

## Adjusting Thread Tensions & Bobbin Tension

# Upper Thread Tensioning

Proper thread tensioning is essential to achieving trouble free, quality embroidery.

Most threads breaks are due to poor tensioning.

Looping of the top thread or bobbin thread showing on top of your design are other indications

of improper tensioning. Too loose, your thread will begin looping; too tight, bobbin thread may

begin to show on top and you may begin to experience frequent thread breaks, wasting time and money.

Stitching out a simple satin stitch is the best way to see if your tension is correct.

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1/3 of the bobbin thread should be seen running down the center with 1/3 of the top thread showing on either side.

## TOP THREAD TENSIONING

Top Tension is  
**Too Loose**



Top Tension is  
**Too Tight**



**Just Right!**



### **Towa Bobbin Tension Gauge**

"L" Bobbin Style

Set your bobbin tension correctly prior to managing your top tensions. A bobbin tension gauge can be most helpful.

Bobbin - set between 18 and 22 grams

Bobbin for Caps - set up to 25 grams.



### **Tajima Top Tension Gauge**

Using a top tension gauge is a great tool to use as a starting point.

*Rayon - set between 100 and 120 grams*

*Polyester - set between 120 and 150 grams*

*The settings for specialty threads vary for each type and should maintain the 1/3 bobbin thread showing on the bottom side.*



If you are still experiencing thread breaks after proper tensioning your bobbin and upper thread, be sure that your needles are fresh. Old needles may produce burrs and lead to frequent thread breaks.

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## **Bobbin Tension**

Proper bobbin tension is essential to good embroidery. If tension is too tight, unwanted bobbin thread may begin to show on top of your garment and you may begin to experience frequent thread breaks which wastes time and money.

Bobbin tensions should be 18 to 22 grams (up to 25 grams when embroidering caps).



Proper tensions for satin stitches should reveal 1/3 bobbin and 2/3 top thread color on the underside of the embroidery.

If you are still experiencing bobbin thread on top of your garment after tensioning your bobbin thread, be sure that you are not using a damaged bobbin case, as this may cause undesirable results. Other factors can include improper top thread tensioning and damaged needles. Old needles may produce burrs and lead to frequent thread breaks.