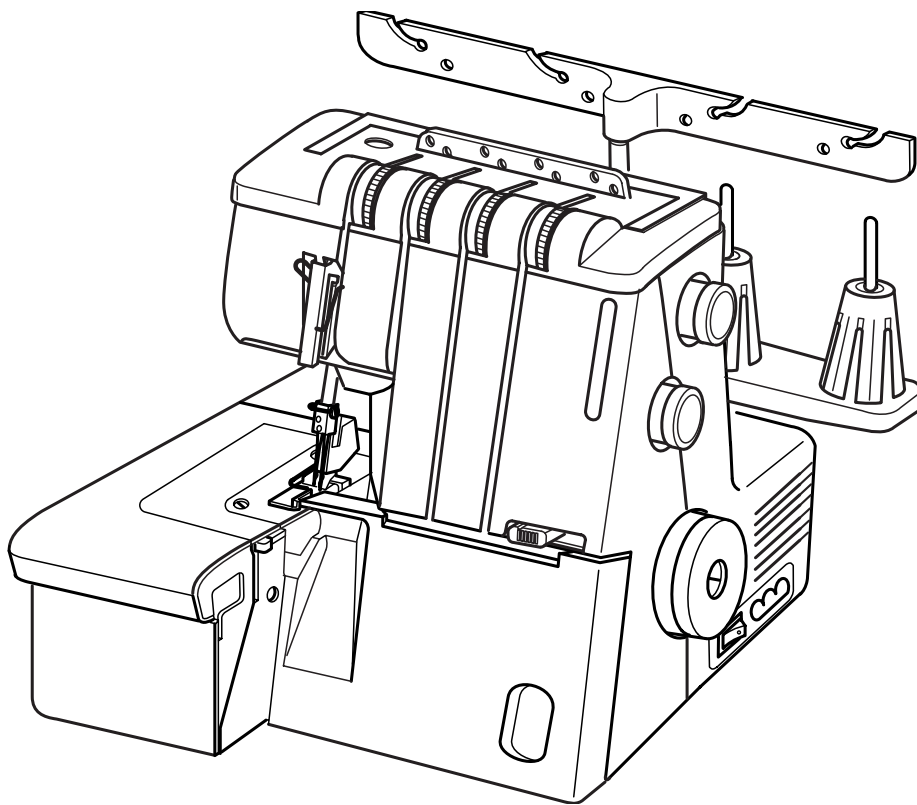


SERVICING MANUAL



MY/LOCK 744D

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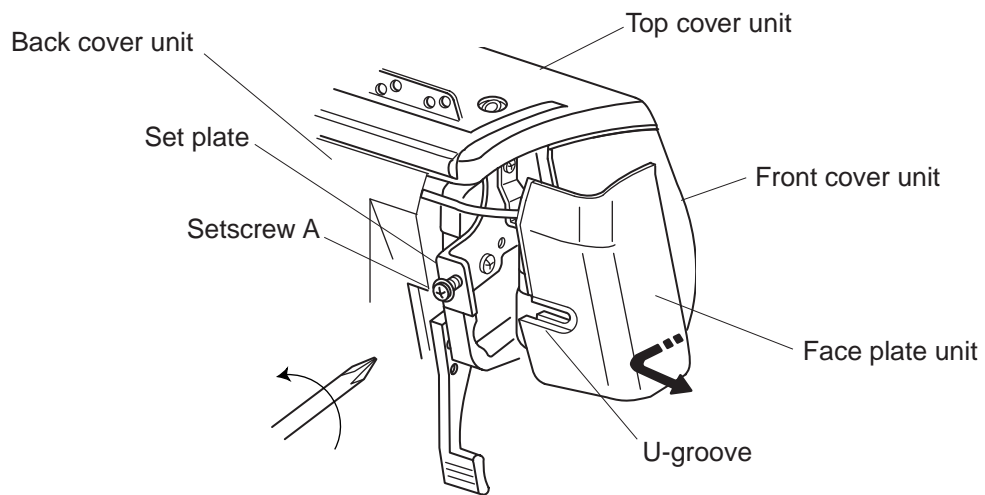
TO CHANGE THE FACE PLATE UNIT

To remove:

1. Loosen the setscrew A and remove the face plate unit.

To attach:

2. Fit the U-groove of the face plate between the setscrew A and set plate, put the ribs of face plate into the front cover unit, back cover unit and tighten the setscrew.



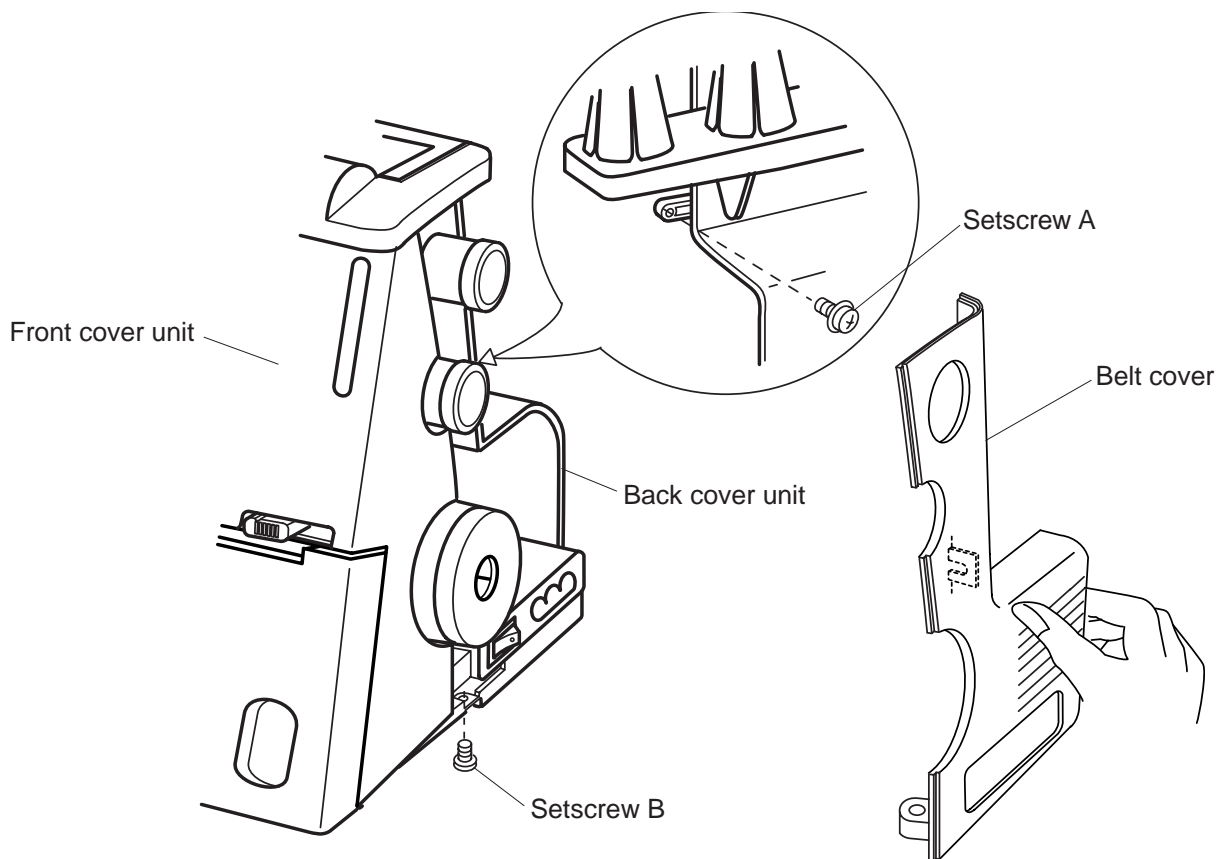
TO CHANGE THE BELT COVER

To remove:

1. Loosen setscrew A and remove the setscrew B.
2. Remove the belt cover.

To attach:

3. Put the ribs of belt cover into the front cover unit and back cover unit and tighten setscrews A and B.



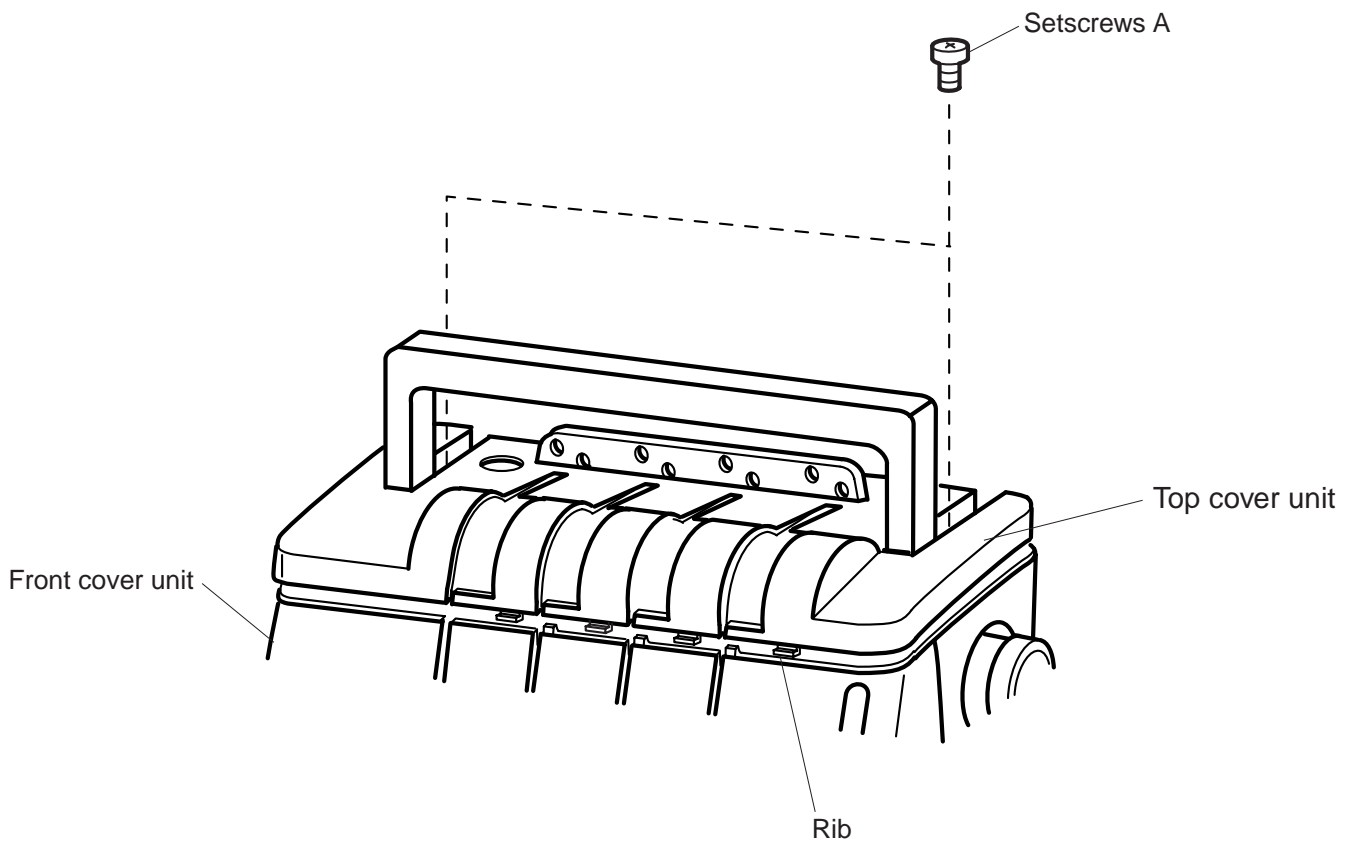
TO CHANGE THE TOP COVER UNIT

To remove:

1. Loosen two setscrews A and remove the top cover unit.

To attach:

2. Put the ribs in the front cover unit.
3. Tighten two setscrews A.



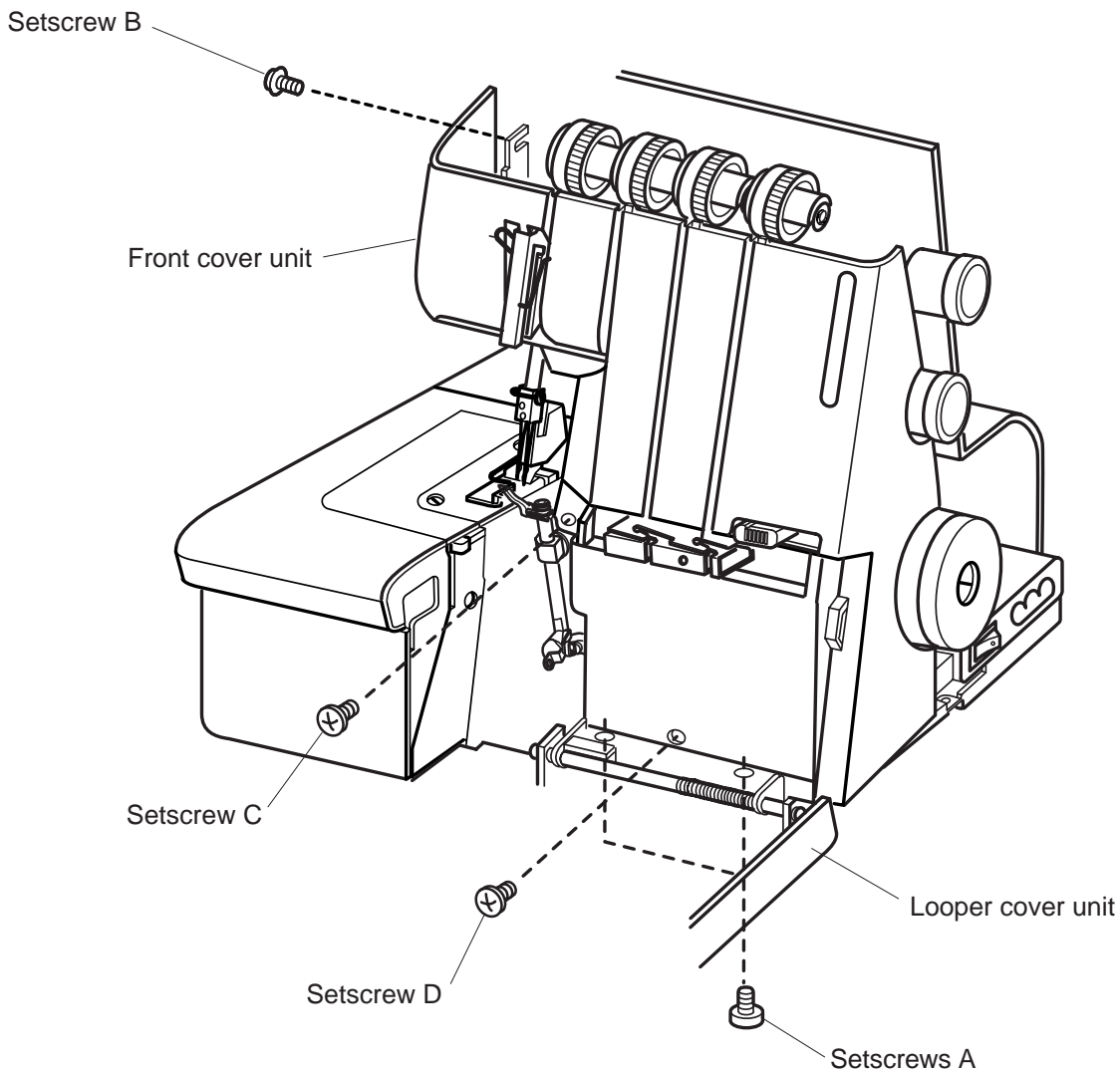
TO CHANGE THE FRONT COVER UNIT

To remove:

1. Remove the setscrews A and looper cover unit.
2. Remove the topcover unit.
3. Move the upper looper to its lowest point by turning the handwheel in counter clockwise.
4. Loosen the setscrew B and remove the setscrews C and D and remove the front cover unit.

To attach:

5. Attach the front cover unit, and tighten the setscrews B, C and D.
6. Attach the top cover unit.
7. Attach the looper cover unit and tighten the setscrews A.



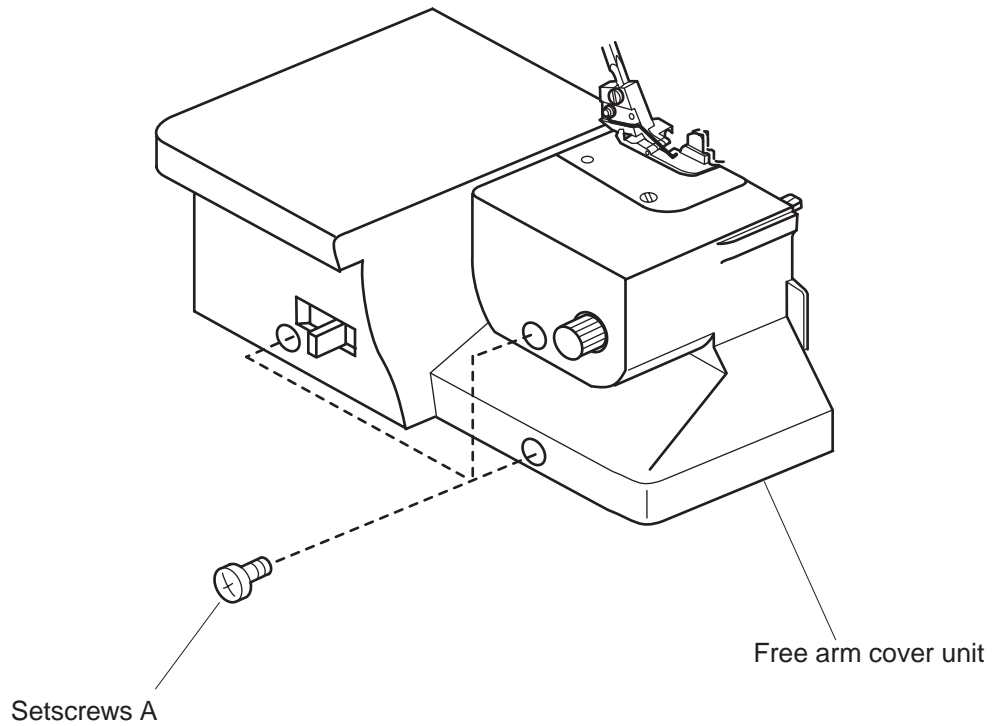
TO CHANGE THE FREE ARM COVER UNIT

To remove:

1. Loosen setscrews A and remove the free arm cover unit.

To attach:

2. Put the ribs of free arm cover into back cover.
3. Tighten the setscrews A.



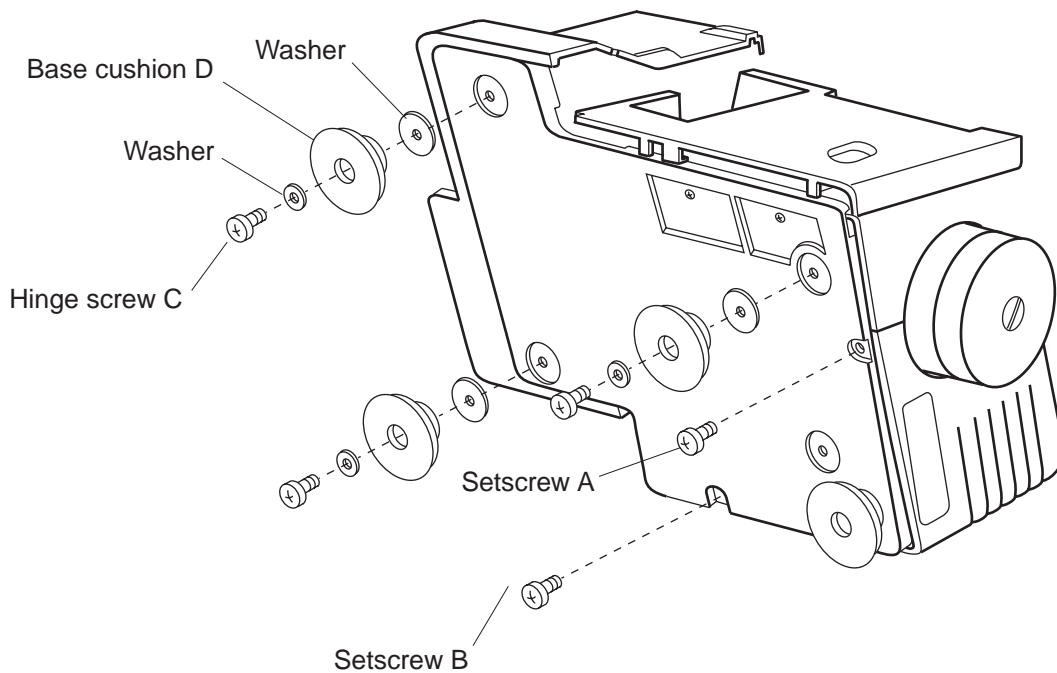
TO CHANGE THE MACHINE BASE

To remove:

1. Remove set screws A, B and four hinge screws C and remove four base cushions D and washers.
2. Remove the machine base unit.

To attach:

3. Attach the machine base and the four base cushions D, washers, and tighten hinge screws C.
4. Tighten setscrews A and B.



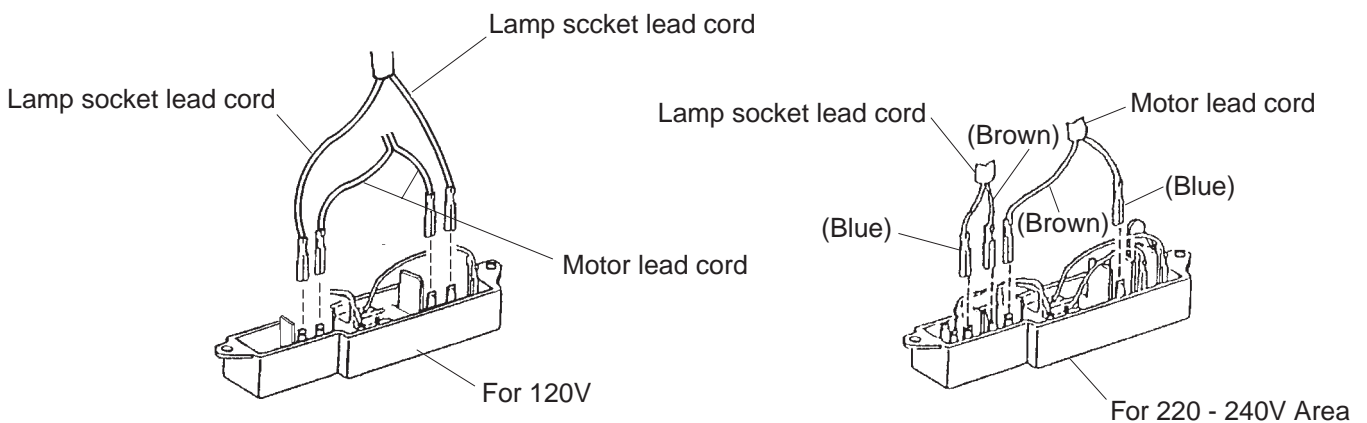
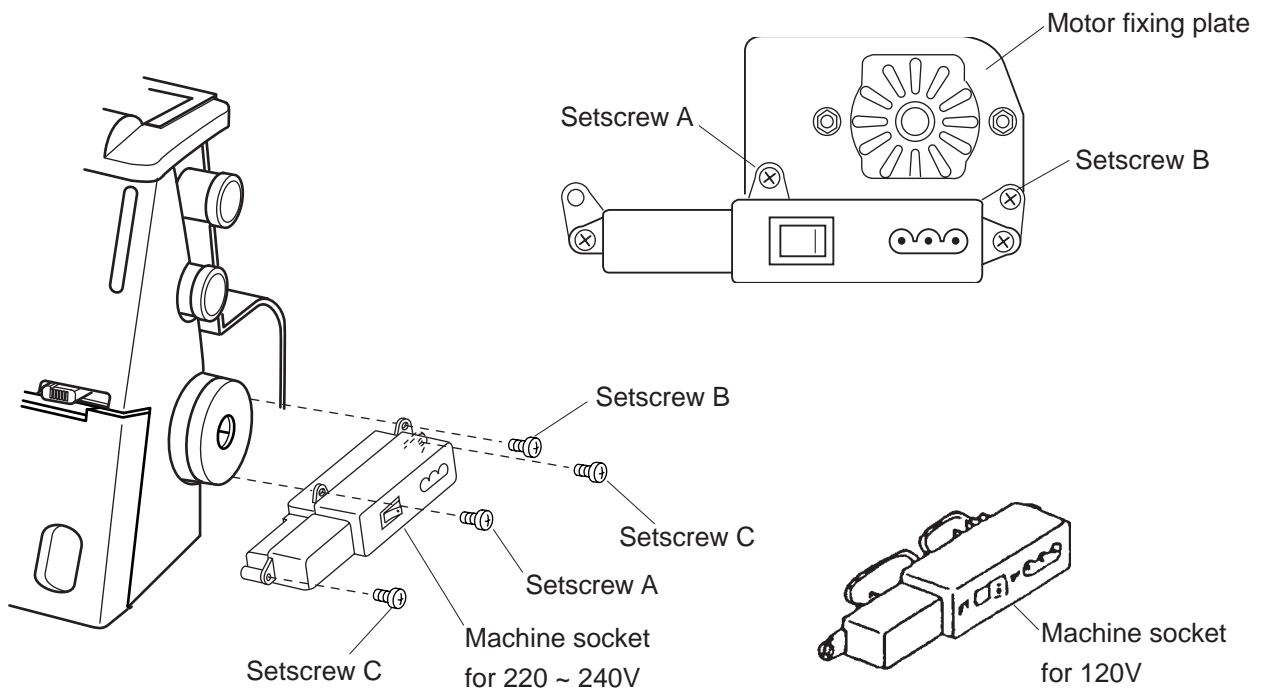
TO CHANGE THE MACHINE SOCKET

To remove:

1. Remove the belt cover.
2. Remove setscrews (A, B) and the machine socket unit from the motor fixing plate.
3. Remove two setscrews C and pull out the cord connectors.

To attach:

4. Insert the cord connectors as shown below.
5. Attach the machine socket and tighten two setscrews C.
6. Attach the machine socket unit on the motor fixing plate and tighten setscrews (A, B).
7. Attach the belt cover.



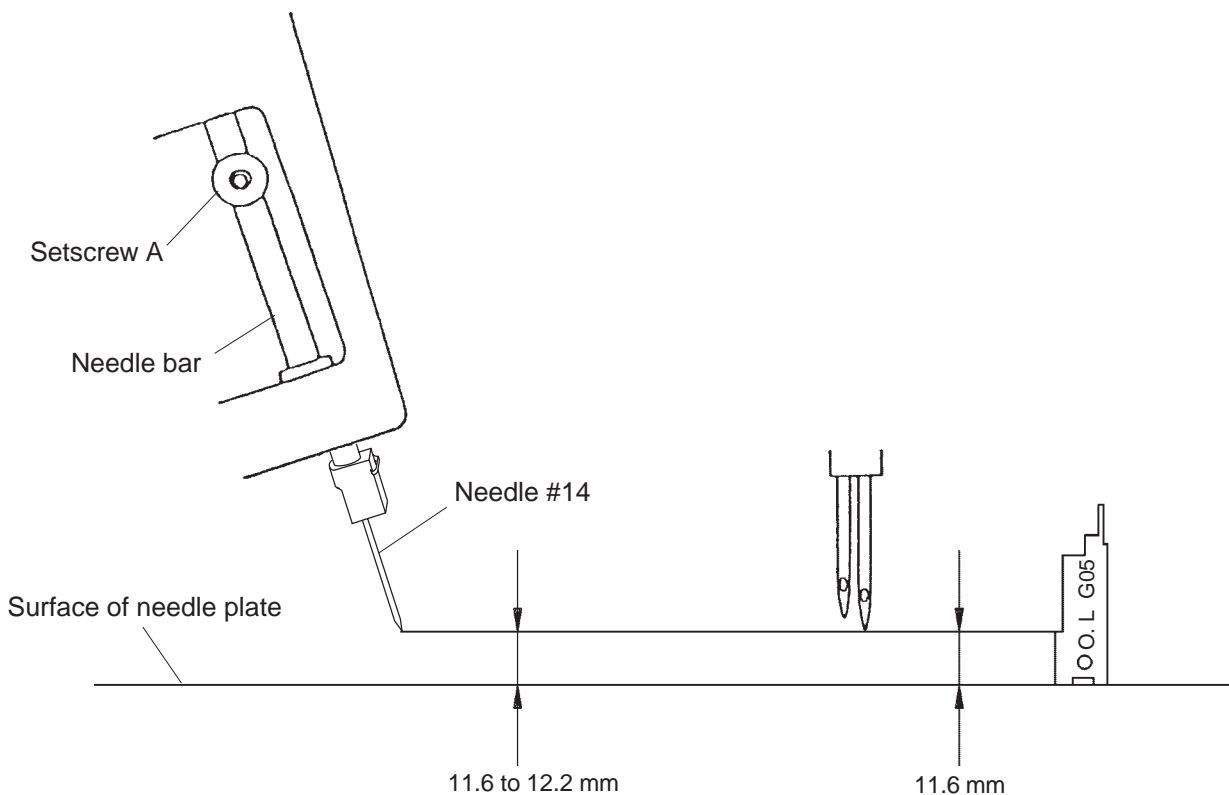
TO ADJUST THE NEEDLE HEIGHT

Correct Setting:

The distance between the tip of needle on the right and the surface of needle plate should be 11.6 to 12.2 mm when the needle bar is at the highest position.

To adjust:

1. Remove the looper cover unit, top cover unit and front cover unit.
2. Turn the handwheel toward you with your hand and set the needle bar at the highest position.
3. Loosen the setscrew A to adjust the height and tighten setscrew A after the adjustment is done.
4. Turn the handwheel toward you one cycle and recheck the needle bar height.
5. Attach the front cover unit, looper cover unit and top cover unit.



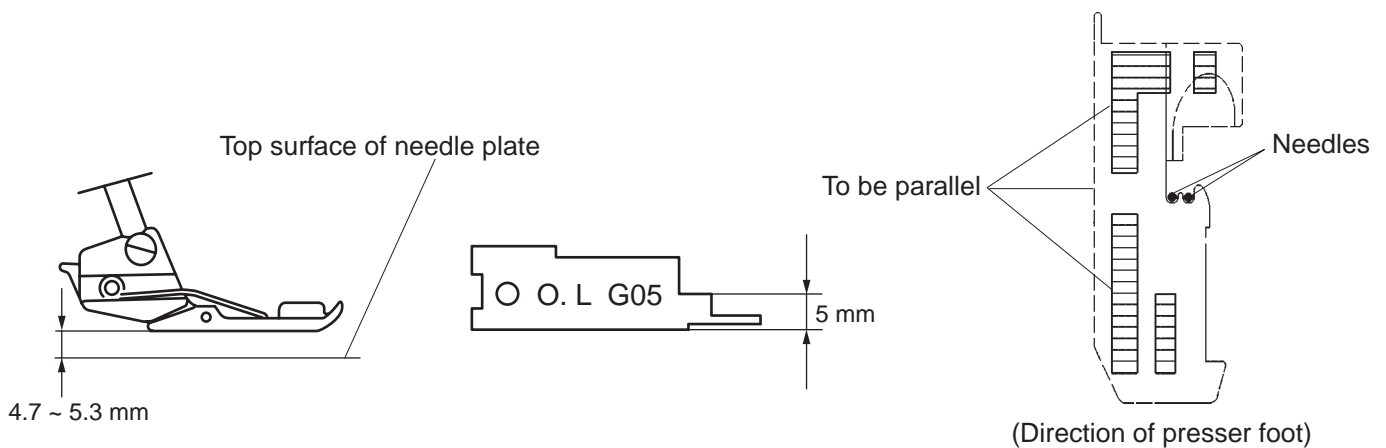
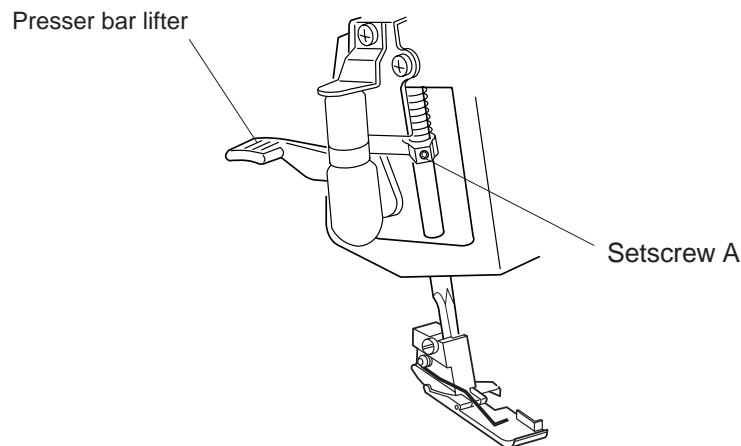
TO ADJUST THE PRESSER BAR HEIGHT

Correct Setting:

The distance between the surface of needle plate and bottom of presser foot should be 4.7 to 5.3 mm when the presser bar lifter is raised.

To adjust:

1. Remove the looper cover unit, top cover unit and front cover unit.
2. Raise the presser bar lifter, and loosen the setscrew A.
Then adjust the presser bar height, the side of presser foot should be parallel with the hole of needle plate.
3. Tighten the setscrew A.
4. Attach the front cover unit, looper cover unit and top cover unit.



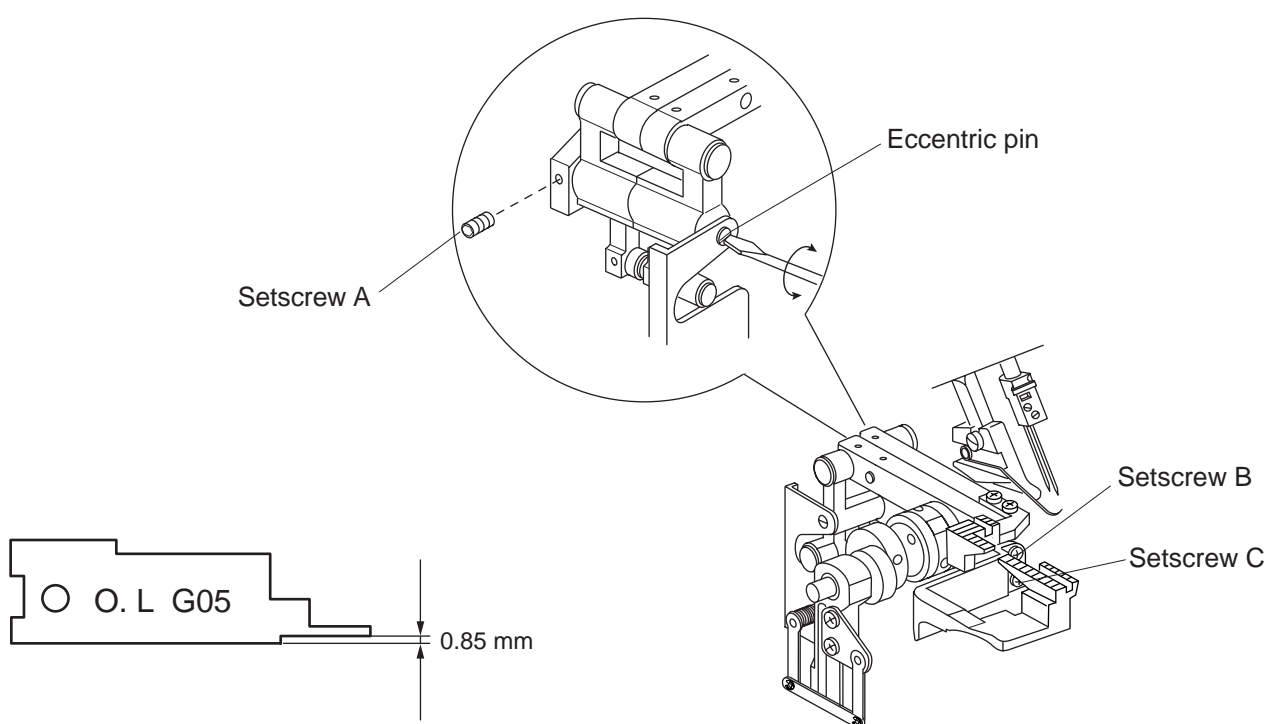
TO ADJUST THE FEED DOG HEIGHT

Correct Setting:

When the presser foot is lowered and the feed dogs are at their highest position, the distance between the surface of needle plate and bottom of presser foot should be 0.75 to 0.95 mm.

To adjust:

1. Remove the free arm cover unit and the back cover unit.
2. Set the stitch length dial at 3 and the differential feed dial at 1.0.
3. Lower the presser foot and raise the feed dogs to their highest position by turning the handwheel.
4. Loosen the screws A, B and C.
5. Insert the screwdriver in the slit of the eccentric pin.
Adjust the main feed dog by turning the pin then tighten the setscrew A.
(The standard setting of the feed dog height is when the slit on the eccentric pin is horizontal and eccentric position is at the rear side.)
6. Push the sub feed dog upward and adjust the distance between the surface of needle plate and bottom of presser foot, then tighten the setscrews B and C.
7. Check the clearance between the feed dog and the slot of the needle plate when the stitch length is set at 5 and differential feed is set at maximum.
(If the direction of the eccentric adjustment is incorrect, the needle plate and feed dog may hit or rub each other.)
8. Attach the free arm cover unit.



TO ADJUST THE TIMING OF THE NEEDLE AND THE FEED DOG

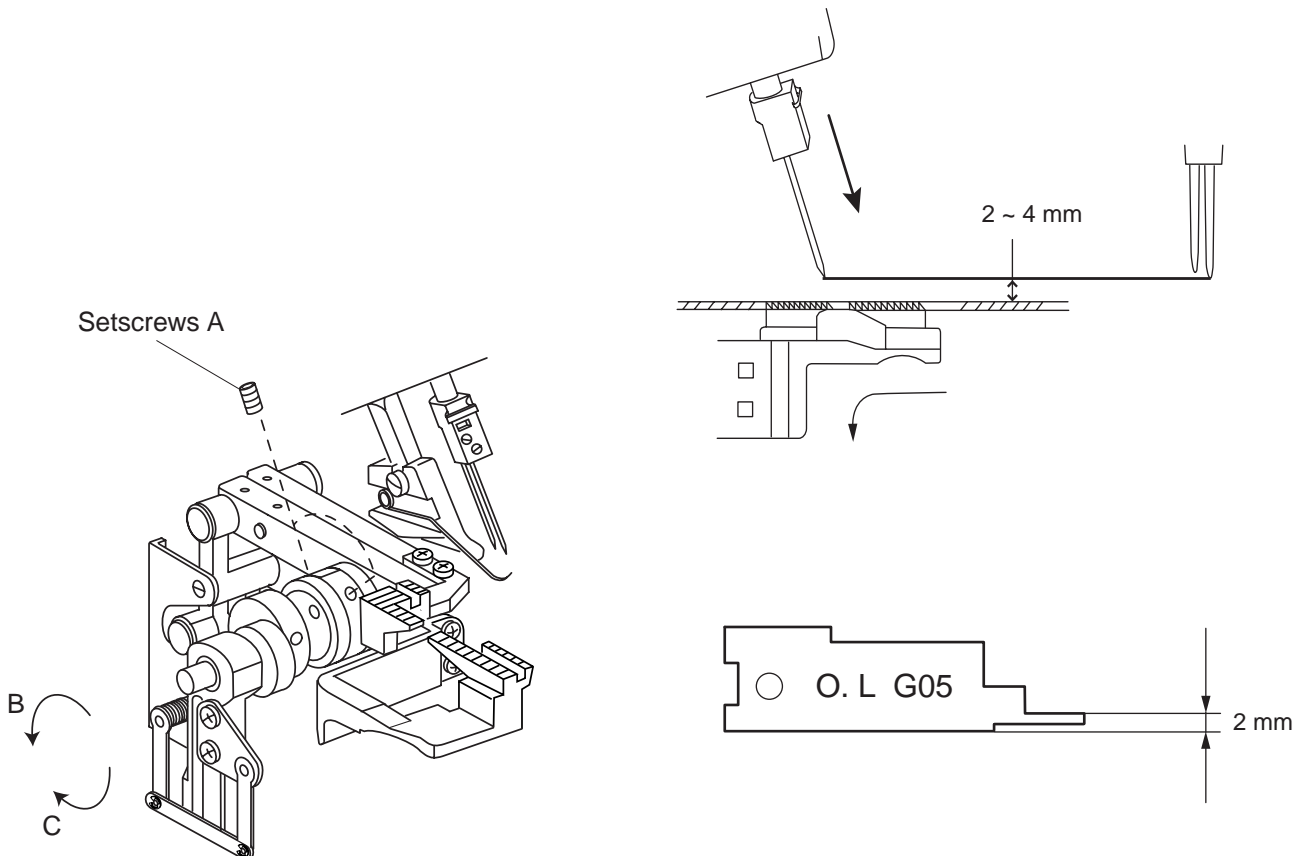
Correct Setting:

When the tip of right needle is at 2 to 4 mm above the needle plate in its downward motion and presser foot lowered, the top of the feed dog teeth should be level with the top surface of needle plate at their rearmost position.

Before adjustment, check if the needle bar height and the feed dog height are correct.

To adjust:

1. Remove the free arm cover unit.
2. Set the stitch length dial at " 3 " and the differential feed dial at " 1.0 ".
3. Raise the presser foot and move the tip of right needle to 3 mm above the needle plate in its downward motion by turning the handwheel.
4. Lower the presser foot, and loose two set screws A for feed cam.
 - # Turn the feed cam to the direction B if the feed dog is lower than the surface of the needle plate.
 - # Turn the feed cam to the direction C if the feed dog is higher than the surface of the needle plate.
5. Tighten two setscrews A.
6. Attach the free arm cover unit.



TO ADJUST THE TIMING OF THE NEEDLE AND THE UPPER KNIFE

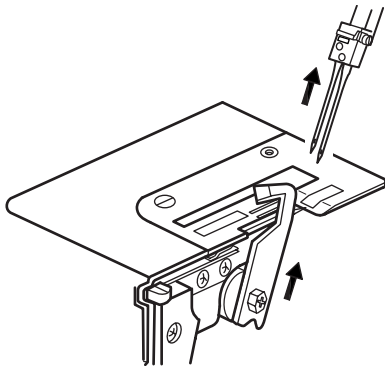
Correct Setting:

The upper knife timing is the same as that of the needle bar. In fact, when the needle bar is at highest position, the upper knife should be also at its highest position.

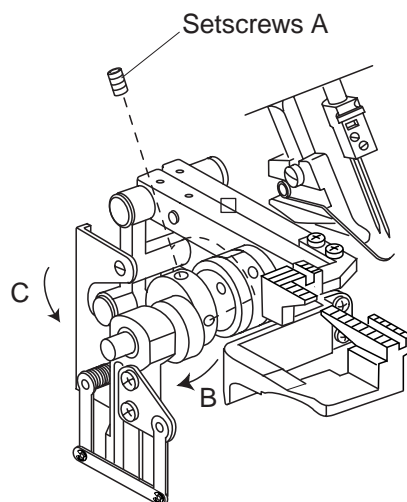
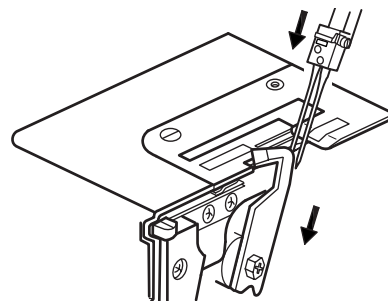
To adjust:

1. Remove the feed arm cover unit.
2. Loosen two setscrews A and adjust the needle and upper knife timing.
3. * Turn the upper knife drive cam to the direction B when the upper knife timing is being delayed.
* Turn the upper knife drive cam to the direction C when the upper knife timing is too soon.
4. Tighten the two setscrews A firmly.
* The clearance between the upper knife drive cam and upper knife connecting rod should be 1 mm.
5. Turn the handwheel toward you one cycle, and recheck the needle and the upper knife timing.
6. Attach the free arm cover unit.

When the needle bar goes up,
the upper knife goes up.



When the needle bar goes down,
the upper knife also goes down.



TO ADJUST THE CLEARANCE BETWEEN THE NEEDLES AND THE LOWER LOOPER/NEEDLE GUARDS

(1 of 3)

Correct setting:

Both right and left needles should have an equal clearance from the front edge of the needle holes on the needle plate.

The standard clearance between the left and right needle and the lower looper is 0 mm to 0.05 mm.

The standard clearance between the needles and the rear needle guard is 0 mm to 0.2 mm.

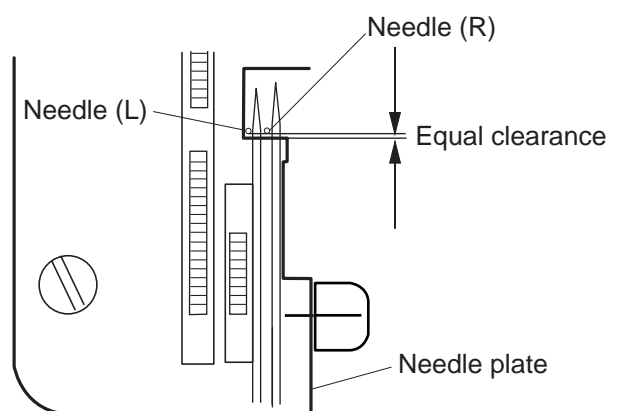
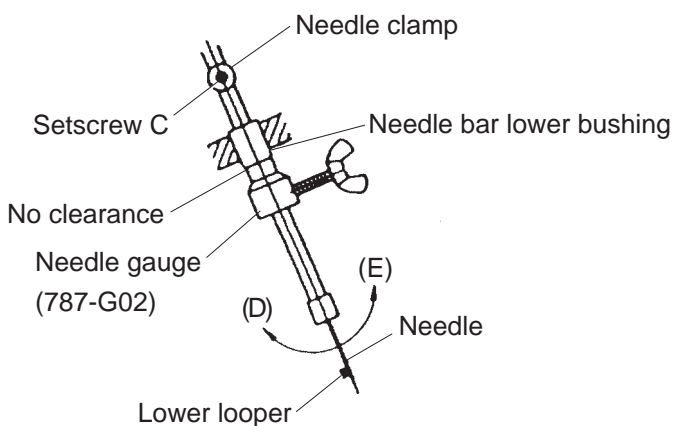
The above standard clearance allows the needle to slightly touch the front needle guard.

To adjust:

1. Remove the looper cover unit, top cover unit, front cover unit, presser foot, needle plate and needles.
2. Before loosening set screw C, attach the needle gauge #787-G02 to prevent change of needle bar height during the adjustment.

Attach two #11 needles on the needle clamp and loosen the setscrew C. Adjust the two needles, to make the clearance between both needles and the front edge of the needle hole of the needle plate equal by turning the needle bar in the D or E direction while pushing up the needle bar to prevent change of needle bar height.

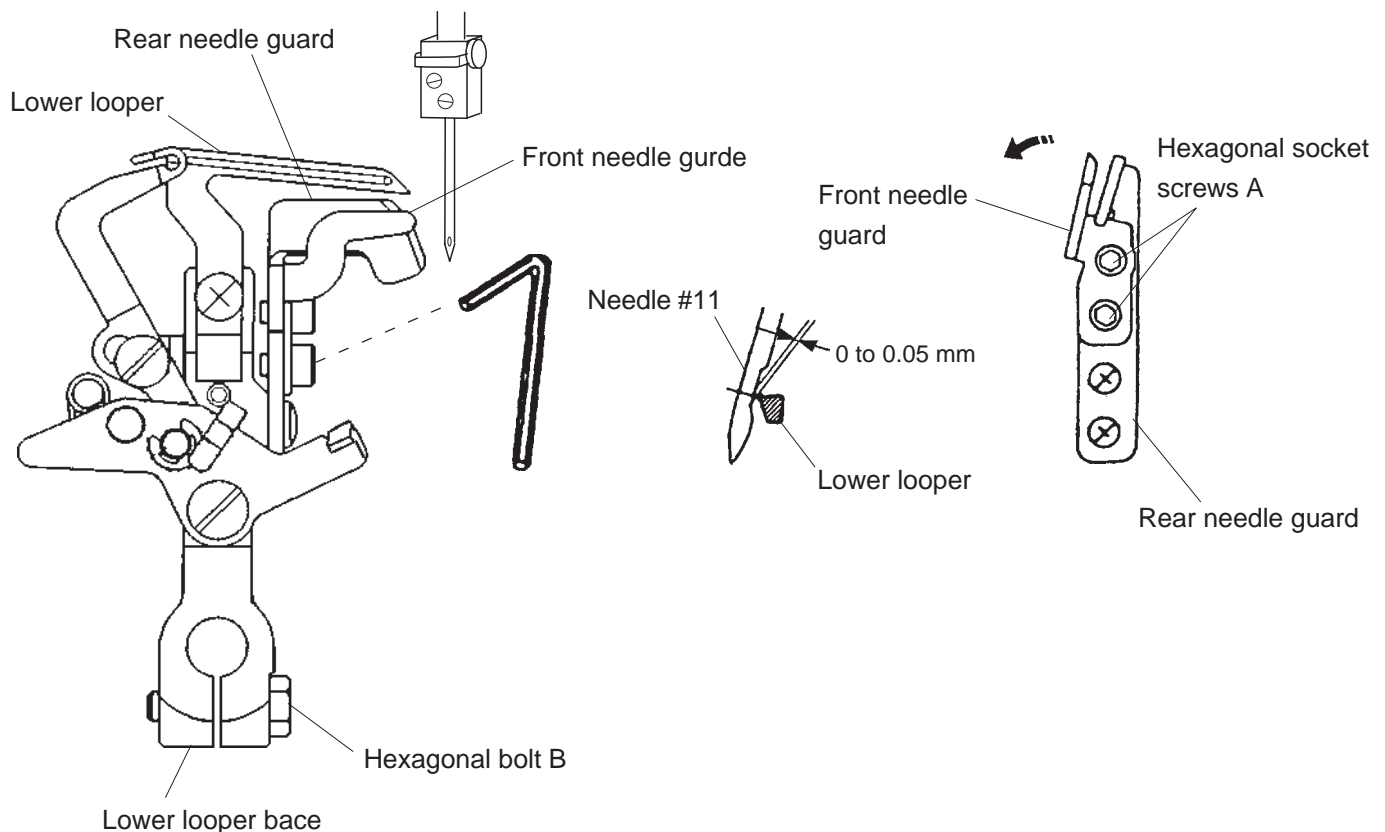
Retighten the setscrew C and remove the needle gauge.



TO ADJUST THE CLEARANCE BETWEEN THE NEEDLES AND THE LOWER LOOPER/NEEDLE GUARDS

(2 of 3)

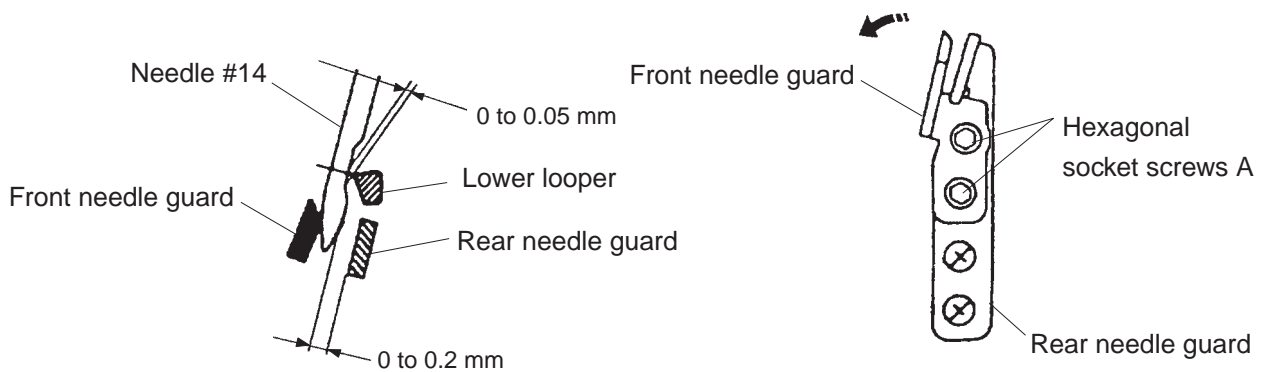
1. Remove the left needle only.
2. Turn the handwheel toward you to bring the tip of the lower looper from the left hand to the rear side of the right needle.
3. Loosen the hexagonal socket screws A on the front needle guard and open a space between the front needle guard and the needle.
4. Next, loosen the hexagonal bolt B and slide the lower looper unit to the front or to the back to adjust the clearance between the right needle and the lower looper. The clearance should be 0 mm to 0.05 mm.
Retighten the hexagonal bolt B.



TO ADJUST THE CLEARANCE BETWEEN THE NEEDLES AND THE LOWER LOOPER/NEEDLE GUARDS

(3 of 3)

1. Change the right needle from #11 to #14.
2. Push the right needle by the front needle guard to adjust the clearance between the needle and the lower looper. The clearance should be 0 mm to 0.05 mm.
3. Attach #14 needle on the left needle position and turn the handwheel toward you to check the clearance between the left needle and looper.
Make sure the front needle guard is touching the needle slightly and the rear needle guard is not touching the needle.
4. Check the timing between the needle and the lower looper.
5. Recheck the needle bar height and the clearance between the needle and the lower looper.



(Rear needle guard is not touching the needle.)

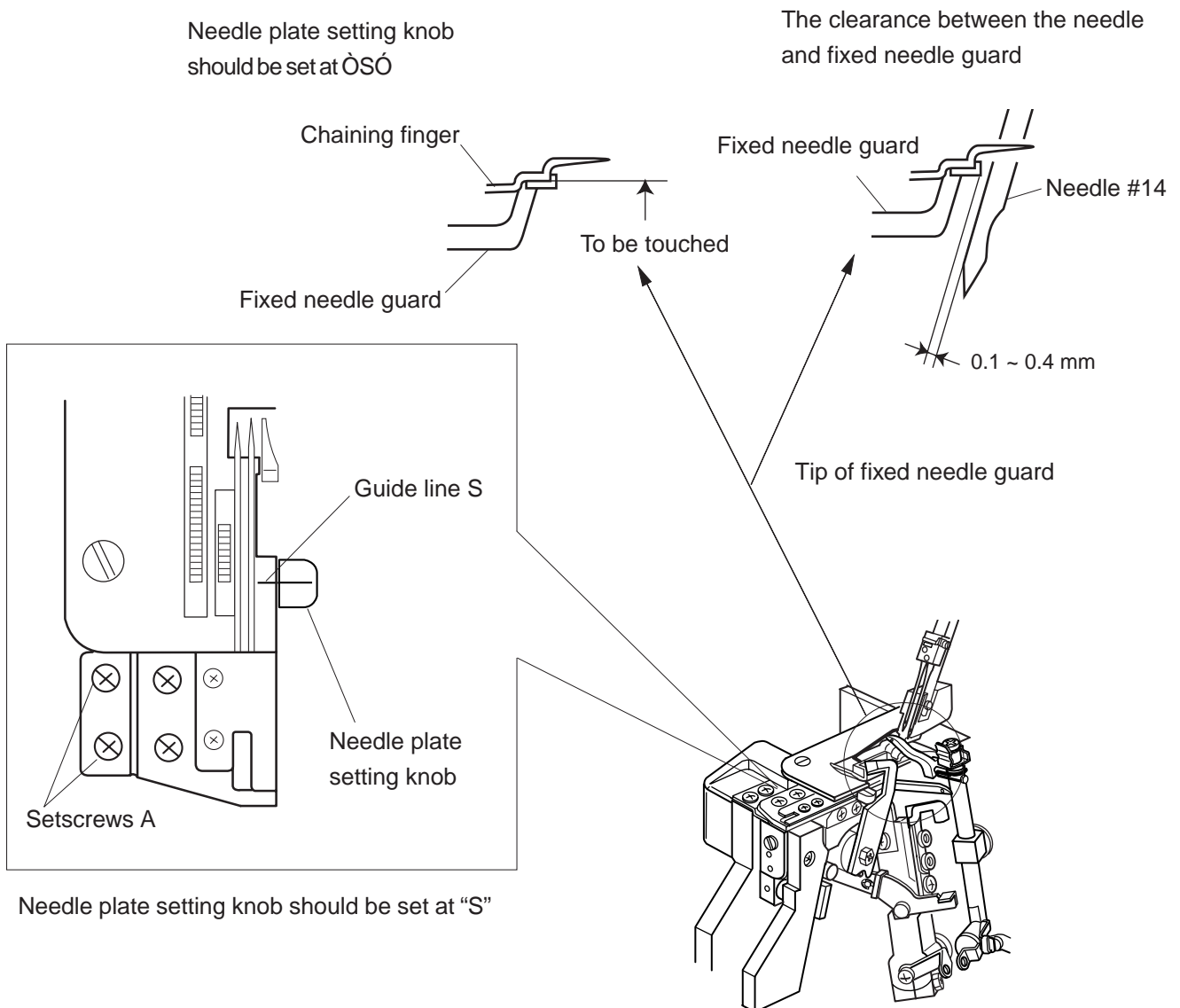
TO ADJUST THE CLEARANCE BETWEEN THE NEEDLES AND THE FIXED NEEDLE GUARD

Correct Setting:

The clearance between needles and the fixed needle guard should be 0.1 to 0.4 mm.

To adjust:

1. Remove the free arm cover unit, presser foot and the needle plate and lower the needle to its lowest position.
2. Loosen the setscrews A and adjust the position of the fixed needle guard.
3. Tighten two setscrews A.
4. Attach the needle plate and set the needle plate setting knob to guide line S.
5. Check the position of the chaining finger.
6. Attach the free arm cover unit and the presser foot.



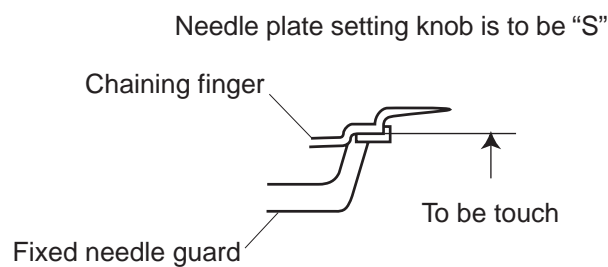
TO ADJUST THE POSITION OF THE CHAINING FINGER

Correct Setting:

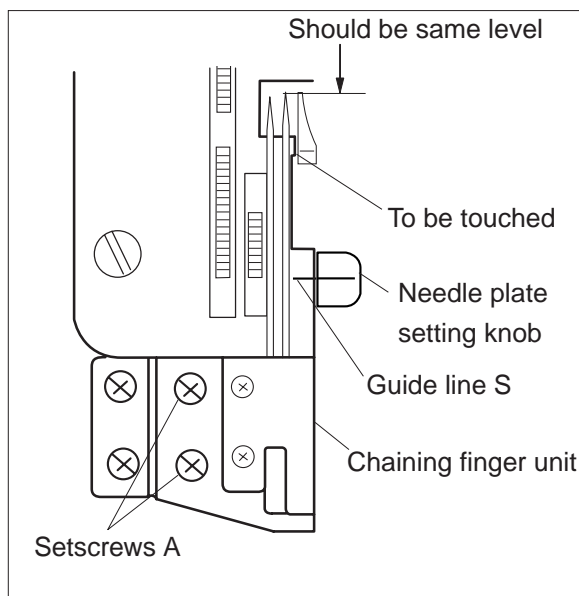
When set the needle plate setting knob to guide line S, chaining finger should touch side of needle plate, and tip of chaining finger should be same level with the tip of the needle on the needle plate.

To adjust:

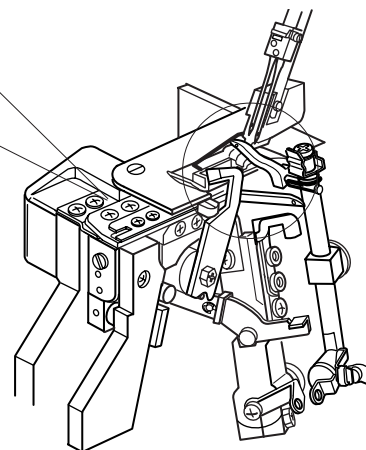
1. Remove the free arm cover unit and the presser foot.
2. Set the needle plate setting knob to guide line S on needle plate.
3. Loosen two setscrews A and move chaining finger unit to correct position.
4. Tighten two setscrews A.
5. Set the needle plate setting knob to guide line S and R, and check the position of chaining finger.
6. Attach the free arm cover unit and the presser foot.



Drawing 2



Drawing1



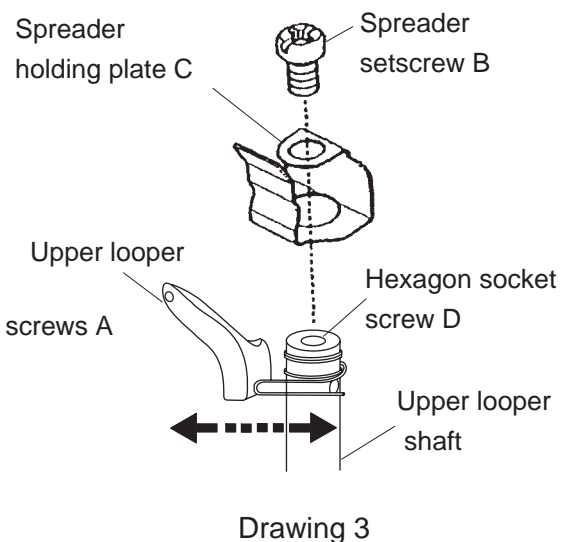
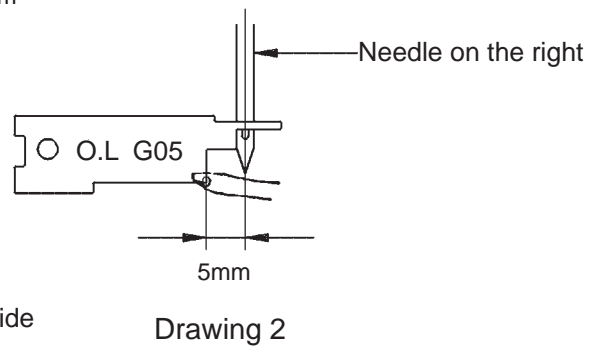
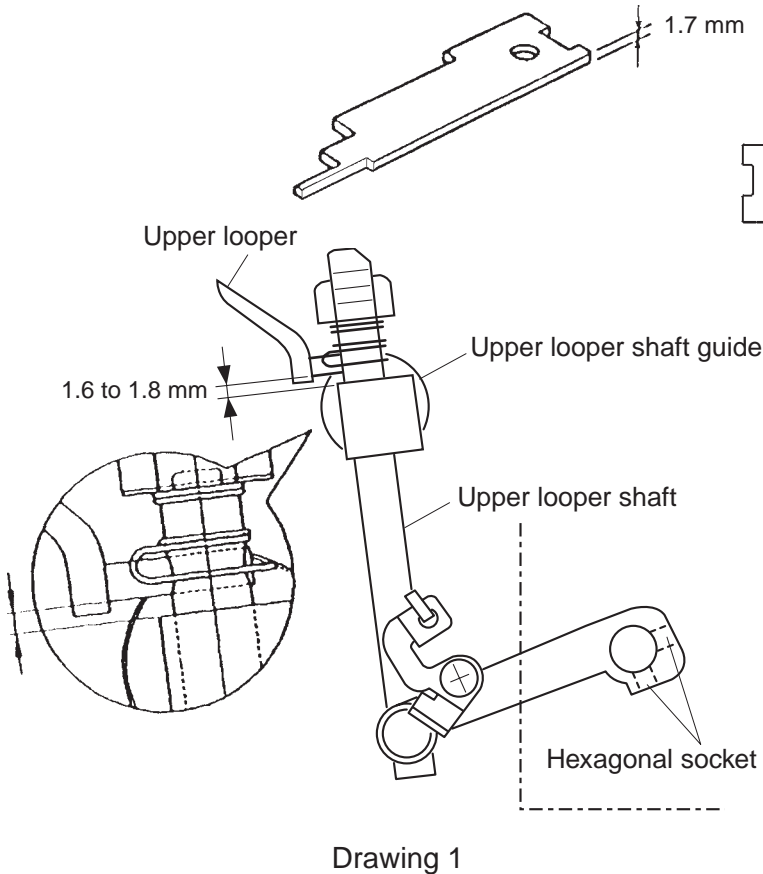
TO ADJUST THE POSITION OF THE UPPER LOOPER

Correct setting:

When the upper looper is at the leftmost position, the distance between the center of needle on the right and the center of looper eye should be 4.8 to 5.2 mm.

To adjust:

1. Remove the machine base.
2. Loosen the hexagonal socket screws A, and adjust the distance between upper looper shaft guide and bottom of upper looper. The distance should be 1.6 to 1.8 mm when the upper looper is at the lowest position as shown in Drawing 1.
3. Tighten the hexagonal socket screws A.
4. Turn the handwheel and bring the upper looper to the leftmost position.
5. Remove the spreader setscrew B and spreader holding plate C.
6. Loosen the hexagonal socket screw D, and adjust the distance between the center of needle and center of upper looper eye as shown in Drawing 2.
7. Tighten the hexagonal socket screw D.
8. Set the spreader holding plate C to the upper looper shaft, and tighten the spreader setscrew B.
9. Check the upper and lower loopers timing and clearance between upper and lower loopers.
10. Attach the machine base.



TO ADJUST THE TIMING OF THE NEEDLE AND THE LOWER LOOPER

Correct setting:

When the needle comes up 2.8 to 3.2 mm (7/64 to 1/8") from its lowest position, the tip of the lower looper comes just left of the needle (#11) on the right.

To adjust:

1. Remove the presser foot, needle plate and left-side needle.
2. Replace right-side needle with a #11 one.
3. Turn the handwheel toward you to get the lowest needle position.
4. Set the two gauges (787-G02, 787-G03), as shown in Drawing 1 and tighten bolt B.
 - * There should be no clearance between the gauges and the needle bar lower bushing.
5. Remove the plate gauge (787-G03). Then turn the handwheel toward you until the needle gauge touches the needle bar lower bushing, as shown in Drawing 2.
6. In this condition, loosen the hexagonal bolt C just enough to move the lower looper base. Adjust the lower looper position in order to meet the tip of lower looper with left-side of needle (#11) as shown in Drawing 4. Tighten hexagonal bolt C.
7. Remove the gauge (787-G02).
 - ¥ Check the clearance between the needle and lower looper.
 - ¥ Check the clearance between the loopers.
8. Replace the right side needle with a #14 one.
9. Attach the needle, needle plate and presser foot.
 - * Be careful not to tighten bolt B too much.

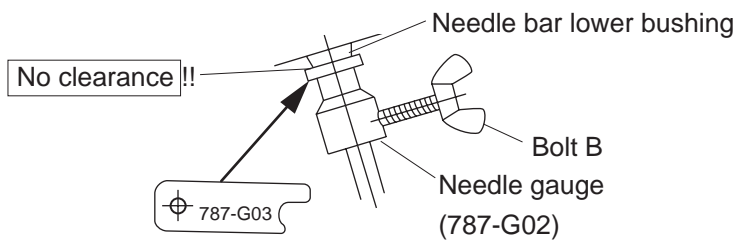
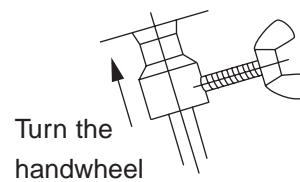


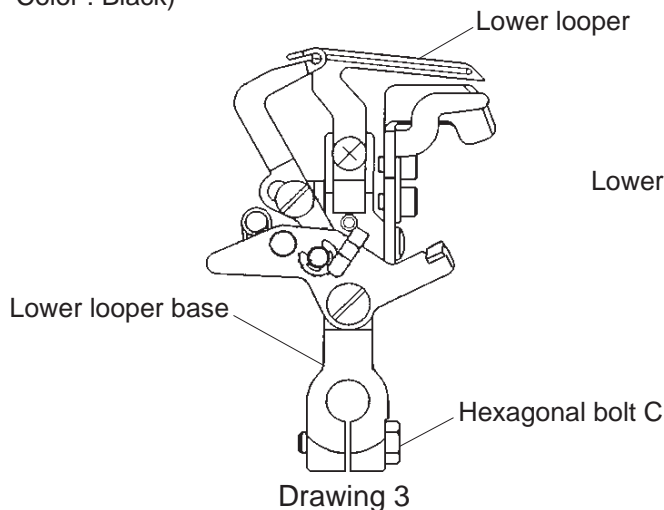
Plate gauge (787-G03)
(Thickness : 3 mm
Color : Black)

Drawing 1

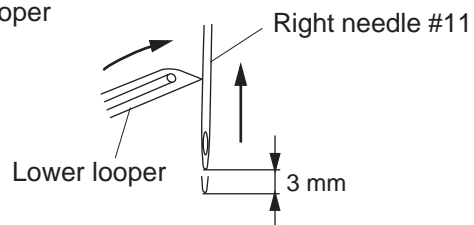


Turn the
handwheel

Drawing 2



Drawing 3



Drawing 4

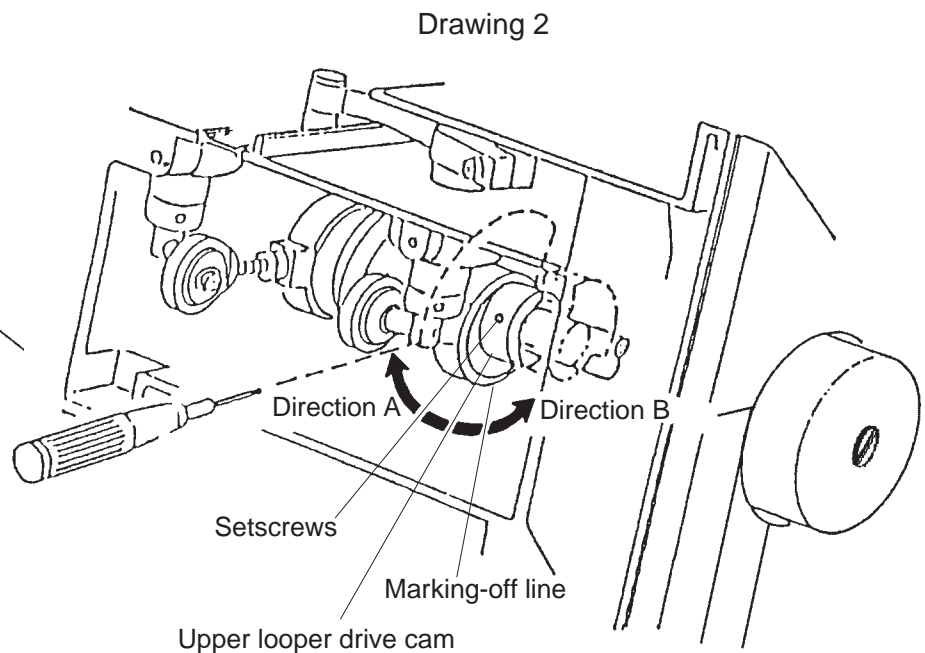
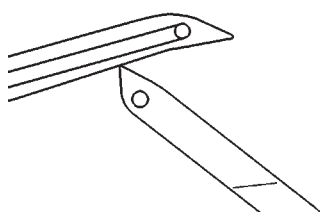
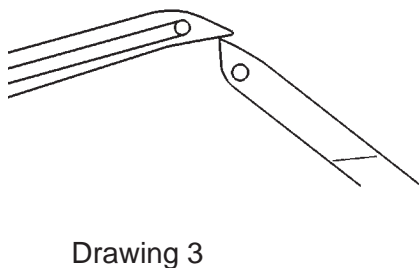
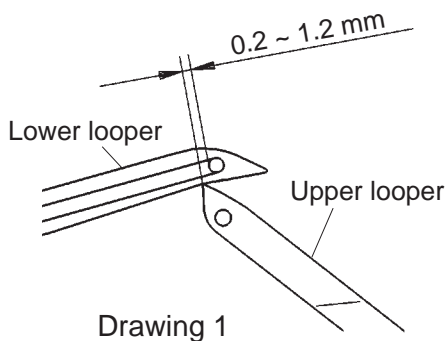
TO ADJUST THE TIMING OF THE UPPER AND LOWER LOOPERS

Correct Setting:

When the lower looper moves to the right, the tip of upper looper meets the lower looper within 0.2 to 1.2 mm from the left of lower looper eye as shown in Drawing 1.

To adjust:

1. Before proceeding with this adjustment, check the lower looper timing and the position of upper looper.
2. Remove the machine base.
3. Loosen two set screws, and adjust the timing by turning the upper looper drive cam in the direction of:
 - A) if the timing of upper looper is advanced as shown in Drawing 3.
 - B) if the timing of upper looper is delayed as shown in Drawing 4.The allowance is 0.2 to 1.2 mm from the left edge of lower looper eye as shown in Drawing 1.
4. Tighten two setscrews.
5. Check the clearance between the loopers.
6. Attach the machine base.



Drawing 4

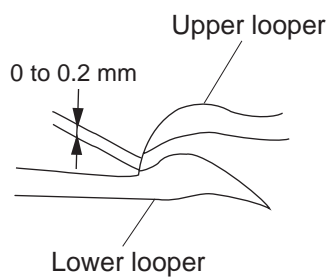
TO ADJUST THE CLEARANCE BETWEEN THE LOOPERS

Correct Setting:

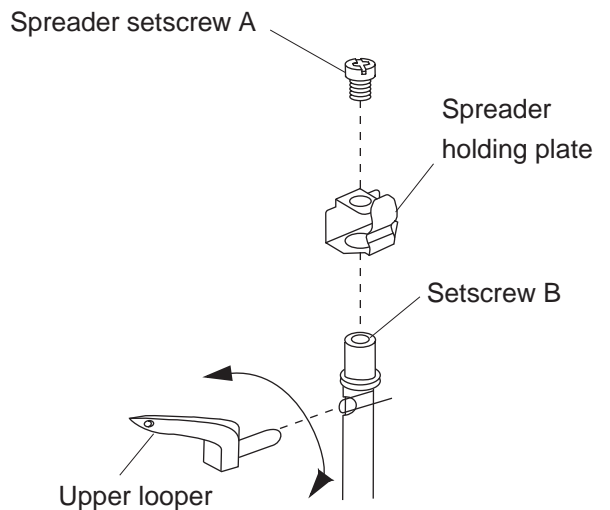
When the upper and lower loopers meet as shown in Drawing 2, the clearance should be 0 to 0.2 mm as shown in Drawing 1.

To adjust:

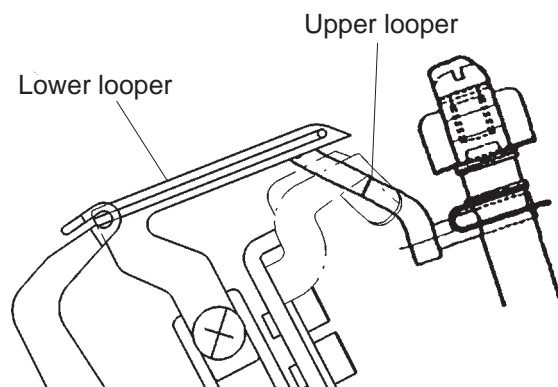
1. Remove the spreader setscrew A and the spreader holding plate.
2. Turn the handwheel toward you with your hand to bring the loopers as shown in Drawing 2.
3. Loosen the setscrew B and adjust the clearance between the loopers by moving the upper looper to the back or front as shown in Drawing 3.
4. Tighten the set screw B firmly.
5. Check the clearance between the upper looper and needle.
6. Set the spreader holding plate and tighten the spreader setscrew A.



Drawing 1



Drawing 3



Drawin 2

TO ADJUST THE CLEARANCE BETWEEN THE NEEDLE AND THE UPPER LOOPER

Correct Setting:

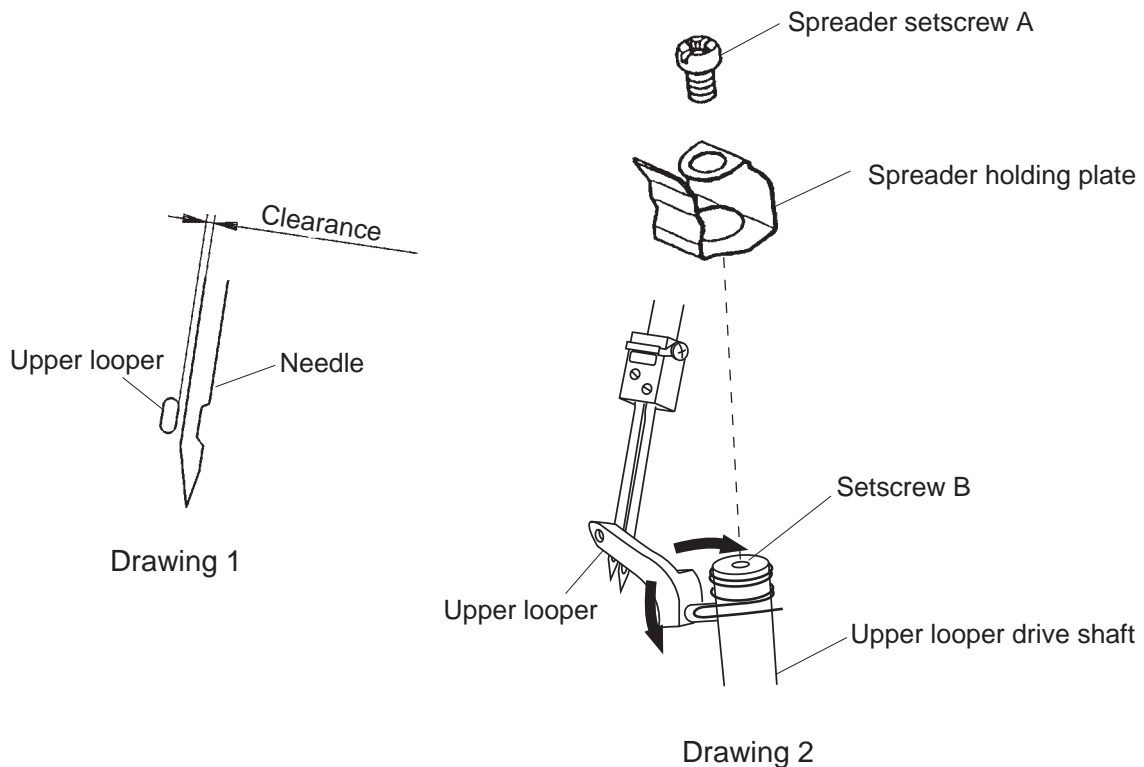
When the upper looper meets with needle, the clearance should be:

0 to + 0.1 mm at the needle on the left.

-0.05 to + 0.05 mm at the needle on the right.

To adjust:

1. Remove the spreader setscrew A and the spreader holding plate .
2. Turn the handwheel toward you with your hand to bring the needle just behind the upper looper in downward travel.
3. Loosen the setscrew B and adjust the clearance between the both needles and upper looper.
4. Tighten the setscrew B.
5. Check the clearance between the loopers.
6. Set the spreader holding plate and tighten the spreader setscrew A.



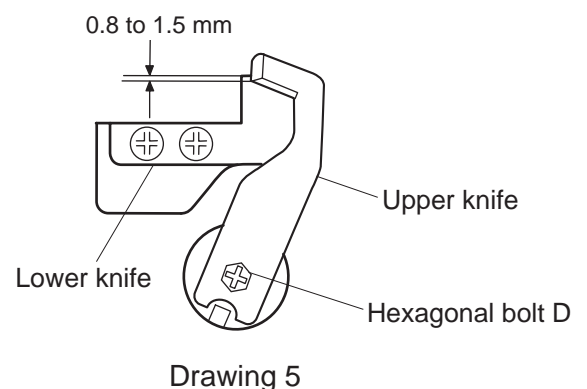
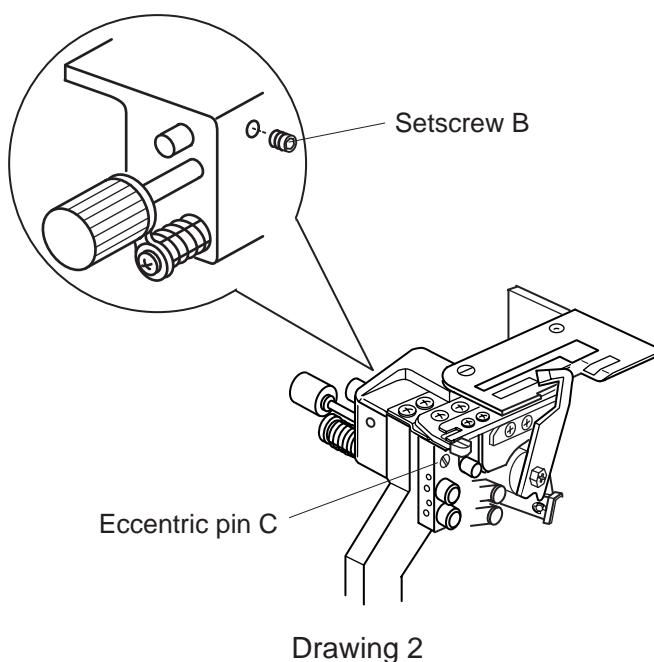
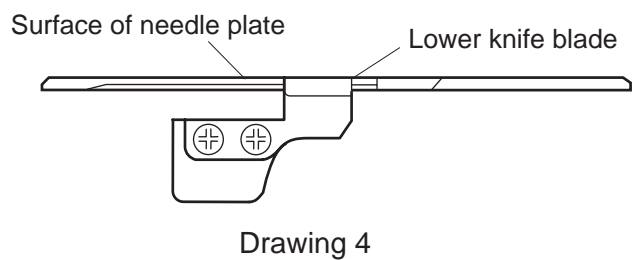
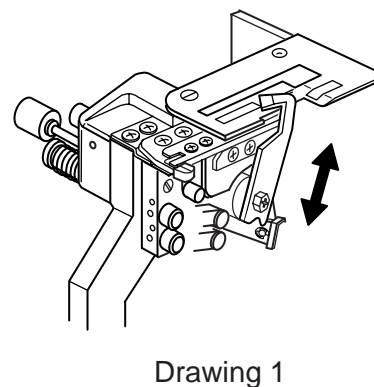
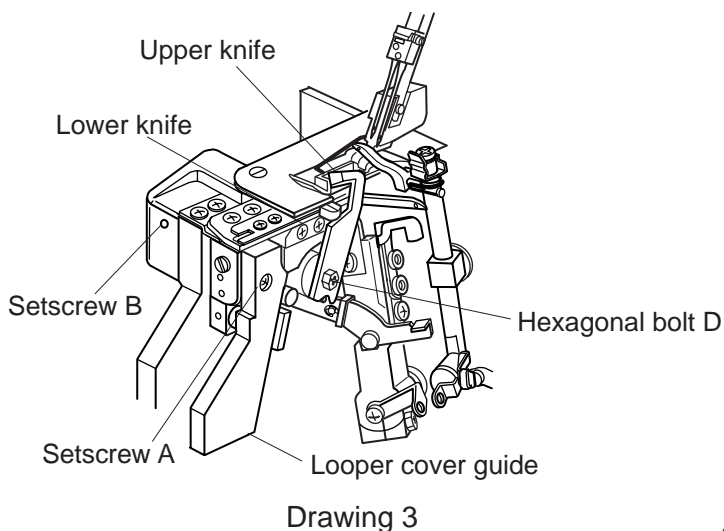
TO ADJUST THE POSITION OF THE KNIVES

Correct Setting:

- * The tip of the lower knife should be leveled with the surface of needle plate. When the upper knife is at the lowest position, the front lower corner of the upper knife should be 0.8 to 1.5 mm below the edge of the lower knife.

To adjust:

1. Before proceeding with this adjustment, check the upper knife timing (see page 12).
2. Loosen setscrew A to remove the looper cover guide.
3. Loosen the lower knife shaft setscrew B and turn the eccentric pin C slowly, then adjust the lower knife position. Tighten setscrew B. (Drawing 2 ~ 4)
4. Turn the handwheel toward you to bring upper knife to its lowest position.
5. Loosen the hexagonal bolt D and adjust the position of the upper knife.
6. Tighten hexagonal bolt D firmly, turn the handwheel toward you to check the upper knife matching position with the lower knife.

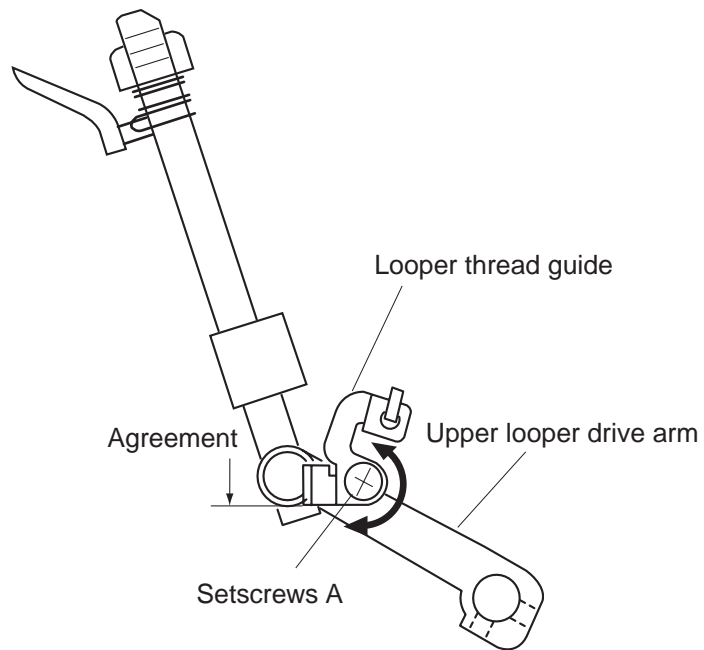


TO ADJUST THE POSITION OF THE LOOPER THREAD GUIDE

Looper thread guide

Loosen setscrew A and swing the looper thread guide up or down to match the bottom edge of both looper thread guide and upper looper drive arm as shown in Drawing 1.

Tighten the setscrew A to secure the position.



Drawing 1

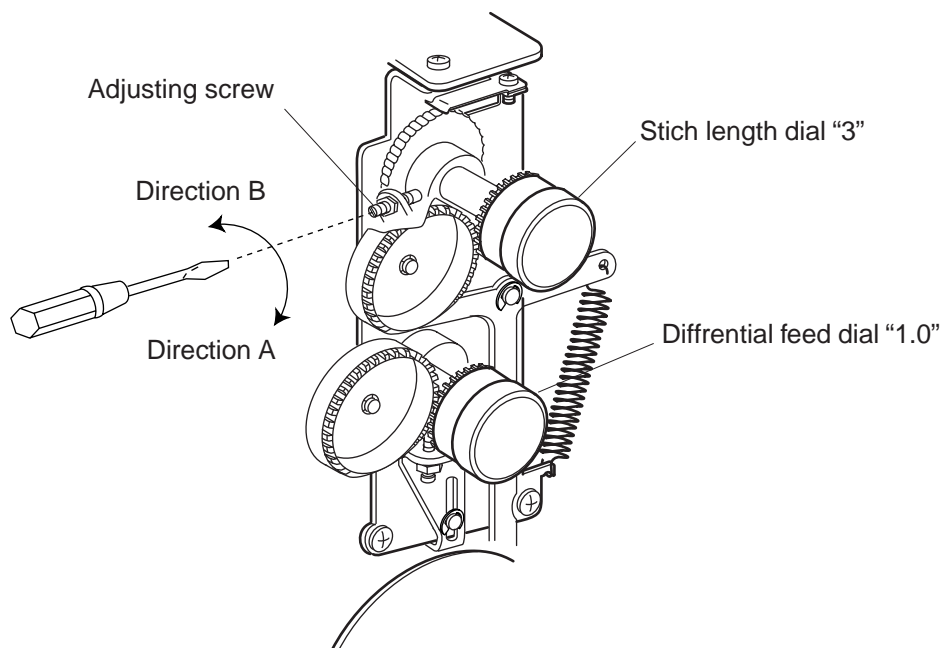
TO ADJUST THE STITCH LENGTH

Correct Setting:

The actual stitch length should be 2.8 to 3.0 mm when the stitch length dial is set at “3” and differential feed dial at “1.0”.

To adjust:

1. Set the stitch length dial at “3” and the differential feed dial at “1.0”.
2. Remove the front cover unit.
3. If the actual stitch length is longer than 3.0 mm, turn the adjusting screw in the direction A.
If the actual stitch length is shorter than 2.8 mm, turn the adjusting screw in the direction B.
4. Attach the front cover unit.



TO ADJUST THE THREAD TENSION DIALS

To check:

Thread tension dials are already adjusted for general sewing at factory, however, if you want much stronger or weaker tension settings for special sewing needs, it can be adjusted as follows:

Adjustment procedure:

1. Remove the top cover unit.
2. Adjust each thread tension with the adjusting plate A.
 - * If the thread tension is at stronger level, shift the adjusting plate in the direction B.
 - * If the thread tension is at weaker level, shift the adjusting plate in the direction C.
3. Rotate the thread tension dial while sewing to check the sewing performance.
4. Replace the top cover.

