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## MIA274 ACTUATOR (BASE) INSTALLATION INSTRUCTIONS

## **REMOVAL - Refer to Figure 2.**

- 1. Raise CHAIR UP function all the way.
- Run TILT, FOOT, and BACK functions to level chair.
  Place supports under the back and foot sections; refer to "DANGER" note below (see
- Figure 1).
- 3. Disconnect the power from the table. See " $\ensuremath{\textbf{WARNING}}$ " note below.
- 4. Remove the right and left hand side outer shrouds from the column adapter weldment. Then remove the right and left hand side middle shrouds.

**WARNING:** Disconnect the power from the chair before removing covers/shrouds or making any repairs to prevent the possibility of electrical shock, severe personal injury, or death.

- 5. Disconnect connector from limit switch mounted on actuator.
- 6. Disconnect the modular phone cord connector from each of the inlet PC boards located on the inside of the inner shrouds.
- 7. Remove the (2) receptacle outlet covers located on the right and left hand inner shrouds and partially remove the inner shrouds from the base casting.
- 8. Remove the control PC board cover from the base casting.
- 9 Reconnect the limit switch mounted on actuator.
- 10. Remove the screw mount cable strap and cut all cable ties securing the base actuator wires to the other wires.



**DANGER:** Ensure that the chair is secured by supports to prevent it from falling once pivot screws are removed. Failure to do so could result in serious injury or death.

- 11. Remove the plastic spiral wrap from the base actuator wires and retain for reuse in a later step.
- 12. Disconnect the base actuator connectors from the control PC board.
- 13. Remove the base capacitor from the capacitor strap.
- 14. Tag and disconnect all the actuator wires from the terminals of the base capacitor; refer to the "DANGER" note below.



**DANGER:** Never touch the terminals of a capacitor until it has been properly discharged. Personal injury or death could occur because a capacitor can store an electrical charge for many years even if the power has been shut off.



15. <u>On programmable chairs only</u>: remove the upper sensor cable mounting bracket from the pivot screw; refer to the "**DANGER**" note below.



**DANGER:** Ensure that the chair is secured by supports to prevent it from falling once pivot screws are removed. Failure to do so could result in serious injury or death.

- 16. Remove the (2) bottom pivot screws securing the base actuator to the column assembly.
- 17. Remove the (2) top pivot screws and remove the base actuator from the column assembly.
- 18. Loosen the (3) screws on the lower pivot pin mounting bracket.

## **INSTALLATION - Refer to Figure 2.**

- 1. Remove the jam nuts from the upper and lower pivot screws.
- 2. Clean the Loctite® residue from the threads of the pivot screws.
- Screw the jam nuts onto the upper and lower pivot screws (butting up to the hex head on the pivot screw).
- 4. Apply Threadlocker 242 (RPI Part #RPA032 included) to the threads just before the jam nut.
- Install the new base actuator onto the column assembly and secure with the (2) lower pivot screws.
- NOTE: Install the lower pivot screws until the shaft of the actuator is centered within bracket.
- 7. Tighten the lower pivot screws to 50 60 in-lbs. (5.6 6.8 nm).
- 8. Tighten the (2) jam nuts to 45 55 ft-lbs. (61 74.6 nm).
- 9. Reinstall the spiral wrap around the new base actuator wires.
- 10. Reconnect the wiring to the base capacitor terminals and reconnect the connectors to the control PC board.
- 11. Reinstall the capacitor into the capacitor strap.
- 12. Secure the wires using the included screw mount cable strap. Attach the screw mount cable strap to the base casting with the mounting screw.
- 13. Secure the wires together as a bundle using the cable ties supplied in this kit.
- 14. Reinstall the PC board cover onto the base casting.
- 15. Plug the table's power cord into an outlet receptacle.
- 16. Keep the actuator shaft from rotating as you run the CHAIR UP and/or the CHAIR DOWN function until the shaft of the base actuator is aligned with the bracket of the column assembly. Ensure that the aluminum switch actuator tubing seam is in the rear (see Figure 3).
- 17. Apply Threadlocker 242 (RPI Part #RPA032 included) to the threads just before the jam nut.
- 18. Continue installing the new base actuator onto the column assembly and secure with the (2) upper pivot screws.
- 19. NOTE: Install the upper pivot screws until the shaft of the actuator is centered within bracket (see Figure 3).
  - <u>On programmable chairs only</u>: The pivot screw with the female threaded hole in it is used to mount the upper cable bracket *(see Figure 2).*
- 20. Tighten the upper pivot screws to 50 60 in-lbs. (5.6 6.8 nm).
- 21. Tighten the (2) jam nuts to 45 55 ft-lbs. (61 74.6 nm).

- 22. Tighten the (3) screws on the lower pivot pin mounting bracket to 17 20 ft-lbs. (23 27.1 nm). Remove twist tie from limit switch *(see Figure 4).*
- 23. <u>On programmable chairs only</u>: Install the upper sensor cable bracket onto the left side pivot screw and attach with the mounting screw. Do not wrap the sensor cable around the pulley at this time.
- 24. Run the **CHAIR UP** function until the chair is lifted off of the supports; then remove the supports from underneath the chair.
- 25. Lower the CHAIR DOWN function all the way.
- 26. <u>On programmable chairs only</u>: Wrap the sensor cable around the pulley in the direction shown *(see Figure 2)* until all of the sensor cable slack is removed.
- 27. NOTE: The pulley can be rotated back and forth up to 1/2 turn to assist in getting the sensor cable pulled onto the pulley.
- 28. The sensor cable should be able to be wrapped around the pulley 2-1/2 to 3 times.
- 29. Check location and centering of base limit switch on the actuator. If needed, loosen mounting clamp and adjust as shown in *Figure 4*. Retighten clamp to hold switch bracket in place.
- 30. Temporarily unplug either of the modular phone cords from the control PC board, and plug either a hand control or a foot control directly into the modular phone connector on the control PC board.
- 31. Run **BASE UP** function to it maximum height, then pull out the foot rest extension as far as it will allow.
- 32. Run FOOT DOWN, and TILT DOWN functions to lowest positions.
- 33 Depress BASE DOWN button on foot/hand control.

**NOTE:** Chair should go approximately 1/2 way down then stop, and Foot Rest Extension lamp on the hand control should flash. There should be a minium of 2 inches clearance between the foot section upholstery and the floor *(see Figure 5)*. If minimum clearance is met, proceed to Step #35. If clearance is less than 2 inches, proceed to Step #34.

34. If there is less than 2 inches of clearance between foot section upholstery and the floor *(see Figure 5),* adjust as follows:

Loosen bracket move limit switch up or down on tube of base actuator *(see Figure 4).* Repeat Steps #31 through 33. Retighten clamp.

35. Disconnect hand control or foot control from control PC board. Reconnect phone cable removed earlier.

**NOTE:** When installing shrouds, ensure that all bumpers and snap-on glides are aligned and in place. Failure to do so could result in damage to shrouds as well as producing grinding sounds when chair is being raised and lowered.

- 36. Reconnect the modular phone cord connector to each inlet PC board (located on the inside of the inner shrouds). *See Figure 2.*
- 37. Reinstall the right and left side inner shrouds onto the base casting and secure by reinstalling the (2) outlet covers, reuse the original shroud mounting hardware.
- 38. Reassemble the right and left side middle shrouds around the inner shroud, reuse the original shroud mounting hardware.
- 39. Install the tabs of the right and left side outer shrouds into the slots of the column adapter weldment. Secure with the original mounting hardware, making sure that the middle shroud assembly is captured by the right and left side outer shrouds.
- 40. <u>On programmable chairs only</u>: Calibrate the control PC board (see OEM Manual or RPI website, www.rpiparts.com).
- 41. Check operation and return the table into service.





