

ESG REPAIR PROCEDURE

1. ___ Power up machine. Check that it is upgraded to latest version.
2. ___ Make stitch selection and test LCD.
3. ___ Press thread cutting button, scissors should activate.
4. ___ Inspect needle bar clamp ESG and early ESG2.(prior to M0 serial #'s)
5. ___ Unplug machine.
6. ___ Remove needle plate and inspect for scarring around the needle hole. Buff or replace as necessary.
7. ___ Remove bobbin case and inspect for needle strikes. Check the fuzz pad that it's positioned close to the left side and that the pad is not smashed flat. ESG bobbin cases have purple lock down paint on the tension adjusts screw, which is set from the factory at 11-14 grams. Measure using 60-wt. Polyester thread on your Gram Pull Gauge.
8. ___ Inspect outer hook. Clean and buff if burred.
9. ___ Remove all covers, except rear. Make sure to unlock ribbon tabs from main board to detach front cover.
10. ___ Check for up and down play, and for backlash in the lower shaft and hook.
11. ___ Check for side to side play in both upper and lower shafts. Adjust black collar to reduce play. Check bushing on upper and lower shaft for black oil or flecks of black on casting around bushings. This may indicate wear on the bushing.
12. ___ Lubricate upper and lower shaft bushings, needle bar and all other moving parts including the feed link and feed slide inside the feed block. (See Tech. Bulletin May 2001).
13. ___ Check timing marks on feed motor and horizontal feed gear.
14. ___ Inspect thread cutting blades.
15. ___ Inspect all ribbons inside front panel and check all remaining components connected to the main board.
16. ___ Attach front cover to main board. Lock down the ribbon tabs (see Tech Bulletin Sept. 2001) leave front cover loose.
17. ___ Hold Stop/Start, Reverse and Thread Cutting Buttons while turning machine on, Reset LCD pressure points 1 – 5 . Turn off machine.
18. ___ Go to test program 1-40 by holding Stop/Start and Reverse buttons while turning on machine.
19. ___ Install a new 80/12 needle.
20. ___ Select Test #5, Needle Clearance. Adjust equal clearance left to right by moving needle block. Needle

move hitting heavier on the right – move block slightly to the left. Needle hitting heavier on the left –
check block slightly to the right until the needle hits evenly on both sides. With needle in left position
needle bar height and hook needle timing.

21. ___ Adjust needle clearance front to back on the top rear of needle bar support with 2mm Allen screw.

22. ___ Reinstall the bobbin case, check bobbin case bracket and adjust if needed.

23. ___ Reinstall the needle plate, Select Test #4, Three Point Needle Drop.

24. ___ Select Test # 6, Feed Dog Clearance. Check center, left and right position of feed dogs.

25. ___ Reinstall front panel to machine.

26. ___ Select Test # 11, Check Thread Sensor, “0.0” appears on screen, and when you raise the check spring ,
the values should change to “+.+”.

27. ___ Attach Shank and “J” Foot.

28. ___ Select Test # 7, Presser Foot Height. Confirm that with the “J” foot flat against the needle plate the
reading is “0.0”. With a 3mm Allen wrench between the “J” foot and the needle plate the
reading is “3.0”.

29. ___ Select Test # 2 Fabric Thickness and reset if needed. When resetting you will hear ONE beep
for “0”
and ONE beep for “3”.

30. ___ Select Test # 7 again to confirm that the 0 and 3 are set correctly. Check Feed Dog height
starting with
“J” foot and feed dogs in the lowest position, turn hand wheel one full turn until the feed dogs
are in the
highest position. The reading should be 0.9 to 1.0

31. ___ Select Test # 25 and by using the “Plus” or “Minus” keys reset the screen to “00”. Select
“Close” and
turn hand wheel one full turn to reinitialize the tension motor. Tie one end of an 18 inch length
of the red thread found on bobbins supplied with Baby Lock Embroidery machines. Raise the
presser foot lever and route the thread through the thread guides, under the pretension plate
and around the post.. Lower the
presser foot. While pulling the tension guage straight towards you, insuring the thread is not
contacting
the tension disc, you should have a tension reading of 11 – 14 grams. If not, adjust the brass
Phillips
screw clockwise to increase, counterclockwise to decrease the gram pull. This is a very
sensitive
adjustment. Raise the presser foot and draw the thread down between the tension disc and
lower the
presser foot, pull the gram guage down, the tension reading should be between 60 – 65 grams.
If not
Select Test Mode # 25 using the “Plus” key to increase or the “Minus” key to decrease the gram
pull.
Select “Close” and rotate the hand wheel one full turn to reset the tension motor, and recheck the
total
gram pull of 60 – 65 grams.

32. ____ Wind bobbin and inspect bobbin winder and stopper.

33. ____ Inspect needle threader, adjust if needed.

34. ____ Sew off the following:

Fine adjustment of stitch, Test # 3. Use "N" foot. Adjust if needed.

Buttonhole

Straight Stitch

Zigzag Stitch

2 or 3 Reverse stitches

Basting Stitch

Decorative Stitch

Character Stitch, A, B, C.

35. ____ Embroidery Unit Inspection:

Remove covers and clean all gears of threads and lint. Lubricate shafts. Check belt pressers to see that

They are not too tight, or too loose. Adjust if needed. Embroider a design with an outline.