

Procedure 5.3 - Calibrating the Lift Motor

Note:

The lift motor must be removed for calibration.

Removing the Lift Motor Assembly

1. Set the ramp (lift) at level 1, turn off the EFX 544 with the circuit breaker, then unplug the power cord from the wall outlet.
2. Remove the front and rear covers as described in Procedure 7.1.

Note:

Refer to the wiring diagram shown in Diagram 8.1. Mark all wires before disconnecting, to insure quick, accurate replacement!

3. Lift the stair arms from the ramp assembly and rotate them towards the back of the EFX 544.
4. Rotate the ramps to the back of the unit. Rest the ramps on the flywheels.
5. Remove the outboard snap rings from each end of the lower lift shaft. Remove the plastic wear tubes. Hold one end of the lower lift shaft with a wrench. Loosen the other end with a second wrench. Using the wrenches, unthread both ends of the lower lift shaft from the threaded stud. Set aside the lower lift shaft and the stud.

Note:

Units built before September 3, 1996, may have a one-piece lower lift shaft.

6. Cut the cable ties that secure the ribbon cable to the lift motor and EFX 544 wiring cables.
7. Disconnect the lift motor cable assembly from the lower PCA.
8. Remove the wires from the lift motor capacitor.
9. Remove the screw that secures the lift motor ground wire to the EFX 544 frame.
10. Remove the two screws securing the top of the electronics bracket to the EFX 544 frame.
11. While an assistant supports the lift motor, remove the nut from upper lift motor mounting bolt. Remove the upper lift motor mounting bolt and the two plastic spacers (read the Note below).

Note:

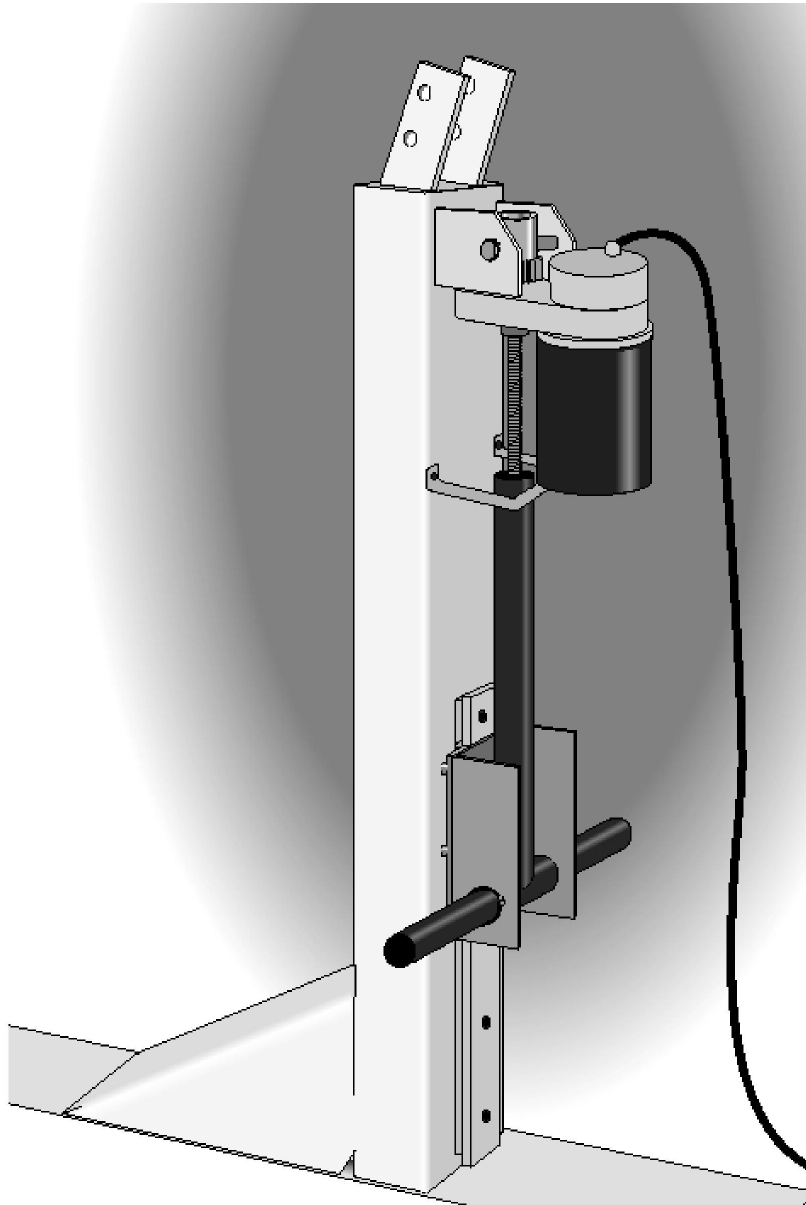
Units built after July 9, 1996, have two plastic spacers inserted onto the upper lift shaft.

12. Lift the lift motor assembly up and away from the EFX 544 (see Diagram 5.3).

Calibrating the Lift Motor Assembly

13. Position the lift motor assembly on the floor, close to the EFX 544 frame.

Diagram 5.3 - Lift Motor Assembly



14. Refer to Diagram 8.1. Re-connect the lift motor cables to the lower PCA and lift capacitor. Connect the lift motor ground wire.
15. Plug the power cord into the power entry module, then plug the power cord into the wall outlet. Turn on the circuit breaker.
16. Access the EFX 544 diagnostic program by pressing **Ramp ▲**, **Resistance ▼** and **Resistance ▲** simultaneously or keys 4,5,1,7,6,5,7,6,1.
17. When the LED test is complete and the EFX 544 is in lift calibration mode, operate the **Ramp ▲** or **Ramp ▼** keys until 12 is shown on the display.
18. Exit the diagnostic program.
19. With the Precor banner scrolling, turn off the EFX 544 with the circuit breaker. Unplug the power cord from the wall outlet.
20. Without allowing the lead screw to turn, thread the lift tube clockwise until it reaches the top of the lead screw. Again without allowing the lead screw to turn, thread the lift tube counterclockwise three and a half turns.
21. Disconnect the lift motor cable from the lower PCA, and lift capacitor.
22. Remove the screw that secures the lift motor ground wire to the EFX 544 frame.

Replacing the Lift Motor Assembly

23. Remount the upper end of the lift motor with the nut and bolt removed in step 11.
24. Position the lift motor assembly against the lift guide. Align the bore in the lift tube with the bore in the lift bracket.
25. Remove the lower lift shaft from the threaded stud. Clean off the old loctite. Put a small amount of blue loctite on the threaded stud. Thread one end of the lower lift shaft onto the stud, then insert the shaft with the stud through the lift guide clamp.
26. Thread the remaining lower lift shaft onto the stud. Hand tighten the lower lift shaft and then use the two wrenches to tighten it an additional 1/4 turn.
27. Slide both wear tubes onto the lower lift shaft and replace the snap rings on each end of the lower lift shaft (see Diagram 5.4).