In order to center the border design we need to find the halfway point.

Measure the width of your border from the raw edge down to the border seam. The border measures 4 inches wide. Mark a line at the 2 inch halfway point from edge to edge on all four sides. *Some quilters will deduct for the 1/4” binding seam...you can do it either way.*

Now mark a line in the corner at 45°. This may not perfectly intersect...don’t worry about it as it’s used just as a guide.
Measure the width of your border from high point to high point. Width of this border is 3 inches.

Line up your ruler with the stencil and make a mark on your stencil at the halfway point. This would be 1 1/2”.

Make a mark in the corner making a 45 ° degree angle.

You want your corners to end the same on both sides. Make a mark on your stencil on each side of the corner.
Mark all four corners first. Be sure to line up the marks on the stencil with the marked guidelines on the quilt. This ensures that your corners are perfectly centered and straight.
Measure the distance from corner to corner. You have 16” of space that needs to be filled.
Every design has a repeat. Measure the distance of your repeat. This repeat is 6 inches.

Divide the space that you need to fill by the length of the repeat.

16 inches (space to fill) ÷ 6 inches (length of repeat) = 2.66 repeats.

You must have a WHOLE repeat.
Round the # of repeats to a whole number.

\[
\begin{align*}
6'' & \times 2 = 12'' \\
\text{Length of repeat} & \ \text{rounded lower number} & \text{total inches of space (stretch by 4'')}
\end{align*}
\]

\[
\begin{align*}
6'' & \times 3 = 18'' \\
\text{Length of repeat} & \ \text{rounded higher number} & \text{total inches of space (shrink by 2'')}
\end{align*}
\]

It will be easier to shrink the design by 2” rather than stretch it by 4”.

Place your stencil on the quilt top lining up the marked guidelines with the lines on your top. Match up the repeat with the corner. Now “scrunch” it in with each repeat until you’ve compacted the design by 2”. If you were to do the math for this example it would be about 3/4” each time.
I highly recommend that you do minimal marking FIRST to make sure everything matches up correctly. Once you know it works you can go in and add the details.
Another fun option for making borders fit, and an easy one too, is to add a large motif in the center on all four sides of your border or in the corners.

You can then run the border up to the motif and it just “ends where it ends”. No matching…no math! Just make sure that your motif is LARGER than the border design. You need a stop sign of sorts so the border can end.

Don’t worry if your motif goes into the body of the quilt or off the edge of the quilt. It sort of adds a nice design element.