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# Part Replacement Instruction

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**Product:** SUPERSTAR 4, EMC 6/4, and EMC 6

**Part Replaced:** Jump Stitch Solenoid

**Required Tools:**

#2 Phillips Screw Driver  
Slotted Screw Driver  
5mm Allen Wrench  
3mm Allen Wrench  
3/32" Allen Wrench  
9/64" Allen Wrench  
Adjustable Wrench  
Anti-Static Wrist Strap

**Procedure:**

NOTE: This procedure is equally applicable to single-head and four-head machines. While there are some minor differences in the heads of the various machines, the steps described below apply to any of the SUPERSTAR 4, EMC 6/4, and EMC 6 sewing peripherals (Those built with the black Tajima Heads). We recommend that you read through this procedure before beginning, to gain an understanding of what is required.

1. Turn the machine off and unplug the Power Cord from the wall socket.
2. Unthread the head to be worked on.
3. Put on the Anti-Static Wrist Strap and attach the free end to a non-coated metal area of the machine.

NOTE: Be sure to hold on to the Tensioner Assembly during the next three steps.

4. Remove the two Retaining Screws (Figure 1-A) that hold the Tensioner Assembly (Figure 1-B) and the Color Change Cover (Figure 1-C) to the top of the Head.

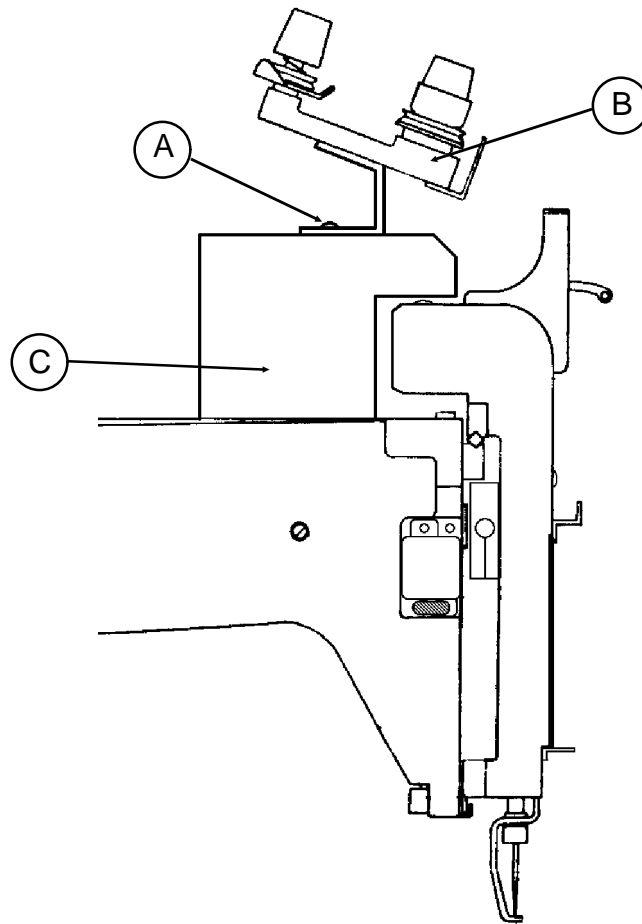


Figure 1

5. Slightly lift the Tensioner Assembly and Color Change Cover. Locate where the Tensioner Cable plugs into the Color Change Board (Figure 2-D).

NOTE: The physical appearance of the Color Change Board may vary somewhat from Figure 2, however the applicable Connectors will still be in the positions shown. Remember the orientation and position of each Cable so that you can reconnect them correctly in later steps.

6. Unplug the Tensioner Cable, and lay the Tensioner Assembly and Color Change Cover aside.
7. Unplug the Head Power Cable (Figure 2-E) from the Color Change Board.
8. Unplug the Color Change Motor Cable (Figure 2-F) from the Color Change Board. The Passive or Slave heads of four-head peripherals do not have anything connected here.

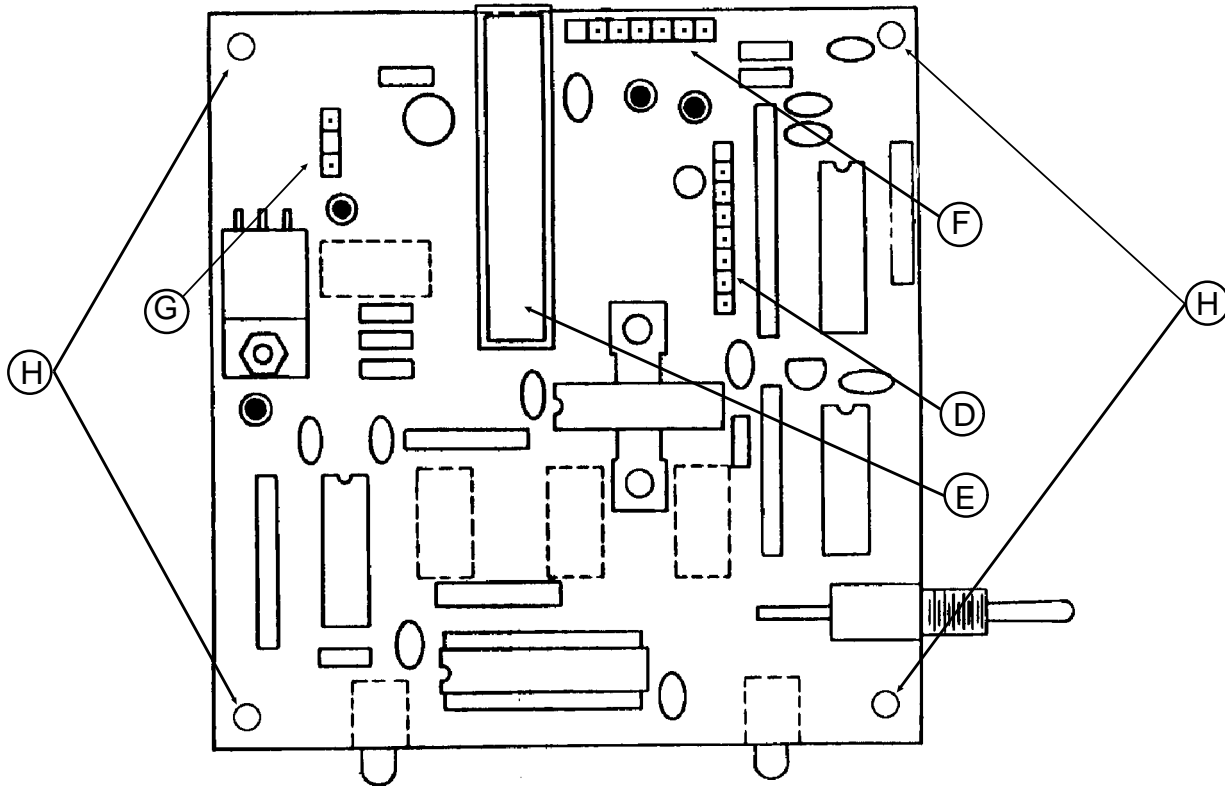


Figure 2

9. Unplug the Jump Stitch Cable (Figure 2-G) from the Color Change Board.
10. Locate the four white Mounting Tabs (Figure 2-H) holding the Color Change Board in place. Press the center lock of each Tab in to release the Board, and lift up on the edge of the Board.
11. Carefully lift the Color Change Board off of the machine, and place it aside on a clean, static free surface.
12. Slide the Needle Case Face Plate (Figure 3-I) off of the Needle Case.
13. Remove the four Take-Up Lever Cover Retaining Screws (Figure 3-J) and remove the Take-Up Lever Cover (Figure 3-K).
14. Remove the two Jump Stitch Cover Retaining Screws (Figure 3-L) and remove the Jump Stitch Cover (Figure 3-M).
15. Remove the four Needle Case Stop Retaining Screws (Figure 3-N) from the Needle Case and remove the Needle Case Stop (Figure 3-O).

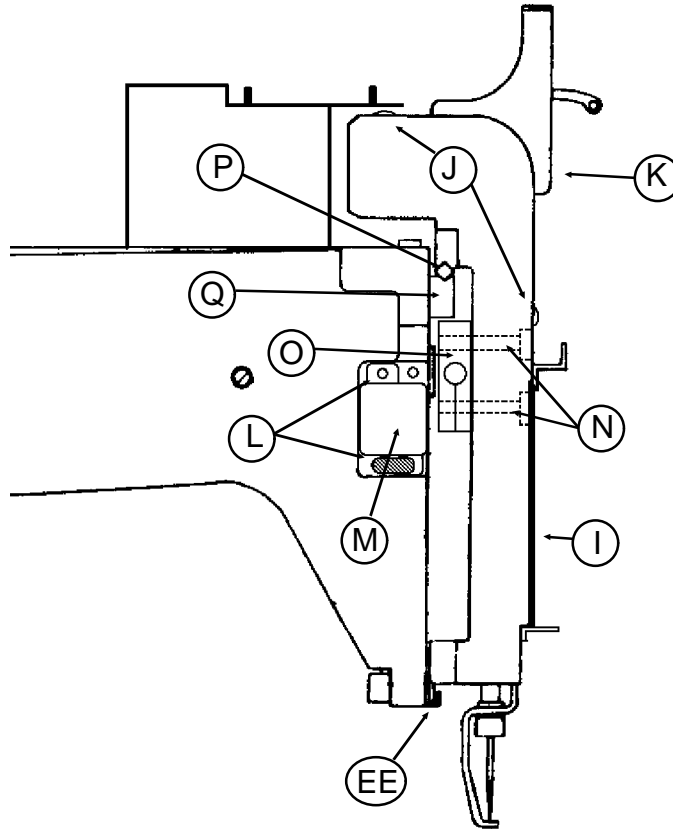


Figure 3

NOTE: The specific method of removing the Needle Case depends on whether the machine is a single-head or four-head machine, and if a four-head machine, whether the Needle Case is on the Master (Drive) Head or on the Slave (Passive) Heads. If removing the Master Head Needle Case from a four-head peripheral, be sure to secure the other three heads to keep them from moving.

**CAUTION: Make sure that you have a firm grip on the Needle Case when removing it from the Head. Do not allow the Needle Case to drop while moving it off of the Head.**

16. Remove the Needle Case from the Head and lay it aside. Make sure that the Slider Bearing (Figure 3-P) stays on the Lower Guide Bar (Figure 3-Q).
  - A. On Heads with a Color Change Motor, rotate the Motor Shaft to move the Needle Case off to one side of the Head.
  - B. On Heads without a Color Change Motor, slide the Needle Case off to one side of the Head.
17. If a Center Plate Brace (Figure 4-R) is present, remove the right Retaining Screw (Figure 4-S) holding it to the Left Cover Plate.

18. Remove the two Cover Plate Retaining Screws (Figure 4-T), and remove the Right Cover Plate (Figure 4-U).

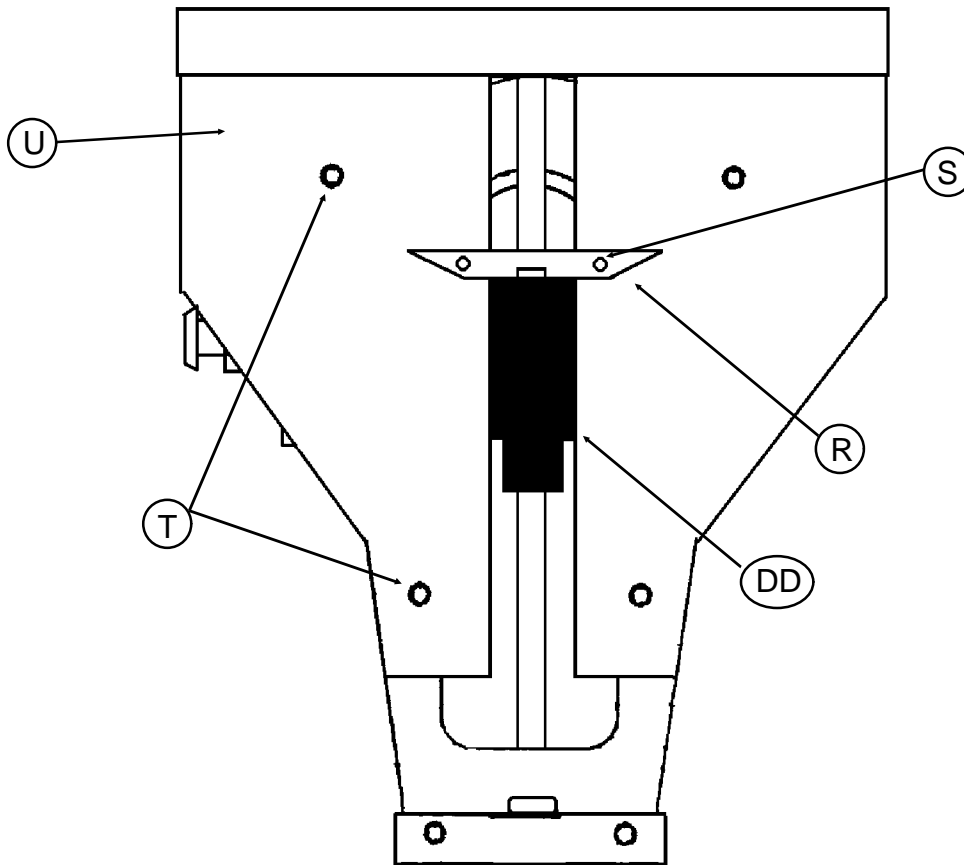


Figure 4

NOTE: Take note of the position of the Jump Stitch Solenoid, Mounting Bracket, and Jump Stitch Cable so that you can reposition them correctly in later steps.

19. Loosen, but do not remove, the two Retaining Screws (Figure 5-V) holding the silver Jump Stitch Cable Clamps (Figure 5-W) in place, and gently pull the Cable out from under the Clamps.
20. Remove the two Retaining Screws (Figure 5-X) holding the Jump Stitch Solenoid Mounting Bracket (Figure 5-Y) in place.
21. Remove the Lock Nut (Figure 5-Z) holding the Jump Stitch Solenoid Figure 5-AA) in the Mounting Bracket.

NOTE: Take note of the position of the Jump Stitch Cable in the Mounting Bracket before performing the next step so that you can position it correctly when you reassemble the unit.

22. Remove the two Retaining Screws (Figure 5-BB) holding the Jump Stitch Solenoid Bracket together.

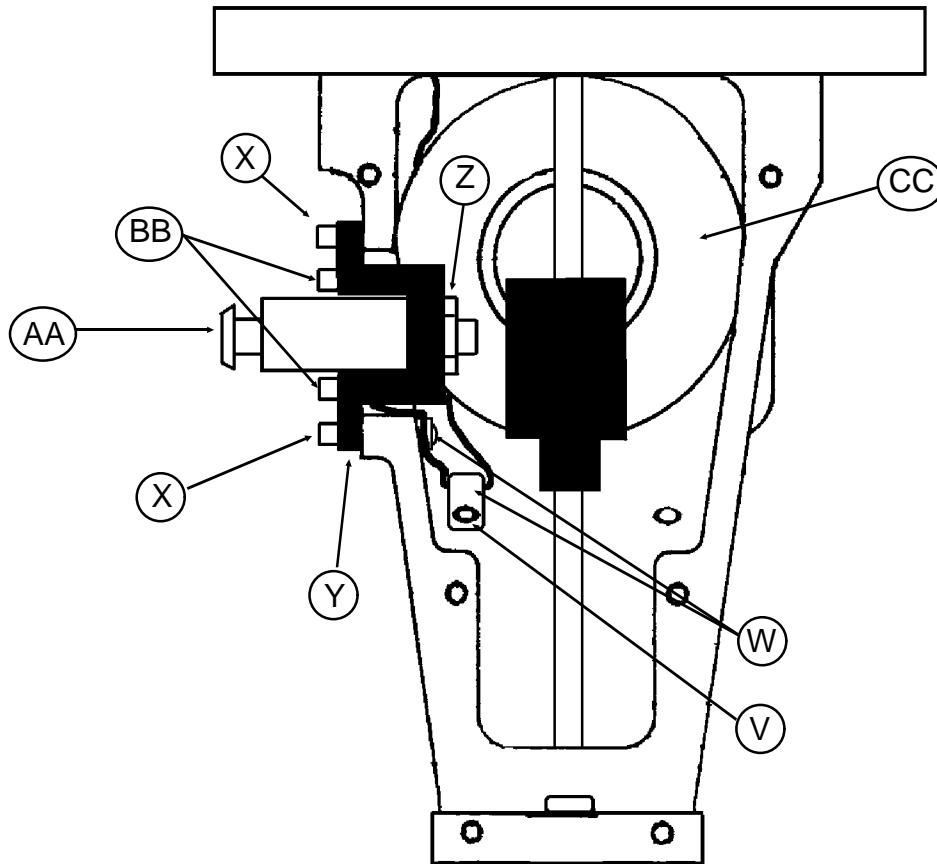


Figure 5

23. Unscrew the Jump Stitch Solenoid from the Mounting Bracket.

NOTE: Trace the route of the Jump Stitch Cable to the top of the Head. You will notice, on some Heads, that the Cable passes through a black Cable Clamp on the top of the Head. Loosen the Clamp Retaining Screw, where applicable, enough to allow you to remove and replace the Jump Stitch Cable.

24. Remove, and discard, the old Jump Stitch Solenoid.

25. Screw the new Jump stitch Solenoid into the Mounting Bracket.

26. Screw the Lock Nut onto the Jump Stitch Solenoid. Make sure that there are approximately 2 1/2 threads showing past the Lock Nut when the Nut is tightened against the Bracket. If not, loosen the Lock Nut, reposition the Solenoid in the Bracket, and re-tighten the Lock Nut.

27. Reassemble the Mounting Bracket and secure it with the two Retaining Screws removed in step 22.

28. Position the Mounting Bracket in place in the Head and secure it with the two Retaining Screws removed in step 20.

29. Route the Jump Stitch Cable up through the Head and secure it in place with the silver Jump Stitch Cable Clamps. We recommend that you tighten the lower Clamp first, then position the Cable so that there is no interference with the Take-Up Lever Cam (Figure 5-CC) and tighten the upper Clamp.

NOTE: You may find it useful to put a small amount of grease on the Jump Stitch Cable in the area that passes close to the Take-Up Lever Cam. This will make sure that, if the Cable moves a little in operation, that the Cam will pass over it smoothly, rather than cutting it.

30. Position the Right Cover Plates on the front of the Head and secure them, snug but not tight, with the two Retaining Screws removed in step 18.
31. Rotate the Z Axis and verify that the Cover plates do not bind the Driver (Figure 4-DD) in its up and down travel. If there is any mechanical bind, slightly reposition the Cover Plate and Check for bind again.
32. Tighten the Cover Plate Retaining Screws and install and tighten the Center Plate Brace Retaining Screw, removed in step 17, if one was present.

**CAUTION: Make sure that the machine is at Head Up before performing the next step. If not, the machine will experience a mechanical bind when you attempt to operate it, and may cause extensive damage to the drive mechanism.**

33. Replace the Needle Case on the front of the Head.
  - A. Make sure that the Slider Bearing is in place, and does not protrude past the ends of the Needle Case in Needle positions 1 and 6. The Slider Bearing should be in approximately 1/4" in positions 1 and 6.
  - B. Make sure that the lower edge of the Needle Case is being held by the Lower Guide Bar Clamp (Figure 3-EE).
  - C. Make sure that the Needle Case travels smoothly from position 1 to 6 and back.
34. Place the two Needle Case Stops in position and secure them loosely in place with the four Retaining Screws removed in step 15.
35. Make sure that the Needle will go through the center of the Needle Plate Hole when the Z Axis rotates, and tighten the four Needle Case Stop Retaining Screws. On the SUPERSTAR 4, and EMC 6/4 machines, make sure that the needles on all four Heads will go through the center of the Needle Plate Holes, and that all four Heads are on the same Needle.
36. Place the Jump Stitch Cover in position and secure it with the two Retaining Screws removed in step 14.

37. Place the Take-Up Lever Cover in position and secure it with the four Retaining Screws removed in step 13.
38. Slide the Needle Case Face Plate into position.
39. Place the Color Change Board in position on the four white Mounting Tabs, and push it down to lock it in place.
40. Plug the Jump Stitch Cable into its Receptacle.
41. Plug the Color Change Motor Cable into its Receptacle.
42. Plug the Head Power Cable into its Receptacle, if one was present.
43. Hold the Tensioner Assembly and Color Change Cover in place, and plug the Tensioner Cable into its Receptacle.
44. Secure the Tensioner Assembly and Color Change Cover in place with the two Retaining Screws removed in step 4.
45. Remove the Anti-Static Wrist Strap and disconnect the end from the machine.
46. Thread the machine.
47. Plug the Power Cord into the wall socket and turn the machine on.
48. Perform a test sew out to verify proper operation of the Jump Stitch Solenoid.

END OF PROCEDURE