INSTRUCTIONS
FOR
CLASS NB2100
ELECTRONIC CONTROLLED POSTED
BUTTON SEWER
WITH
BUTTON LOADER

This Instructions describes only items different from the Instructions for CLASS NB2000.
1. Specifications
   Model: NB2100
   Description: Electro Controlled Posted Button Sewer
   Application:
   For parallel sewing and wrapping of button with bridge thread (addition)
   For cross sewing and wrapping of button with bridge thread (addition)
   Button diameter: φ14～φ24 mm
   Number of show stitch: 0 or 1～16 stitch

※ Other specifications are the same as NB2000.

2. Descriptions and functions of Control Panel

   * SHOW STITCH
     YES・・・Show stitch can be sewn according to the number on Timer T7.
     NO・・・Show stitch cannot be sewn regardless of the number on Timer T7.

   * STITCH TYPE
     Selection Counter for choosing 4-hole, 2-hole, parallel sewing or cross sewing.
     2 = 2-hole
     4 = 4-hole
     5 = 4-hole, cross sewing
     6 = 4-hole, parallel sewing with bridge thread
     7 = 4-hole, cross sewing with bridge thread

   * CYCLE Switch(red)
     When pressing this switch once, Button Loader operates one cycle.

   * STEP Switch(green)
     Button Loader operates one process of one cycle every time this switch is pressed.
     (This is used at the time of adjustment.)
3. Description and functions of Panel Board

3-1 Timers
T4...This sets the stitch number of stop stitch.
0=1 stitch, 1=2 stitch, 2=3 stitch, 3=4 stitch, ... F=16 stitch
T5...This sets the number of show stitch
0=1 stitch, 1=2 stitch, 2=3 stitch, 3=4 stitch, ... F=16 stitch
T6...not used

3-2 Switches
SW1...Operate or not operate of Button Loader:
OFF : Button Loader does not operate.
ON : Button Loader operates.
SW4...For the change of stop stitch position
OFF : After wrapping, stop-stitch needle drops to the center of wrapping.
ON : After wrapping, stop-stitch needle drops to the right wrapping (seen from operator).

(A) one stitch before wrapping after sewing button
(B) show stitch
(C) stop-stitch  When SW4 is turned
(D) stop-stitch When SW4 is turned
6. Operation manual

1. Connect air supply line. Set the pressure on Regulator to 4 kg/cm².
2. Insert Power Plug.
3. Set Counter STITCH TYPE on Control Panel:
   "2" for 2-hole
   "4" for 4-hole, parallel sewing
   "5" for 4-hole, cross sewing
   "6" for 4-hole, parallel sewing with bridge thread
   "7" for 4-hole, cross sewing with bridge thread
4. Set the measurement of (X) and (Y) on Counter (X) and Counter (Y) respectively.
5. Set stitch number on Counter STITCH NUMBER.
   \[1=8, 2=5, 3=7, 4=9, 5=11, \ldots 9=19\] stitch
6. Set wrapping number on Counter WRAPPING NUMBER.
   \[1=8, 2=10, 3=12, 4=14, 5=16, \ldots 9=24\] stitch.
7. Turn POWER switch "ON".
9. Turn AUTO/MANUAL switch to "MANUAL".
10. Make sure that buttons are held securely, by pressing STEP switch of Button Loader once at a time. 6 times pressing makes 1 cycle.
    If buttons are not held properly or Button Loader does not operate properly, refer to the item "Adjustment of Button Loader".
12. Treadle Pedal. Note: Release it without fail after treading.
13. By turning Handwheel, make sure that needle correctly drops to the center of button holes and needle does not touch Fabric Holder and Fabric Guide.
14. Adjust to minimize the clearance between Button Holder and Stitch Plate by adjusting Timer T8 considering the height of wrapping, wrapping number and the thickness of thread.
15. Position Marking Lamp. (Bring Fabric Holder foremost.)
16. Turn MANUAL/AUTO switch to "AUTO".
17. Load two-folded fabric without slack on Fabric Holder.
    Match the position of Marker with the position of sewing button.
20. Set next button on Button Receive Piece of Button Loader while button sewing is going on.
21. As the sewings which is pre-set on each counter are finished, and at the time button sewing and wrapping process are completed, Fabric Holder opens toward operator.
    Move the fabric toward operator together with Fabric Holder.
22. Next button is carried by Button Loader to be held by Button Holder.
Adjustment of Button Loader

1. Adjustment procedure
   Adjustment should be made following the next procedure:
   1. Connect the air supply line.
      Set the pressure on Regulator to 4kgf/cm².
   2. Insert Power Plug.
   3. Set button to Button Receive Piece (A) on Button Loader.
   4. Press STEP switch (green) of Button Loader on Control Panel once.
      Button Loader Lever (B) turns 180° and Button Receive Piece moves under Button Holder.
      When the button jumps out of Button Receive Piece because the rotation is too fast, adjust the speed by Speed Controller (D).
5. Adjust the clearance between Fabric Guide(E) and Button Receive Piece Support(F) to 0.5mm. The adjustment is made by loosening Lock Nut(G) and turning Adjusting Piece(H).

6. Adjust so that the button positions at the center of Button Holder(C). The adjustment is made by loosening Screws(I) on Button Holder Arm and Screws(J) on Button Receive Piece Support.

7. Adjust the clearance between the button under Button Holder(C) and Button Receive Plate (Left), (Right) to 0.5~1.0mm. The adjustment is made by loosening Screws(K) on Button Holder Adjusting Piece.

8. Adjust the position of Button Receive Piece in relation to the needle drop. The adjustment is made by loosening Screw(L) on Button Receive Piece.

9. Press STEP switch(green) once more. Button Receive Piece is lifted and button is put into Button Holder. When button jumps out of Button receive Piece because the lift-up speed is too fast, adjust the speed by Speed Controller(M). Make sure that button enters smoothly into Button Holder without interfering Button Receive Plate(Left), (Right).
10. After the button enters into Button Holder, adjust the clearance between undersurface of button and Button Receive Plate (Left), (Right) to 0.2~0.5mm. The adjustment is made by loosening Screw(N) on Stopper Collar.

11. Press STEP switch (green) once more. Air Cylinder(O) of Button Holder operates and clamps button.

12. Press STEP switch (green) once more. Button descends. At this time, adjust the clearance between undersurface of button and Button Receive Pin to 0.5~1.0mm. The adjustment of height of Button Holder is made by loosening Lock Nut and turning Adjusting Screw(P).
13. Press STEP switch (green) once more.
   Button Loader Lever returns to the home position.
14. Press STEP switch once more.
   Fabric Holder Lever descends to finish one process.
15. Take out the button clamped by Button Holder, and set a button in Button
    Receive Piece once more.
16. Press CYCLE switch (red).
   The process of Button Loader is performed continuously.
   Make sure the operations of each process again.

※ Now the adjustment of Button Loader is completed.

Note 1: When the adjustment of height of Button Holder (height of wrapping)
   is made, check the clearance between undersurface of button and
   Button Receive Plate (Left), (Right) as described in item 10 without fail.
Note 2: When the size of button is changed, check the clearance between
   button and Button Receive Plate (Left), (Right) as described in
   item 7.

2. Kind of Button Holder, Complete Set
   The following Button Holder, Complete Set with the following diameter of
   button hole and pitch are available. Select the most suited Holder.

   ![Diagram of Button Holder](image)

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   Note: At the shipment, machine was adjusted to Button Holder, Complete Set marked ◎. Button Holders marked ☆ are contained accessory box.

3. Removing Button Holder, Complete Set
   Remove air tube by pushing Joint (A) to the arrow direction, and remove Button Holder, Complete Set by loosening Screw of Button Holder.
   Even if air tube is removed off the joint, air will not leak because the Joint is a special type.