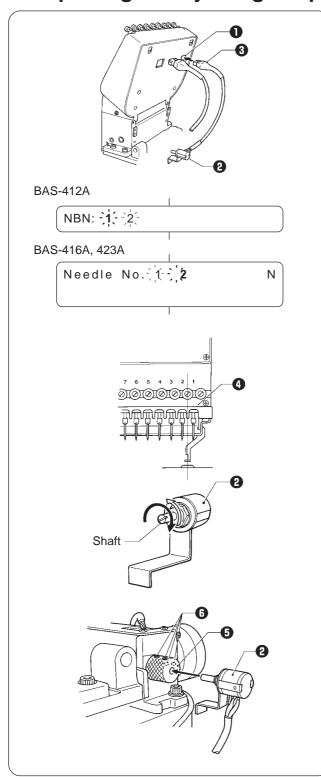
# SERVICE MANUAL



## To BAS-412A/BAS-416A/BAS-423A Users:

Thank you very much for purchasing a BROTHER embroidery machine BAS-412A • 416A • BAS-423A. The most up-to-date information must be added in the instruction manual for the machine you are using. Please refer to this corrigenda when reading the manual.

#### Replacing an adjusting the potentiometer assembly



1. Connect the connector **3** of the potentiometer **2** to the thread tension bracket circuit board **1**.

#### Note

Do not connect the potentiometer **2** to the sewing machine at this time.

- 2. Turn on the sewing machine power.
- 3. Press the needle bar select key to display the needle bar selection screen.



- 4. Turn the knob **5** to move the needle bar case **4** so that the needle hole in the needle plate is in between needle bars No. 1 and No. 2.
- 5. Turn the shaft of the potentiometer ② clockwise as far as it will go so that 1 and 2 are flashing on the needle bar number display, and then turn the shaft counterclockwise until only 2 is flashing.
- 6. In this condition, insert the shaft of the potentiometer
  2 into the knob 5 so that it does not move, and secure by tightening the set screw 6.
- 7. Move the needle bar case 4 to the neutral position turn the knob 5 (the position where the needle bar case 4 does not move).
- 8. Check that the needle bars match the numbers in the display (No. 1 to No. 9) when the keys are used to move the needle bar case 4.
- 9. Once the operation has been checked and is okay, securely tighten the potentiometer 2 set screws 6.

## Replacing the circuit boards (Page 90 for BAS-401/412A/416A)

Main circuit board

#### Note:

• Change the MOSIC to a CMOS\_IC. (Addition)

 Connector P9 is a spare connector, and so the cable is not connected. Furthermore, if cap frame specifications have not been included, connector P10 will also be spare, and so its connector also will not be connected.

### **Connecting the connectors (Page 112)**

Connector P12 (between main circuit board and tension bracket circuit board) has been added.

### (Page 113)

- Connector P14 has been changed (between main circuit board and tension bracket circuit board).
- Additions to connector P18 have been made as given below.

Connector No.	Connecting point	Drive signals	Symptoms resulting from improper connection or breakage
P18	Between main circuit board and tension bracket circuit board	Tension bracket circuit     board power supply	Needle bar case does not operate normally.

### Replacing the IO circuit board (page 84 for BAS-423A)

- The following has been added to the Note for step 4.
   "Connector P10 is spare, so the cable is not connected."
- Additions to connector P2 have been made as given below. (Page 103 for BAS-423A)

Connector No.	Connecting point	Drive signals	Symptoms resulting from improper connection or breakage
P2	Between IO circuit board and tension bracket circuit board/color change sensor (head 2)	Needle bar case position signal	Needle bar case does not operate normally.

Changes to connector P10 have been made as given below. (Page 104 for BAS-423A)

Connector No.	Connecting point	Drive signals	Symptoms resulting from improper connection or breakage
P10	Spare		

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