

INSTRUCTIONS AND PARTS BOOK FOR

mitsubishi

**INDUSTRIAL
SEWING
MACHINE**

**INSTRUCTION FOR ATTACHMENTS
(SHANK BUTTON**

and

WRAPPED-AROUND BUTTON)

ON

MODEL : CB-610 (BUTTON SEWER)



ADVANCED AND EVER ADVANCING

MITSUBISHI ELECTRIC

“Mitsubishi” Model CB-610 (button sewer)

- By mounting this shank button clamp attachment, you can work with shank button at the maximum diameter of 30mm.
- However, according to the type of shank button, you must adjust some portion of button guide plate.
- At first, please remove the flat button clamp attachment, and mount the shank button clamp attachment in the following orders:

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I The Shank button clamp attachment

1. Specifications:

- 1. Shitable needle TQ x 7 (175 x 5)
- 2. Shank button attachment, part No. W324591
- 3. Available button, Max. 30mm dia. approx.
- 4. Other specifications are the same with of model CB-610

2. Main parts names (shank button clamp attachment)

Fig. 1

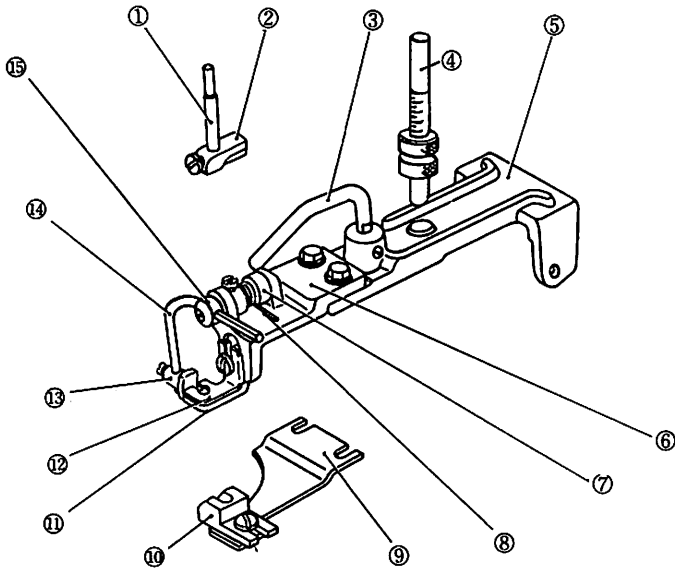
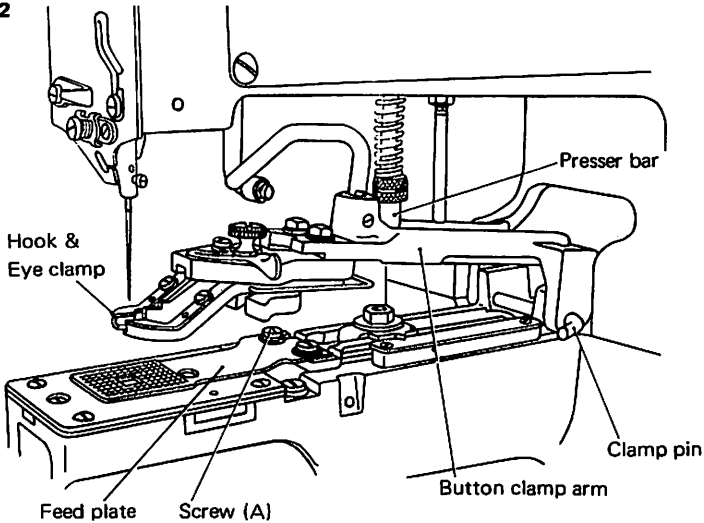


Fig. #	Parts names	Parts #	Fig. #	Parts name	Parts #
	Shank button clamp attachment, complete	W324591	9	Feed plate (1)	W462679
1	Stopper shaft	W462684	10	Feed plate (2) (large)	W462682
2	Stopper	W462685	10	Feed plate (2) (middle)	W462681
3	Button clamp lifting rod.	W453536	10	Feed plate (2) (small)	W462680
4	Button clamp presser bar	-----	11	Button guide plate	W462670
5	Button clamp arm (large)	W324592	12	Hinge spring	W462671
6	Button clamp arm (small)	W462667	13	Button holder	W462668
7	Collar	W462674	14	Finger lever	W462677
8	Spring	W462676	15	Finger lever holder bracket	W462673

3. How to mount:

- 1. Preparation (Fig. 2) remove the following parts at first.
 - a. (1) Button clamp presser bar (2) "E" ring
 - (3) Button clamp (4) Button clamp arm
 - (5) Feed plate loosen (screw A)
- b. Set the indication of left and right feed graduation, and forward and backward feed graduation at the minimum position.

Fig. 2



- 2. Assembling:
 - Button guide plate and shank button holding clamp should be adjusted in accordance with the size and shape of the buttons used.
 - 1. (Fig. 3) Mount the feed plate (1) just vertically to the slide plate.
 - (Fig. 4) Mount the feed plate (2) tentatively.
- (Remark): Choose the suitable size of feed plate (2) among the three (large, middle and small) in accordance with the size of buttons used.

Fig. 3

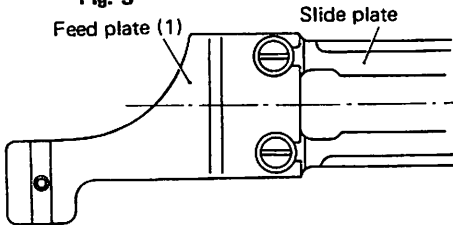
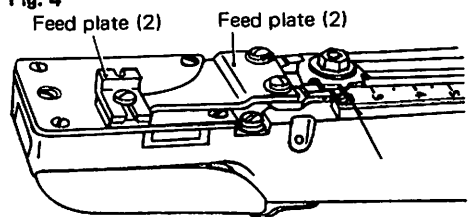


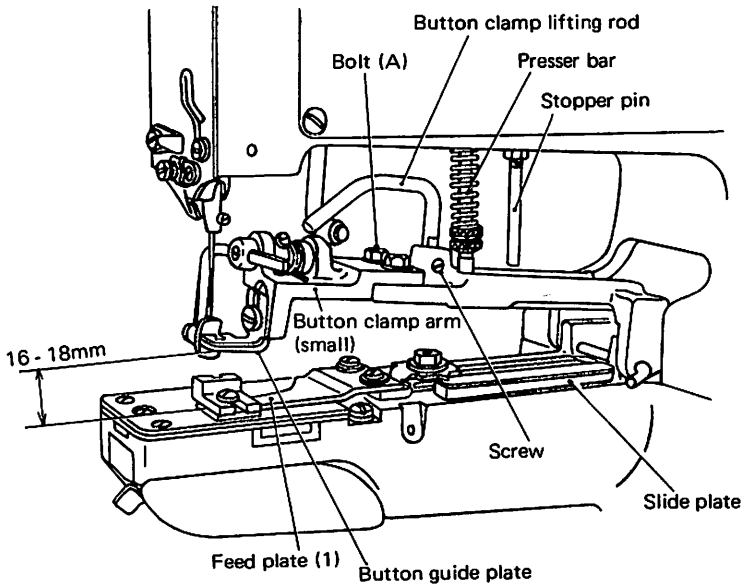
Fig. 4



2. (Fig. 5) Mount the shank button clamp set to the feed plate and tighten it with clamp pin and "E" ring.

Mount the presser bar. The presser of spring should be adjusted properly, so that button clamp arm may not be lifted during the machine operation.

Fig. 5



4. Adjustment:

- 1. Button clamp arm (small)
(Adjustment of left and right, backward and forward position)
 - 1) (Fig. 5) Loosen the bolt (A) and adjust the position of button clamp arm enabling the needle drop to the center of the hole of button clamp arm. (Fig. 6).
 - 2) In accordance with the horizontal feeding length, and the size and the shape of the button clamp arm (small) should be adjusted enabling the needle not touch (Fig. 6).
- 2. Adjustment (adjustment of the vertical & horizontal position) of button clamp arm should be made, so that it may hold the button correctly.
 - 1) (Fig. 7) Adjustment of horizontal position of button holder. Loosen screw (B) and adjust the left and right position of lever, so that button holder may hold the button just vertically.
 - 2) (Fig. 7) Adjustment of vertical position of button holding clamp. Loosen screw (C) and adjust the vertical position of button holder, so that the center of the both button and button holder may correctly accord with each other when the cloth and button are put in the feed plate.
 - 3) Adjustment of the pressure of button holder. (Fig. 9) Loosen screw of the collar and turn the collar, then the adjustment of the pressure of button holder clamp can be done.

* There are two ways for lifting the button clamp arm. The one is automatic lifting, and the other is treadle lifting. The adjustment should be made for each of them.
- 3. (Fig. 5) Automatic lifting;
When the machine is not operated, the lifting height of button clamp arm should be adjusted so that the clearance between the rear side of button guide plate and the top of the feed plate (1) may become 16 to 18mm.
 - (Fig. 5) Loosen screw (B) and move the button clamp lifting rod vertically.
 - The height of stopper pin should also be adjusted.
- 4. (Fig. 7) Treadle lifting;
(How to change into treadle lifting)
 - 1) Turn the machine upside down, so that the rear side of the bed can be seen.
 - 2) Remove the screw (2) from the hole (A) upright link lever (1) and insert the screw (2) into the hole (B) and connect to the connecting link (3).
 - 3) Hung the chain on the hole (C) at the bottom side of upright link (5).

Fig. 6

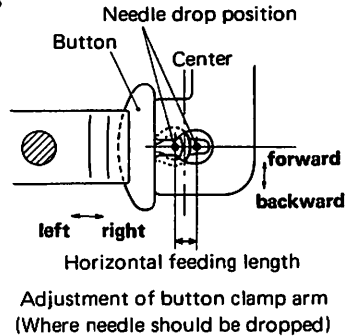


Fig. 7

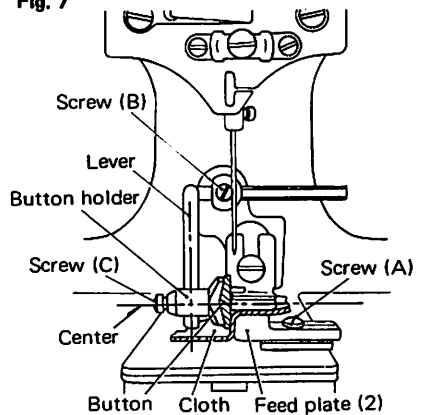
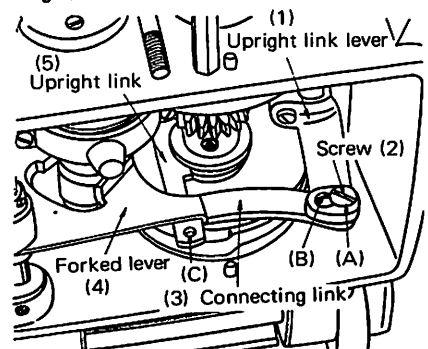


Fig. 8



- (2) Stopper should be mounted so that you can take out the button from the lever opened at the same time when the thread is cut by the treadle lifting.

(Fig. 9) Mount the stopper shaft to the arm with screw (A).

- Mount the stopper to the stopper shaft.
- (Fig. 11) The position of the stopper should be adjusted enabling button holder to open when the button clamp arm is lifted (stopped position).

Fig. 9

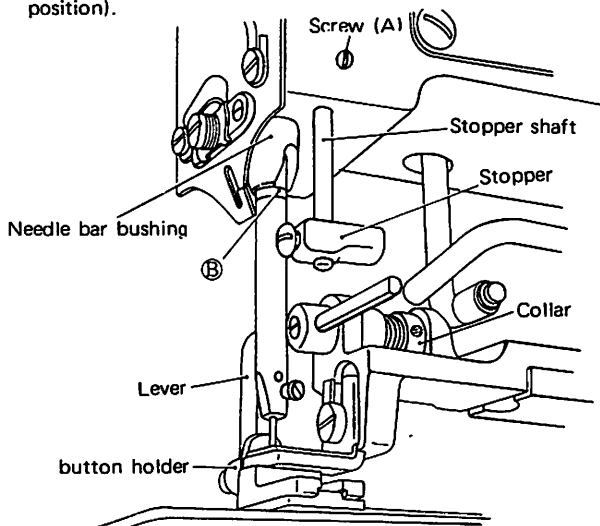


Fig. 10

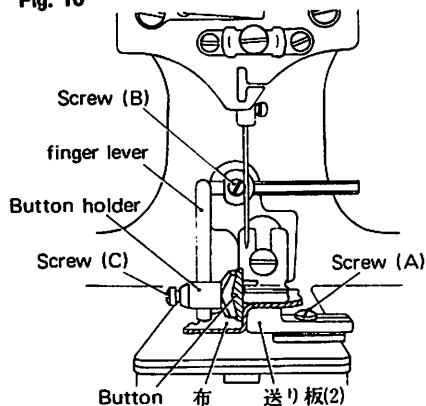
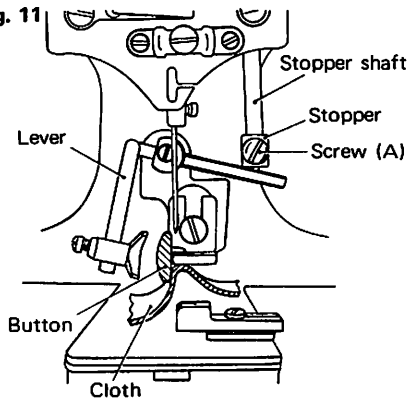


Fig. 11



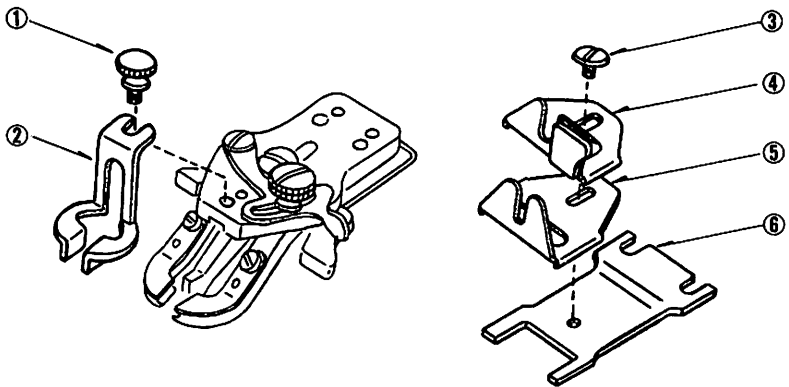
4. Adjustment of the needle bar height

- TQ x 7 (long side needle)
- (Fig. 9) The timing of the needle bar should be adjusted by means of indication of two line (B).

II The wrapped-around button attachment

1. Name of the main parts (wrapped-around button attachment).

Fig. 1.

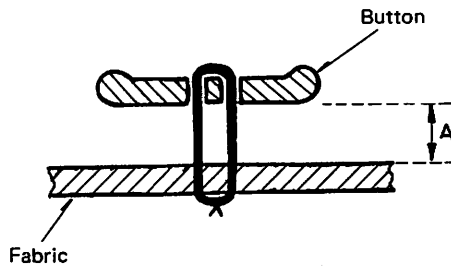


- | | | | | | |
|-----|------------------|-----|-------------|-----|------------|
| (1) | Thumb screw | (2) | Adopter | (3) | Screw |
| (4) | Adjustable plate | (5) | Guide plate | (6) | Feed plate |

2. How to sew the wrapped-around button, and how to mount the attachment.

- 1) As shown in Fig. 2, sew the button by means of making some gap "A" between the button and the fabric.

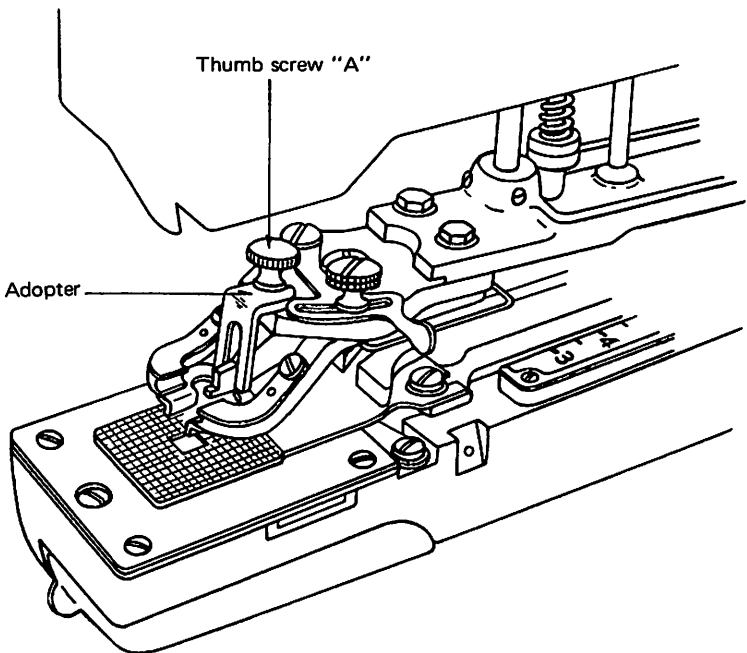
Fig. 2.



- * Mount the attachment in the following way in order to make some gap between the fabric and button.

-
- a) Mount the adopter to the standard flat button clamp with screw (A), as shown in Fig. 3.

Fig. 3.



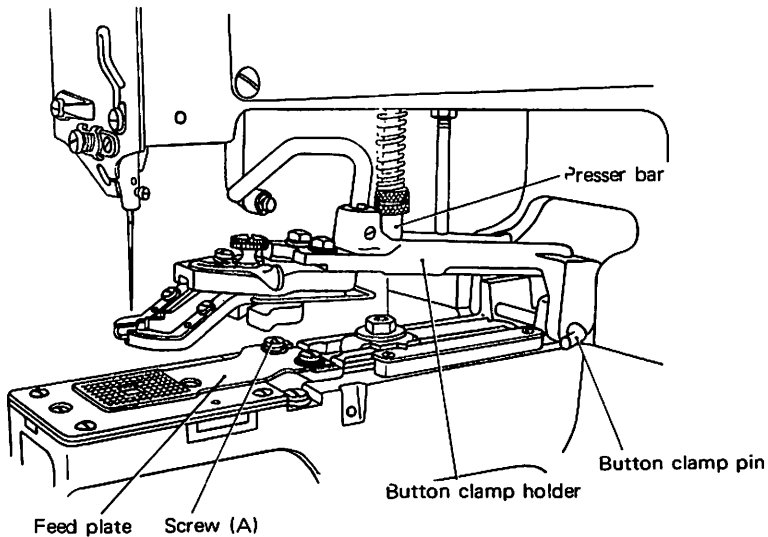
2) Do wrap-around the button.

* In order to wrap-around the button, mount the wrapped-around button attachment in the following way;

a) Remove the following parts (Fig. 4).

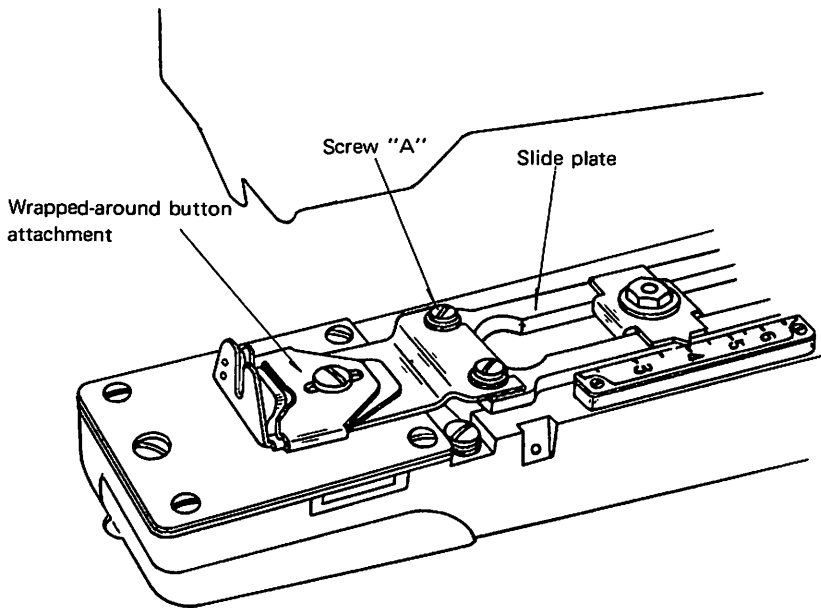
1. Button clamp presser bar.
2. E ring.
3. Button clamp pin.
4. Button clamp attachment complete.
5. Feed plate (loose screw "A").

Fig. 4



-
- b) Mount the wrapped-around button attachment.
- * Mount the attachment just vertically to the slide plate with the screw "A" as shown in Fig. 5.

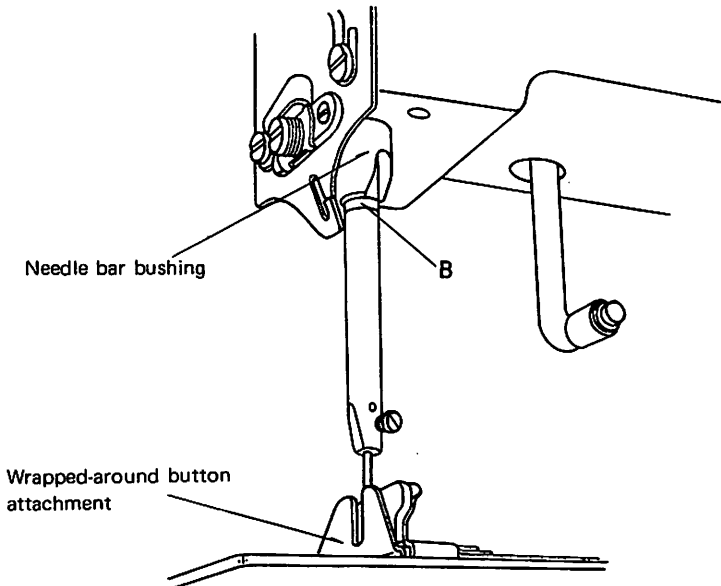
Fig. 5.



3. Adjustment:

- 1) Adjustment of the needle bar height.
 - a. Use the longer type needle (TQ x 7).
 - b. Adjust the height of the needle bar by means of referring the two timing marks (B) indicated on the needle bar as shown in Fig. 6.

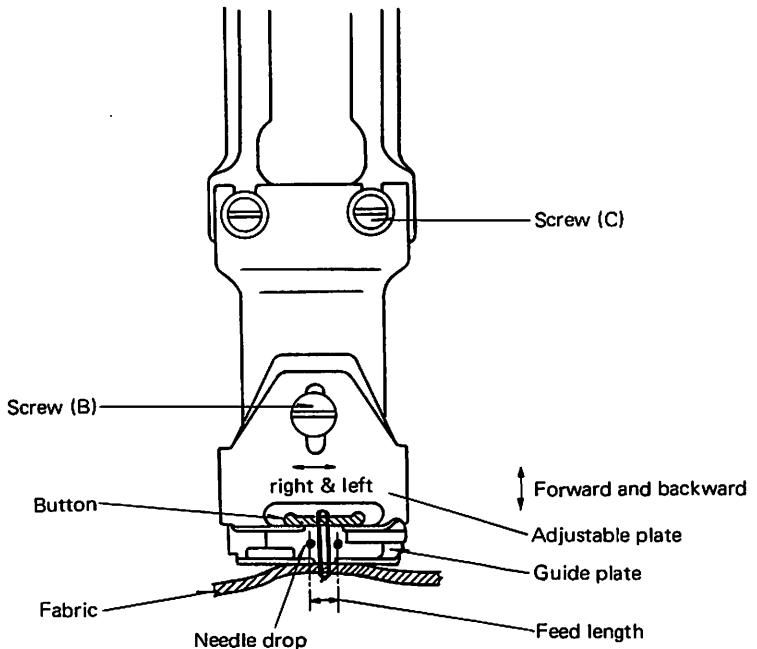
Fig. 6.



- 2) Adjustment of the forward and backward feeding:
In case of wrapping-around the button, adjust the forward and backward feeding at "O".

- 3) Adjust the gap (A) between the adjustable plate and the guide plate with the screw (B), so that the button, which is sewn allowing the proper gap between fabric with adopter, can be tightly inserted as shown in Fig. 7.

Fig. 7.



-
- 4) Adjustment of the forward and backward position.
Adjust the position of needle enabling to drop to the center between the button and the fabric as shown in Fig. 7.
- * Adjustment of the gap (A) between the adjustable plate and guide plate, and the forward and backward position
can be done by means of loosening the screw (B) at the same time
- 5) Adjustment of the left and right position.
Adjust the position of needle by loosening the screw (C), so that needle drops properly on the both sides of thread sewn the button as shown in Fig. 7.
- 6) Adjust the left and right feed length in accordance with the button to be sewn, so that the needle drops on the outer side of the button sewing thread (Fig. 7).



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