

Trouble shooting guide – Free-motion Machine Embroidery

Stitching looks unsatisfactory?

Possible issues/causes

Missed or loopy stitches - Not threaded correctly

Poor tension - Tension discs not gripping thread properly

Missed stitches

Loops to the surface –
Lower tension too loose

Solutions

Check the top thread looks like a N when threaded.
Check lower thread is coming out of the top of the spool case.

Always thread the machine with the presser foot up. Always sew with the presser foot down. Try re-threading the machine.

Sometimes, it is a machine fault and your machine may need a service. Is your fabric in a hoop and are you using a foot? Without these you can experience 'bounce' which can cause missed stitches

Tighten the lower tension screw on the bobbin case (if you have one) very slightly (1/8th turn at a time) and try again. Alternatively, try loosening the top tension slightly. Repeat til correct. *If you have a machine without a bobbin case and cannot adjust the lower tension, try the opposite with the upper thread. So, if you need to tighten the lower thread, try loosening the upper thread instead.*

Trouble shooting

Keeps jamming?

Possible issues/causes

Missed stitches

Fabric too loose in the hoop/not using a hoop

Too many stitches on the spot causing bulk on the underside

May be threaded incorrectly

Needle faulty

Fabric too uneven

Solutions

Keep a consistent pace with the machine – not too slow or stop/start. If you aren't using a foot, this can be the reason too.

Tighten the fabric in the hoop (like a drum). Add more interfacing. Use two layers at least for best effect. If the machine jammed previously, make sure you tighten in hoop after every jam as this does pull it loose. If you can't use a hoop, keep the fabric pulled as flat as possible and use interfacing or extra fabric later as a stabiliser.

Keep the machine moving, don't hesitate too much. Try a little faster. Cut off excess underneath and re-stitch. Try stitching in a new place.

Check threading. Remove and re-thread. Have you missed a stage? Is the thread running through the spool properly? Check you spool isn't misshapen or bent. Is it the correct type of spool?

Replace the needle.

Uneven surfaces can be difficult to sew on – try something smoother.

Trouble shooting

Thread snapping often?

Possible issues/causes

Tension too tight

Thread quality

Incorrect or faulty bobbin

Spool not spinning freely

Spool 'wheel-spinning' and causing a build up then following snap

Needle faulty

Sewing through multiple or thick layers

Solutions

Try loosening the upper tension. Try loosening the lower tension if the bottom thread keeps snapping.

Try a different thread.

Try a different bobbin

Check spin. Use felt pads where possible.

Use felt pads. Practice smooth transition on the pedal (don't stop too quickly). Make sure lower bobbin is correct, as this is a common cause of 'pull back' and jamming

Replace needle. Avoid cheaper brands they are often poor quality.

Try a larger needle

Trouble shooting

Stitches look too bumpy ?

Possible issues/causes

Stitches too small

Lower tension too loose/upper tension too tight(Whipping stitch – eyelashes to the top layer)

Lower tension too tight/upper tension Too loose - eyelashes to the bottom layer)

Upper and lower thread colours don't match so any bumps are more visible

Is it threaded properly?

Solutions

Move hands faster and/or foot pedal slower

Try tightening lower tension (try 1/8th turns at a time. Should feel some resistance). Also can try loosening upper tension slightly if you are unable to adjust lower tension

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Use matching thread

Check for capital N shape and check lower thread is coming out of the top of the spool case

Trouble shooting

Curves look too angular?

Possible issues/causes

Stitches too long

Solutions

Move hands slower and/or foot pedal faster

Curves look too tight?

Possible causes

Tension incorrect

Adjust lower and/or upper tension. What you see on the top is what needs adjusting underneath. For example, loops appearing on the top mean lower tension is too loose – needs tightening/or you can make the top thread tension a little looser also

Fabric too thin/stretchy

The stitching is pulling the fabric out of shape. Add another layer of non -stretch fabric underneath or use interfacing.

Not using a hoop

A hoop is the best way to achieve neat stitching

Trouble shooting

Making a funny noise then jamming?

Possible issues/causes

Solutions

Not threaded correctly

Check the threading, especially lower

Thread caught underneath

Take the bobbin case out and check underneath for a build up of snapped Thread

The 'starting' thread is caught up as you sew

Move any loose 'starting' threads out of the way and cut them off as you go. Keep the surface and back as tidy as possible.

Sudden 'whirring/spinning' noise then a jam shortly after

When you are sewing, are you going at a fair pace? Then if you suddenly stop, the spool may wheelspin and cause a build up under the spool on the spool post causing a jam to follow. Regularly check the thread is moving freely from the spool and use a felt pad under the spool to prevent spinning. Make sure you spool is the correct way on the spool post.

Not using a hoop

The machine will naturally try to pull everything through the hole to the lower part of the machine. Using a hoop will help prevent this.