



replacement parts industries, inc.

CALL 800-221-9723 or 818-882-8611 • FAX 818-882-7028
E-MAIL: techsupport@rpiparts.com • WEBSITE: www.rpiparts.com

PCG762 LIFT GEAR INSTALLATION INSTRUCTIONS

WARNING: When working on the lift assembly of any dental chair in the full upright position, always brace or prop the chair to prevent any downward motion that could result in personal injury.

- 1) Actuate chair into full upright position. **See WARNING above!**
Note: If the Motor is not working, remove the two Screws from the Base/Lift Assembly that holds the Ball Shaft Anchor in place. Then lift the upper section and support it in place with a brace.
- 2) Disconnect power to chair.
- 3) Remove attaching Screws and Rubber Bellows to expose the Lift Motor Assembly.
- 4) Prop or brace chair to prevent downward motion. Remove attaching Screws and drop Bellows Cover.
- 5) Note the wire colors between the connectors for future splicing. Unplug the Motor.
- 6) Note position and then remove the (4) Screws and Spacers(s) between the Motor and the Motor Mount. Save for reassembly.
- 7) Slide the Belt off the large pulley and the small pulley. Remove the Lift Motor.
- 8) Remove the front Retaining Clip and remove the Pulley for the Drive Shaft. Remove the Drive Key and rear Retaining Clip.
If the Pulley does not slide off or cannot be removed from drive shaft, try this alternate way of removing the old Lift Gear - Steps #8a-c.
 - 8a) Place the Transmission Cover in the jaws of a vice with the Drive Pulley facing down and the vice jaws supporting the Transmission Cover. If a vice is unavailable, you may place the Transmission Cover between two sturdy pieces of wood that give you the clearance needed so that the Drive Pulley is hanging freely.
 - 8b) Remove the retaining ring and using a cold chisel or sharpened flat blade screw driver split the internal Lift Gear from the shaft and remove it.
 - 8c) With the internal Lift Gear removed, clean out the inside of the transmission housing, removing any debris including the old grease from the old Lift Gear. Align the new Lift Gear (RPI Part #PCG762) Keyway with the Dive Key on the Shaft and gently tap on the new Lift Gear and reinstall Retaining Ring.

- 9) Using a 3/16" Allen Wrench, remove the four (4) Socket Head Cap Screws from the Transmission Cover and separate the Transmission Cover from the Lift Motor.
- 10) Push the Drive Shaft back into the Transmission Cover and pull the Lift Gear and Drive Shaft out of the Transmission Cover.
- 11) Remove the Retainer Clip from the end of the Drive Shaft and then remove old Lift Gear from the Drive Shaft and replace it with the new Lift Gear (RPI Part #PCG762).
- 12) With the internal Lift Gear removed, clean out the inside of the transmission housing, removing any debris including the old grease from the old Lift Gear.
- 13) Align the new Lift Gear's Keyway with the Dive Key on the Shaft and gently tap on the new Lift Gear. Push the Drive Shaft back through the Transmission Cover and reinstall the Retaining Ring removed in Step #11.
- 14) Push the Drive Shaft with the new Lift Gear through the transmission opening, until fully seated.
- 15) Re-install the rear Retainer Clip, Drive Key, Drive Pulley and front Retaining Ring. Heavily lube the new Lift Gear with the enclosed Fuchs Renolit G 193 Grease (RPI Part #RPL717).
- 16) Place the Transmission Cover back onto the motor and after applying Threadlocker 545 (RPI Part #RPA369) re-install the four (4) Socket Head Cap Screws that were removed in Step #9.
- 17) The Drive Pulley should turn freely in the clockwise direction and have heavy resistance in the counter-clockwise direction.
- 18) Install the new Motor by sliding the Belt over the small pulley and then the large pulley.
- 19) Replace the Spacer(s) from Step #6 between the Motor Mount and the Motor, then tighten the four (4) Screws. Refer to the instructions for proper Belt tensioning on the reverse side of this page.
- 20) Reconnect the Motor to the Wire Harness by cutting away both the Motor connector and the Wiring Harness connector. Using the three (3) Pig Tail Connectors, connect the proper wires by stripping 1/4" of insulation, twisting the correct wires together, inserting them into and then crimping the Pig Tail Connector.
- 21) If the Ball Shaft Anchor was removed to raise the chair, unscrew the shaft out of the Ball Nut and secure the anchor to the base.
- 22) Ensuring safety, remove the support brace installed in Step #1.
- 23) Reconnect power to chair.
- 24) Check operation of chair.
- 25) Reattach the Rubber Bellows.

• **For Planned Maintenance or if the chair begins to drift downwards, order the RPI Brake Repair Kit (RPI Part #PCK742).**

• **The Lift Motor (RPI Part #PCM745) and Lift Motor Pulley Kit (RPI Part #PCK792) are also available.**

PCM745 LIFT MOTOR BELT TENSION ADJUSTMENT

WARNING: Loosening of the drive belt will allow the lift assembly to collapse unless it is propped up and secured.

Depending on the Serial number of the Pelton & Crane Chair-man chair that you are working on, there are three different ways to adjust the lift motor drive belt:

Serial No. 1001-1198

Normal belt tension is achieved when you have a belt deflection of 3/32nds to 1/8th of an inch with normal finger pressure applied. Adjust the belt tension by adding or removing shims between the motor mount and the lift motor.

Serial No. 1199-10165

Normal belt tension is achieved when you have a belt deflection of 3/32nds to 1/8th of an inch with normal finger pressure applied. To change the belt tension, loosen the two motor mounting screws on the same side as the adjustment screw. Tightening the adjustment screw will increase belt tension. Loosening the adjustment screw will decrease belt tension. After adjusting the belt tension, tighten the motor mounting screw closest to the motor first and then tighten the mounting screw closest to the belt.

Serial No. 10166 and above

The belt tension for this series of chairs is measured a bit differently. Proper belt tension is approximately 1/32nd to 1/16th of an inch when measuring the slack between opposing unsupported belt lengths between pulleys. There is a worm screw clamp that is used to adjust belt tension. Proper belt tension should be measured when approximately 1-1/4" of the clamp is beyond the adjusting screw. When tightened, the clamp adjustment screw should be located approximately 1/2" off center of the lift motor.