

SERVICING MANUAL

Model JF1018S

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WHAT TO DO WHEN

CONDITION	CAUSE	HOW TO FIX	REFERENCE
1. Skipping stitches	1. Needle is not inserted properly. 2. Needle is bent or worn. 3. Incorrectly threaded. 4. Needle or thread is inappropriate for fabric being sewn. 5. Sewing on stretch fabric. 6. Inappropriate needle bar height. 7. Inappropriate needle to hook timing. 8. Inappropriate needle to hook clearance.	Insert the needle properly. Change the needle. Rethread. Use the recommended sewing needle and thread. Use a size 11 blue tip needle. See mechanical adjustment "Needle bar height". See mechanical adjustment "Hook timing". See mechanical adjustment "Clearance between needle and hook".	 P.14 P15 P12.13
2. Fabric not moving	1. Incorrect feed dog height. 2. Thread on bottom side of fabric is jammed up. 3. Feed dog teeth are worn.	See mechanical adjustment "Height of feed dog". Make sure to bring both needle and bobbin thread under the foot when starting sewing. Change the feed dog.	P11
3. Breaking upper thread	1. Initial sewing speed is too fast. 2. Thread path is incorrect. 3. Needle is bent or dull. 4. Upper thread tension is too strong. 5. Needle size is inappropriate for fabric. 6. Needle eye is worn. 7. Needle hole in needle plate is worn or burred.	Start with medium speed. Use the proper thread path. Replace with a new needle. Adjust upper thread tension correctly. Use appropriate needle for fabric and thread in use. Change the needle. Repair the hole or replace the needle plate.	P.6
4. Breaking bobbin thread	1. Incorrectly threaded bobbin case. 2. Too much thread is around on the bobbin. 3. Lint is stuck inside the bobbin holder. 4. Thread quality is too low. 5. Thread is jamming around the bobbin. 6. Bobbin thread tension is too strong.	Thread bobbin case correctly. Adjust the position of stopper. Clean the hook race. Change to a high quality sewing thread. Clear out the jamming thread. Adjust bobbin thread tension correctly.	P.7

CONDITION	CAUSE	HOW TO FIX	REFERENCE
5. Needle breaks	1. Needle is hitting the needle plate.	See mechanical adjustment "needle drop."	P.10
	2. Needle is bent or worn.	Change the needle.	
	3. Needle is hitting the hook race.	See mechanical adjustment "Clearance between needle and hook".	P.12.13
	4. The fabric moves while the needle is piercing it, or the needle swings while in fabric.	See mechanical adjustment "Needle swing"	P.9
	5. Fabric is being pulled too strongly while sewing.	Guide the fabric gently while sewing.	
6. Noisy operation	1. Backlash between shuttle hook gear and lower shaft gear is too much.	See mechanical adjustment "Clearance between needle and hook (No. 2)".	P.13
	2. Lower shaft gear is loose.	Eliminate the looseness.	P.21
	3. Inappropriate belt tension.	See mechanical adjustment "Motor belt tension".	
	4. Upper shaft gear is loose	Eliminate the looseness.	
	5. Not enough oil.	Oil all moving parts.	
7. Deformation pattern	1. Inappropriate zigzag synchronization.	See mechanical adjustment "Needle swing".	P.9
	2. Inappropriate disengagement of cam follower.	See mechanical adjustment "Disengagement of cam follower".	P.19
	3. Upper thread tension is too strong.	Adjust upper thread tension correctly.	P.6
	4. Inappropriate feed balance.	See mechanical adjustment "Feed balance on stretch stitch".	P.16

FACE PLATE

To remove

1. Remove the face plate by removing the cap and set screw.

To attach

2. Attach the face plate by the set screw. Then, attach the cap.

BELT COVER

To remove

1. Loosen the set screw, and remove the belt cover by removing the belt cover rib from the front cover.

To attach

2. Attach the belt cover rib to the front cover. And then, Attach the belt cover by the set screw.

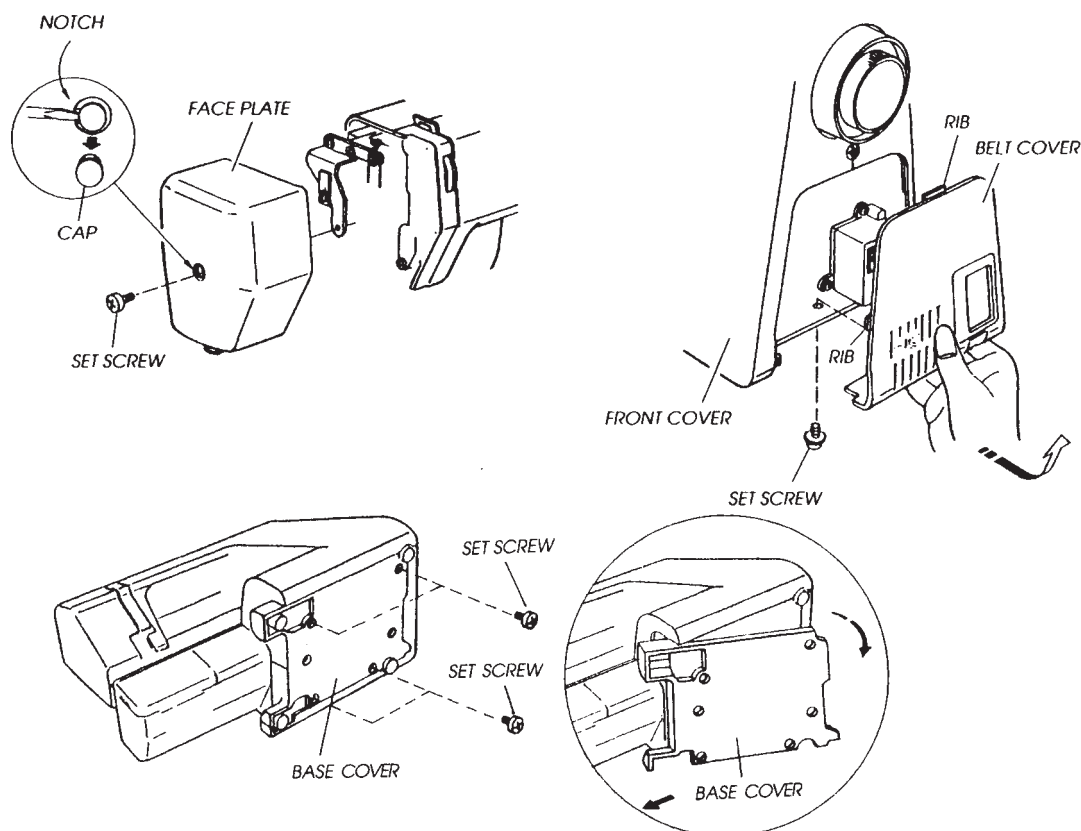
BASE COVER

To remove

1. Remove the base cover by four set screws.

To attach

2. Attach the base cover by four set screws.



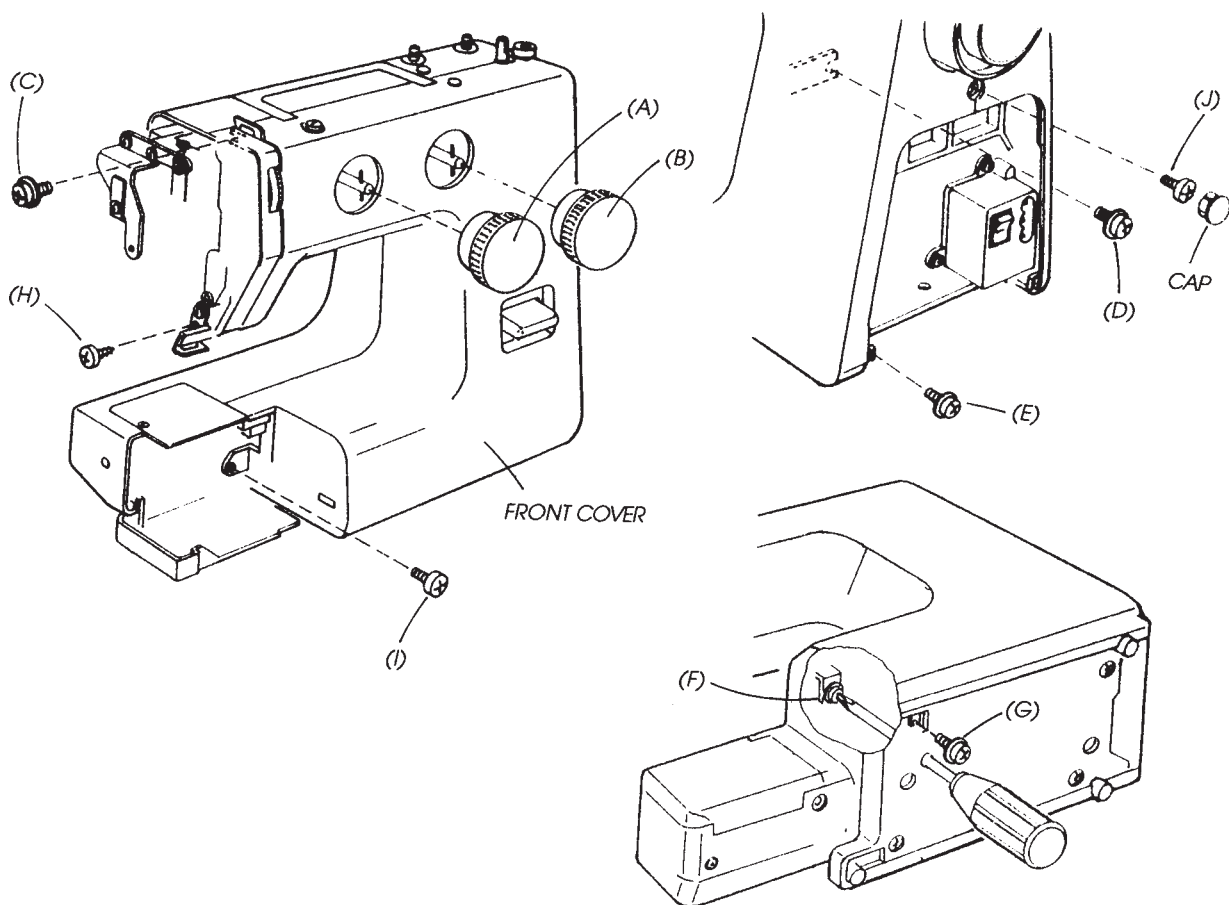
FRONT COVER

To remove

1. Remove the face plate and belt cover. (See page 4.)
2. Remove selector dials (A) and (B).
3. Loosen set screws (C), (D), (E), (F), (G), and then, remove the front cover by removing set screws (H), (I), and (J),

To attach

4. Attach the front cover in reverse procedure of the removing.

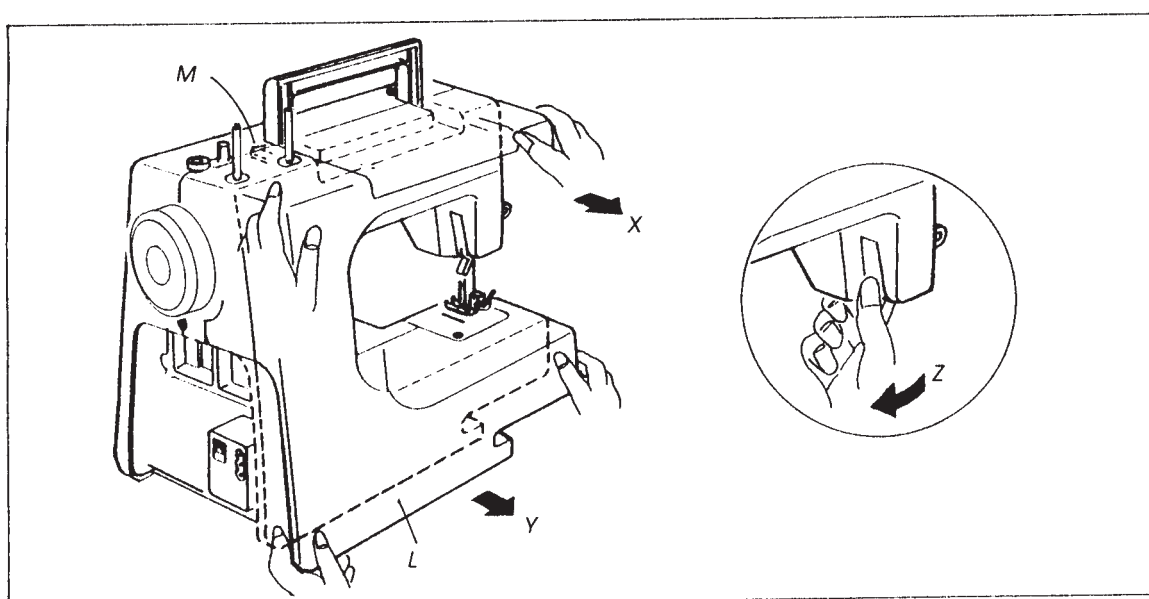
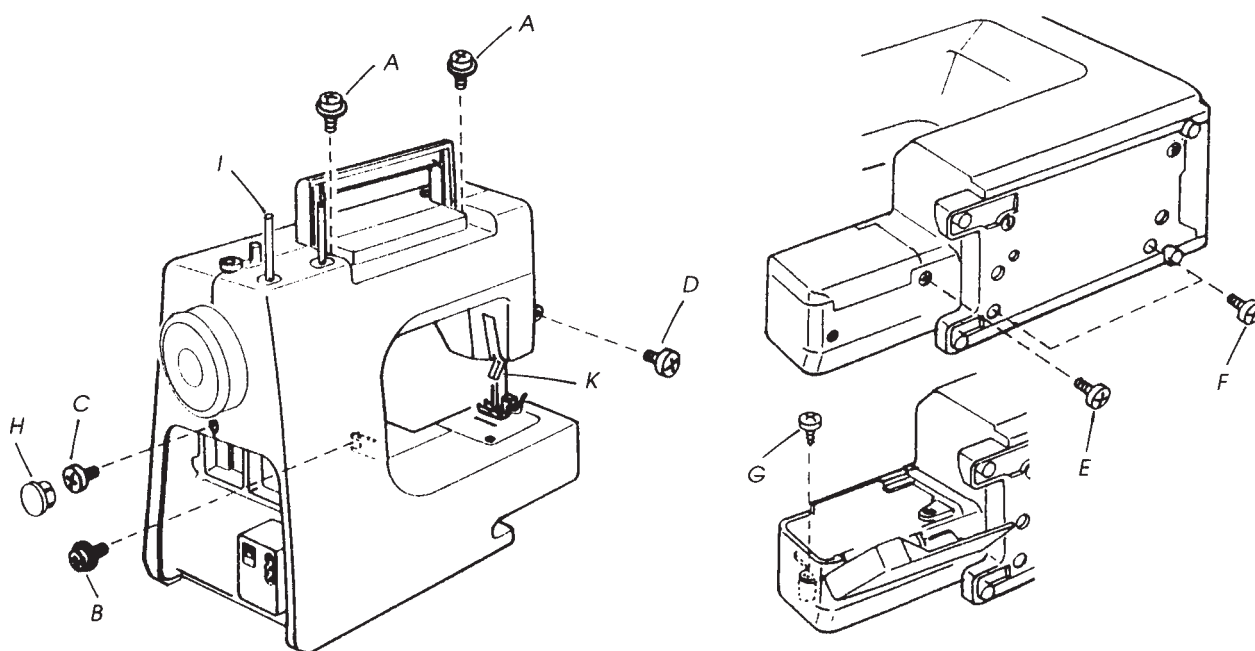


REAR COVER

Rear cover could be removed without removing first front cover.

To remove

1. Remove the belt cover (See page 3).
2. Loosen the set screws A and B and remove the cap H.
3. Remove the set screws C, D, E, F and G.
4. Pull up the 2 spool pins I and J and lower the presser foot lifter K.
5. While pushing the rear cover I near the notches L and M, pull upper part of the rear cover (See X below).
6. Pull lower part of the rear cover toward you and slide it to the left (See Y and Z below). While sliding the rear cover to the left, remove the presser bar lifter K



UPPER THREAD TENSION DIAL

Correct setting

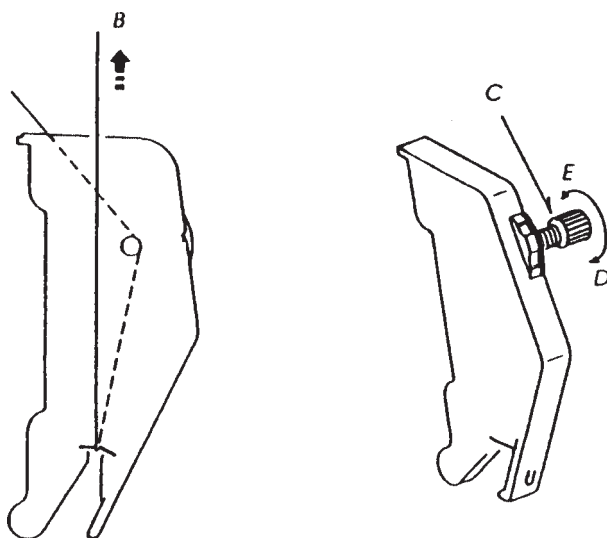
The upper thread tension should be 65 - 95g when pulling the thread (cotton thread Size 50) in the direction of B with setting the tension dial at "3".

(Make sure the foot is lowered.)

If the tension is out of the standard range, adjust it as follows:

To adjust

1. Remove the front panel cover unit. (See page 4.)
2. Turn the adjusting nut C in the direction of D when the upper thread tension is too tight.
Turn the adjusting nut C in the direction of E when the upper thread tension is too loose.
3. Attach the front panel cover unit.



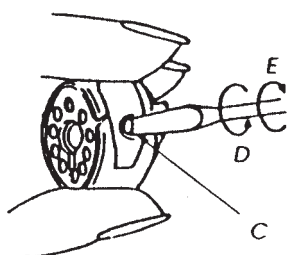
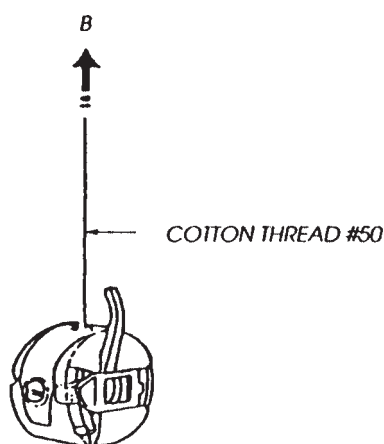
BOBBIN THREAD TENSION

CORRECT SETTING

Set the bobbin in the bobbin case and pass the thread (cotton size 50) through the tension spring. The bobbin thread tension should be 45 - 55g when pulling the thread in the direction of B. If the tension is out of the range, adjust it as follows:

To adjust

1. Turn the adjusting screw "C" in the direction of "D" when the bobbin thread tension is too tight.
2. Turn the adjusting screw "C" in the direction of "E" when the bobbin thread tension is too loose.



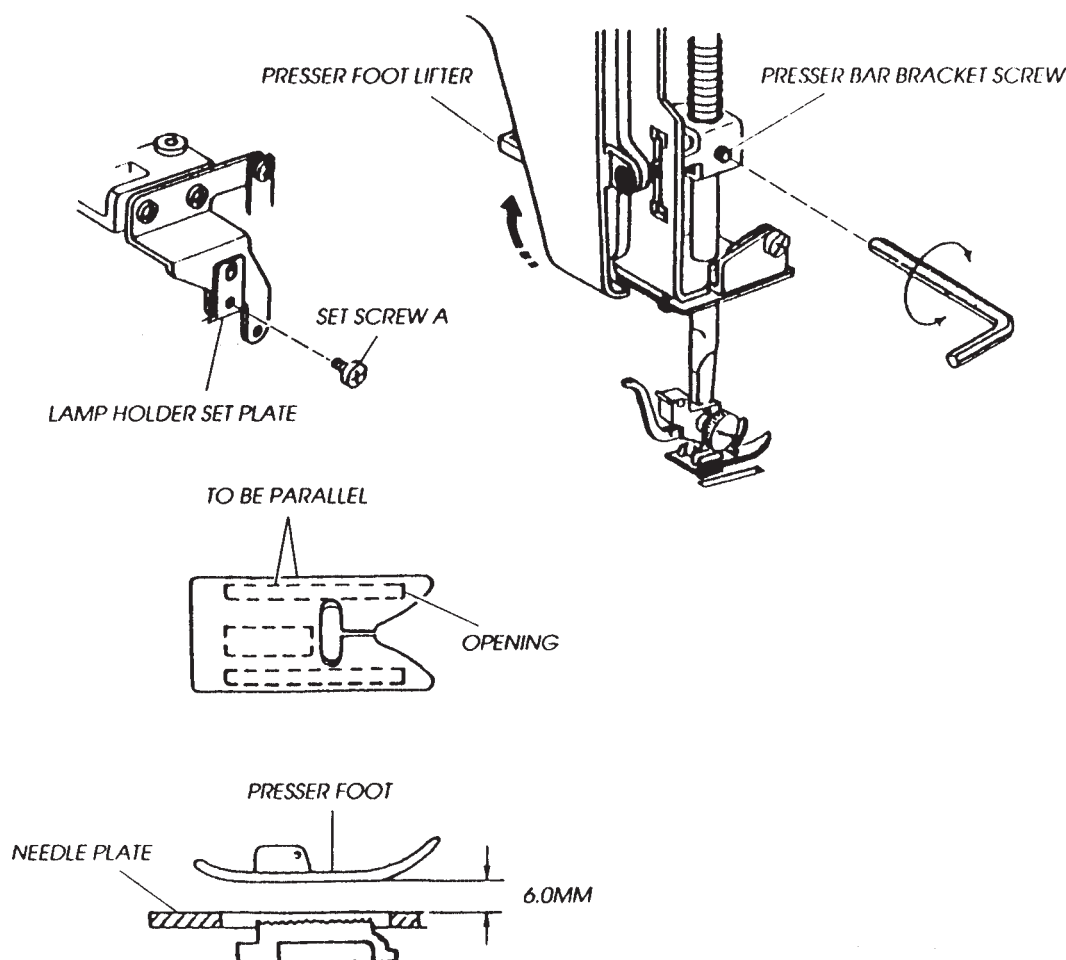
PRESSER BAR HEIGHT AND ALIGNMENT

Correct setting

When presser foot lifter is up position, the distance between the bottom surface of the foot and needle plate should be 6.0mm.

To adjust

1. Remove the face plate. (See page 3.)
2. Remove set screw A and remove lamp holder set plate.
3. Raise the presser foot and loose the presser bar bracket screw and adjust the height (6.0mm).
4. Check if the presser foot is parallel to the openings for the feed dog on the needle plate. If not, adjust it.
5. Tighten the presser bar bracket screw while holding the presser bar to keep the foot parallel to the openings.
6. Attach the lamp holder set plate.
7. Attach the face plate.



NEEDLE SWING

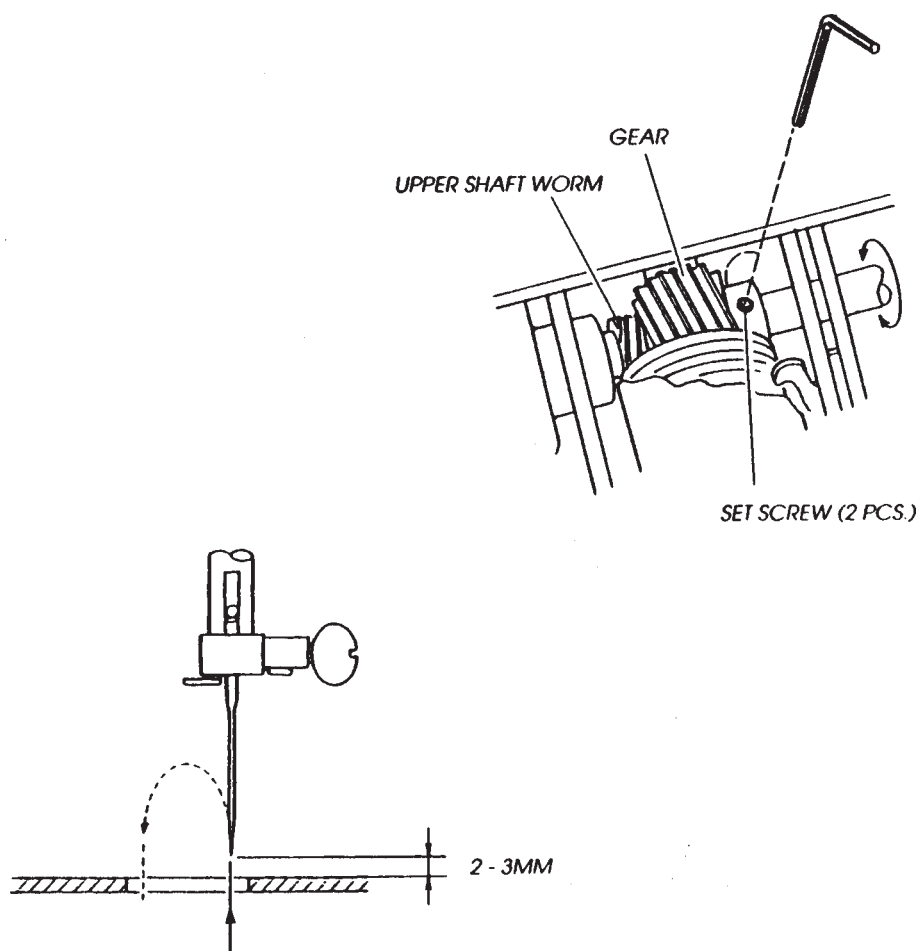
Correct setting

If the timing of needle swing is not correctly adjusted, the needle will move sidewise while it is in the fabric. Ideally the needle should start swing from a position 2- 3 mm above the needle plate in its right outflow with maximum zigzag width.

To adjust

1. Set the pattern selector dial with maximum zigzag width, and remove the front cover. (See page 4.)
2. Loosen two set screws.
3. Adjust the needle swing by turning the balance wheel, while pressing the worm so as not to rotate it, until the needle swing starts at 2 - 3mm on the Needle plate after the needle has come out of the right side of the needle hole.
4. Tighten two set screws.
5. Attach the front cover.

Note: After adjusting the needle swing, check that the upper shaft worm and gear rotate smoothly with minimum backlash between them.



NEEDLE DROP

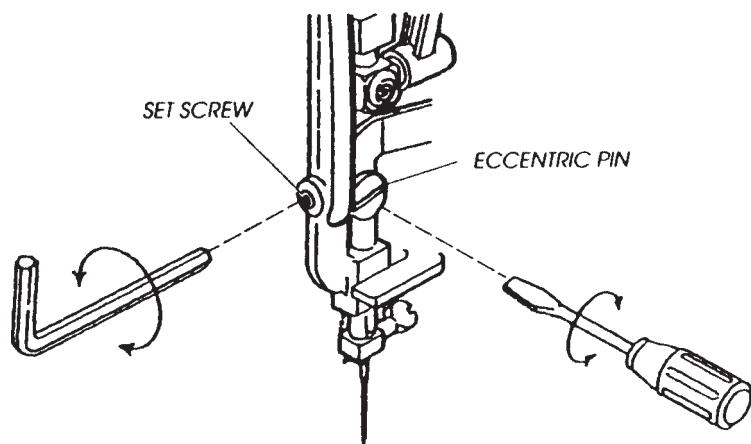
Correct setting

When the needle swings in maximum zigzag width, the distance between the both Ends of needle hole on the needle plate and the needle drop positions should be equal. If not. Make adjustment as follows:

To adjust

1. Remove the face plate. (See page 3.)
2. Set the pattern selector dial at maximum zigzag width.
3. Loosen the set screw.
4. Turn the eccentric pin to adjust the needle drop position.
5. Tighten the set screw.
6. Attach the face plate.

Note: check the hook timing after this adjustment.



BOTH CLEARANCE SHOULD BE EQUAL.

HEIGHT OF FEED DOG

Correct setting

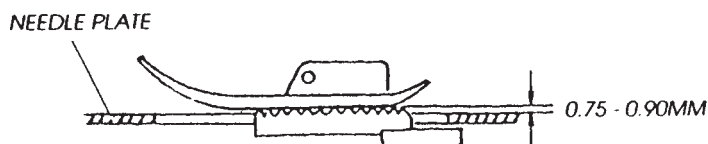
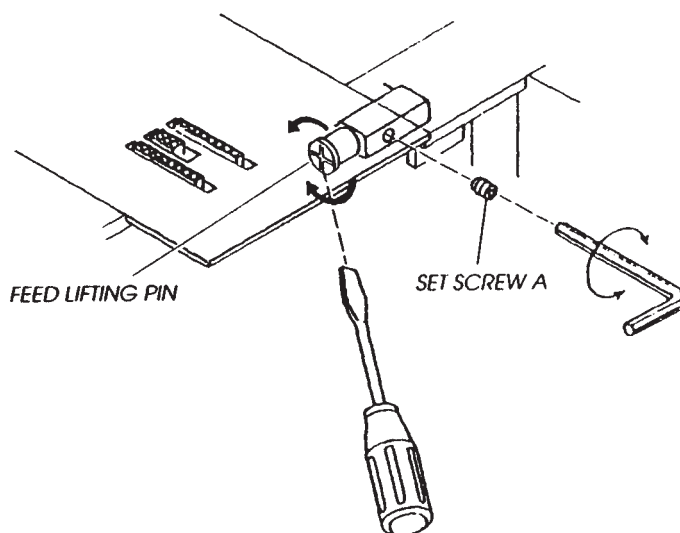
Lower the presser foot and turn the balance wheel toward you until the Needle bar comes to the highest point of its travel.

In this condition, the height of the feed dog above the needle plate should be 0.75 - 0.90mm. If it is not in the range, make adjustment as follows:

To adjust

1. Set the stitch length dial at (4). (pattern select dial at any position.)
2. Lower the presser foot and turn the balance wheel until the feed dog comes to its highest point.
3. Loosen the set screw A.
4. Turn the feed lifting pin to adjust the height of feed dog (0.75 - 0.90mm).
5. Tighten the set screw A.
6. Turn the balance wheel to recheck the height of feed dog.

* Raise needle to its highest position.



CLEARANCE BETWEEN NEEDLE AND HOOK (NO.1)

Correct setting

The clearance between needle and shuttle race should be 0-0.15mm.

If not, make adjustment as follows:

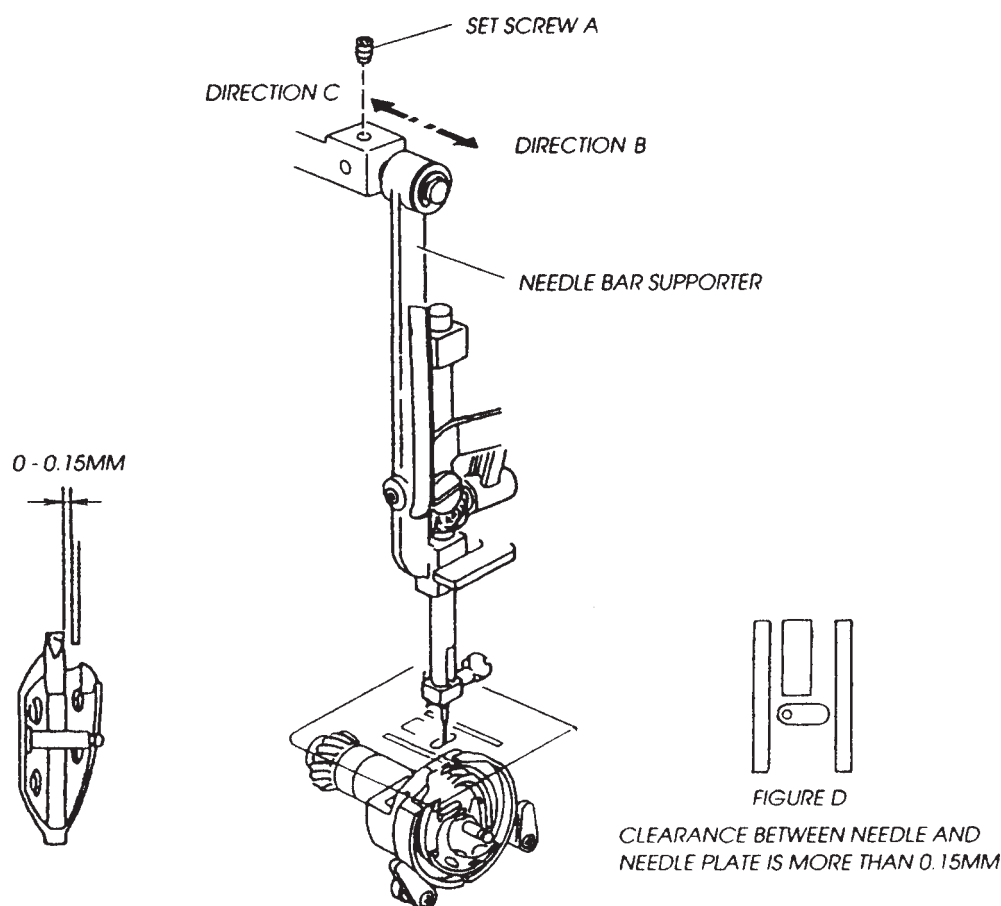
To adjust

1. Remove the face plate. (See page 3.)
2. Set the pattern selector dial at "B". (stitch length dial at any position.)
3. Loosen set screw A, and move the needle bar supporter to arrows to get clearance between 0 and 0.15mm.

- * When clearance is too wide, move the needle bar supporter to direction B.
- * When clearance is too narrow, move the needle bar supporter to direction C.

Note: After this adjustment, check if the clearance between needle and Needle plate is more than 0.15mm as shown in figure D. If not, adjust the clearance between needle and shuttle race by using method of adjustment No.2 in page 13 after readjust the clearance between needle and needle plate more than 0.15mm.

4. Attach the face plate.



CLEARANCE BETWEEN NEEDLE AND HOOK (NO.2)

Use this adjustment No.2 when adjustment No.1 can not be used.

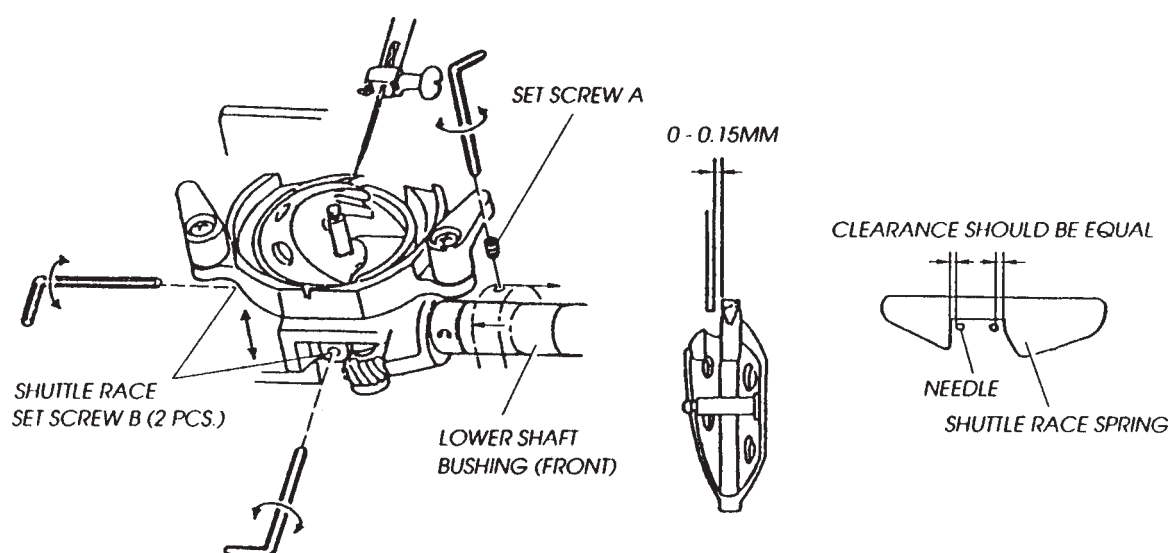
Correct setting

The clearance between needle and shuttle race should be 0 - 0.15mm.

To adjust

1. Set the pattern selector dial at "B". (stitch length dial at any position.)
2. Loosen the screw A on lower shaft bushing and slide the gear about 0.5mm to the right to make a slack between gears.
3. Lower the needle and loosen the two set screws B.
Move the shuttle race unit axially either forward or backward to adjust the clearance between the needle and the shuttle race in the range of 0-0.15mm.
4. Set the pattern select dial at "C", and turn the balance wheel to check if the Clearance between the needle and inner edges of the shuttle race spring at the left and right needle drops are equal. If not, adjust it by turning the shuttle race unit.
5. Tighten the two set screws B.
6. Loosen the set screw on lower shaft bushing and slide the gear back to the original position while adjusting the backlash.
7. Tighten the screws a firmly.
8. Attach the rear cover.

Note: The backlash play should be less than 0.3mm and lower shaft turns smoothly.
After the adjustment, check the hook timing.



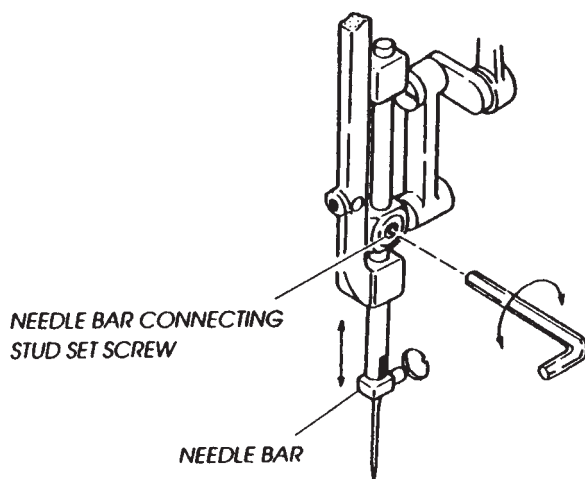
NEEDLE BAR HEIGHT

Correct setting

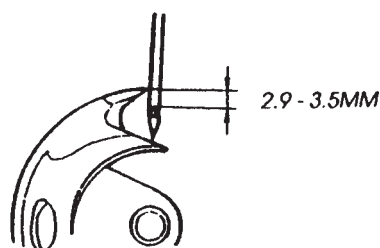
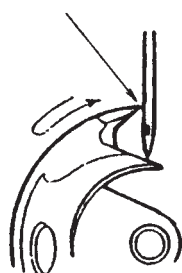
The distance between the upper edge of needle eye and the tip of shuttle hook should be in the range of 2.9 - 3.5mm when the tip of shuttle hook meets the left side of the needle in ascending travel of needle from its left and lowest position.

To adjust

1. Remove the face plate. (See page 3.)
2. Set the pattern selector dial at "B". (stitch length dial at any position.)
3. Remove the shuttle race ring.
4. Turn the balance wheel toward you until tip of shuttle hook meets the left side of the needle.
5. Loosen the needle bar connecting stud set screw.
6. Adjust the height of the needle bar by moving the needle bar upward or downward without turning it.
7. Tighten the set screw.
8. Attach the shuttle race ring.
9. Attach the face plate.



TIP OF SHUTTLE HOOK MEETS LEFT SIDE OF NEEDLE.



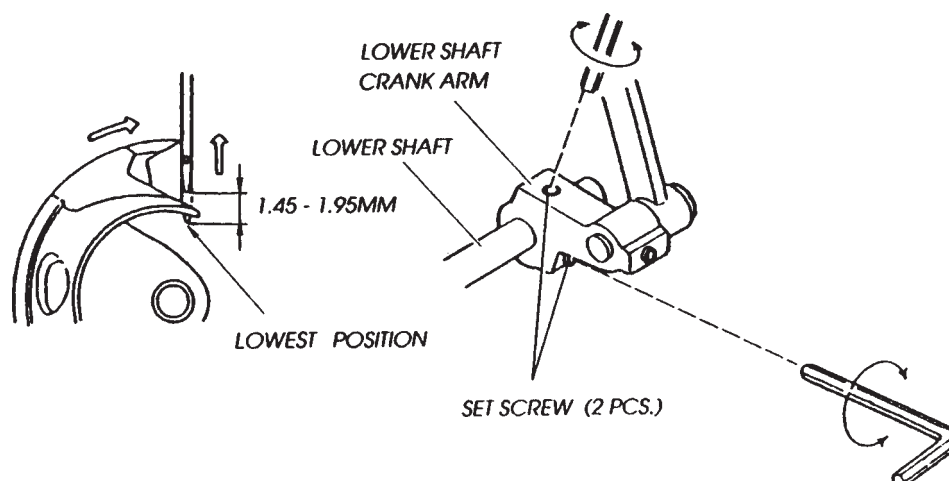
HOOK TIMING

Correct setting

The standard height of needle point from its lowest point of travel should be in the range of 1.45 -1.95mm when the tip of shuttle hook meets exactly the left side of needle at left needle position.

To adjust

1. Set the pattern selector dial at "B".
2. Remove the front panel cover unit.
3. Remove the motor.
4. Remove the shuttle race ring.
5. Turn the balance wheel toward you until the tip of shuttle hook meets the left side of needle.
6. Loosen the set screws A.
7. While holding the shuttle hook not to turn, turn the balance wheel toward you until the needle comes to its lowest position. Then, further turn the balance wheel to raise the needle about 1.7mm from its lowest position.
8. Tighten the set screws.
9. Turn the balance wheel toward you to check if the height is the range of 1.45-1.95mm.
If it is not in the range, repeat the above procedure.
10. Attach the shuttle race ring.
11. Attach the motor and adjust the belt tension.
12. Attach the front panel cover unit.



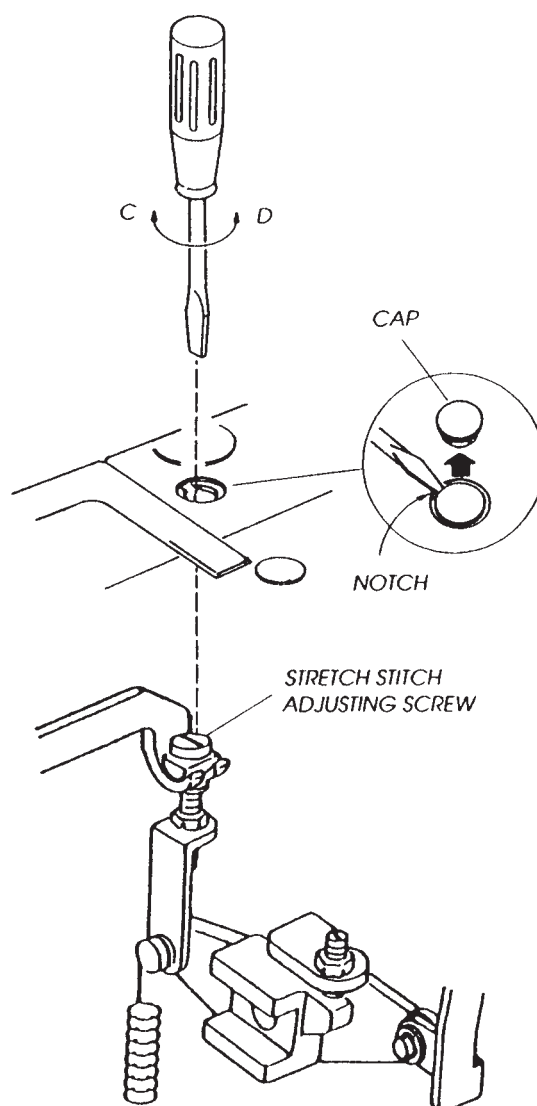
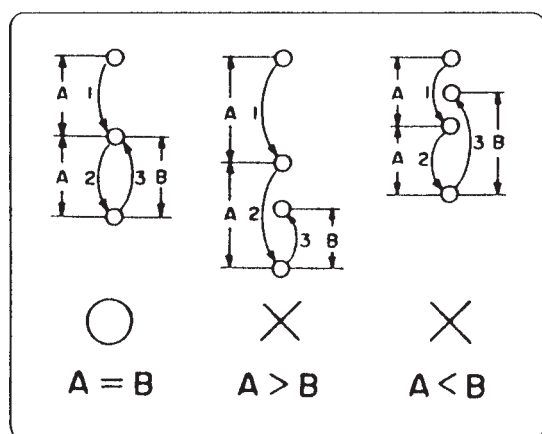
FEED BALANCE ON STRETCH STITCH

Correct setting

If the stretch stitches are distorted, adjust it as follows:

To adjust

1. Remove the cap.
2. Set the pattern selector dial at "A", and the stitch length dial at "SS".
3. Turn the stretch stitch adjusting screw in the direction of "C" when $A > B$, or in the direction of "D" when $A < B$.
4. Attach the cap.



BUTTONHOLE FEED BALANCE

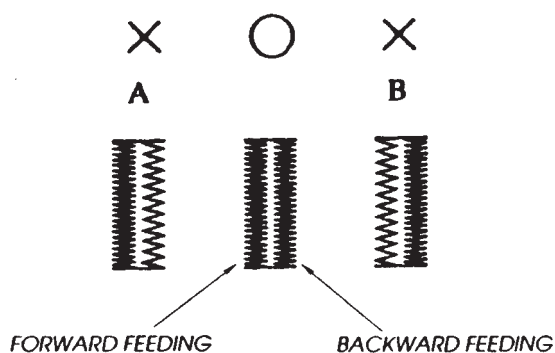
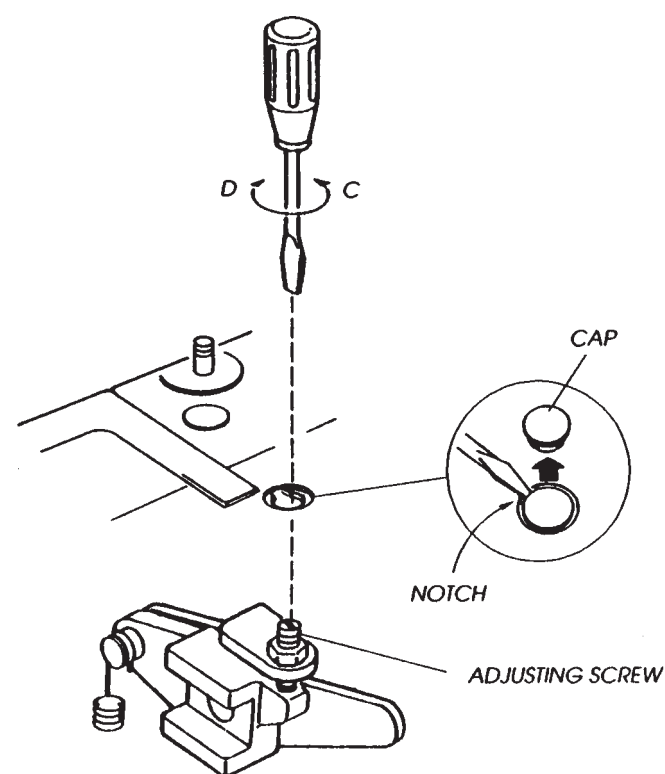
Correct setting

When sewing buttonhole, the stitches on each side of buttonhole should be the same stitch density.

The range of 9 -11 stitches in the right side row (backward feeding) against 10 stitches in the left side row (forward feeding) is considered acceptable.

To adjust

1. Check the stitches by sewing buttonholes, and remove the cap.
2. Turn the adjusting screw in the direction of "C" in case of a (right stitches are coarse), or in the direction of "D" in case of B (left stitches are coarse).
3. Attach the cap.



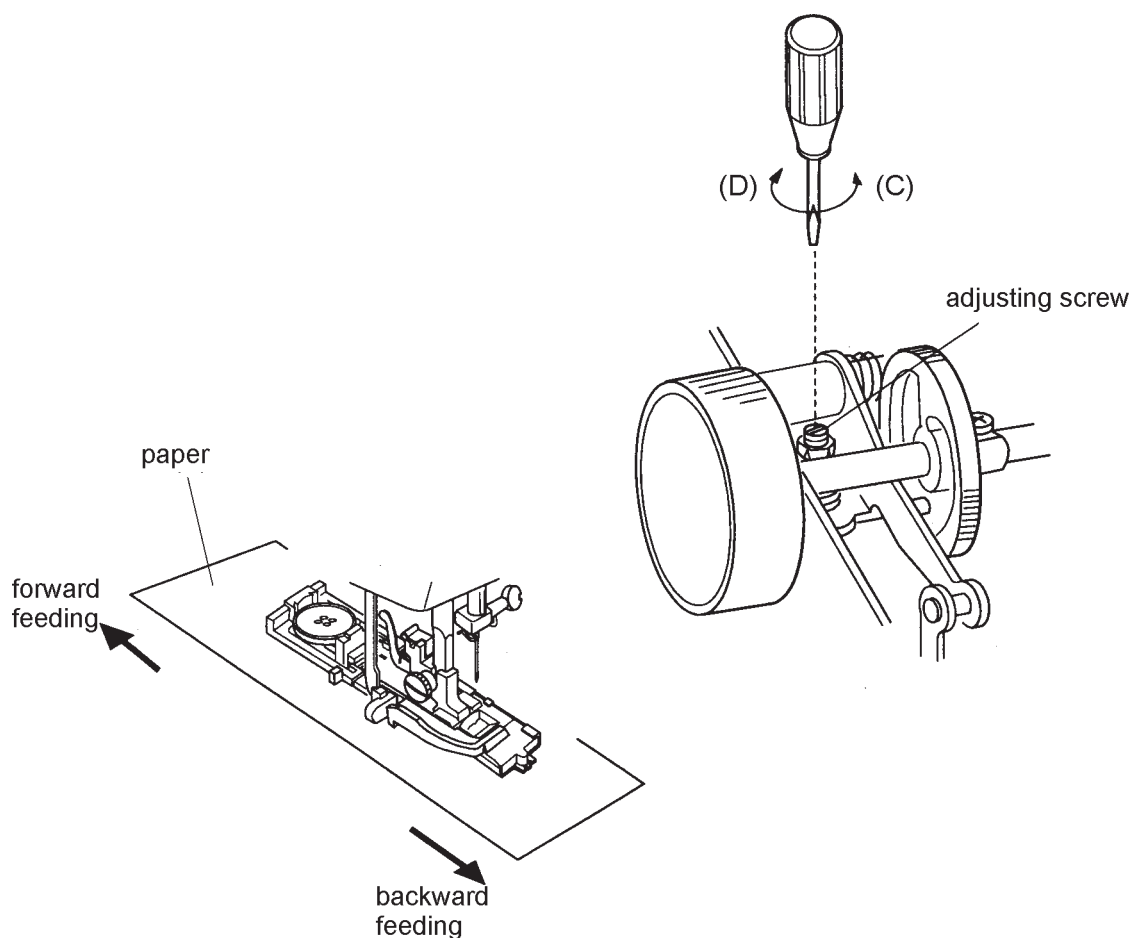
BARTACK FEED OF BUTTONHOLE

Correct setting

When bartack of buttonhole is sewn, the material should not be fed.

To adjust

1. Set the pattern selector dial at "□" and the stitch length dial at "4".
2. Remove the front cover. (See page 4.)
3. Place a piece of paper under the foot and turn the balance wheel.
If the paper is fed forward, turn the adjusting screw in the direction of "C".
If the paper is fed backward, turn the adjusting screw in the direction of "D".
4. Attach the front cover.



DISENGAGEMENT OF CAM FOLLOWER

Correct setting

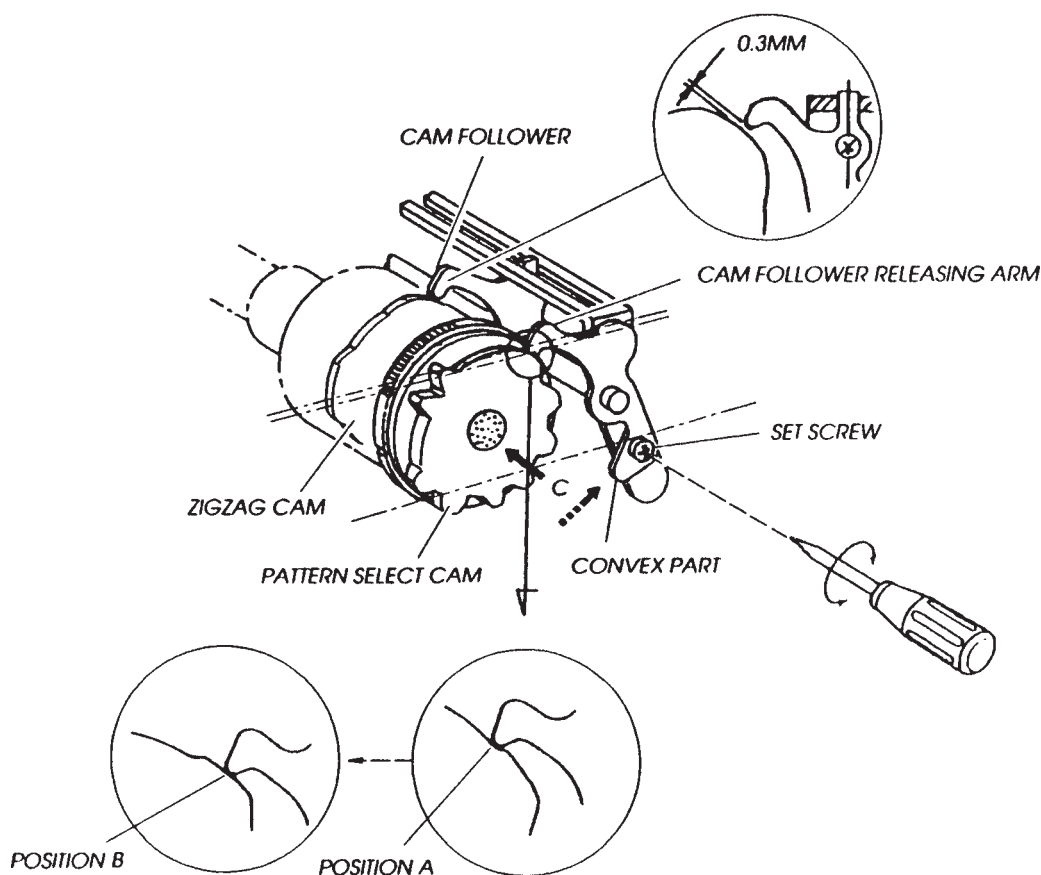
Too narrow clearance between the cam follower and the top convex of zigzag cam may often cause difficulty in turning of the pattern selector dial, selecting a correct pattern or zigzagging in straight stitch setting.

To adjust

1. Remove the front cover. (See page 4.)
2. Attach the pattern selector dial, and set it at pattern "B". (5th cam as viewed from "C".)
3. Turn the balance wheel to put the cam follower onto the top convex of the zigzag cam.
4. Loosen the set screw.
5. Push the convex part of the cam follower releasing arm in the direction of arrow until the cam follower releasing arm touches to position (A) of the pattern select cam, then, tighten the set screw.

Note: After this adjustment, check that the clearance between the zigzag cam and the cam follower is 0.3mm when the cam follower releasing arm has removed to position (B) by turning the pattern selector dial counterclockwise, and also the clearance between the cam follower and the zigzag cam should be 0.3mm.

6. Remove the pattern selector dial, and attach the front cover.



BUTTONHOLE FUNCTION

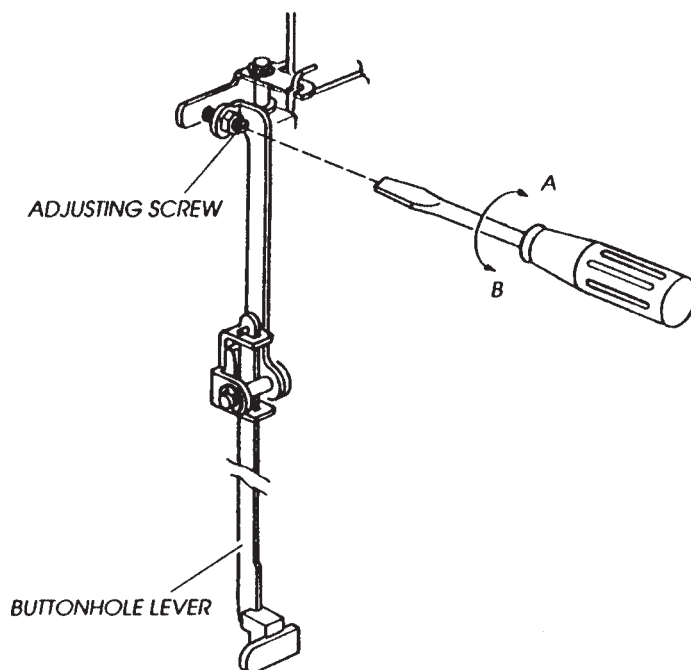
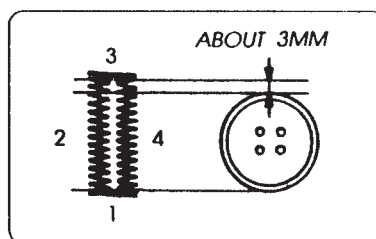
Correct setting

In buttonhole stitching, the buttonhole should be about 3mm longer than the length set by the foot "R".

To adjust

1. Remove the face plate. (See page 3.)
2. Turn the adjusting screw in the direction of (A) if the buttonhole stitch length is longer than the standard, or in the direction of (B) if the buttonhole stitch length is shorter than the standard.
3. Attach the face plate.

STANDARD



MOTOR BELT TENSION

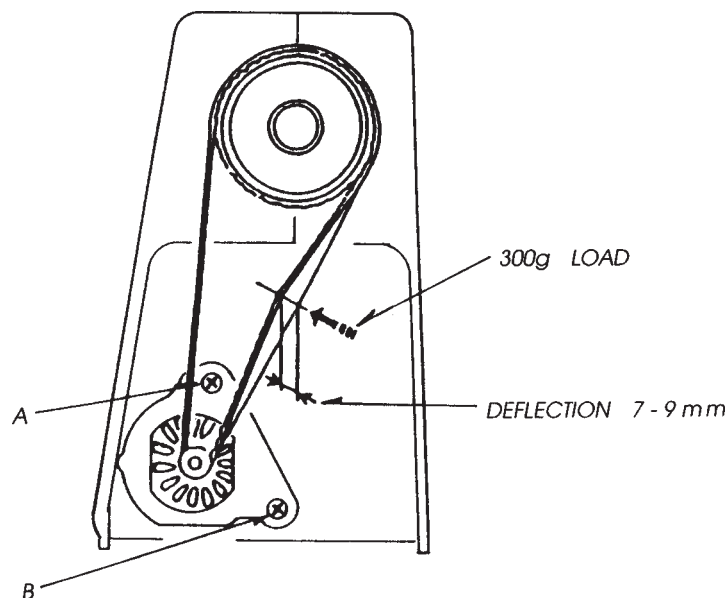
Too tight or too loose motor belt tension may create belt noise and also too tight motor belt tension can cause the machine to run slow and will overload the motor.

Too loose motor belt tension may cause jumping of the belt teeth on the motor pulley.

The correct motor belt tension is that the deflection of motor belt is about 7 mm (0.28") to 9 mm (0.36") when pushing the motor belt by finger at about 300 grams load.

Adjustment:

1. Remove the belt cover.
2. Loosen the screws (A) and (B).
3. Move the motor up or down to adjust the deflection about 7 mm (0.28") to 9 mm (0.36").
4. Tighten the screws (A) and (B).



WIRING

