

Service Seminar



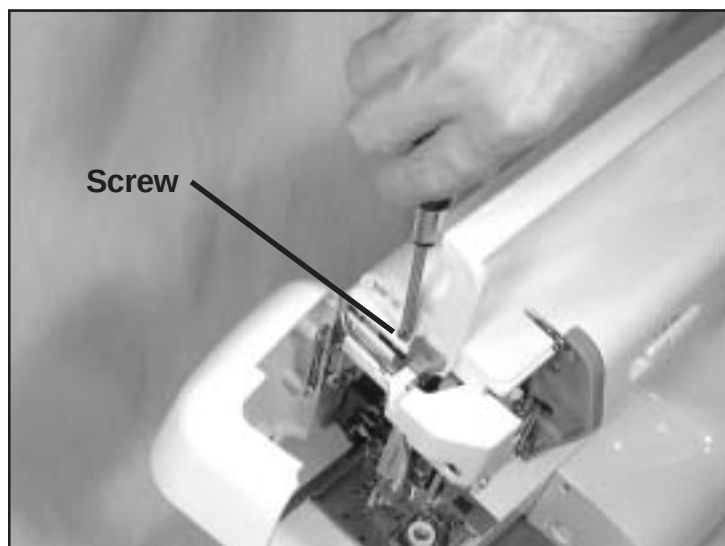
Memory Craft
10000

Upper Shaft Replacement

Prepared and Presented by Janome Staff
for Janome Institute 2003

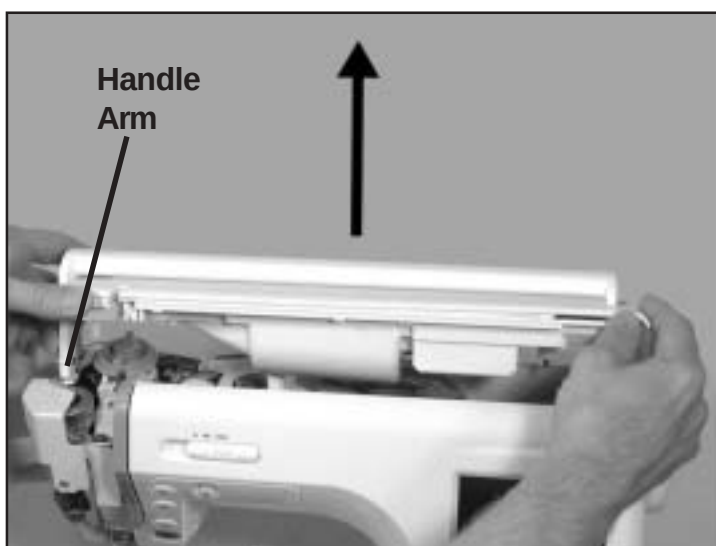
Top Cover Removal

1. Open the top cover lid and remove the 2 screws.



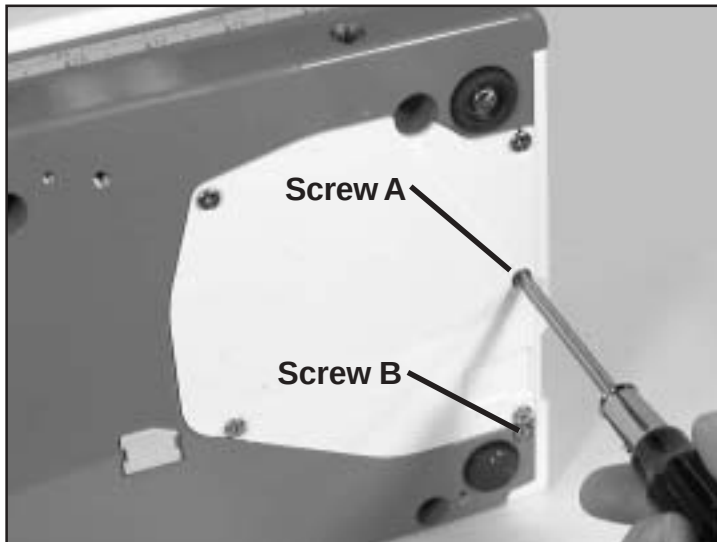
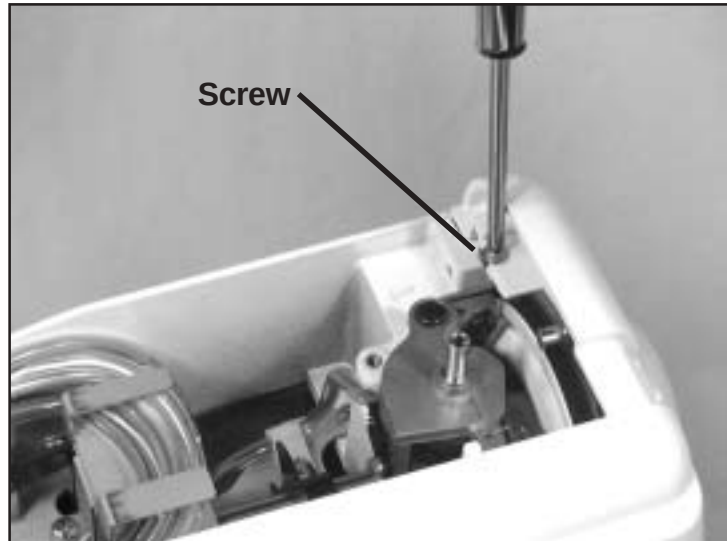
2. Close the top cover lid, raise the handle and remove the screw under the left arm of the handle.

3. Lift the entire cover and press inward on the base of the handle arms to remove both the cover and handle.



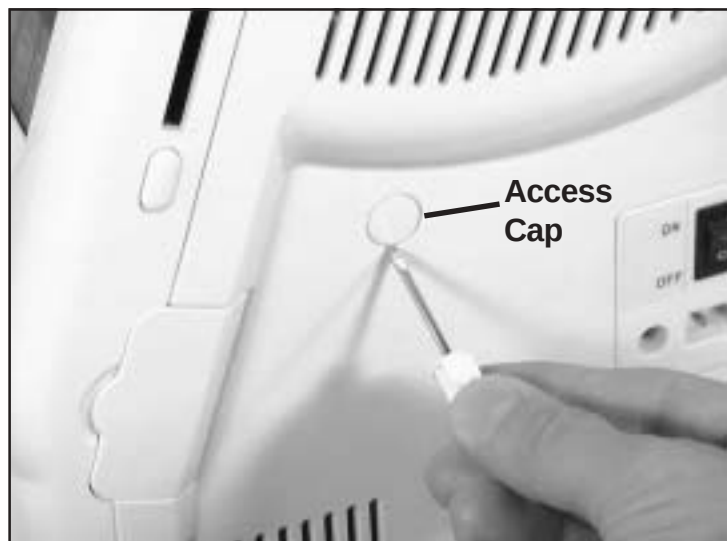
Belt Cover Removal

1. Loosen (don't remove) the screw at the top of the belt cover.



2. Place the machine on its back and remove screws A and B. Screw B is the smaller of the 2 screws located there.

3. Place the machine upright and remove the access cap from the belt cover beneath the handwheel, using a small screwdriver.

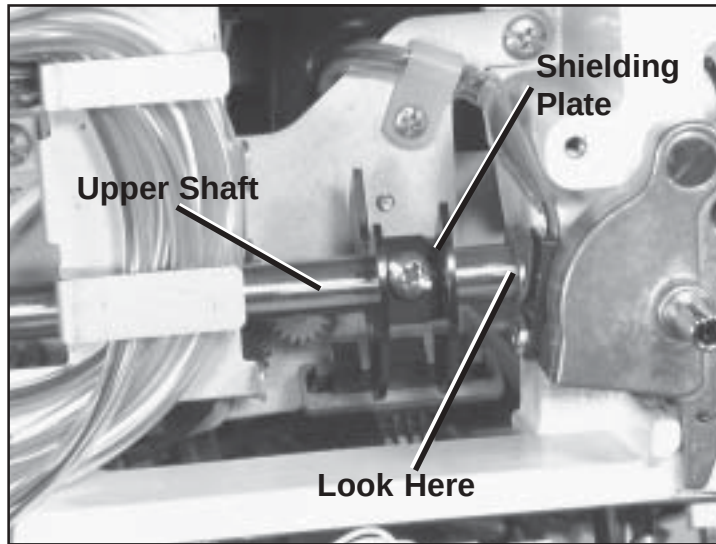


4. Remove screw C.

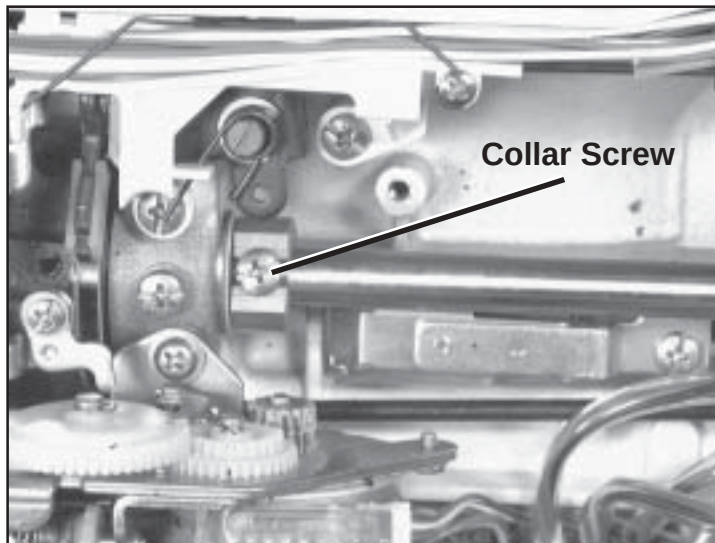


5. Pull out the back edge of the belt cover and remove it.

Inspection



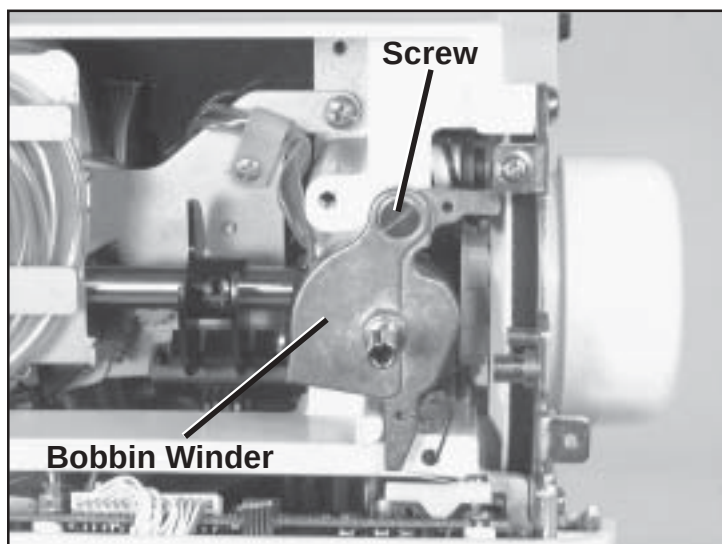
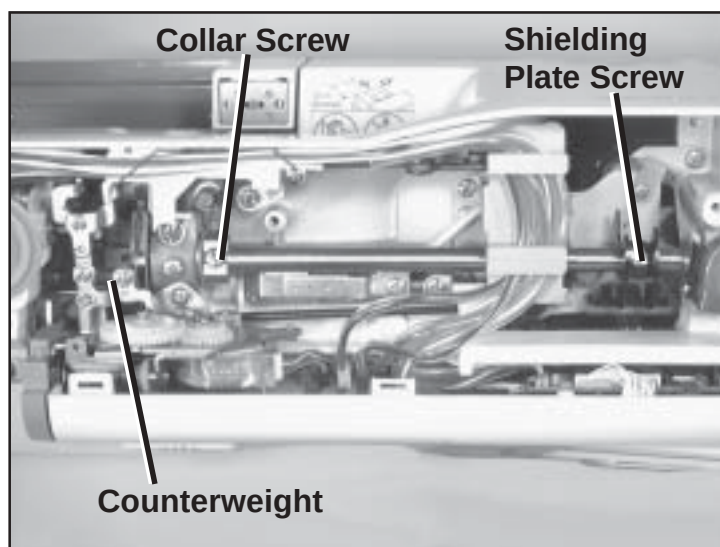
1. After checking other locations for binds, look at the upper shaft where it enters the right bushing, between the bushing and the upper shaft shielding plate. Observe if there is any dark material on the shaft. This would indicate that the shaft and bushing should be replaced.



2. Loosen the collar screw on the left end of the upper shaft. Try to move the shaft left to right. If the shaft does not move, this also indicates that the shaft and bushing should be replaced.

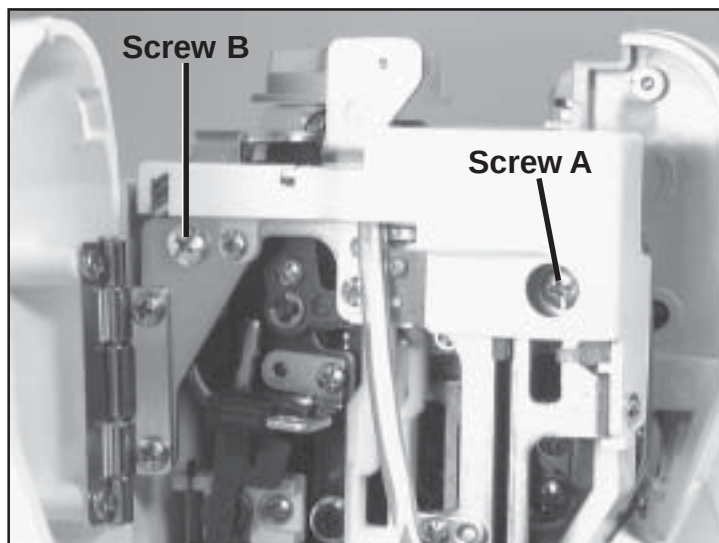
Shaft Replacement

1. To begin the shaft replacement procedure, position the upper shaft with the counterweight toward the front of the machine and the collar screw and the upper shaft shielding plate screw facing up. Notice that the single blade on the shielding plate is on the right and facing up. Remove the collar screw and the shielding plate screw and washer.

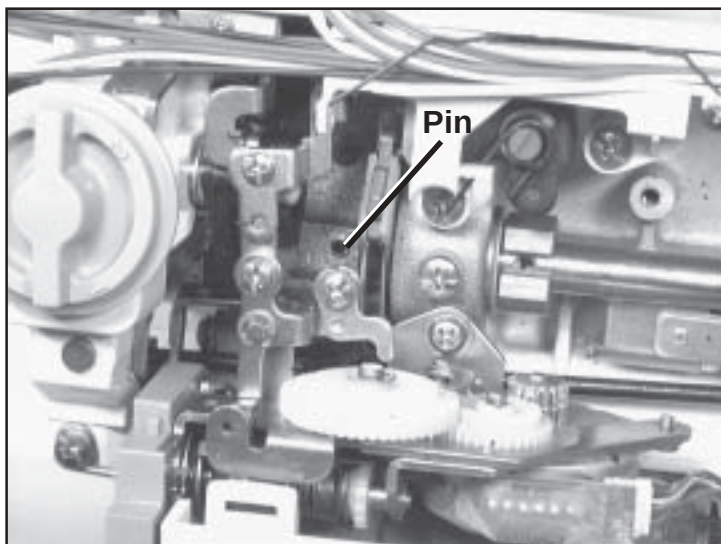
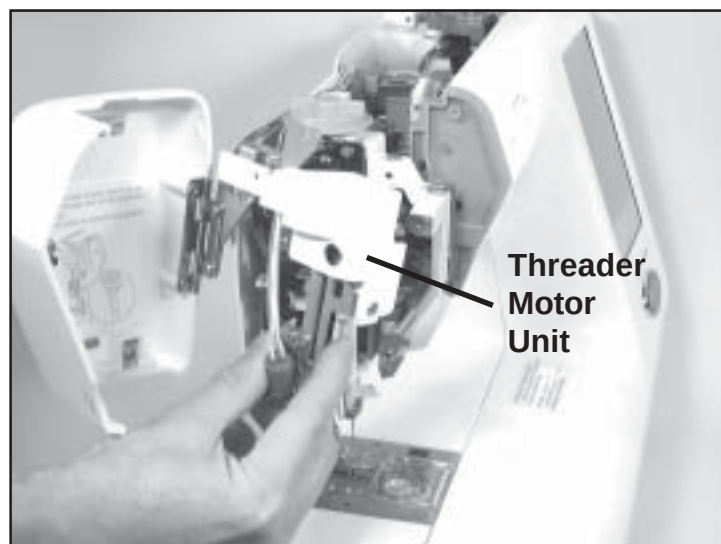


2. Remove the screw and the bobbin winder unit.

3. Remove screws A and B.

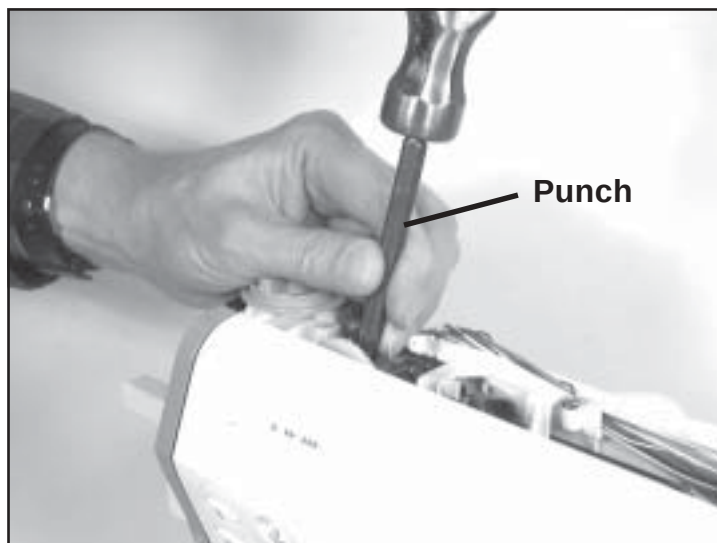


4. Remove the threader motor unit and place it behind the machine.

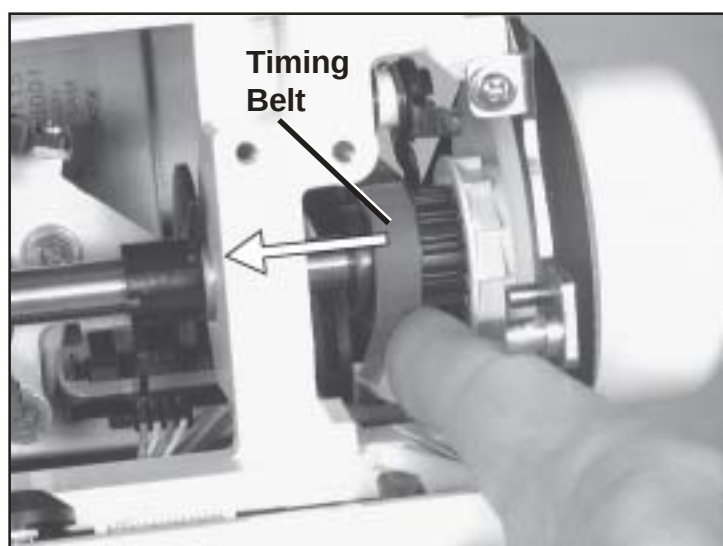
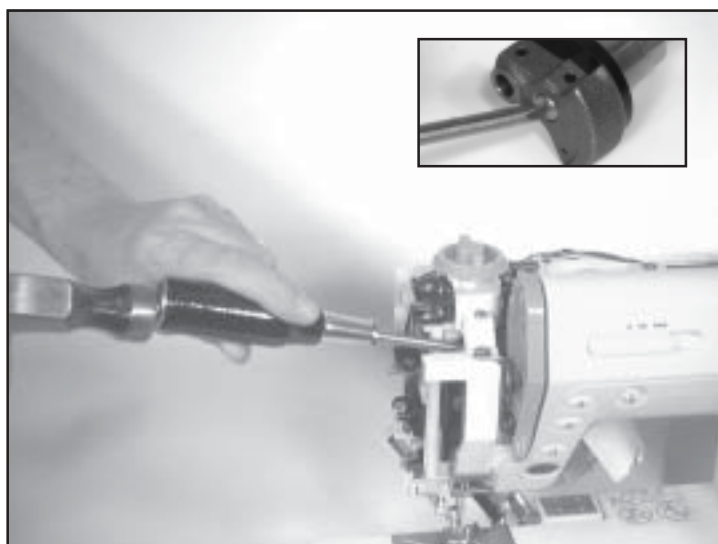


5. Locate the pin on the counterweight.

6. Use a hammer and a 3.0 mm (or 1/8 inch) punch to remove the pin from the counterweight.

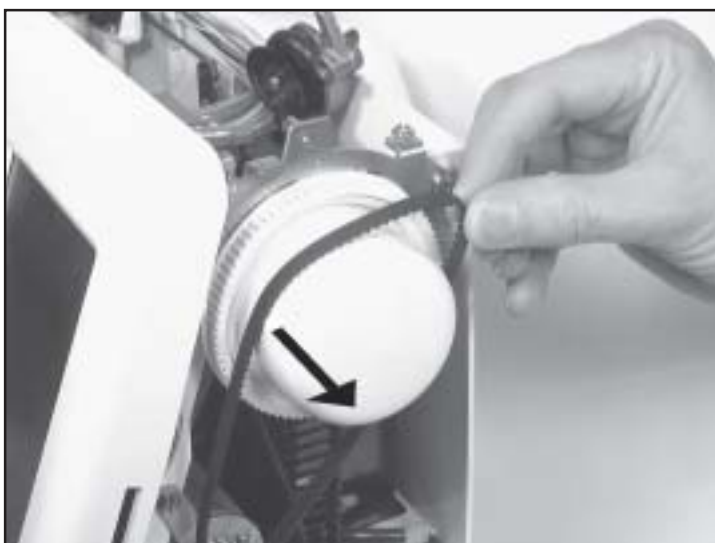


7. Position a Phillips screwdriver or a punch on the end of the upper shaft inside the counter-weight (see inset). Tap the shaft to the right about 1/2 inch.

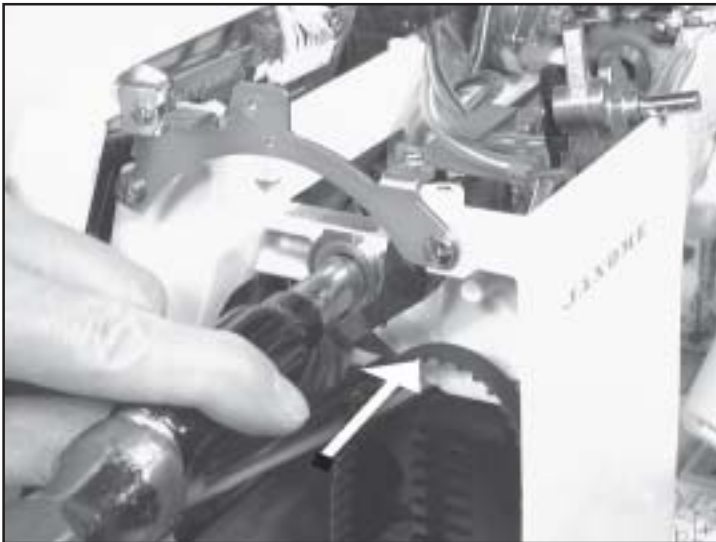


8. Slide the timing belt off the upper shaft timing pulley.

9. Slide the motor belt off the belt wheel.



- 10.** Remove the upper shaft. Set aside the collar, collar screw, washer and shielding plate with its washer and screw.

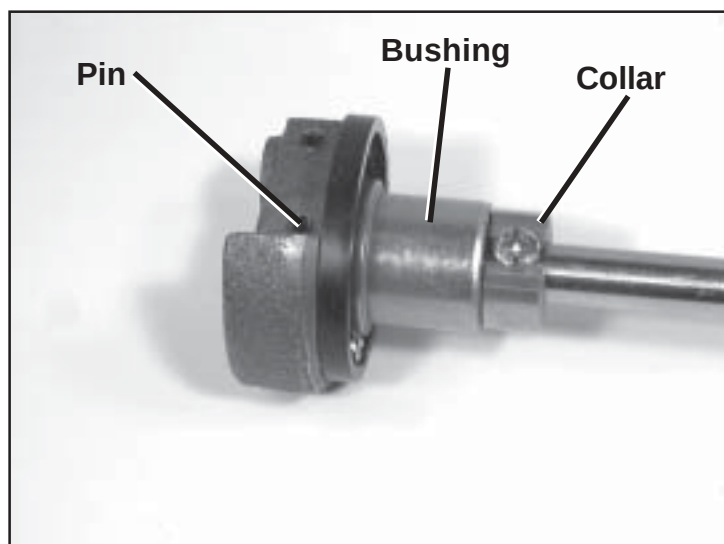
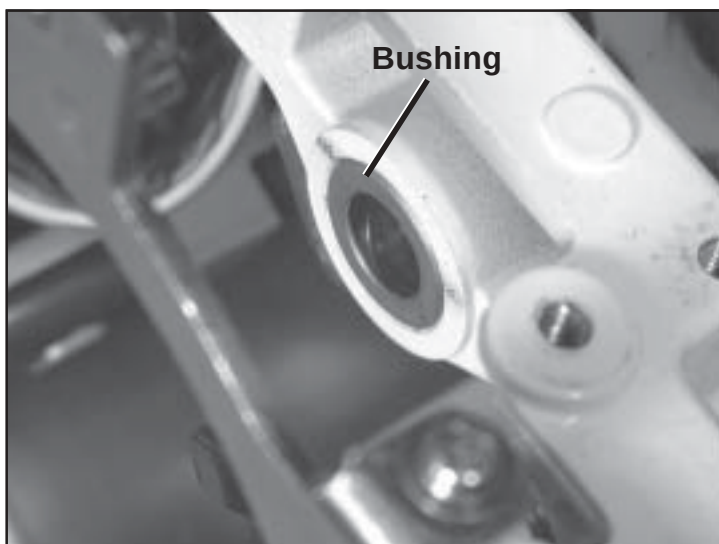


- 11.** Use a punch or small screwdriver to tap out the upper shaft right bushing toward the inside of the machine. Be sure that the casting is not damaged as this is done.

- 12.** Install the new bushing, being certain that the rounded end of the bushing goes straight into the casting hole...



- 13.** ...and that the bushing is flush with the outside of the casting.

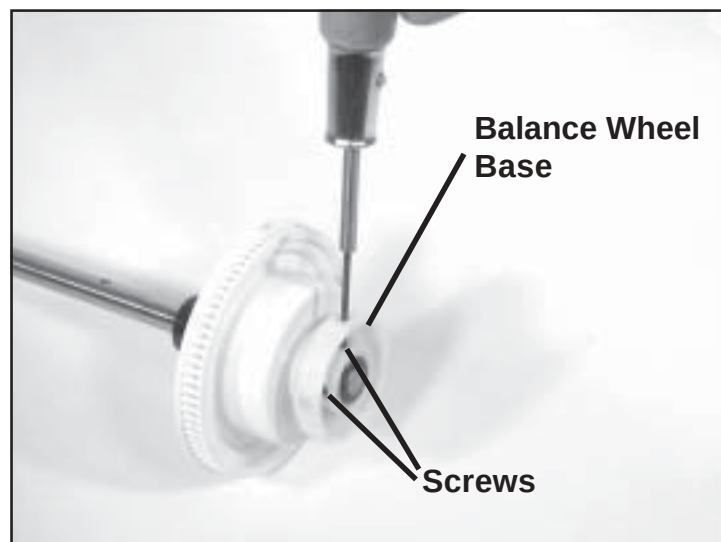


- 14.** Remove the collar, bushing and counterweight from the new shaft.

- 15.** Remove the handwheel by pulling it straight off.



- 16.** Loosen the 2 screws (2.0 mm) on the balance wheel base.

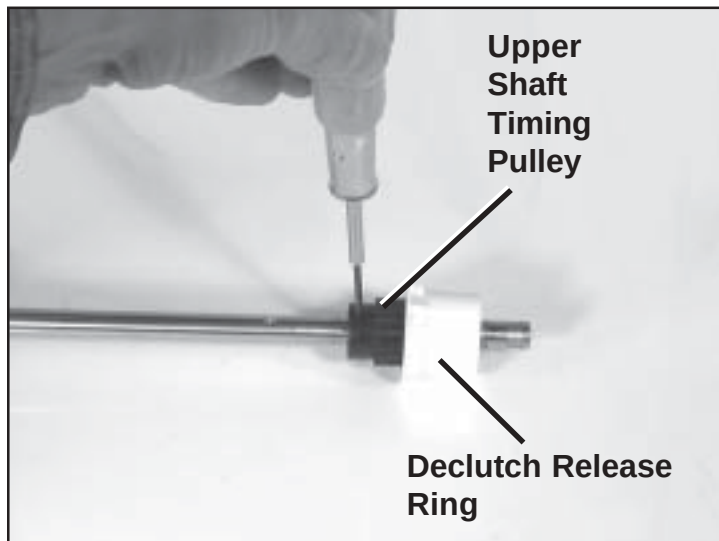
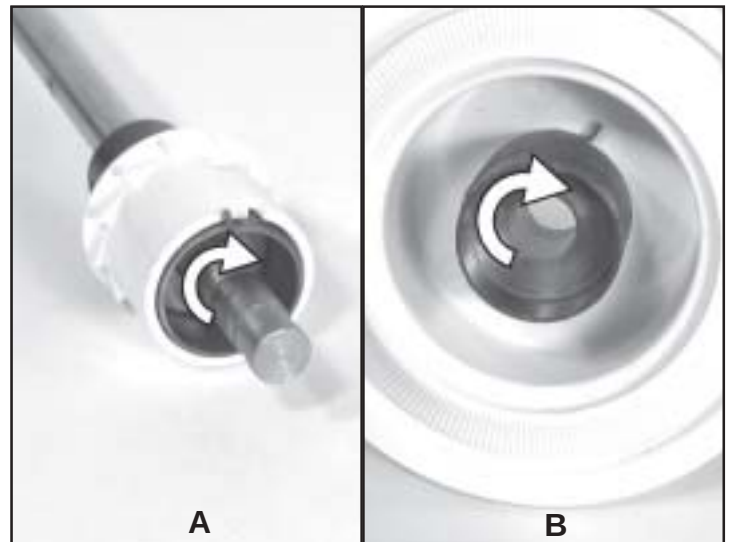


- 17.** Remove the balance wheel base and the metal and plastic washers.

- 18.** Remove the belt wheel by rotating it clockwise while pulling it out.

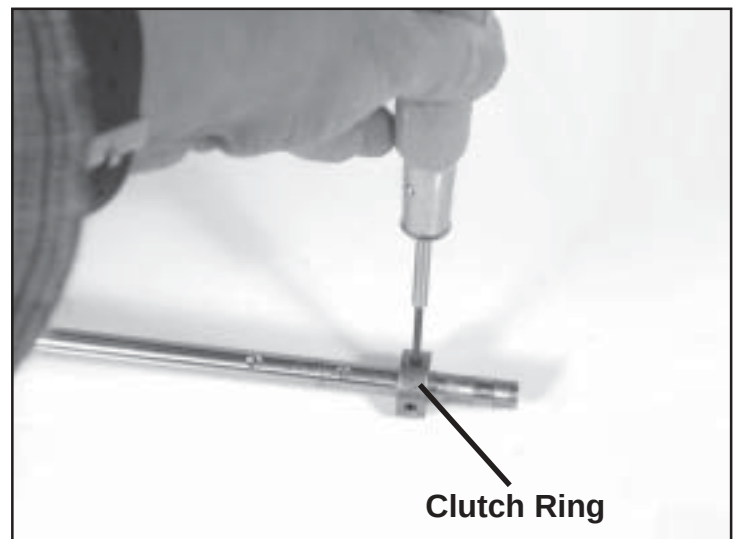


- 19.** Remove the clutch spring from either the end of the shaft (A) or the belt wheel (B) by rotating it clockwise while pulling it out.

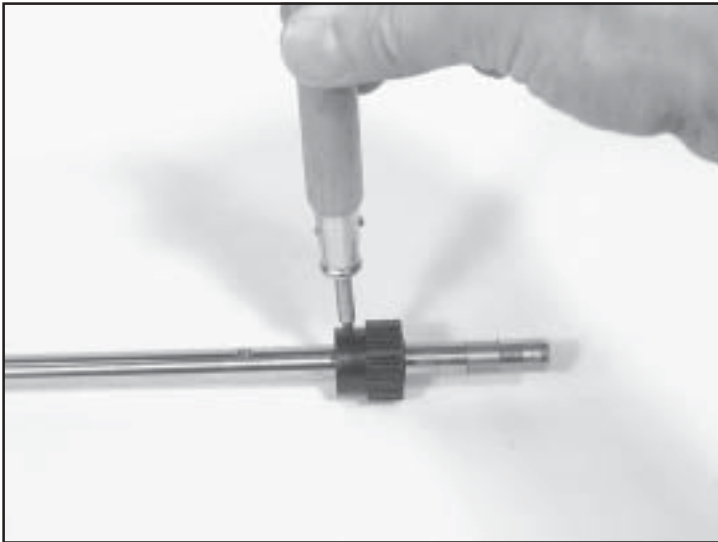
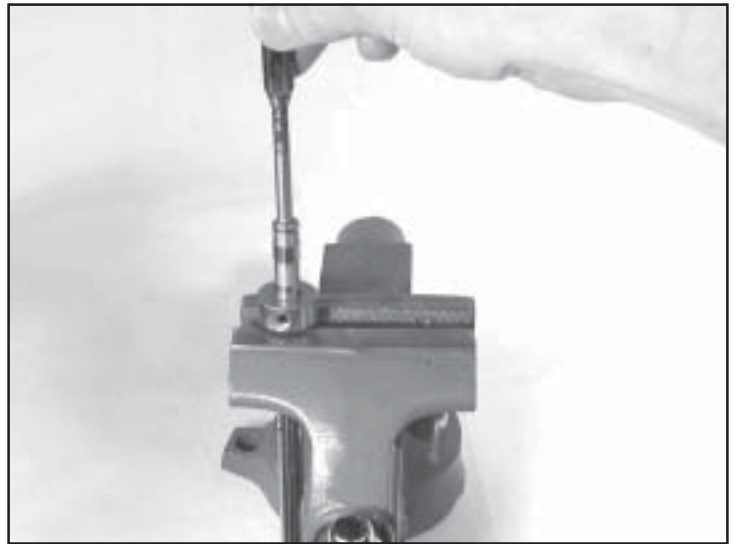


- 20.** Use a 2.5 mm hexagon screwdriver or punch to knock out the pin from the upper shaft timing pulley and remove the pulley, washer and declutch release ring from the shaft.

- 21.** Loosen the 2 screws (2.5 mm) on the clutch ring.

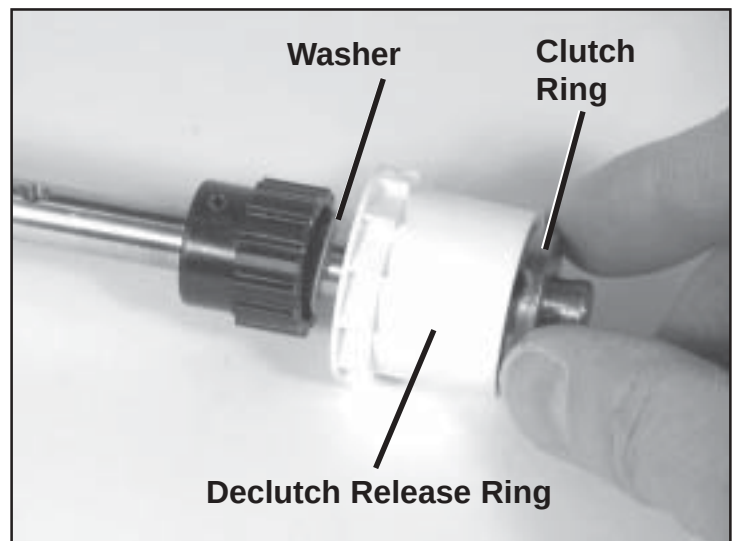


- 22.** Remove the shaft from the clutch ring.
You will need to use a punch or Phillips screwdriver.

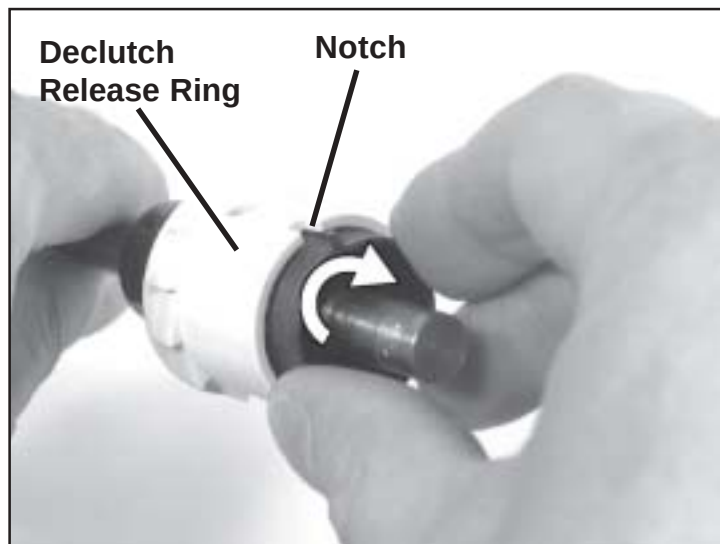
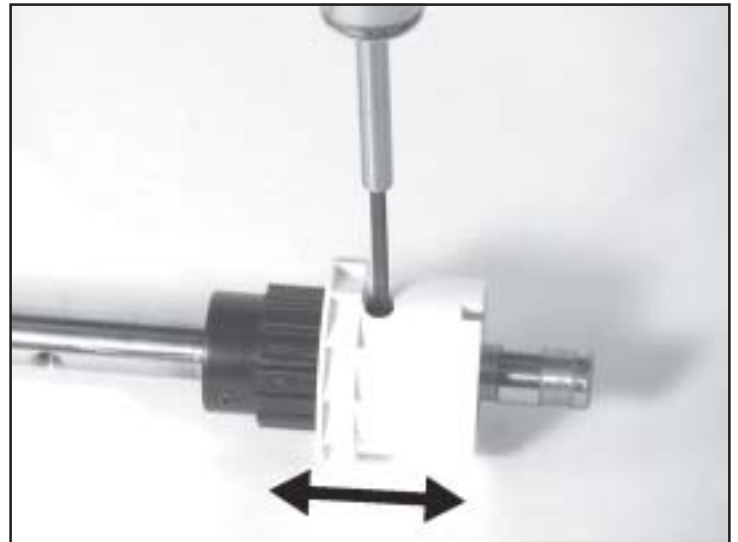


- 23.** Install the timing pulley on the new shaft with the pin using a punch or the 1.5 mm hexagon screwdriver.

- 24.** Place the washer, declutch release ring and clutch ring on the new shaft to the right of the timing pulley.



- 25.** Hold the clutch ring with a 2.5 mm hexagon screwdriver and position it so that the declutch release ring moves only 0.5 mm left to right. Then tighten the 2 screws in the clutch ring.

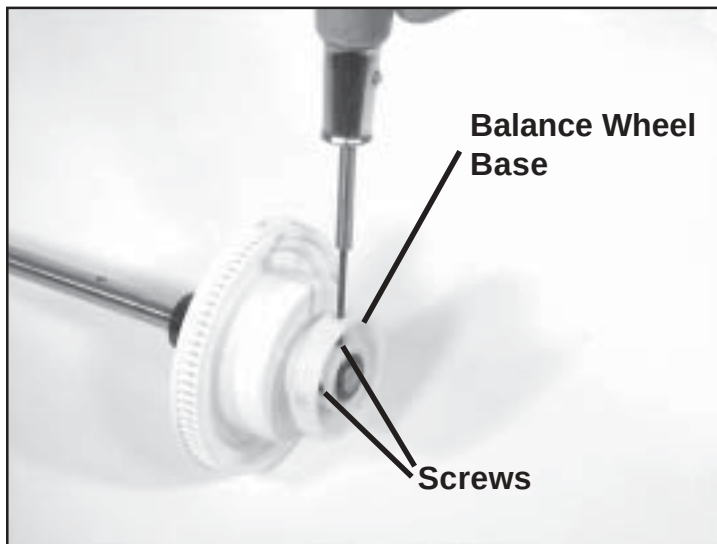


- 26.** Install the clutch spring inside the declutch release ring, rotating the spring clockwise. Position the tab on the spring inside the notch on the declutch release ring.

- 27.** Install the belt wheel, rotating it clockwise until it is all the way in.



- 28.** Install the plastic, then metal washers. Install the balance wheel base with the flat side facing the belt wheel.

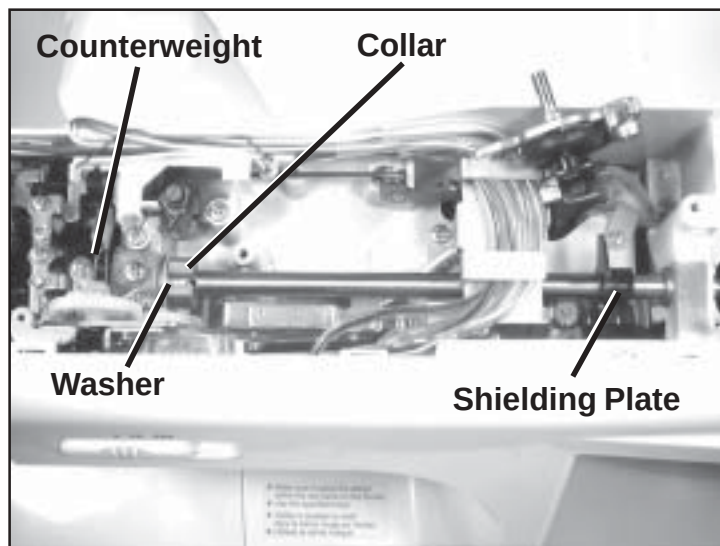


- 29.** tighten the 2 screws (2.0 mm) on the balance wheel base.

- 30.** Reinstall the handwheel, being sure that the tabs on the handwheel fit on the notches on the balance wheel base.

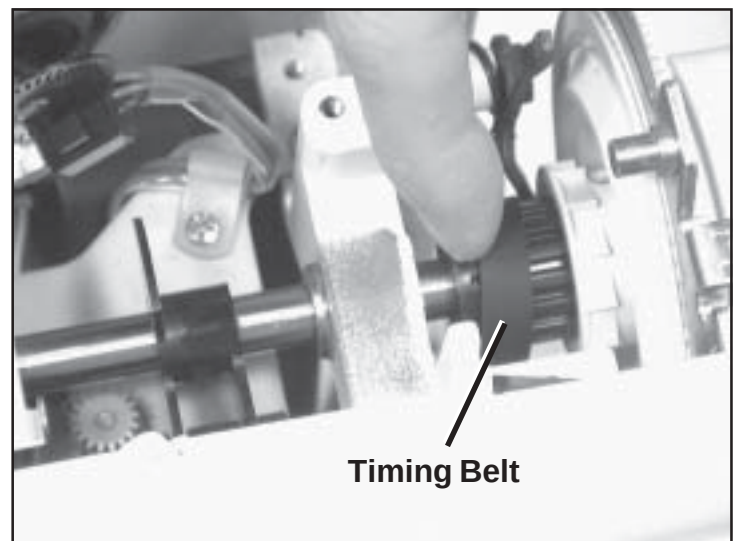


- 31.** Insert the left end of the upper shaft through the timing belt and into the bushing.

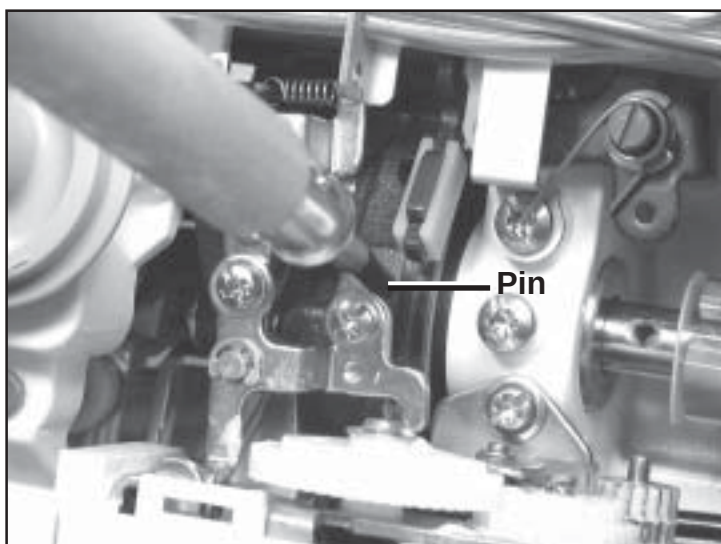
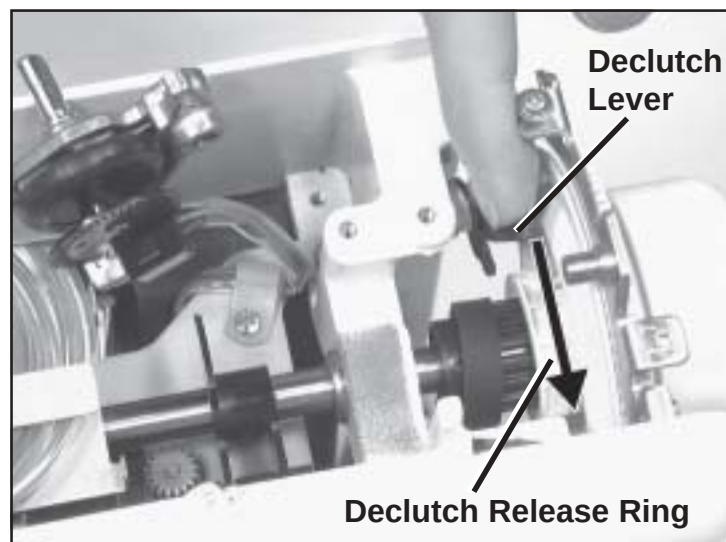


- 32.** Slide the upper shaft through the shielding plate, collar and washer and into the counterweight. Remember that the single blade on the shielding plate is on the right.

- 33.** Slip the timing belt onto the timing pulley as you move the shaft to the left.

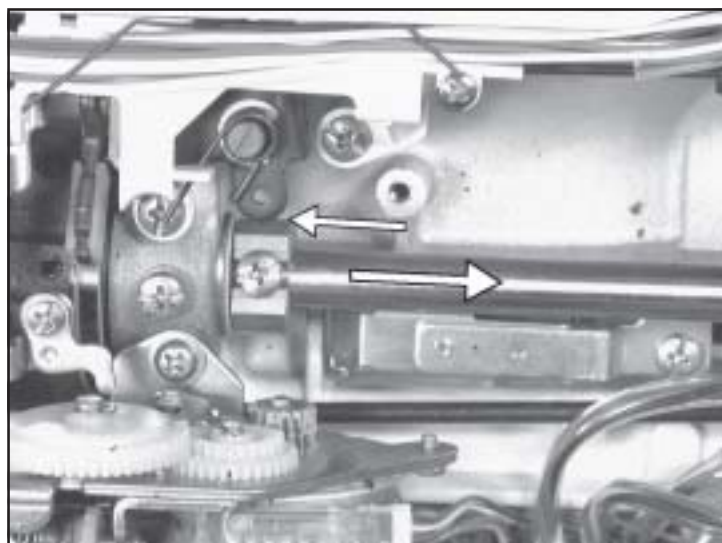


- 34.** Move the declutch lever toward the front of the machine to prevent it from hitting against the declutch release ring.

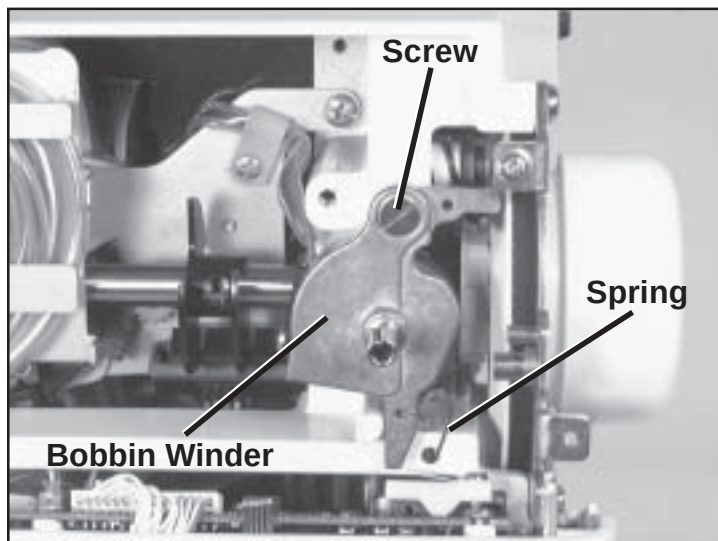
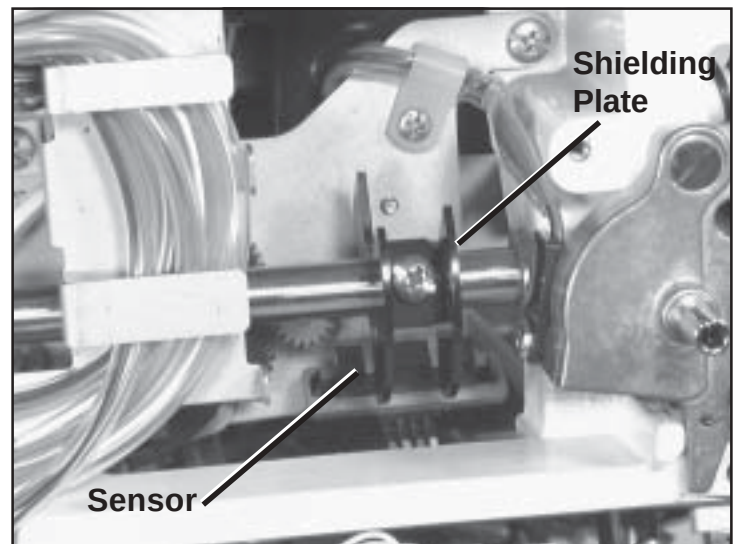


- 35.** Reinstall the pin into the counterweight and through the shaft (a 1.5 mm hexagon screwdriver can be used as a punch). If the pin does not go through the shaft, remove the pin, turn the shaft 180 degrees and reinstall the pin.

- 36.** Position the counterweight toward the front of the machine. Move the upper shaft to the right, slide the collar to the left and insert and tighten the collar screw.

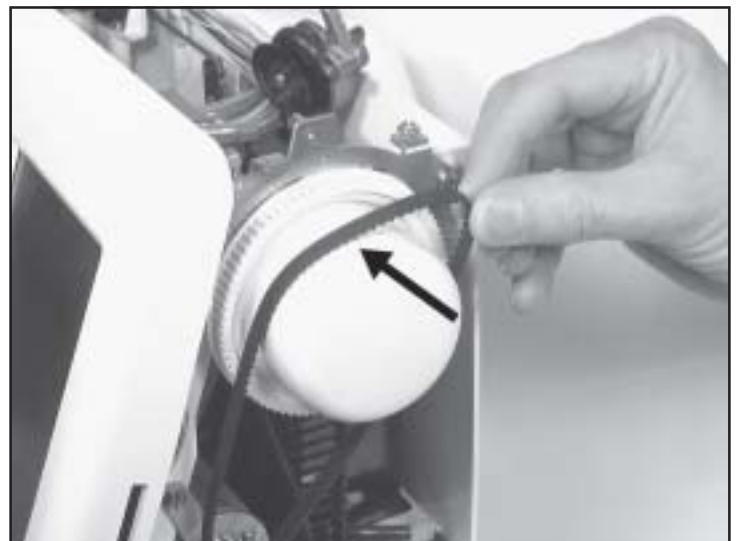


- 37.** Position the shielding plate with the single blade on the right side facing up. Install the washer and screw and move the shielding plate to the right or left until the blades pass through the sensor without hitting it. Tighten the screw.

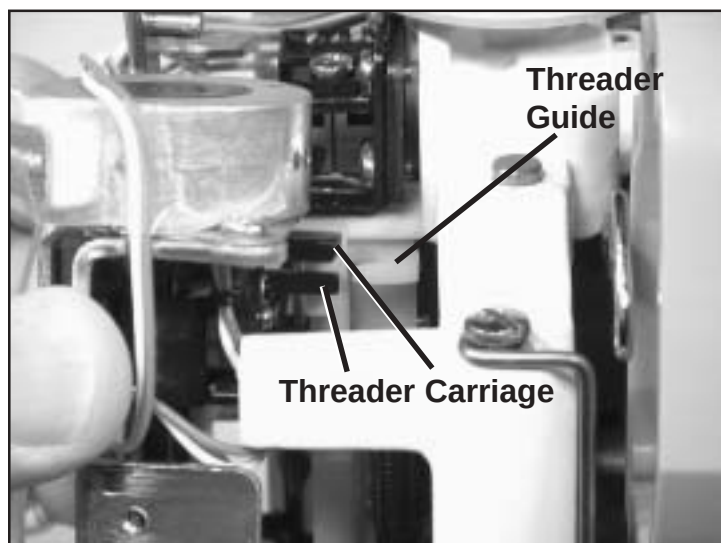
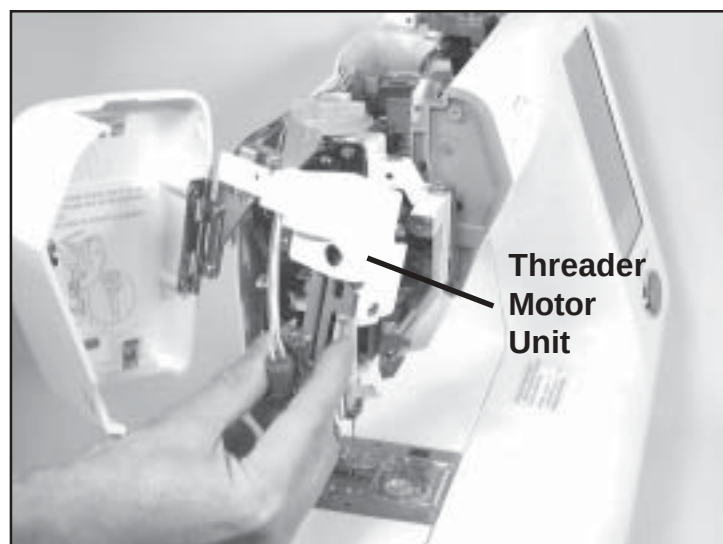


- 38.** Reinstall the bobbin winder with the screw. Make sure that the end of the spring fits in the casting hole, as shown.

- 39.** Reinstall the motor belt.

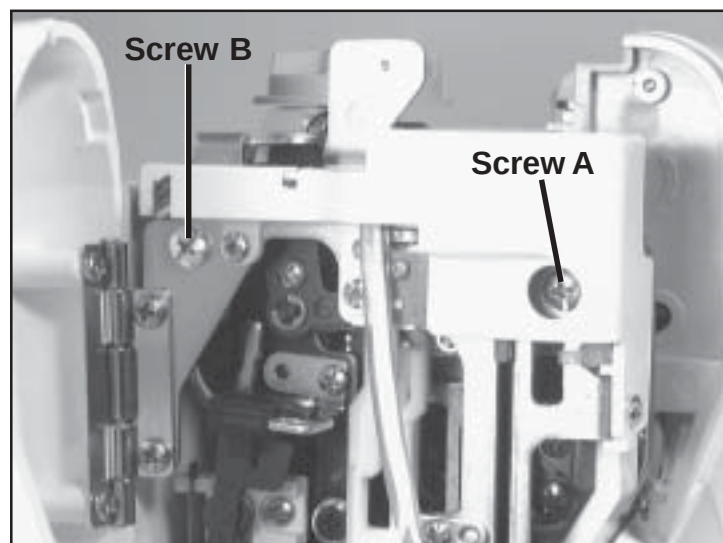


- 40.** Position the threader motor unit for installation.



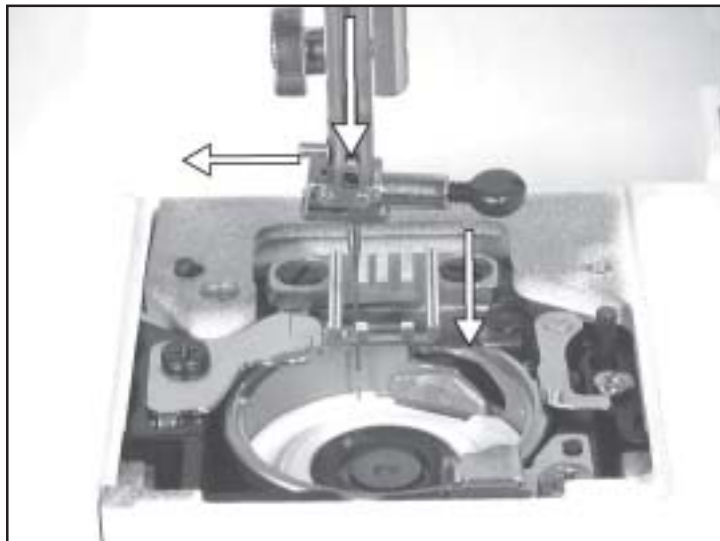
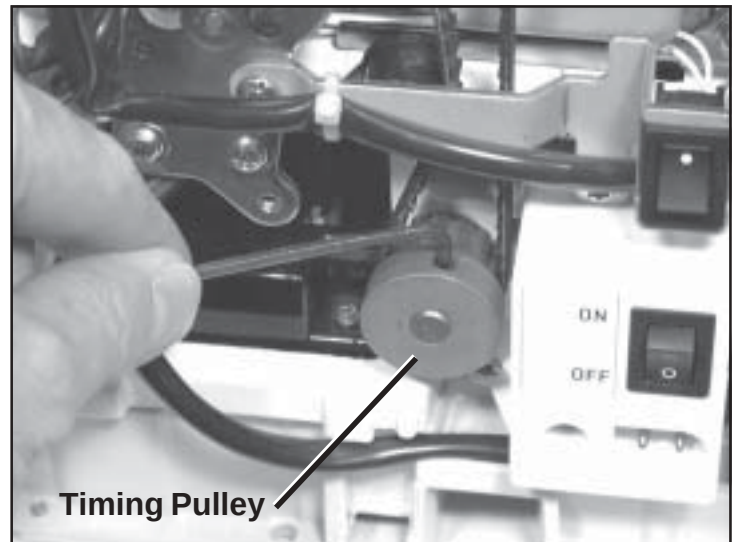
- 41.** Place the white threader guide between the two parts of the black threader carriage.

- 42.** Reattach the threader motor unit with screws A and B.



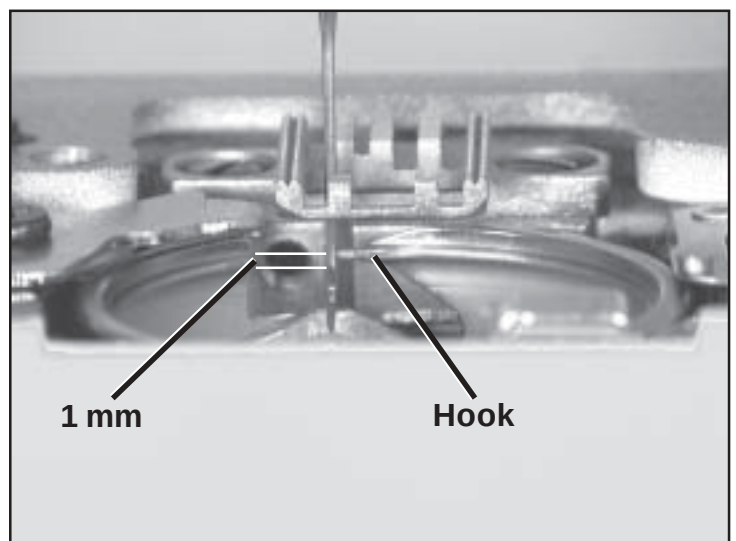
Adjustments

1. Remove the presser foot, needle plate and bobbin case. Loosen the 2 screws on the lower shaft timing pulley (2.5 mm).

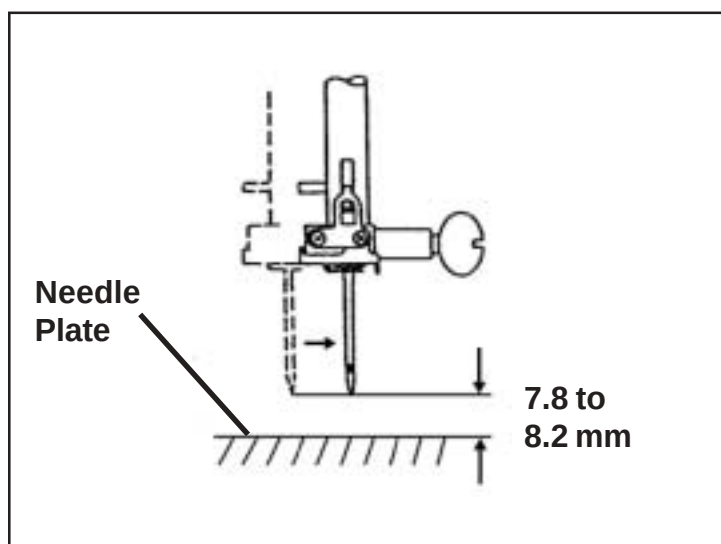
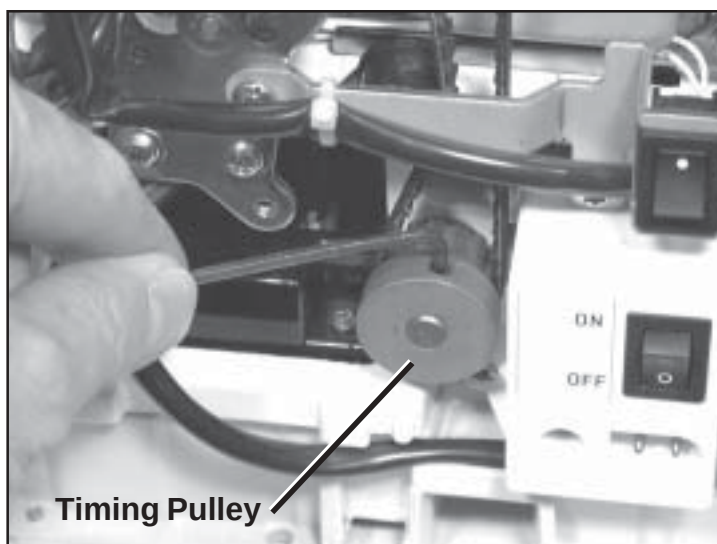


2. Before adjusting the hook timing, be sure that both the needle and feed dogs are in the down position. Push the needle bar to the left.

3. Adjust the hook and needle so that the hook point is approximately 1 mm above the eye of the needle in left needle position.

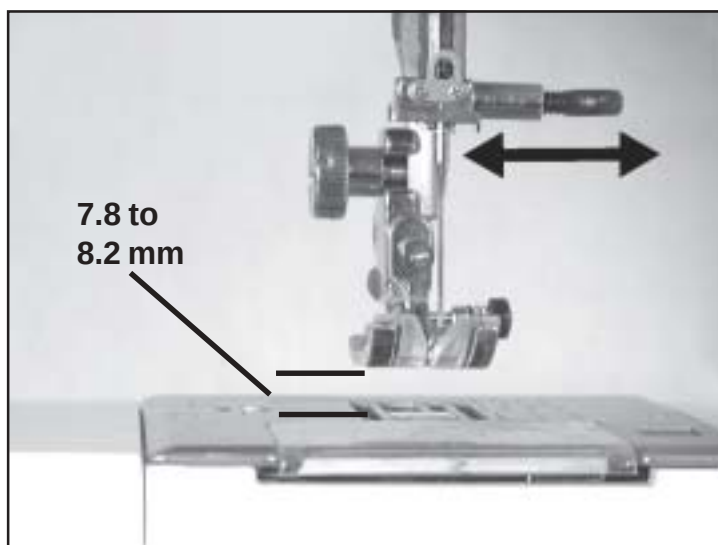


4. Tighten the 2 screws (2.5 mm) on the lower shaft timing pulley.

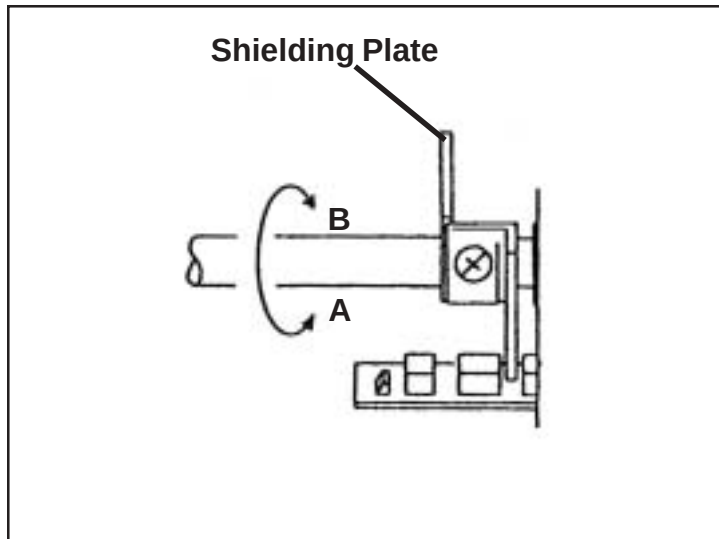
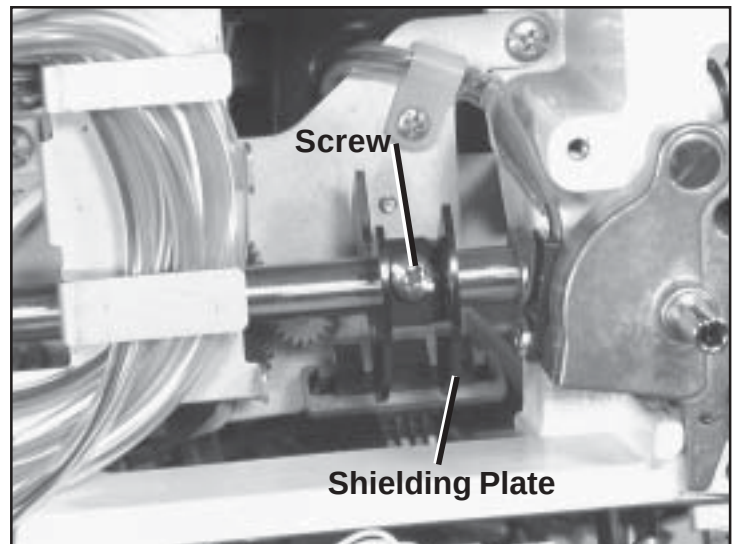


5. Reinstall the bobbin case, needle plate and presser foot. Plug in the power cord and turn the machine on. Select the Zig Zag stitch (stitch #8). Turn the handwheel until the needle starts to swing to the right and left. The needle should be 7.8 to 8.2 mm above the surface of the needle plate when it swings.

6. As a reference point, the needle should swing at the level of the presser foot when the foot is in the up position.



7. To make this adjustment, loosen the screw on the upper shaft shielding plate.



8. Rotate the shielding plate in the A direction if the needle swings more than 8.2 mm above the needle plate and in the B direction if it swings less than 7.8 mm above the needle plate. Tighten the screw.

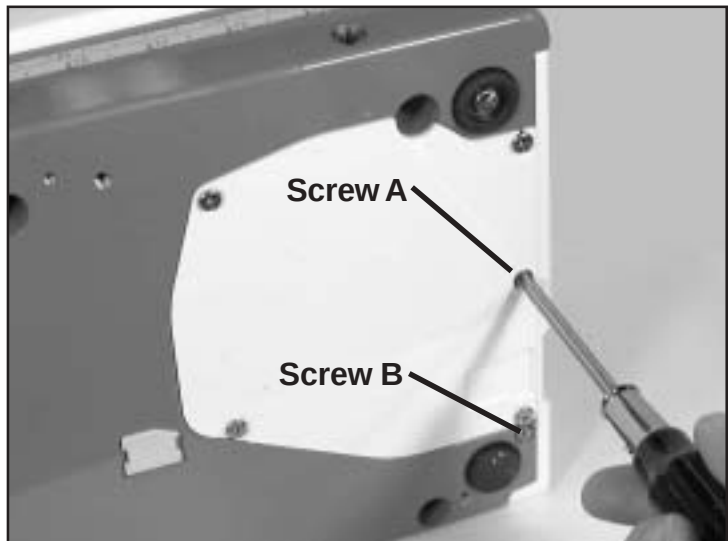
Reinstall the Belt Cover

1. Reinstall the belt cover by inserting the front edge behind the front panel and pushing in the back edge.

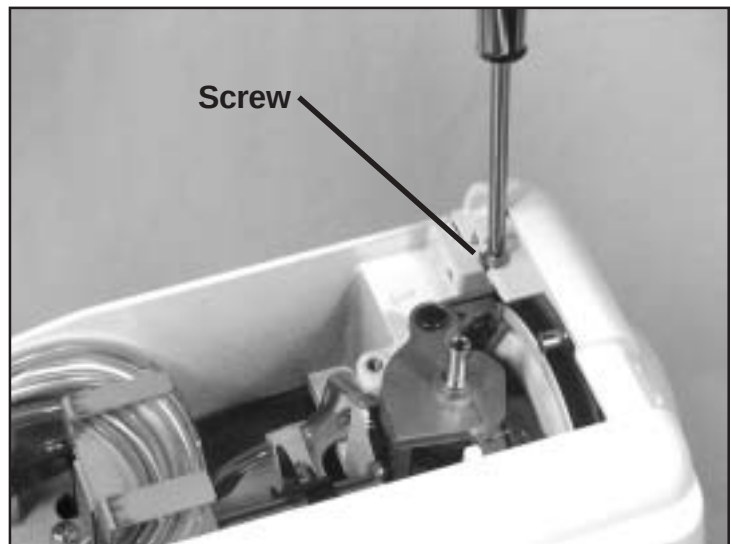


2. Install screw C and insert the access cap.

3. Place the machine on its back and reinstall screws A and B.

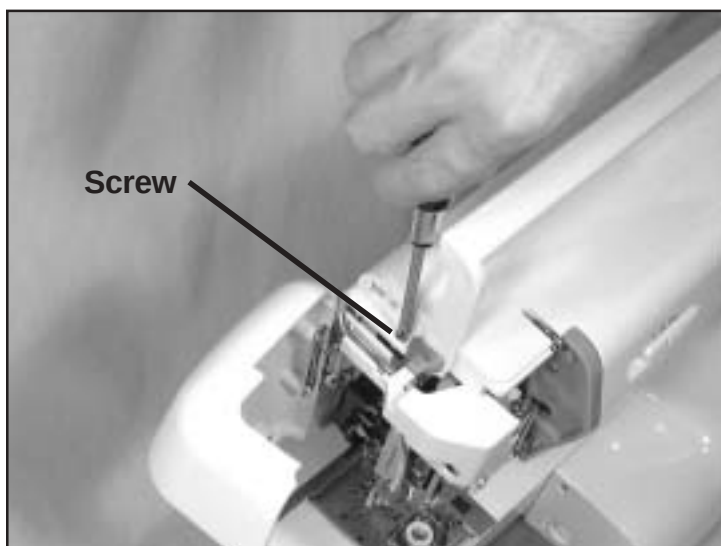
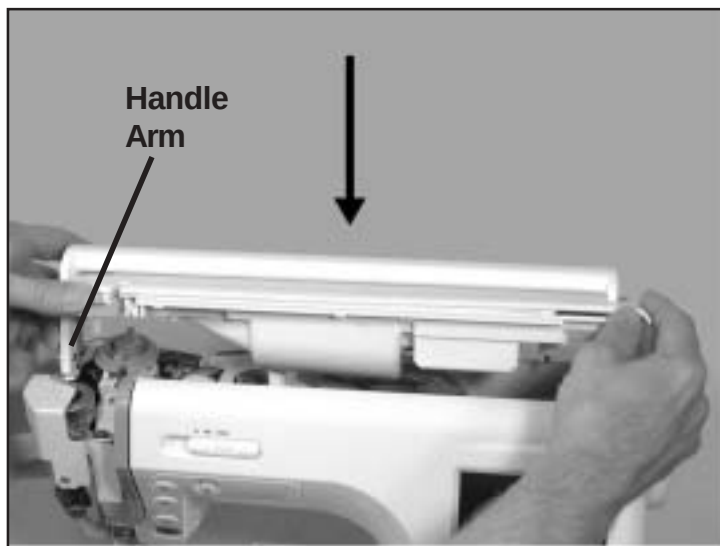


4. Push in the back edge of the belt cover and tighten the screw.



Reinstall the Top Cover

1. Reinstall the top cover and handle together. Reconnect the handle arms first, then push down the top cover unit.



2. Reinstall the screw under the left arm of the handle.

3. Raise the top cover lid and reinstall the 2 screws.

