

Included Items



How to Replace

⚠ WARNING Before starting the replacement work, turn off the machine's power switch and unplug the power cord from the machine.

Attempting such operations while the machine is connected to a power source may result in injury or electrical shock.

⚠ CAUTION Be sure to follow the replacement procedure provided in this manual. You must not touch any parts except for those specified in the instructions.

An unexpected operation of the machine may cause injury and burn.

⚠ CAUTION Secure the maintenance cover with the screw when opening the cover. Neglecting to do so may cause the maintenance cover to fall down and your fingers to get caught in the space between the cover and the machine.

⚠ CAUTION Never touch the spindle unit immediately after machining. Doing so may cause burns.

⚠ CAUTION When performing replacement, be sure to keep the tool detached. Contact with the blade may cause injury.

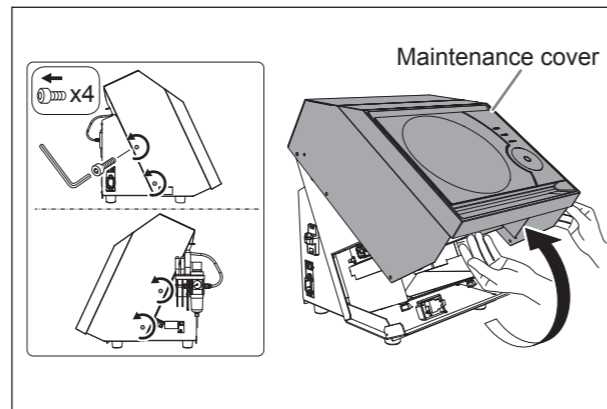
1. Getting ready for replacement

Carry out the following preparations.

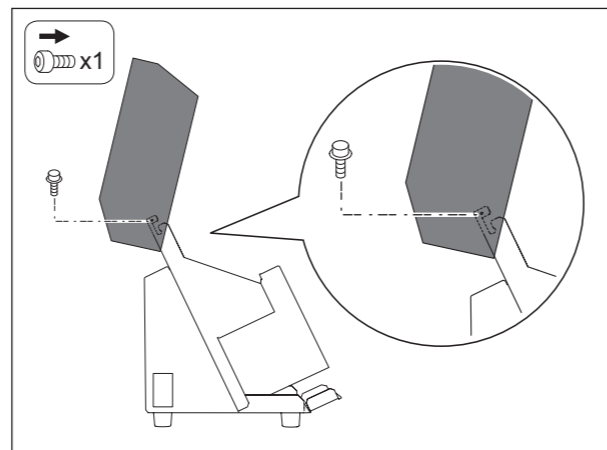
- Have on hand the hexagonal wrench that came with the machine.
- Turn on the power to move the spindle unit to the standby position.
- When the tool is attached in the spindle unit, remove the tool from the spindle unit by pressing the operation button of the machine.
- When you've finished making the preparations described above, turn off the machine's power switch and unplug the power cord from the machine.

2. Removing the spindle unit

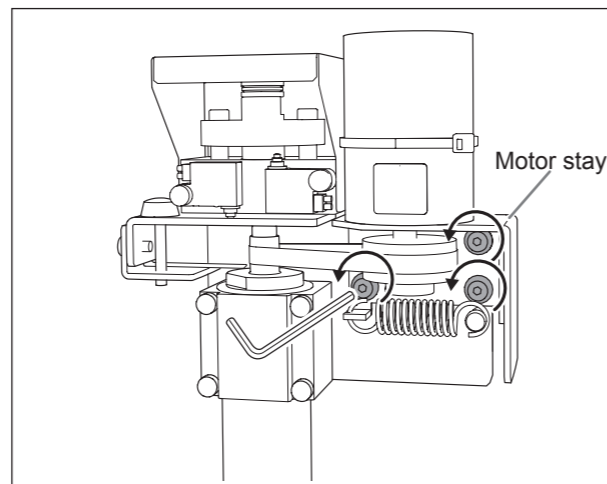
- 1 Open the maintenance cover.
Remove the screws. Open the cover slowly with both hands.



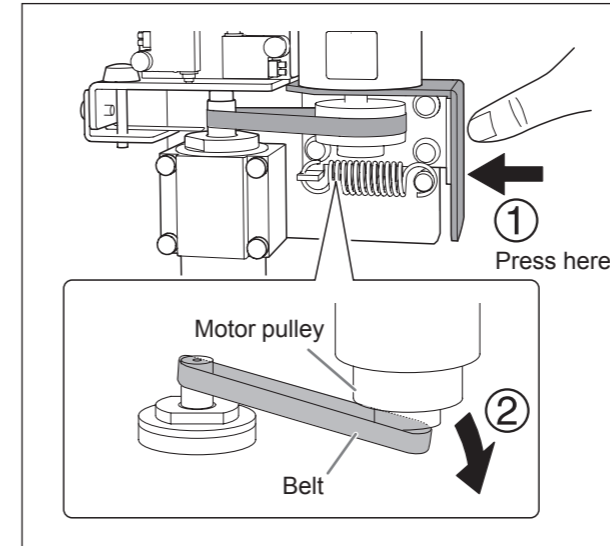
- 2 Secure the maintenance cover.
Secure the cover at the one location with the removed screw so that the cover will not close all of a sudden during the replacement.



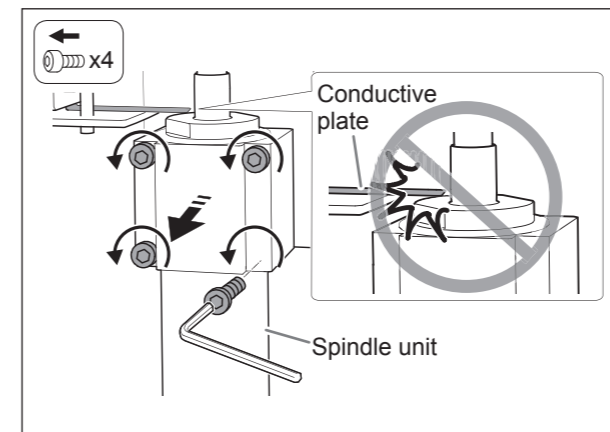
- 3 Loosen the screws securing the motor stay.
Loosen the screws by turning them about two turns.



- 4 Remove the belt.
Press the location shown by the arrow in the figure toward the left side of the machine to remove the belt from the motor pulley.

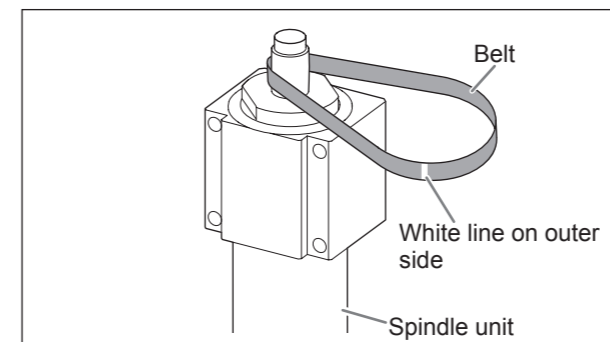


- 5 Remove the spindle unit.
Remove the screws and pull out the spindle unit toward the front. Do not hit the spindle unit on the conductive plate when removing the spindle unit.

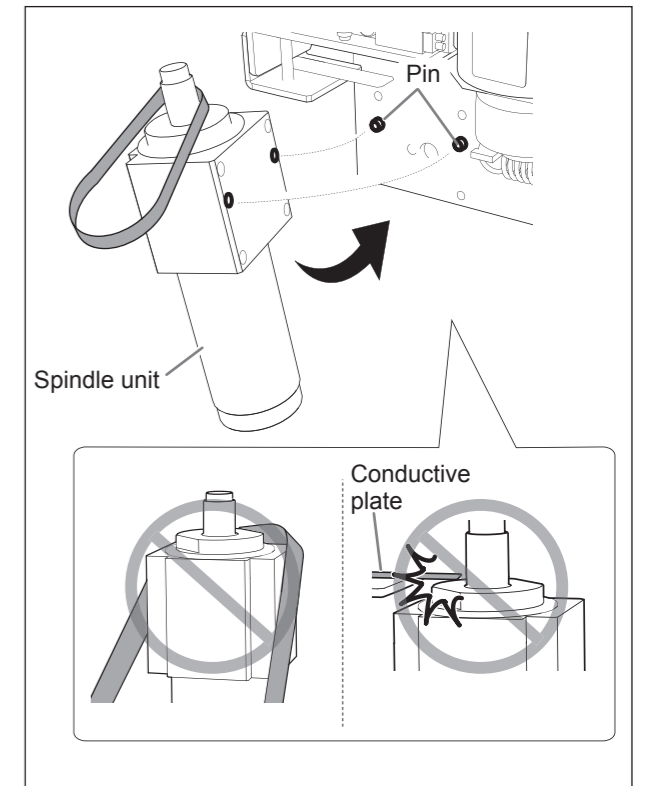


3. Installing the new spindle unit

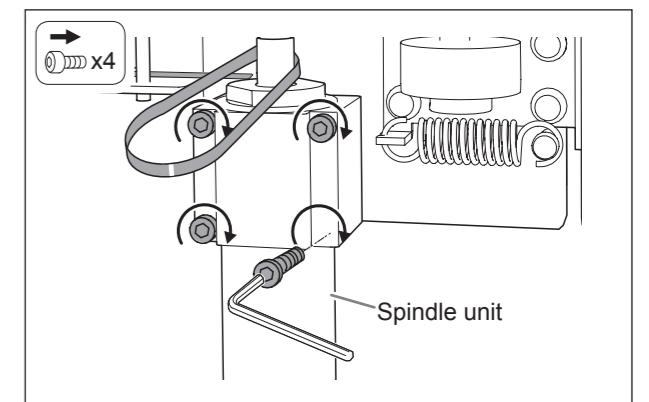
- 1 Engage the belt on the new spindle unit.
Orient the belt so that the white line is on the outer side.



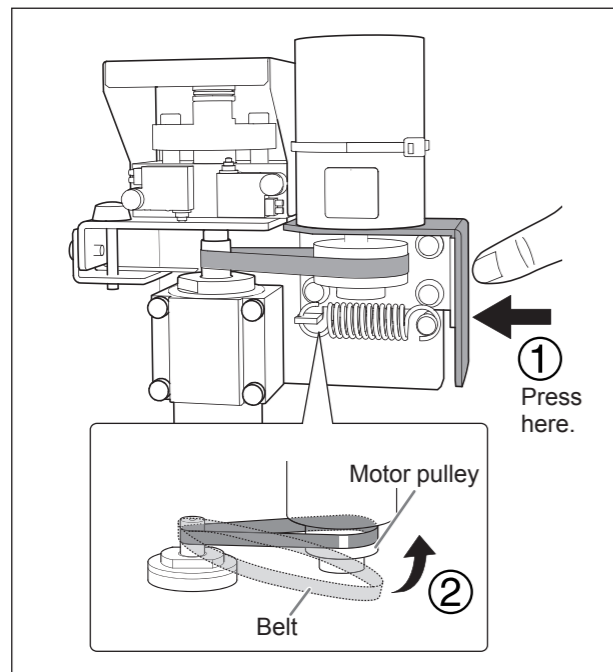
- 2 Attach the spindle unit.
Attach the spindle unit to the pins. Do not allow the belt to get caught in the space between the back of the spindle unit and the machine. Do not hit the spindle unit on the conductive plate.



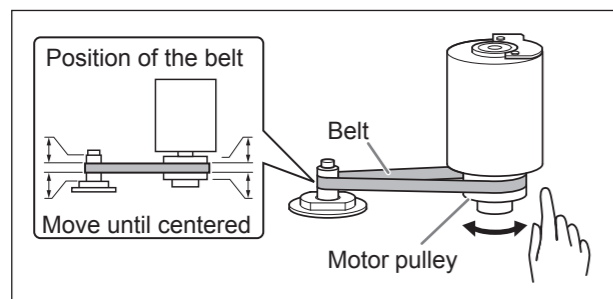
- 3 Secure the spindle unit.
Secure the spindle unit with the screws. (Reference: The tightening torque is 0.8 N-m (8 kgf-cm).)



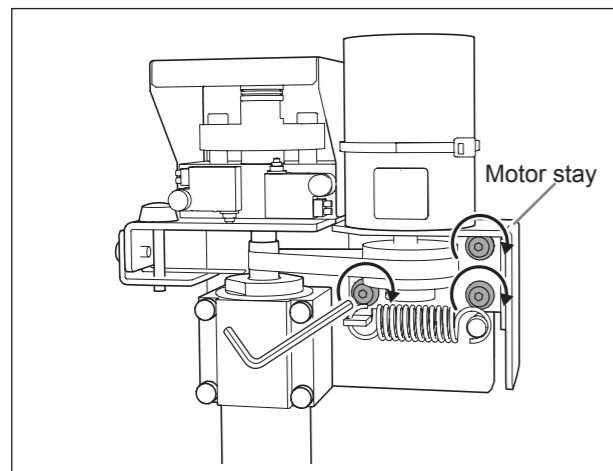
- 4 Engage the belt on the motor pulley.**
Press the location shown by the arrow in the figure toward the left side of the machine to engage the belt on the motor pulley.



- 5 Adjust the position of the belt.**
Turning the motor pulley makes the belt move. Turn the motor pulley either clockwise or counterclockwise until the belt reaches the location in the figure below.



- 6 Secure the motor stay.**
Tighten the screws.
(Reference: The tightening torque is 0.8 N-m (8 kgf-cm).)

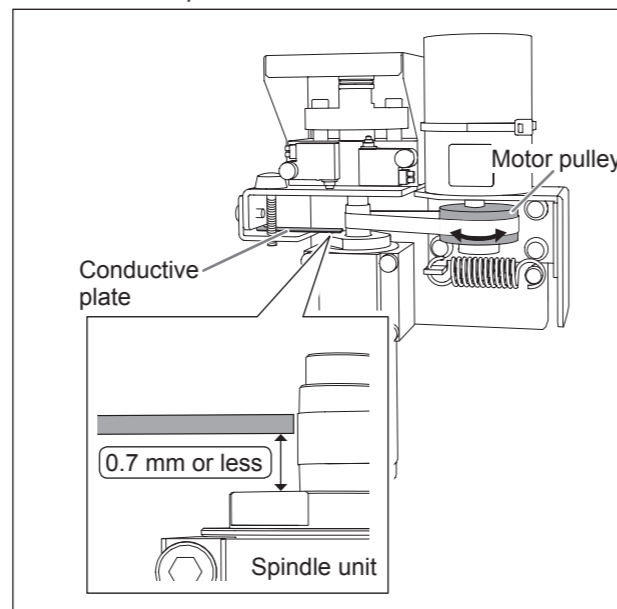


4. Adjusting the position of the conductive plate

- 1 Check the position of the conductive plate.**

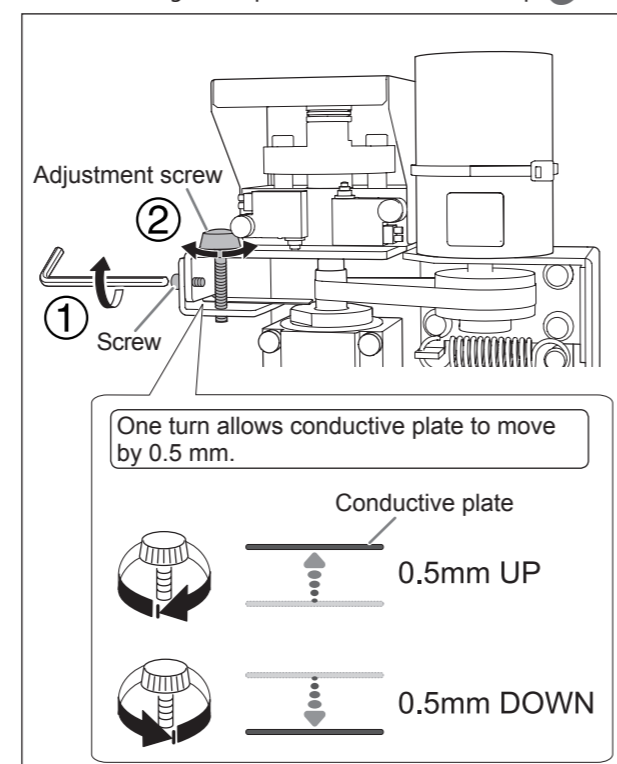
Check whether the following three requirements are met. If all requirements are met, go to step **4**. If any one of them is not met, go to step **2**.

- ① The conductive plate does not touch the spindle unit.
- ② When turning the motor pulley, you do not hear unusual noise that is caused by the conductive plate coming in contact with the spindle unit.
- ③ The distance between the conductive plate and the spindle unit is 0.7 mm or less. (Reference: The thickness of the conductive plate is 0.2 mm.)

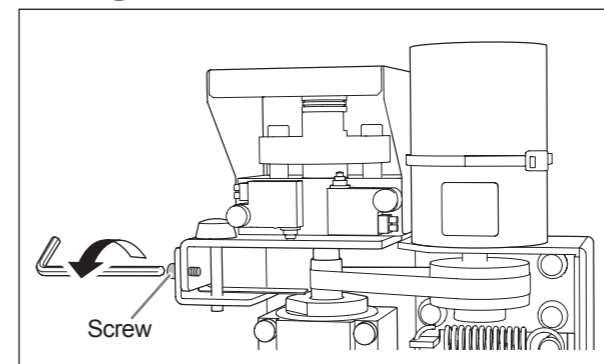


- 2 Adjust the position of the conductive plate.**

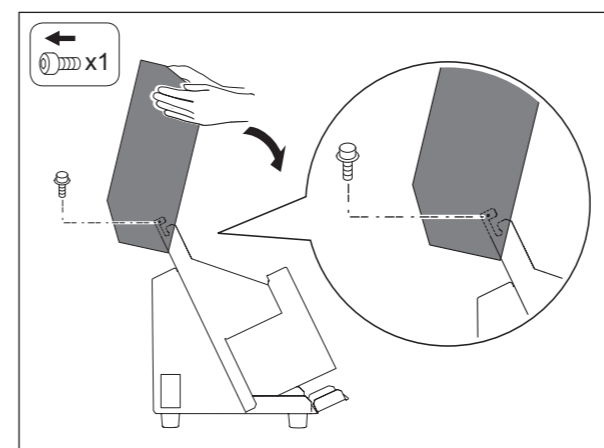
- ① Loosen the screw.
- ② Turn the adjustment screw either clockwise or counterclockwise to move the conductive plate to the position that allows meeting the requirements described in step **1**.



- 3 Fix the position of the conductive plate.**
Fix the position of the conductive plate by tightening the screw. Check whether the conductive plate is placed at the position that allows meeting the requirements described in step **1**.

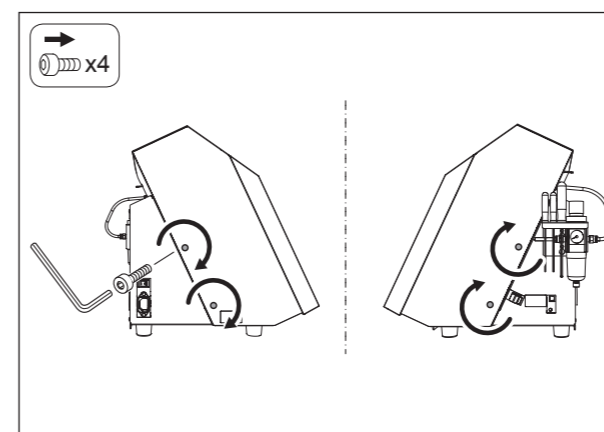


- 4 Close the maintenance cover.**
Remove the screw securing the cover. Close the cover slowly with both hands.



- 5 Secure the maintenance cover.**

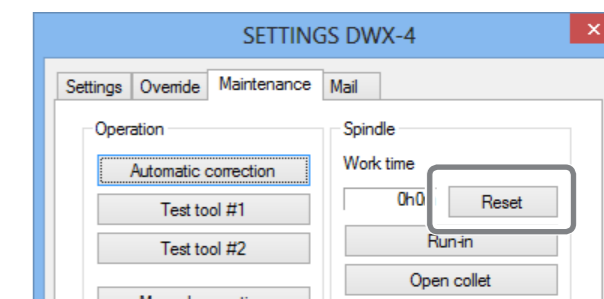
Secure the cover with the screws.



5. Procedures after replacing the spindle unit

- 1 Reset the working time of the spindle unit.**

- ① Display VPanel.
- For information on how to display VPanel, refer to the manual that came with the machine.
- ② Click [Reset] in the [Maintenance] tab.



- 2 Perform running-in operation for the spindle unit.**

Failure to do so may result in unstable spindle rotation. For information on how to run-in the spindle unit, refer to the manual that came with the machine.

Check whether unusual noise is produced during the running-in period. If unusual noise is produced, the conductive plate may be in contact with the spindle unit. Go back to Procedure 4. - **2** and repeat from the step.

- 3 Perform the automatic correction.**

Failure to do so may result in unwilling cutting result. For information on the automatic correction, refer to the manual that came with the machine.