

Digitizing for Small Text

When sewing small letters like the one in the design below, Special care should be adhered to when assigning what the Density (Number of stitches Per Millimeter), Pull Compensation (Compensating for the pull of the stitches into our material to help maintain a good balanced column width to our stitches viewable on top), and Underlay.

The tallest letters in the text of your image is just about 1/4" and the Lower case letters are not even 0.20". We need to apply a special technique to ensure the design sews without thread breaks (The more and more stitches are close together, the easier it is for the needle to cut the thread when it sews). That it sews quickly and the finished product looks good.

On small text like this (I used the true type font "Constantia") to create the text. I used a density of 4.65 stitches per millimeter, and the pull compensation is exaggerated to 50% as seen in the image below. Normal pull compensation for this font when the text is 1/2" inches to about an Inch in height I usually set it to 7%. So you can see how much you need to exaggerate the pull compensation setting to get the text to look good on the finished product.

For the Underlay I chose "NONE" since you really do not need it and if you did you would probably see the underlay peeking through the openings of the lower case letters.

Always type out your text from center of text out, then rearrange them on screen to spell the text correctly, this will ensure your machine will sew it out from center of text out to the left then center to right.

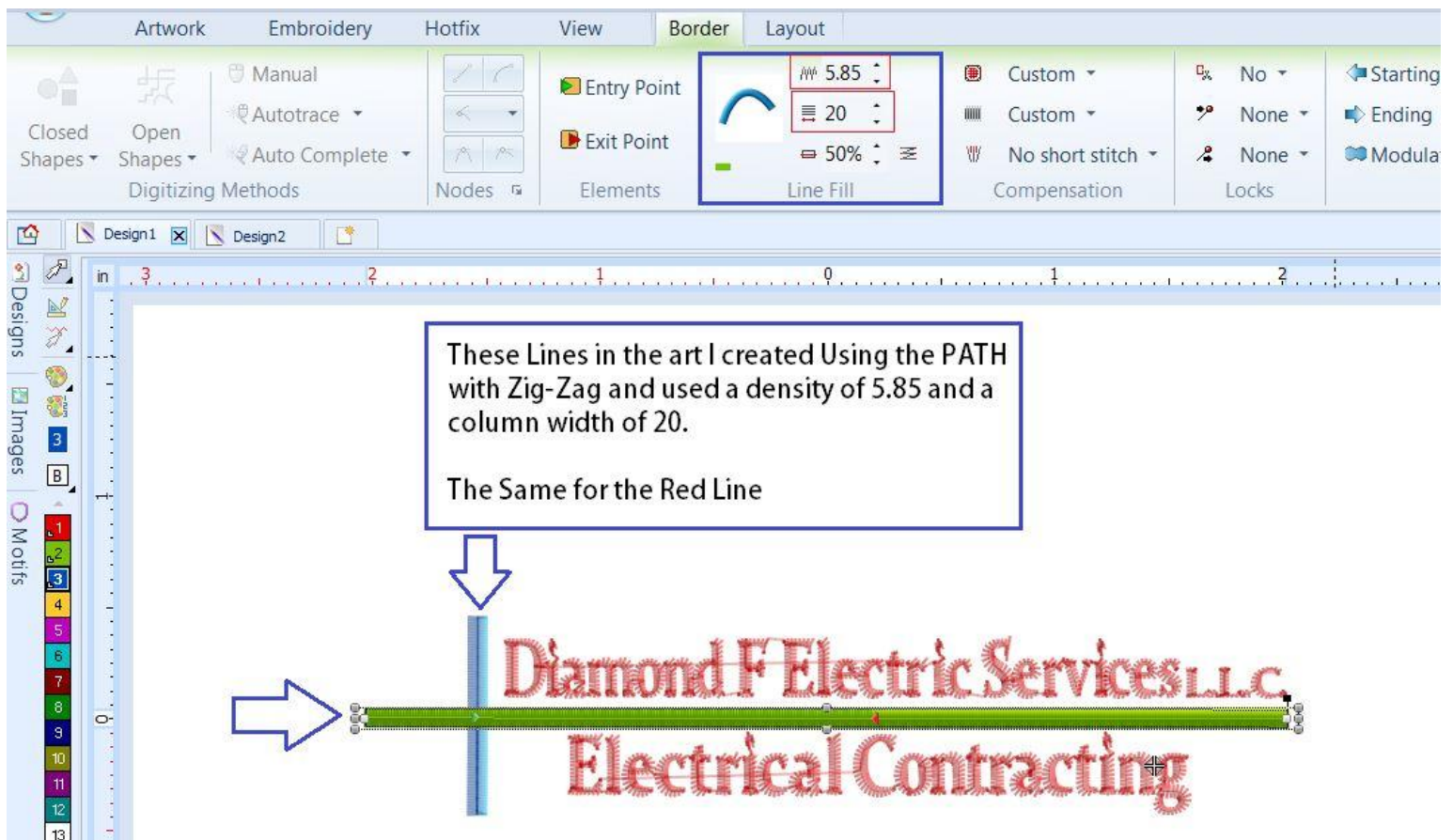
On small text like this we have to control
1) Density (Less stitches per Millimeter
2) Pull Compensation (Exaggerated the value to 50%)
3) Underlay. (No need for Underlay.
4) Trims only between words.

The screenshot shows the embroidery software interface. The main window displays the digitized text "Diamond F Electric Electrical Comp" in red. The font is Constantia, size 0.201. The Lettering dialog box is open, showing the text "AAA" in blue. The settings for the text are: Density: 4.65 lines/mm, Pull Compensation: 50%, Underlay: None. The dialog box also shows options for Stitch Fill, Adjustment & Compensation, and Under Path.

Also I set my TRIMS to WORDS. Setting trims between each letter slows the machine to a longer run time (More trims more minutes sewing) and it prevents the thread from dropping out of the needle when sewing each letter. You cannot see the connection of the stitches from letter to letter, since the machine connects the letters at the closest point.

Also whenever you are sewing text onto a Cap, you need to have the text sew from the middle of the text out. For example if I were to sew the name "Suzanne", I would type it out "azuSne" then re-arrange the letters on screen so the text spells out as it should. This will make the machine sew the middle letter "a" then "z" then "u" then "S" then it will sew the right portion of "n", "n" then lastly "e". This is worth the while since when sewing the text from left to right only, the cap can move making any text under it be just a bit off center.

The Lines of the image I used a 5.85 Stitches per millimeter for density with a Column width of 20 and I did use an underlay (Centered) for it since it is much larger that the text.



Now when you set all the settings as I have described, the design on screen may not look appealing, but when it is applied to a material it will look much better.



One last note: When using the TRUE TYPE FONTS for text of this size, the highest setting for Pull Compensation is 50% and I really need more. In order to get more, there is a setting on your machine that you can adjust so that you can increase the width of stitches that little bit more so that it becomes much more legible when sewn to the garment/cap. If you go to SETTINGS on your Embroidery machines control panel, and select BASIC SETTINGS. In the BASIC SETTINGS find the X-Satin and the Y-Satin and set them to 1 or 2. This will increase the satin width just that little bit more.

In the image below you can see the difference between the X-Satin and Y-Satins set to 1 in how the "Diamond F Electric Services" sewn out, then on the "Electrical Contracting" I set the X - Satin and Y-Satin to 2 (rarely on any given design do you need to go any higher although you can go as high as 5). Be careful when setting and always sew out a sample to check whether the XY Satin is set too high as it can start to close the openings in the lower case letters.



You should set the speed of your machine to 630 – 650 stitches per millimeter when sewing Caps.