

EXPERT Embroidery TIPS



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When embroidering, several variables affect the outcome of the completed project. If a design does not stitch perfectly, there are many factors to evaluate when looking for the reason. Become familiar with these so you can evaluate your embroidery and strive for perfect results. Your BERNINA® dealer is a great source for additional embroidery information. If you find that you cannot identify or correct a problem, take the stitched sample, along with specific information on the needle used, thread type, design source, etc. to the store for further evaluation.

NEEDLES: The use of needles appropriate to the fabric being stitched is as important in embroidery as it is in sewing. Ballpoint needles should be used on knits, Sharps on woven fabric, and wedge points on leather. Needles should be changed often; the needle takes many more stitches in embroidery than in regular sewing, so the points show signs of wear much sooner.

FABRIC: Just as in regular sewing, it is important to choose quality fabric for your embroidery projects. Also, the type of fabric must be considered when choosing stabilizers, needles, and designs. For instance, a 4" x 4" embroidery design with 40,000 stitches is too dense to be supported by a lightweight batiste.

HOOPING: This is one of the most important and yet most elusive aspects of embroidering. One rule of thumb: hoop the fabric and the stabilizer together. This may seem like a lot of work at first, but it guarantees better results. One misconception about embroidery is that the fabric must be drum-tight in the hoop; this is not the case. The screw should be tight, but the fabric should be "at rest." In other words, the fabric should be relaxed in the hoop, with the grainlines of the fabric in the same positions as they will be when the garment is worn. The fabric should be smooth and the screw should be tight enough to keep the fabric from moving out of position, but the fibers of the fabric should not be pulled so tight as to distort the fabric. This is easy to see when hooping knits, which stretch out of shape easily, but woven fabrics can be stretched too tight also. *Tip: If the fabric will be stretched when worn, such as in a sports top or biker shorts, the fabric should also be stretched when sewn. Put the garment on, spray 505 to a piece of stabilizer, and attach it to the back of the garment. This will hold the "stretch" in place as you hoop and embroider the garment.*

ADVANTAGES OF USING ISACORD POLYESTER EMBROIDERY THREAD:

- **Colorfastness:** Isacord thread does not bleed, nor does it accept color. It is UV-resistant and bleachable. Rayon has none of these qualities.
- **Strength:** Isacord thread is polyester (a man-made fiber). Rayon is a natural fiber (made from cellulose). Isacord thread is stronger and more appropriate for high sewing speeds. You will have fewer thread breaks with polyester.
- **Cost:** Polyester, a manufactured fiber, is less expensive than rayon.
- **Wearability:** Because of its strength, Isacord will look better longer than rayon.
- **Consistent color:** No dye lots with Isacord. Every cone of 1902 will be true red, every time. Also, there is no over-dye-ing, a process which breaks down the fibers of the thread.



DESIGN: It is very difficult to get good embroidery results if you do not start with a quality design. Signs of a quality design are:

• **Adequate Underlay**

Stitching: This is the pre-stitching that is sewn before the design is stitched. The underlay stitching tacks the stabilizer to the fabric and provides a base for the fill stitches.

• **Accurate Outlines:** Quality designs are stitch and tested to make sure all the components align properly. *Note: User error is often the cause when outlines stitch incorrectly, so be cautious when making this assessment.*

• **Few Jump Stitches:** Professional digitizers know how to create a design so that it will stitch without “jumping” all over the design. This not only makes less work for the embroider, but also reduces machine movement, improving the accuracy of the design.

• **Shading and Highlighting:** These are artistic attributes which the digitizer uses to keep designs from looking "flat".

STABILIZER: Choosing an appropriate stabilizer is another tricky aspect of embroidery, due in part to the large variety of stabilizers available. Some key factors to consider:

• Stabilizer should have NO stretch in any direction; this includes the diagonal as well as crosswise and lengthwise grainlines.

• *Do not use interfacing for stabilizer!* Always choose a high-quality stabilizer designed specifically for embroidery, such as products available from OESD.

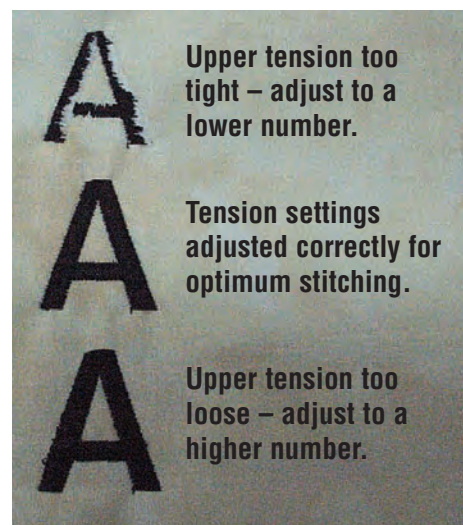


• Always use cut-away stabilizer for knits or stretch fabrics. The stabilizer supports the fabric and helps keep the stitches in place even after the embroidery is completed. Tear-away and/or cut-away stabilizers can be used on woven fabrics. *Note: Denim is one exception to this rule; it is woven, but acts like a knit because it does stretch. Always use cut-away stabilizers with denim.*

• The weight and number of layers of stabilizer should be determined by the fabric and the density of the design. The denser the design, the larger the number of stabilizer layers.

• Aqua Film is a specialty stabilizer frequently used as a topping to hold down the nap of terry, velvet, fleece and other napped fabrics during embroidery. A layer of topping greatly increases the quality of the stitched design by preventing the yarns of the fabric from showing through the embroidery. Aqua Film can also be used for embroidering specialty fabrics such as organza, tulle, or screening.

TENSION: The tension on the embroidery machine should be adjusted to balance the needle and bobbin threads, eliminating thread loops and preventing the bobbin thread showing on the front of the design. The photo below shows examples of correct tension as well as tension that is too tight and too loose.



THREAD:

Choosing the appropriate thread for embroidery is very important. Most quality embroidery designs are created to be sewn using 40-weight polyester embroidery thread (Isacord) and a 60-weight polyester bobbin thread.

If using other types and weights of thread, sew a test sample to determine if the design stitches as you want. If using a heavier weight thread (lower number), you may need to adjust the density of the design so the thread does not "pile up", causing the stitching to slow and possibly breaking the needle. If using a lighter weight thread (higher number), the density may need to be increased so there is full coverage of the stitching area without gaps in the design. On the *artista* 200, the stitch density (satin, step, fill, and outline) can be altered by accessing the Edit screen.

