area we perfectly aligned.

Quickly change blending modes You can cycle between the different blending modes by using your keyboard. Make sure the Move Tool is active and that a layer other than the background layer is active. Then, hold down the Shift key along with the plus and minus keys (+ -) on your keyboard. Additionally, many of the blending modes have keyboard shortcuts, which you can see in the list below. Note that if the word “brush” is next to the shortcut, it means that blending mode is only available when using the Brush Tool.

BLENDING MODE KEYBOARD SHORTCUTS

MAC: HOLD SHIFT-OPITON **WIN:** HOLD SHIFT-ALT

N=Normal	S=Screen	Z=Pin Light
I=Dissolve	D=Color Dodge	L=Hard Mix
Q=Behind (Brush)	W=Linear Dodge	E=Difference
R=Clear (Brush)	O=Overlay	X=Exclusion
K=Darken	F=Soft Light	U=Hue
M=Multiply	H=Hard Light	T=Saturation
B=Color Burn	V=Vivid Light	C=Color
A=Linear Burn	J=Linear Light	Y=Luminosity
G=Lighten		

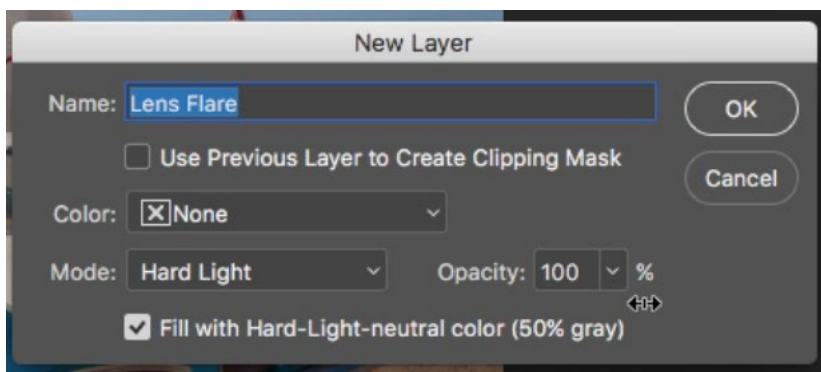
Filters, neutral colors and blending modes A neutral color is a color that completely disappears when using certain blending modes. For example, when you set a layer to one of the darken blending modes, anything that’s white will completely disappear. When you set a layer to one of the lighten blending modes, anything that’s black will completely disappear. When you use one of the contrast blending modes, anything that’s 50% gray will disappear.

There are many filters that can’t be applied to an empty layer. They need to be applied to a layer that contains some kind of image. However, by taking advantage of the neutral color of certain blending modes, we can force the filters to work just fine on something similar to an empty layer.

FILTERS THAT DON'T WORK ON AN EMPTY LAYER, BUT WORK ON A 50% GRAY-FILLED LAYER

- Filter Gallery>Artistic>Smudge Stick
- Filter Gallery>Artistic>Sponge
- Filter Gallery>Texture>Craquelure
- Filter Gallery>Texture>Mosaic Tiles
- Filter Gallery>Texture>Texturizer
- Filter Gallery>Texture>Patchwork
- Filter Gallery>Texture>Stained Glass
- Render>Lens Flare
- Render>Lighting Effects
- Stylize>Extrude
- Stylize>Tiles

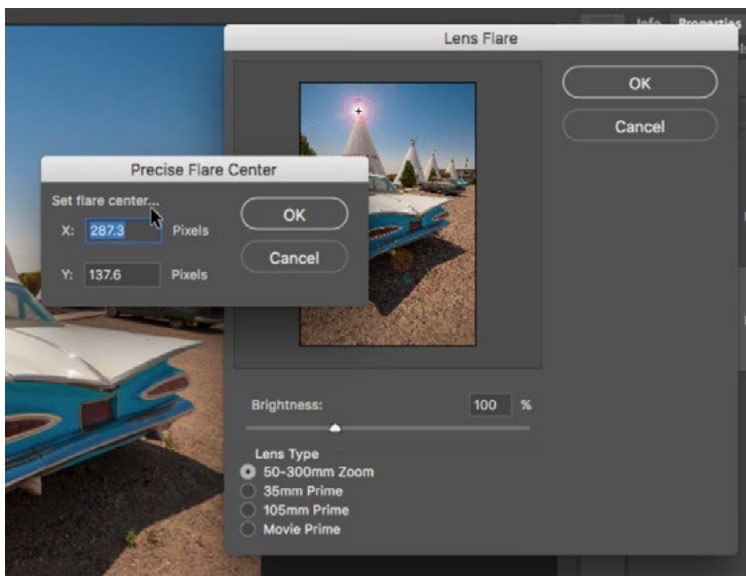
In the video example, we used the Lens Flare filter. When attempting to apply the filter on an empty layer above the image layer, we got an error message. Let's look at how we can get around this. We'll hold down the Option key (Alt on Win) and click the New Layer icon at the bottom of the Layers panel. This will give us a dialog box where we can give the new layer a name and set the blending mode of the layer. We'll use the Hard Light blending mode. Since we chose a blending mode



We held down the Option key (Alt on Win) and clicked on the New Layer icon at the bottom of the Layers panel. That presented us with this dialog, inside of which we can specify the layer's blending mode and opacity.

mode that has a neutral color (50% gray), we'll also get a checkbox at the bottom of the dialog that will allow us to fill the layer with that neutral color. We'll turn on that checkbox and click OK. The new layer will appear in the Layers panel and it will be filled with 50% gray. Because the layer is set to the Hard Light blending mode, it does not show up at all in our image.

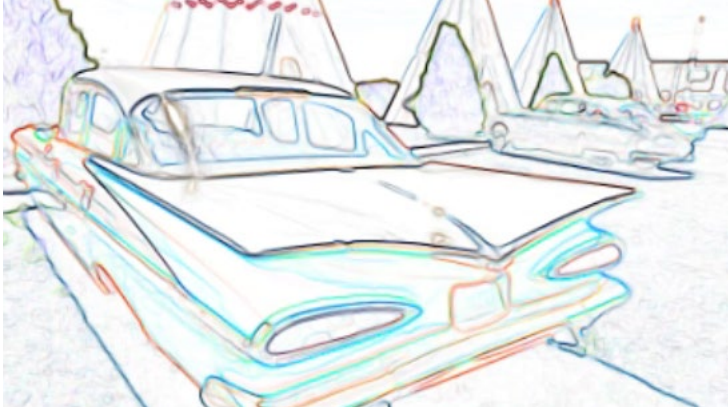
Now we can apply the Lens Flare filter and it will allow us to do so because there is content in the layer. Within the Lens Flare dialog box, we get a preview that allows us to position the flare in our image. The only problem is that the preview, by default, displays that 50% gray-filled layer. This makes it difficult to know where to position the flare. Here's what we can do to get an accurate position. We'll start by activating the image layer and choosing Lens Flare from the filter menu. The preview will show the image layer and we can drag the flare in the position we'd like. We're not going to click OK though. We'll hold down the Option key (Alt on Win) and click on the crosshair in the center of the flare. This will provide us with numbers



In the Lens Flare dialog, we clicked on the crosshair in the center of the lens flare preview. This gave us the numerical position of the lens flare within the image.

numbers that represent the exact position of the crosshair. We'll write down those numbers and then hit the Cancel button to get out of the Lens Flare filter. Now, we'll go back to the top layer that is filled with 50% gray (and set to the Hard Light blending mode) and apply the Lens Flare filter. In the filter dialog box, we'll hold the Option key and click on the crosshair. This will bring up the numeric position again. We'll type in the numbers we previously recorded that represent the desired location of the flare and we'll click OK.

The following list shows which filters produce a result containing mostly black, white or 50% gray. Knowing how to incorporate these results with blending modes, we can have certain parts of the results of these filters disappear. That makes these filters much more useful. For example, let's say we applied the Find Edges filter on a duplicate of the image layer. The result creates outlines of the detail in the image, but the majority of the layer becomes white. We can take that most-



This shows the result of the Find Edges filter. It may not be as useful on its own, but we can change the blending mode so the white disappears, leaving only the outlined edges.

ly-white layer and change the blending mode to one that uses white as a neutral color (we chose Multiply). This makes the white disappear but allows the outlined edges remain visible.

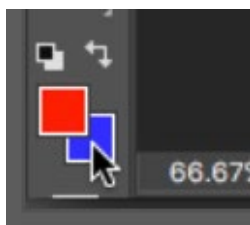
FILTERS THAT PRODUCE BLACK, WHITE OR 50% GRAY

- **Filter>Other>Highpass**
- **Filter>Stylize>Emboss**
- **Filter>Stylize>Find Edges**
- **Filter>Stylize>Trace Contour**
- **Filter>Pixelate>Mezzotint**
- **Filter>Filter Gallery>Dark Strokes**

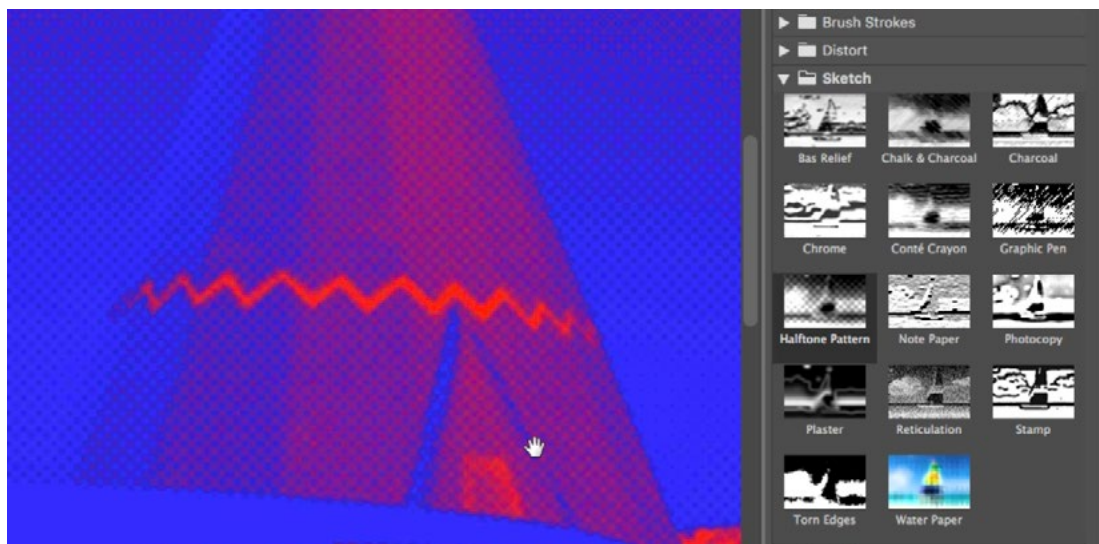
FILTERS THAT USE FOREGROUND (F) AND/OR BACKGROUND (B) COLORS

- **Filter Gallery>Artistic>Colored Pencil = B**
- **Filter Gallery>Artistic>Neon Glow = F & B**
- **Filter Gallery>Distort>Diffuse Glow = B**
- **Filter Gallery>Sketch>Bas Relief = F & B**
- **Filter Gallery>Sketch>Chalk & Charcoal = F & B**
- **Filter Gallery>Sketch>Charcoal = F & B**
- **Filter Gallery>Sketch>Conte Crayon = F & B**
- **Filter Gallery>Sketch>Graphic Pen = F & B**
- **Filter Gallery>Sketch>Halftone Pattern = F & B**
- **Filter Gallery>Sketch>Note Paper = F & B**
- **Filter Gallery>Sketch>Photocopy = F & B**
- **Filter Gallery>Sketch>Plaster = F & B**
- **Filter Gallery>Sketch>Reticulation = F & B**
- **Filter Gallery>Sketch>Stamp = F & B**
- **Filter Gallery>Sketch>Torn Edges**
- **Filter Gallery>Texture>Texture>Stained Glass = F**
- **Pixelate>Pointillize = B**
- **Render>Clouds = F & B**
- **Render>Fibers**
- **Stylize>Tiles = B**

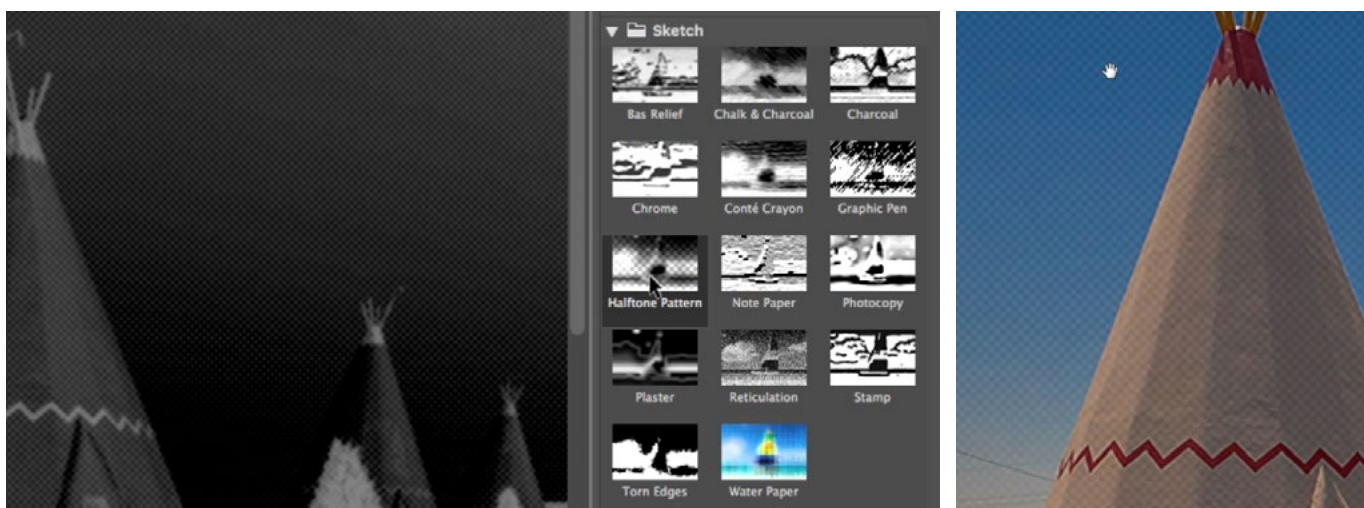
There are a series of filters that make use of your designated foreground and background colors. Knowing this, we can set our foreground and/or background colors to white, black or 50% gray and then use blending modes to make parts of the layer (the parts with the neutral color) disappear. Let's look at an example. We are going to set our background color to black and our foreground color to 50% gray. (In the Color Picker, you can get 50% gray by typing 0 (zero) into the H and



The Halftone Pattern filter makes use of the foreground and background colors as you can see from this example.



S fields and then 50 into the B field.) Then, we'll go to the Filter menu and choose Filter Gallery. When the Filter Gallery window opens, we'll choose the Halftone Pattern filter, which can be found under the Sketch category. Then we'll click OK. The Halftone Pattern filter uses the foreground and background colors to fill the image, so the image is now made up completely of black and 50% gray. We want the areas that are 50% gray to disappear, revealing the original layer underneath. We can use any of the contrast blending modes (the group starting with Overlay) to achieve this.



Left: With the foreground and background colors set to 50% gray and background color set to black, we are applying the Halftone Pattern filter. **Right:** The Halftone Pattern filter layer was set to one of the contrast blending modes.

For the most part, 8-bit mode and 16-bit work well for the majority of images. There are, however, some instances where you may choose to work in 32-bit mode. HDR images are one example. Not all blending modes are available when working in 32-bit mode. The list below shows which blending modes DO work in 32-bit mode.

BLENDING MODES AVAILABLE IN 32-BIT MODE:

- **Normal**
- **Dissolve**
- **Darken**
- **Multiply**
- **Lighten**
- **Linear Dodge**
- **Difference**
- **Hue**
- **Saturation**
- **Color**
- **Luminosity**

At the top of the Layers panel, you will find different settings for Opacity and Fill. In many cases, these two sliders work in the same way. They will work differently when you have layer styles applied and they will also work differently when using certain blending modes. The list below shows which blending modes treat the Fill setting differently from the Opacity setting. In many of these cases, the blending mode may look extreme and not very useful when used at full strength or with lowered opacity. They can, however, become more interesting when you lower the Fill setting.

MODES THAT TREAT FILL DIFFERENTLY THAN OPACITY

- **Color Burn**
- **Linear Burn**
- **Color Dodge**
- **Linear Dodge**
- **Vivid Light**
- **Linear Light**
- **Hard Mix**
- **Difference**