

Service Manual

**CoverPro
1000CP and 900CP**

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Replacing the External Parts

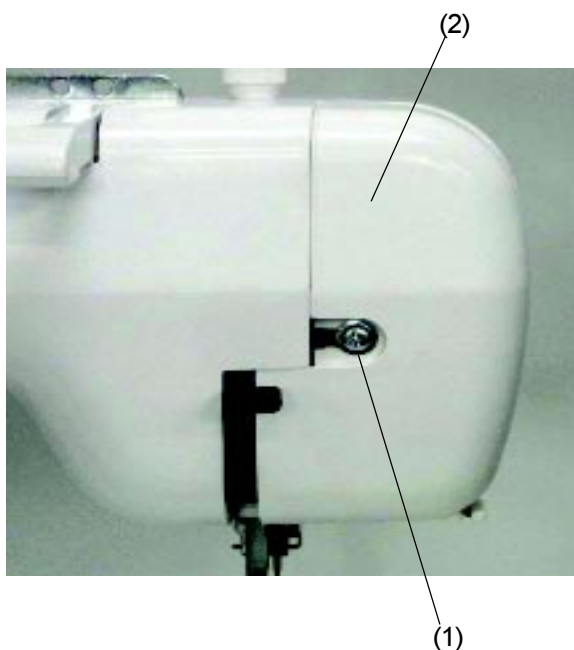
1. Face Plate

To remove:

[1] Loosen the setscrew (1) and remove the face plate (2).

To attach:

[2] Attach the face plate and secure it with the setscrew.



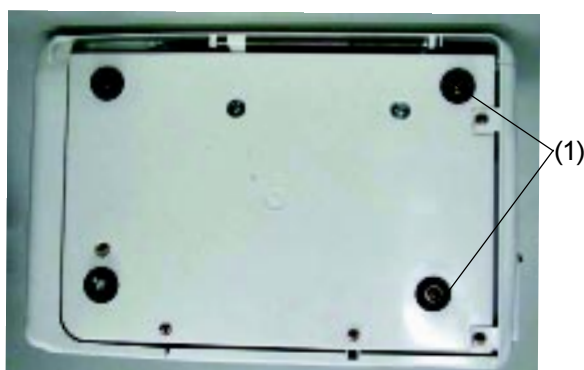
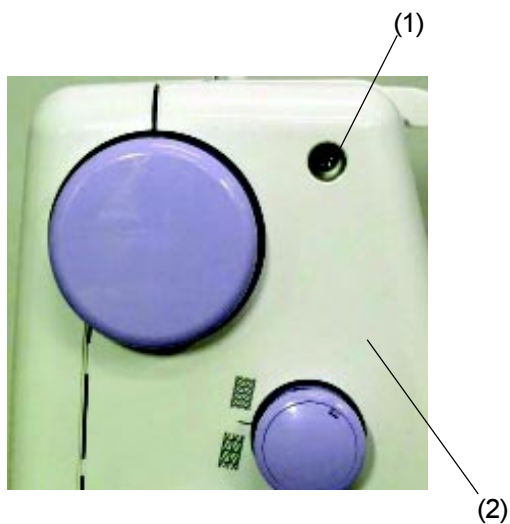
2. Belt Cover

To remove:

[1] Remove the setscrews (1) and remove the belt cover (2).

To attach:

[2] Attach the belt cover and secure it with the setscrews.



3. Looper Cover

To remove:

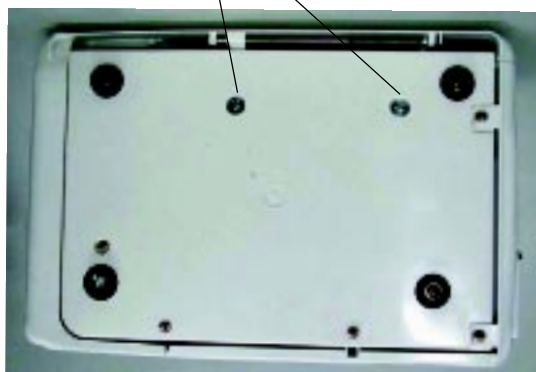
[1] Remove the setscrews (1) and remove the looper cover (2) with a hinge attached.

To attach:

[2] Attach the looper cover and secure it with the setscrews.



(2)



(1)

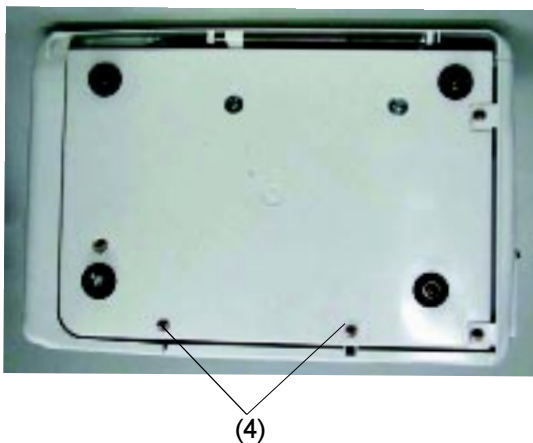
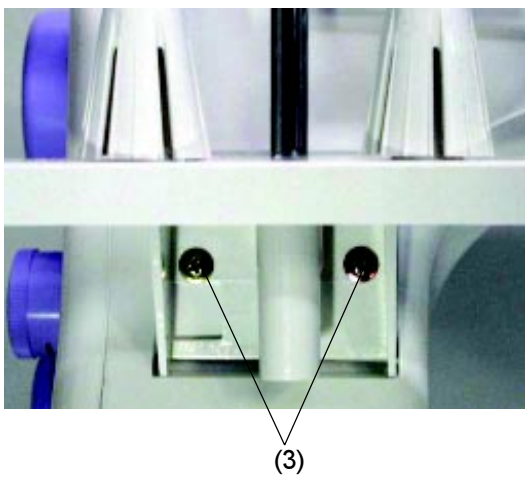
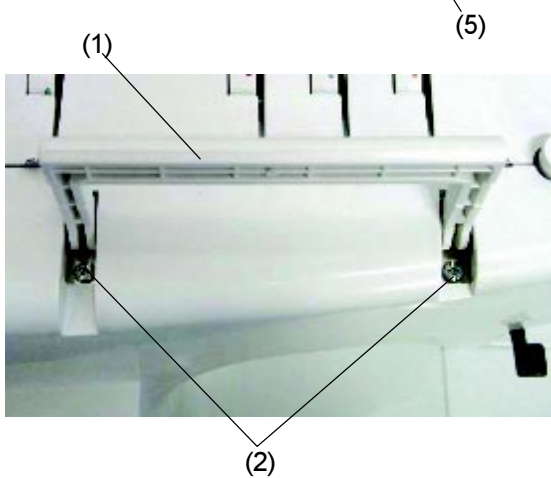
4. Rear Cover

To remove:

[1] Raise the handle (1) and remove the setscrews (2), (3) and (4). Remove the face plate (refer to page 1) and the rear cover (5) in order.

To attach:

[2] Attach the rear cover and secure it with the setscrews.



5. Front Cover

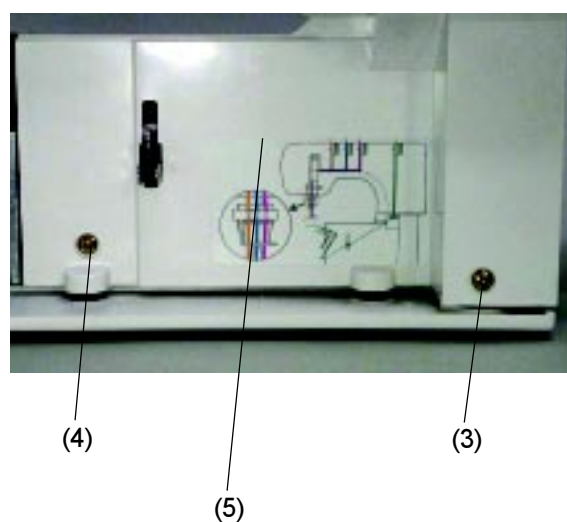
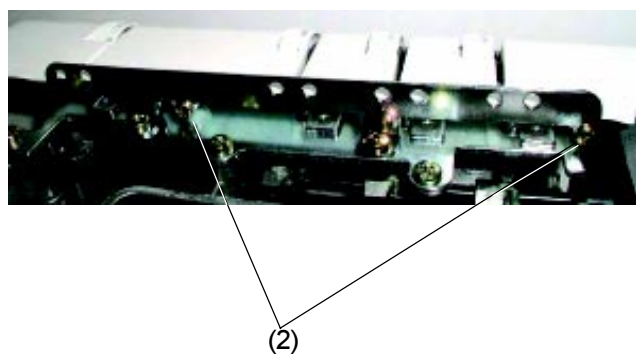
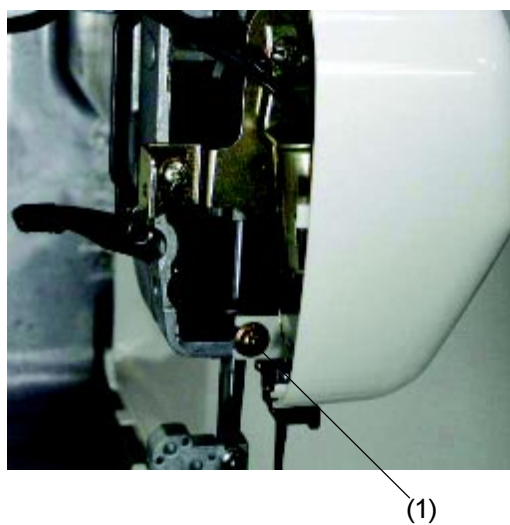
To remove:

[1] Remove the face plate, belt cover, looper cover and rear cover.

[2] Remove the setscrews (1), (2), (3) and (4). Remove the front cover (5).

To attach:

[3] Attach the front cover and secure it with the setscrews.



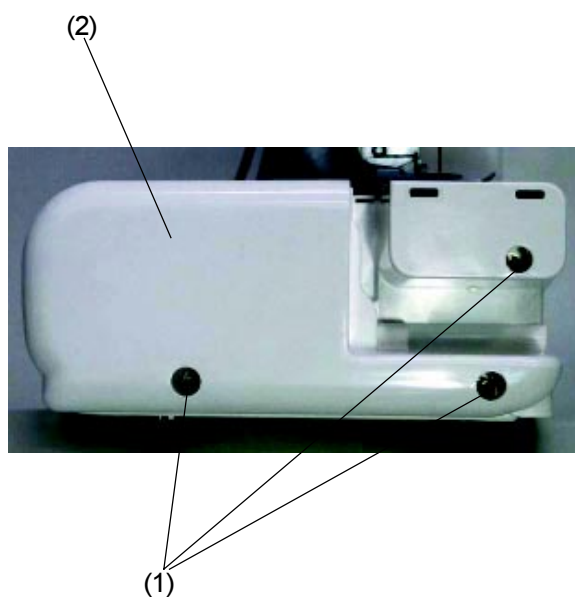
6. Free Arm Cover

To remove:

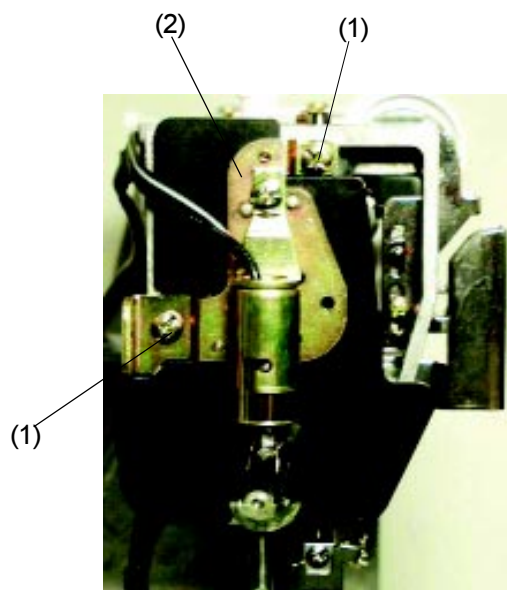
[1] Remove the setscrews (1) and remove the free arm cover (2).

To attach:

[2] Attach the free arm cover and secure it with the setscrews.



Mechanical Adjustment



1. Presser Bar Height

The distance between the bottom of the presser foot in up position and the needle plate should be 4.7 - 5.3 mm.

[1] Remove the face plate and front cover.

[2] Remove the setscrews (1), and lamp set plate (2).

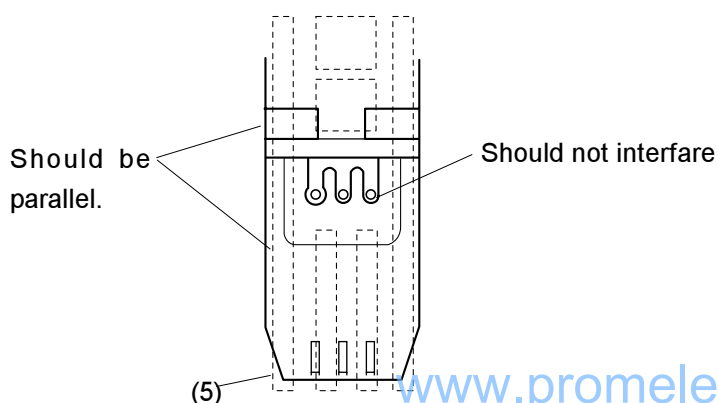
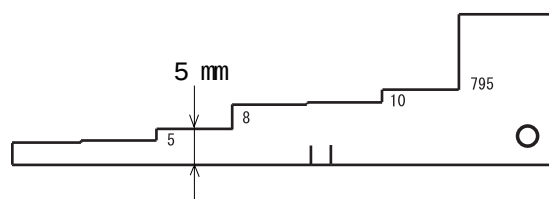
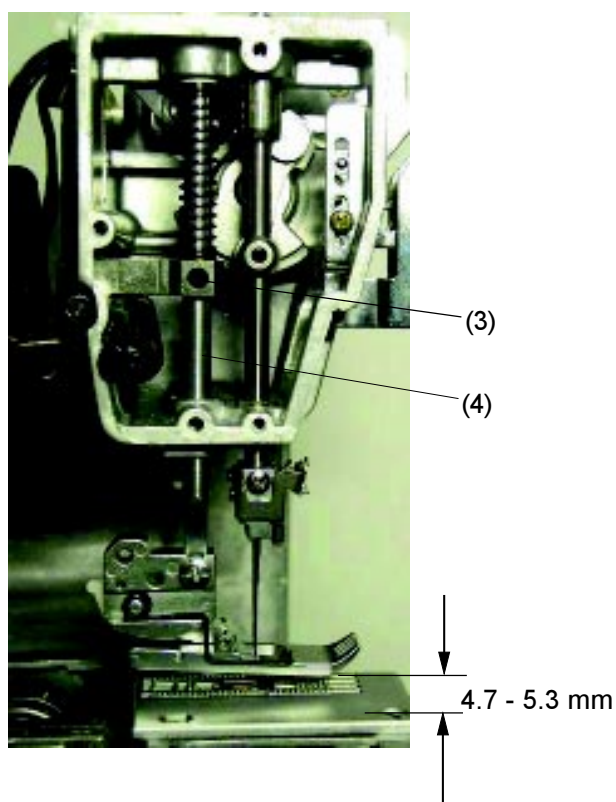
[3] Raise the presser foot and loosen the setscrew (3).
Move the presser bar (4) up or down to set the presser foot height to 5 mm (Use the third step from the left of the Gauge 795G-003).

[4] Tighten the setscrew (3) firmly.

NOTE:

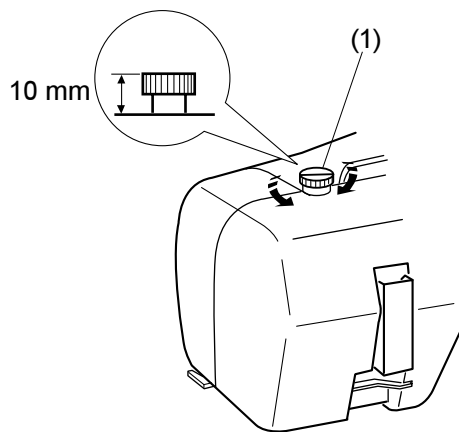
Make sure that the presser foot should be parallel to the feed dog slots (5) in the needle plate and should not interfere with the needles.

[5] Attach the lamp set plate, front cover and face plate.

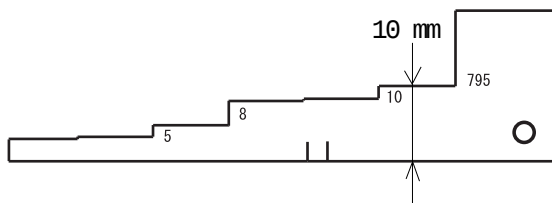


2. Foot Pressure

The pressure adjusting screw should protrude 10 mm from the top of the machine.

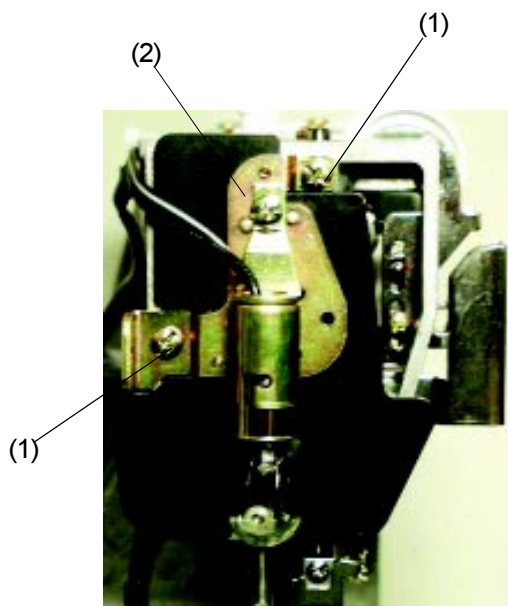


[1] Turn the adjusting screw (1) to set its height at 10 mm.
(Use the sixth step from the left of the Gauge 795G-003).



3. Needle Bar Height

The distance between the point of the left needle (Schmetz ELx705, size 80/12) and the upper surface of the needle plate should be 7.8 - 8.2 mm (1000CP) or 8.4 - 8.8 mm (900CP) when the needle bar is at the highest position.



[1] Remove the face plate and front cover.

[2] Remove the setscrews (1) and lamp set plate (2).

[3] Replace the left needle with Schmetz ELx705, size 80/12 needle (3).

[4] Turn the handwheel toward you to raise the needle bar to the highest position.

[5] Loosen the setscrew (4) and move the needle bar (5) up or down to adjust the distance at 8.0 mm (1000CP) or 8.6 mm (900CP).

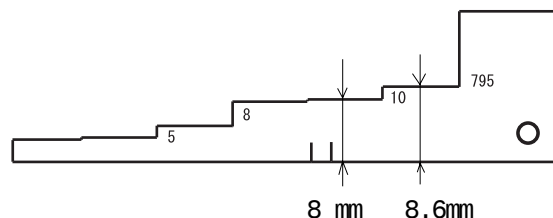
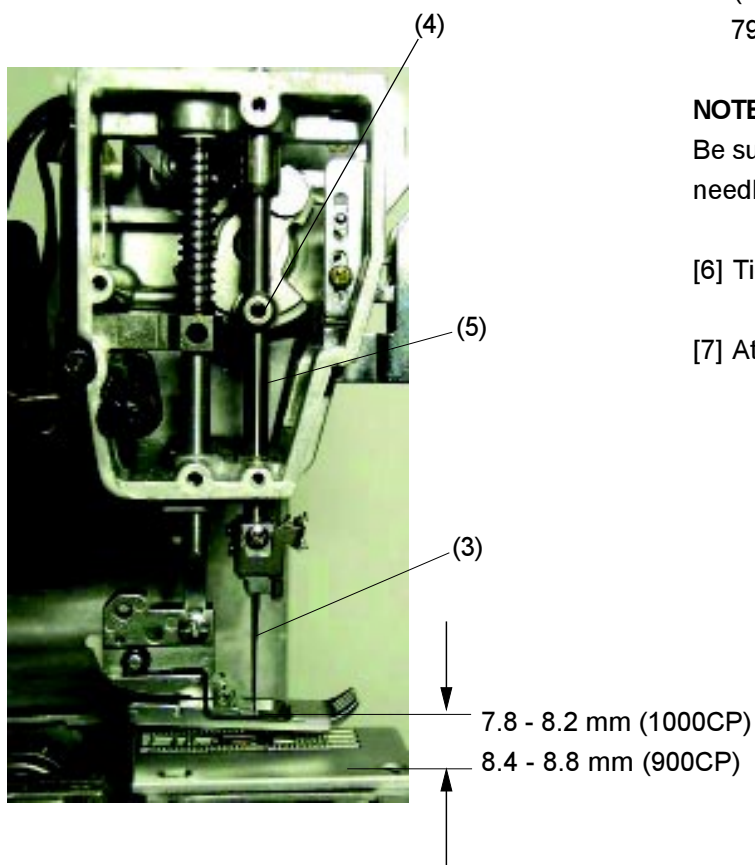
(Use the 5th and 6th steps from the left of the Gauge 795G-003 for 8.0mm and 8.6mm respectively).

NOTE:

Be sure not to rotate the needle bar when adjusting the needle bar height.

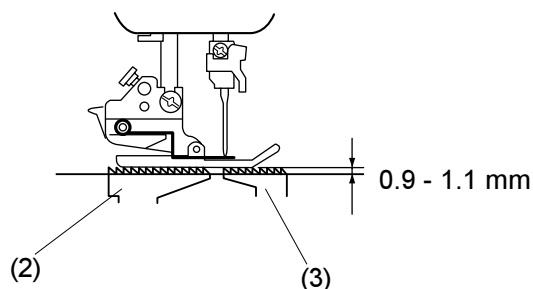
[6] Tighten the setscrew (4) and attach the lamp set plate.

[7] Attach the face plate and front cover.



4. Feed Dog Height

When the presser foot is lowered, the maximum height of the feed dog should be 0.9 - 1.1 mm above the needle plate.



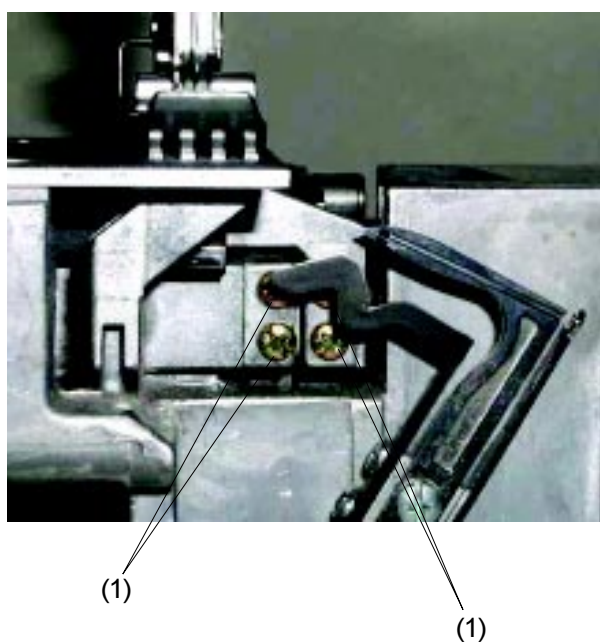
[1] Set the stitch length dial at **3** and differential feed dial at **1.0**.

[2] Lower the presser foot and turn the handwheel toward you to raise the feed dog to the highest position.

[3] Open the looper cover and pull the knob to disengage the chain looper. Loosen the setscrews (1).

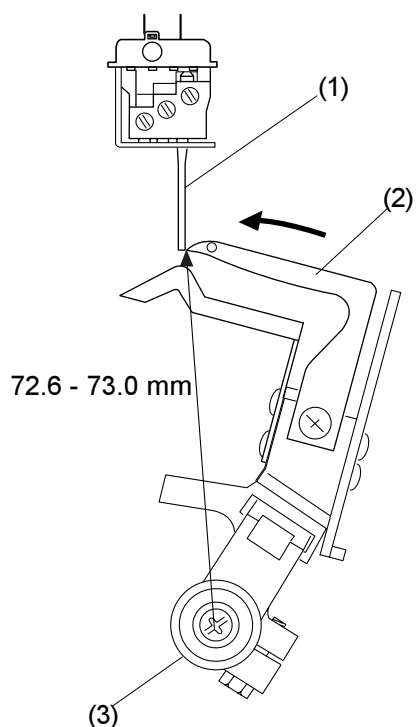
[4] Move the main (2) and sub (3) feed dogs up or down to set the height at 1.0 mm.

[5] Tighten the setscrews (1) firmly.



5. Looper Height

The height of the looper point should be 72.6 - 73.0 mm.



[1] Remove the free arm cover and needle plate.

[2] Replace the right needle with the Test Pin 795G-001 (shorter one = 28.86 mm) (1).

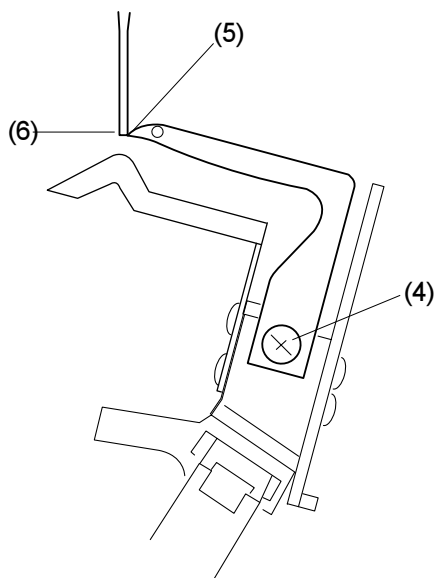
[3] Turn the handwheel toward you to bring the looper (2) to the right most position.

[4] Pull the looper release knob (3) and swing the looper (2) to the left until its point matches with the right side of the test pin (1).

[5] Loosen the setscrew (4) and move the looper up or down to match its point (5) with the tip (6) of the Test Pin 795G-001.

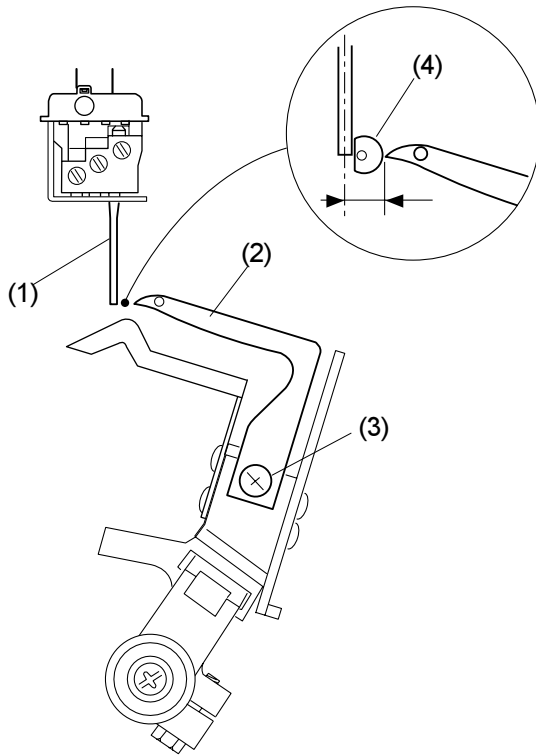
[6] Tighten the setscrew (4) firmly.

[7] Replace the test pin with a regular needle. Attach the needle plate and free arm cover.



6. Looper Position

The distance between the looper point and center of the right needle should be 1.8 - 2.2 mm when the looper is at the right most position.



[1] Remove the free arm cover and needle plate.

[2] Replace the right needle with the Test Pin 795G-001 (shorter one = 28.8 mm) (1).

[3] Turn the handwheel toward you to bring the looper (2) to the right most position.

[4] Loosen the setscrew (3) and move the looper to the left or right to adjust the position.

NOTES:

Do not move the looper up or down otherwise the looper height will change.

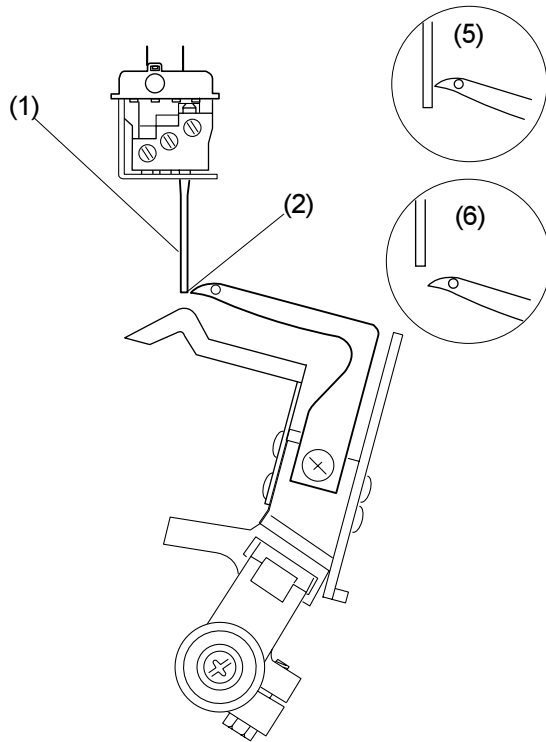
Use a stem (4) of the regular needle to check if there is a proper gap between the looper point and Test Pin 795G-001.

[5] Tighten the setscrew (5) firmly.

[6] Replace the test pin with a regular needle. Attach the needle plate and free arm cover.

6. Needle to Looper Timing

When the point of the looper meets with the right side of the needle on the right, the needle bar rises 1.3 -1.5 mm from the lowest position.



[1] Remove the free arm cover and needle plate.

[2] Replace the right needle with the Test Pin 795G-002 (longer one = 30.24 mm) (1).

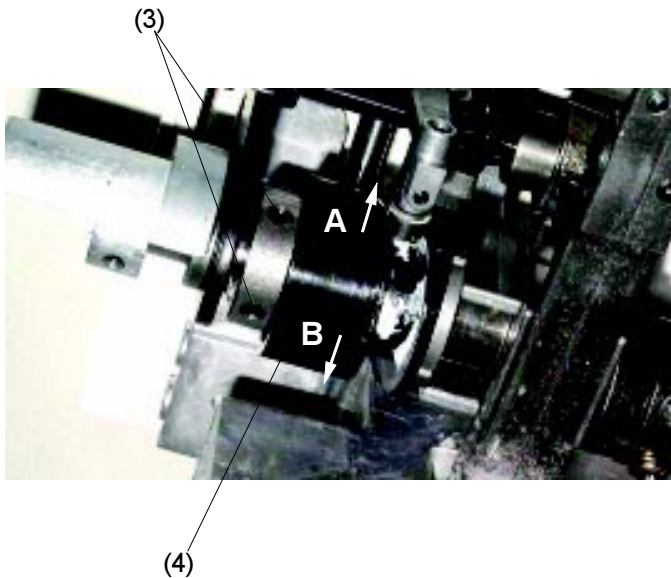
[3] Turn the handwheel toward you until the looper point (2) meets with the right side of the test Pin 795G-002.

[4] Loosen the setscrews (3) and turn the looper rocking cam (4) to match the looper point with the tip of the test pin.

- If the timing is too early (5), turn the cam in the direction **A**.
- If the timing is too late (6), turn the cam in the direction **B**.

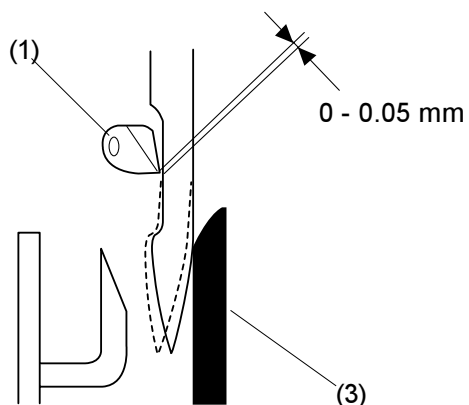
[5] Tighten the setscrews (3) firmly.

[6] Replace the test pin with a regular needle. Attach the needle plate and free arm cover.



7. Clearance between the Needle and Looper

The clearance between the looper point and scarf of the needle (Schmetz ELx705, size 80/12) should be 0 - 0.05 mm.



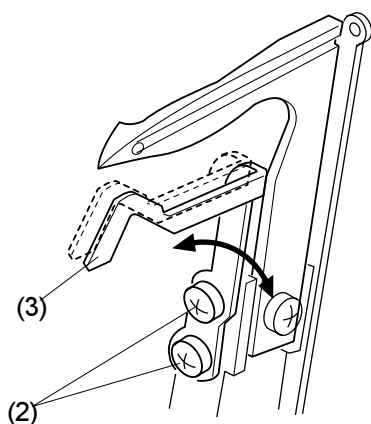
[1] Remove the free arm cover and needle plate.

[2] Turn the hand wheel toward you until the looper point (1) comes behind the needle.

[3] Loosen the setscrews (2) and thrust the front needle guard (3) against the needle to make 0 - 0.05 mm clearance between the needle and looper point.

[4] Tighten the setscrews (2) and check the clearance.

[5] Attach the needle plate and free arm cover.



8. Back Needle Guard Height

The upper edge of the back needle guard should be 2.6 - 3.0 mm below the lower edge of the looper point when the looper point meets with the right side of the needle.

[1] Remove the free arm cover and needle plate.

[2] Turn the hand wheel toward you until the looper point (1) matches with the right side of the needle.

[3] Loosen the setscrews (2) and move the back needle guard (3) up or down to set the upper edge (4) 2.8 mm below the lower edge (5) of the looper point.
(Use the first step from the left of the Gauge 795G-003 for 2.8 mm).

[4] Turn the hand wheel toward you slightly to bring the looper point behind the needle.

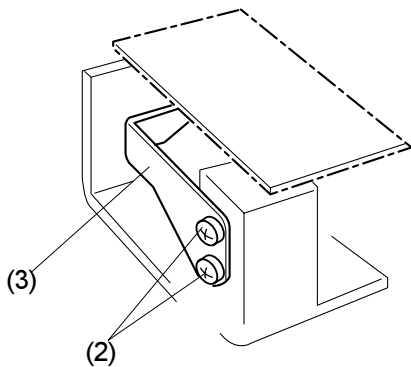
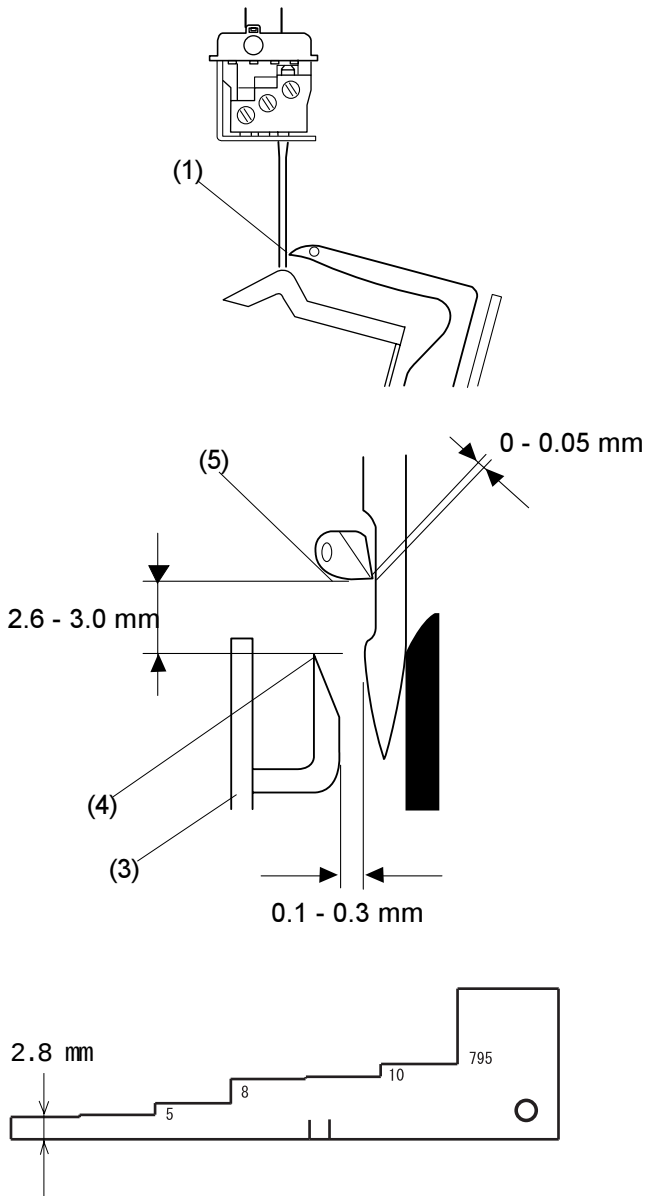
Check the clearance between the back needle guard and the needle (Schmetz ELx705, size 80/12). It should be 0.1 - 0.3 mm.

NOTE:

If the clearance is out of standard range, adjust it by repositioning the front needle guard. However, the clearance between the looper point and needle should be 0 - 0.05 mm.

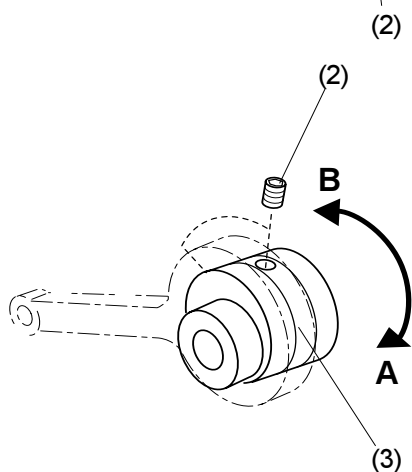
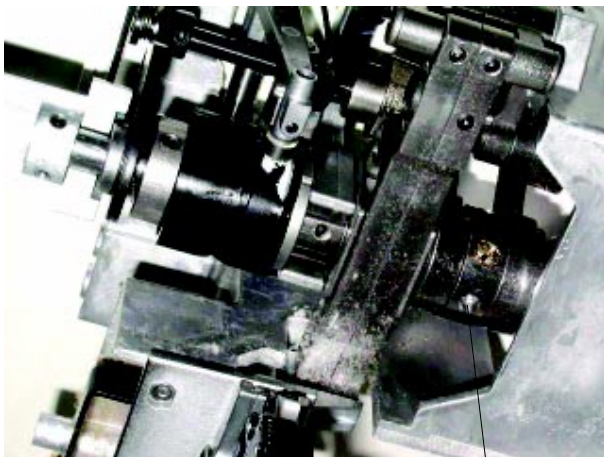
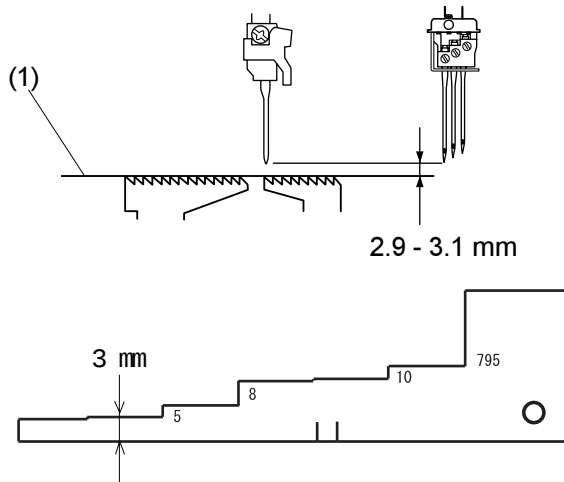
[5] Tighten the setscrews (2).

[6] Attach the needle plate and free arm cover.



9. Needle to Feed Dogs Timing

The point of the left needle should be 2.9 - 3.1 mm above the upper surface of the needle plate when the top of the feed dogs are level with the upper surface of the needle plate in downward motion.



[1] Remove the free arm cover and rear cover.

[2] Set the stitch length dial at **3** and differential feed dial at **1.0**.

[3] Turn the hand wheel toward you to lower the needle bar until the point of the left needle is 3.0 mm above the upper surface of the needle plate (1).
(Use the second step from the left of the Gauge 795G-003 for 3.0 mm).

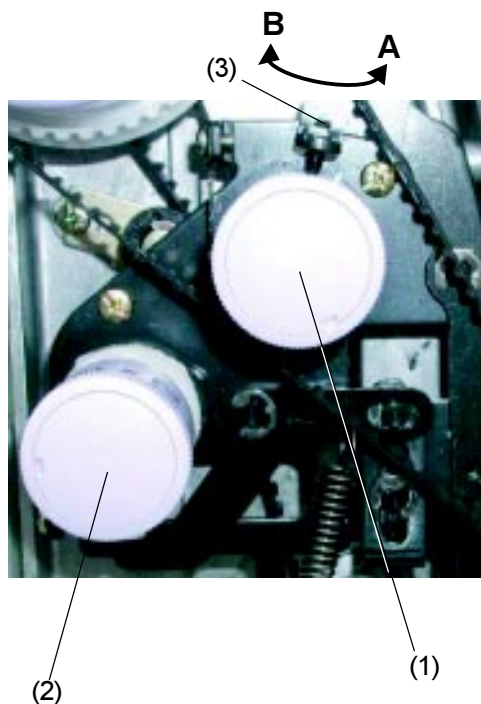
[4] Loosen the setscrews (2) and turn the feed cam (3) to adjust the height of the feed dogs.

- If the top of the feed dogs are higher than upper surface of the needle plate, turn the feed cam in the direction **A**.
- If the top of the feed dogs are lower than upper surface of the needle plate, turn the feed cam in the direction **B**.

[5] Tighten the setscrews (2). Attach the rear cover and free arm cover.

10. Stitch Length

The stitch length should be 3.0 - 3.2 mm when the stitch length dial is set at 3 and differential feed dial at 1.0.



[1] Remove the belt cover.

[2] Set the stitch length dial (1) at **3** and differential feed dial (2) at **1.0**.

[3] Place a piece of paper under the presser foot. Lower the foot and turn the hand wheel toward you about 15 times.

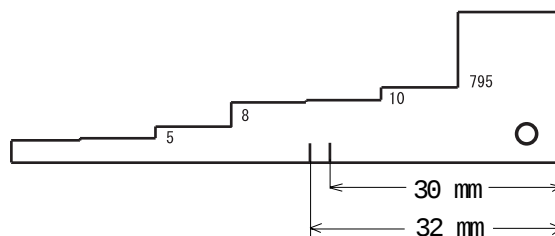
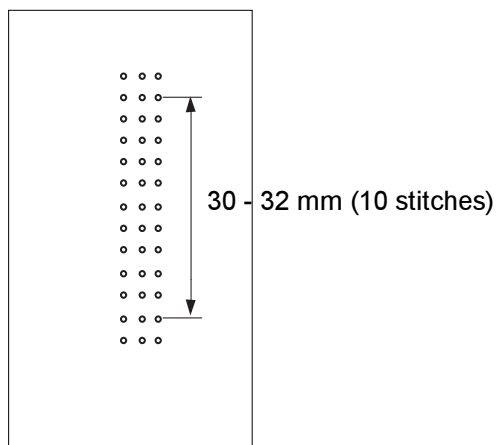
Measure the distance of needle marks of 10 stitches. The distance should be 30 - 32 mm.

(Use the markings on the Gauge 795G-003 for 30 mm and 32 mm).

[4] Turn the adjusting screw (3) to adjust the stitch length.

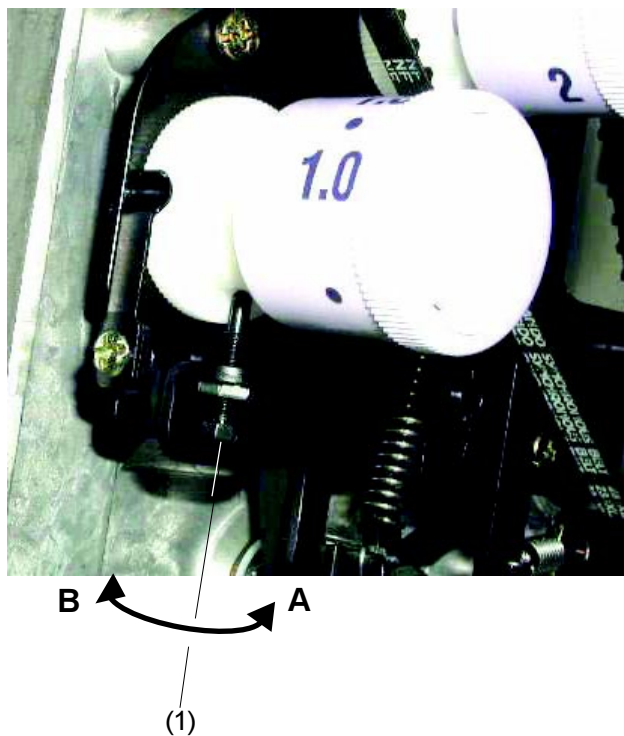
- If the stitch length is longer than 3.2 mm, turn the adjusting screw in the direction **A**.
- If the stitch length is shorter than 3.0 mm, turn the adjusting screw in the direction **B**.

[5] Attach the belt cover.



11. Differential Feed Ratio

The main and sub feed dogs should move uniformly together when the stitch length dial is set at 3 and differential feed dial at 1.0.



[1] Remove the belt cover.

[2] Set the stitch length dial at **3** and differential feed dial at **1.0**.

[3] Turn the adjusting screw (1) to adjust the differential feed ratio.

- If the sub-feed dog moves less than the main feed dog does, turn the adjusting screw in the direction **A**.
- If the sub-feed dog moves more than the main feed dog does, turn the adjusting screw in the direction **B**.

NOTE:

When the differential feed ratio is properly adjusted the feed link (2) sits horizontally.

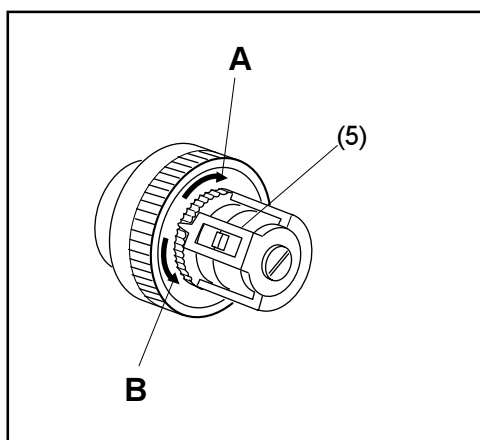
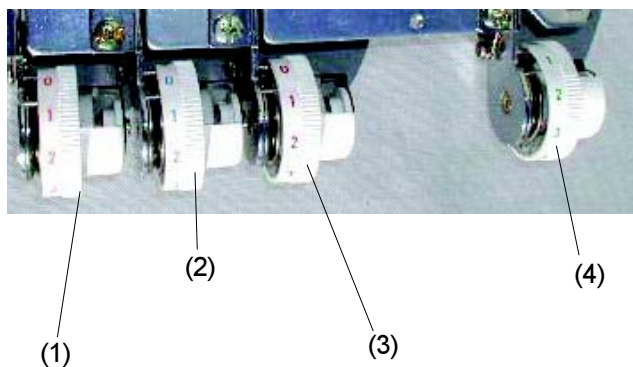
[4] Attach the belt cover.



12. Thread Tension

The standard thread tension measured with the King brand white polyester thread (#50) should be as follows:

- (1) Left needle thread: 55 - 65 grams (Dial set at 4)
- (2) Center needle thread: 45 - 55 grams (Dial set at 4)*
* 1000CP only
- (3) Right needle thread: 35 - 45 grams (Dial set at 4)
- (4) Looper thread: 10 - 16 grams (Dial set at 3)

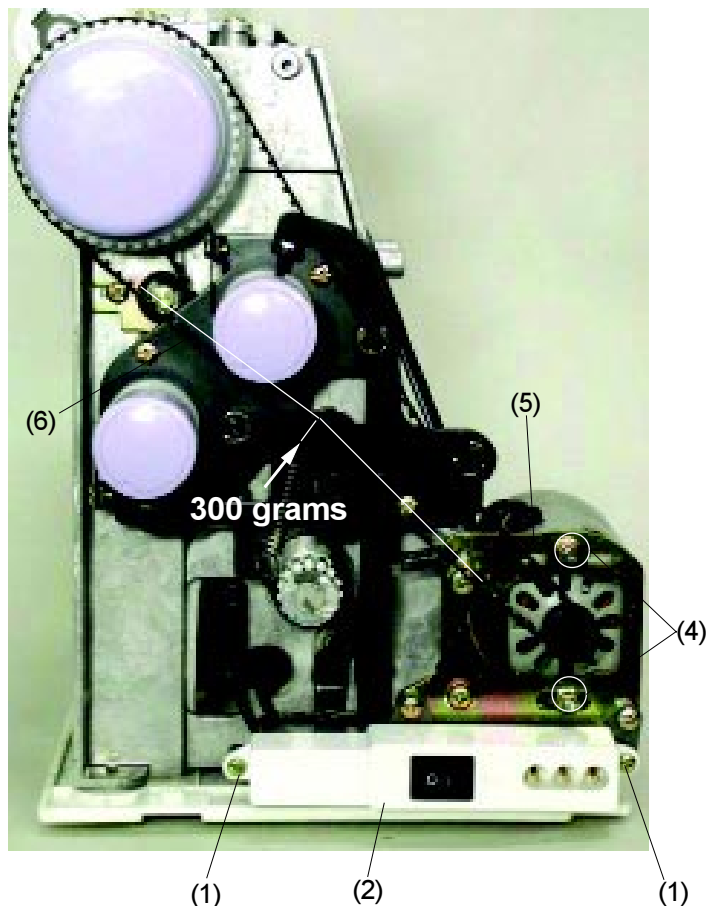


[1] Remove the front cover.

[2] Turn the adjusting plate (5) to adjust the tension.

- If the tension is too loose, turn the adjusting plate in the direction **A**.
- If the tension is too tight, turn the adjusting plate in the direction **B**.

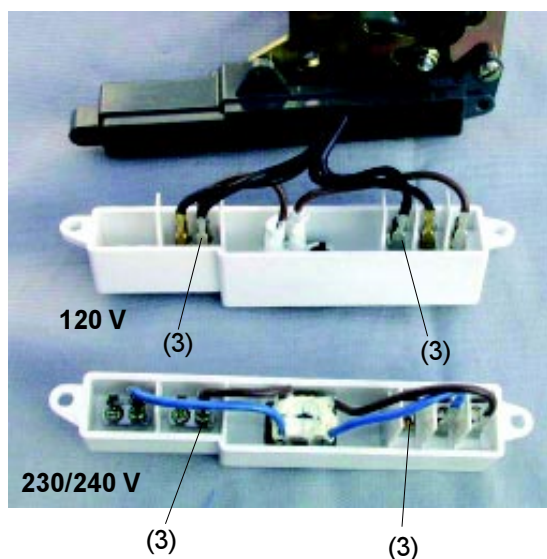
[3] Attach the belt cover.



13. Motor

To replace:

- [1] Remove the belt cover and rear cover.
- [2] Remove the setscrews (2) and machine socket (2).
- [3] Disconnect the motor cords (3) from the machine socket (2).
- [4] Remove the nuts (4) (120 V) or setscrews (4) (230/240 V) and remove the motor.
- [5] Install the new motor to the bracket (5) with the nuts (4) or setscrews (4). Attach the motor belt.
- [6] Connect the motor cords (3) to the machine socket (2).
- [7] Attach the machine socket (2) with the setscrews (1).
- [8] Adjust the motor belt tension (see below).



To adjust the motor belt tension:

The motor belt (6) should deflect 7 - 9 mm when applying 300 grams of load to the middle of the belt.

- [1] Slightly loosen the nuts (4) or setscrews (4). Move the motor up or down to adjust the motor belt tension.
- [2] Tighten the nuts (4) or setscrews (4) firmly.
- [3] Attach the rear cover and belt cover.

