

Delrin Drive Nut Retrofit Kit

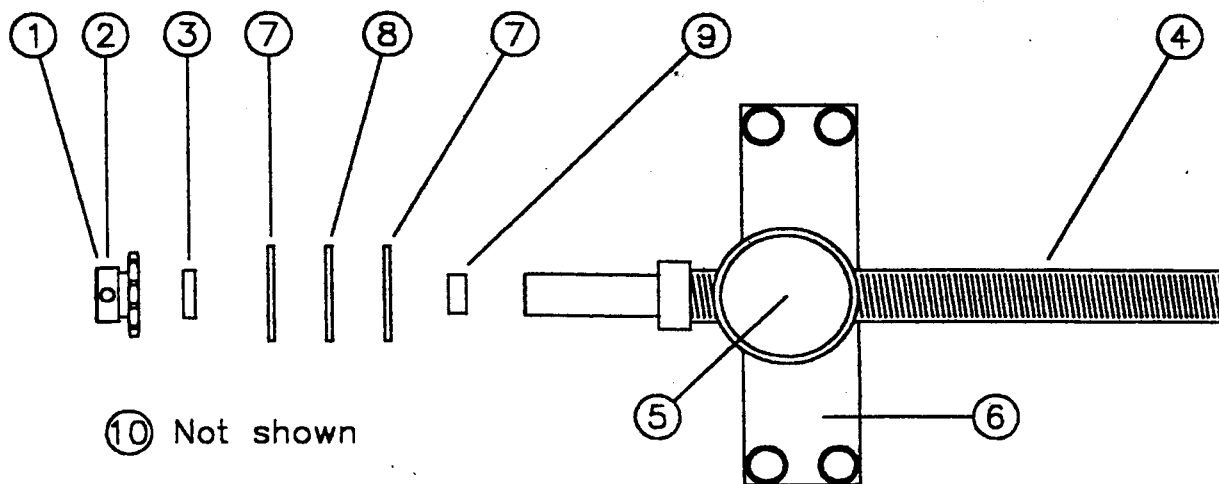
P/N 6300

Introduction

This Delrin Drive Nut Retrofit Kit will improve the performance of your Royal Dental Chair by reducing chair coasting and eliminating the need for periodic drive screw regreasing. The retrofit procedure will take roughly one hour to complete and requires only a minimum of tools.

Retrofit Kit Contents

	Qty	Description	Item	P/N
	1	Retrofit Drive Assembly		
<input type="checkbox"/>	1	5/16 -18 x 1/2" Set Screw	①	3101
<input type="checkbox"/>	1	12 Tooth Sprocket	②	2039
<input type="checkbox"/>	1	1" OD Sprocket Spacer Ring	③	1078
<input type="checkbox"/>	1	1" - 6 Drive Screw	④	1071
<input type="checkbox"/>	1	Drive Nut	⑤	1076
<input type="checkbox"/>	1	Drive Yoke	⑥	3301
<input type="checkbox"/>	2	7/8" ID Bearing Races	⑦	2017
<input type="checkbox"/>	1	7/8" ID Thrust Bearing	⑧	2016
<input type="checkbox"/>	1	7/8" OD Bearing Spacer Ring	⑨	1062
<input type="checkbox"/>	1	25 Link Chain	⑩	3104
<input type="checkbox"/>	2	15g Grease Packages		3103
<input type="checkbox"/>	1	Installation Procedures		6300-1 To 6300-6



Required Tools

◇	1	Phillips Screwdriver
◇	1	9/16" Wrench
◇	1	5/32" Hex Wrench

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Installation Procedures

A Can chair move up and down?

if yes -

- Raise chair to half up position.
- Securely block lift arm slider assembly.
- DISCONNECT POWER SUPPLY TO CHAIR.**
- Remove base shrouds:
 - Forward base shroud - 4 screws
 - Lift shroud - 2 screws
 - Rear base shroud - 2 screws
- ⇒ Go to Step B.

if no -

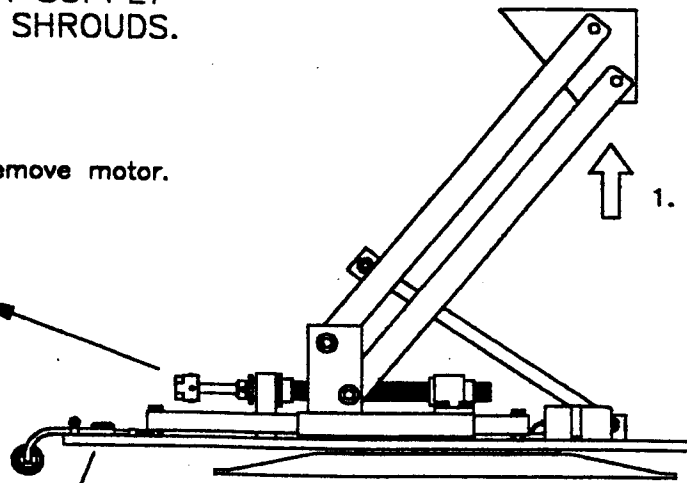
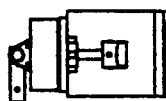
- DISCONNECT POWER SUPPLY TO CHAIR.**
- Remove base shrouds:
 - Forward base shroud - 4 screws
 - Lift shroud - 2 screws
 - Rear base shroud - 2 screws

B Remove Motor

- Remove motor mounting bolt and washer from beneath the base plate.
- Disconnect power and capacitor connectors from motor. Disconnect power cord retainer from motor mount.
- Slide motor away, keeping rubber spider in the coupler.

DISCONNECT POWER SUPPLY
BEFORE REMOVING SHROUDS.

3. Disconnect and remove motor.



1. Block securely.

2. Remove motor mounting bolt.

Diagram 1

Delrin Drive Nut Retrofit Kit

C Remove Original Drive Assembly

- Remove set screw on 18 tooth sprocket.
- Slide 18 tooth sprocket, chain, and 10 tooth sprocket and shaft away from thrust block. Discard 18 tooth sprocket, set screw, 24 link chain, and bronze oilite washer bearing.
- If chair was not raised by gear motor at the start of the retrofit procedure, manually raise the chair to the half up position and block securely.
- Remove and save 4 bolts and washers from original drive yoke. Discard the following:

- Drive screw
- Drive nut
- Yoke
- Bearing Races (2)
- Bearing
- Spacer

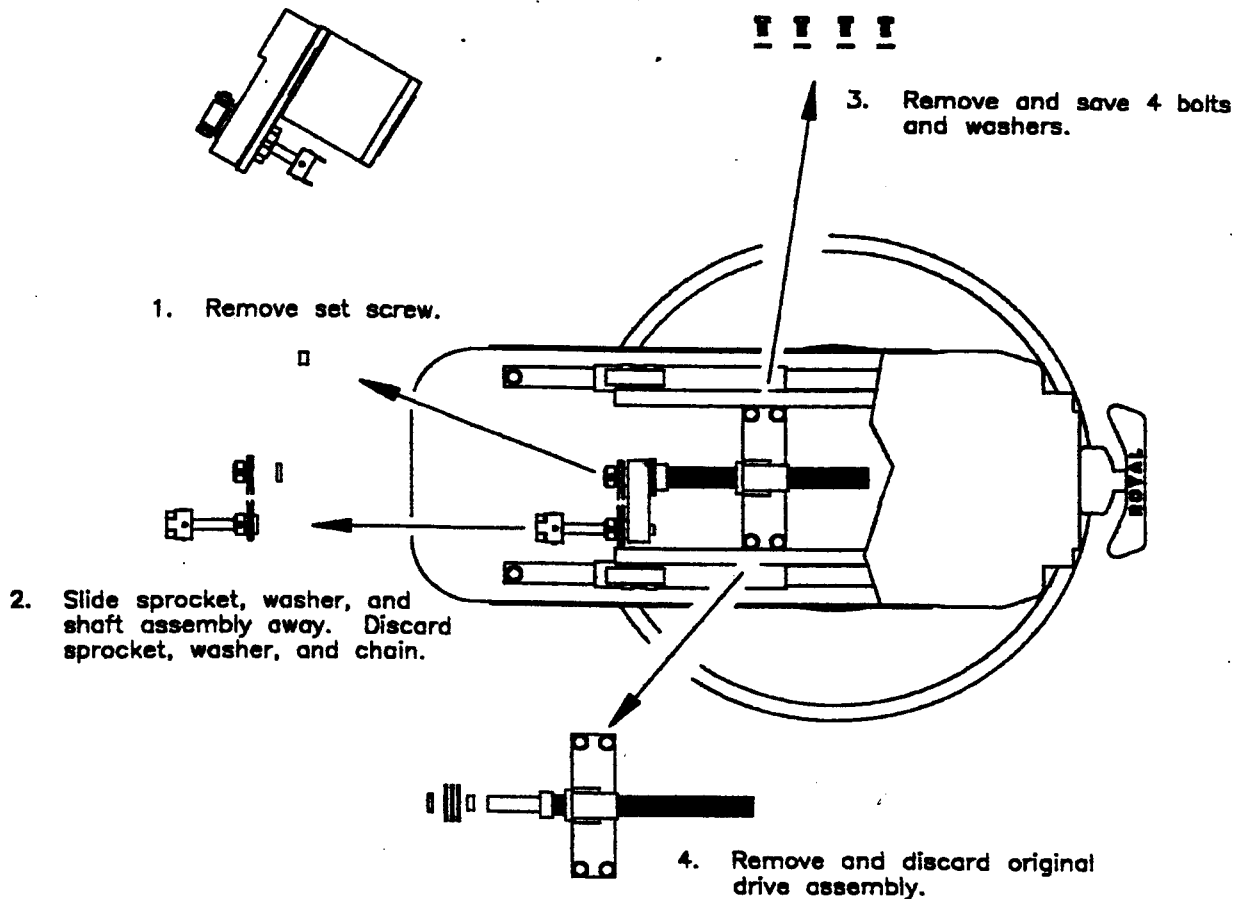


Diagram 2

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D Prepare Retrofit Drive Assembly

- Position new drive nut and yoke approximately half way down the threads of the new drive screw, if necessary.
- Loosen set screw on 12 tooth sprocket and remove sprocket and 1" OD sprocket spacer. Remove and discard plastic shipping retainer.
- Grease thrust bearing assembly and 3/4" OD screw shaft with supplied grease.

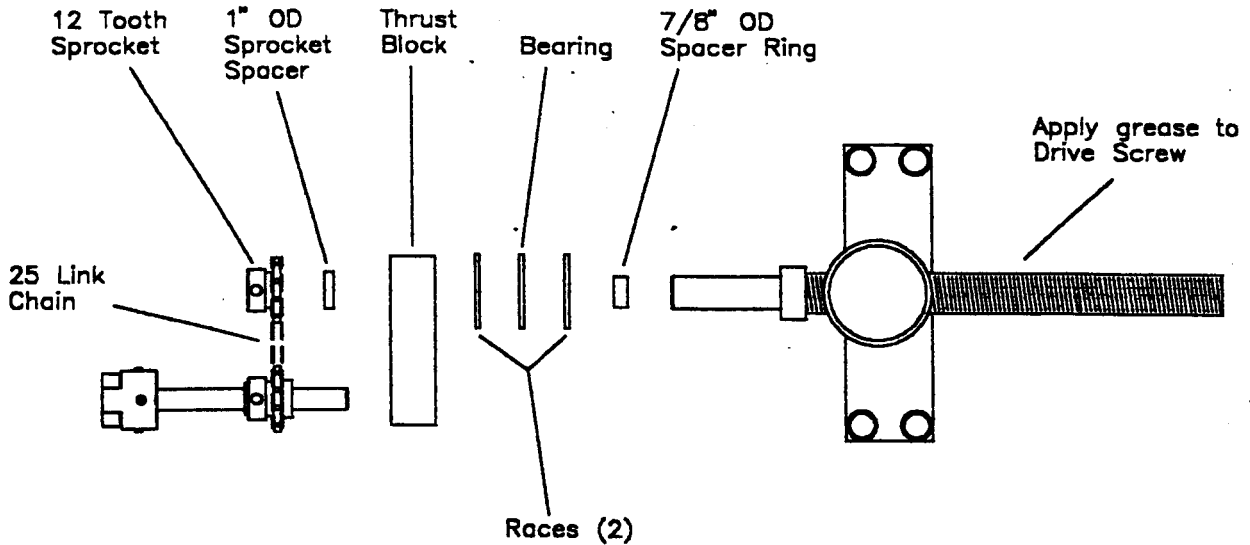


Diagram 3

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E Install Retrofit Drive Assembly

- Install retrofit drive assembly into thrust block as shown in diagrams 3 and 4. Fasten new drive yoke with original bolts and washers.
- Rotate drive screw until thrust bearing assembly is fully seated against thrust block. *Note - When seated properly, bearing spacer ring will not be visible.*
- Install 1" OD sprocket spacer ring onto drive screw.
- Install 12 tooth sprocket, 25 link chain, and original 10 tooth sprocket shaft assembly into thrust block.
- Align set screw with hole in 3/4" drive screw shaft and tighten. *Note - When installed properly, set screw will be flush with sprocket hub.*

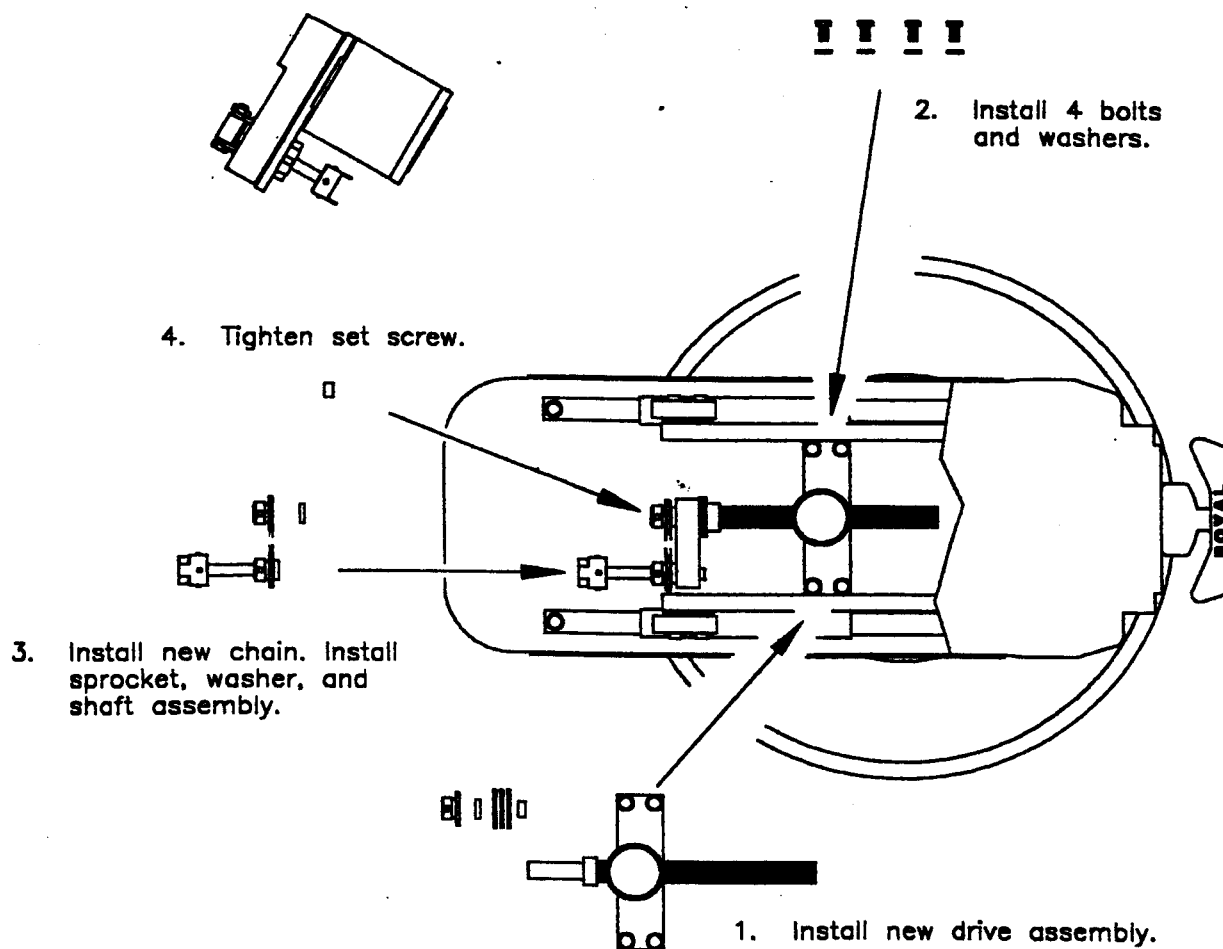


Diagram 4

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F Reset Lower Motor Limit

- Lower chair until only two drive screw threads are visible between the drive yoke and thrust collar (see diagram 5).
- Reconnect power and capacitor Molex connectors to motor. Reconnect power cord retainer to motor mount.
- Plug main chair power cord into outlet.
- Run motor down until lower limit switch automatically turns off motor.
- DISCONNECT POWER SUPPLY TO CHAIR.**
- Align motor to coupler and reinstall motor mounting bolt and washer.

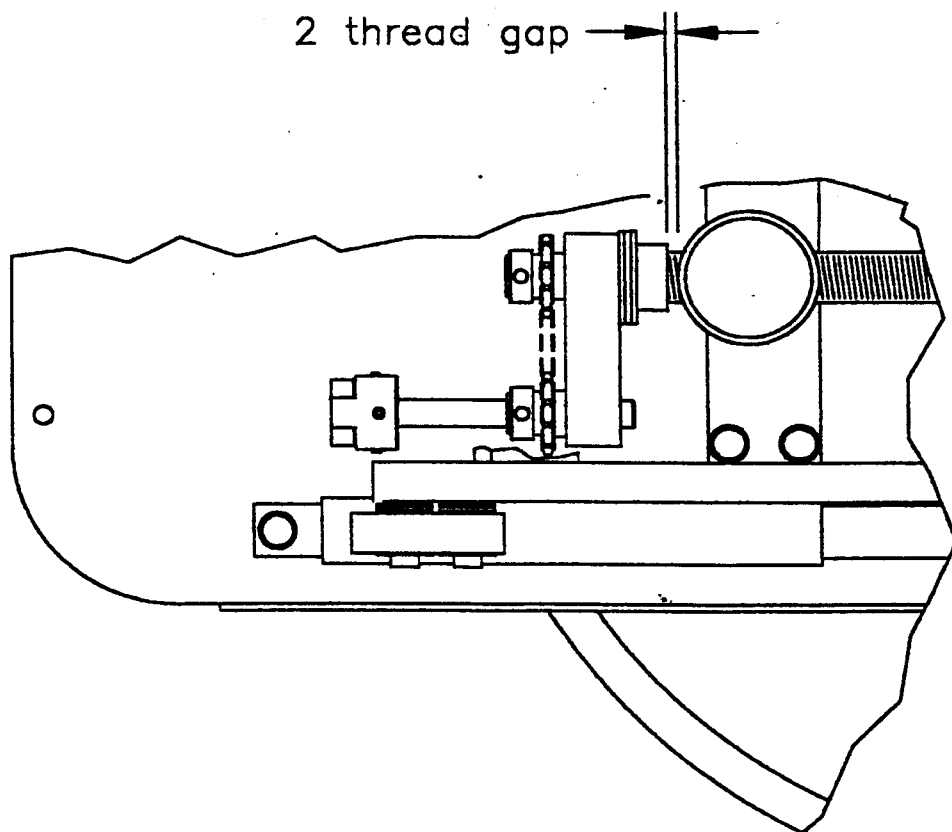


Diagram 5

G Final Preparations

- Apply grease to drive screw and slide rods. Lightly grease new 25 link chain.
Note - Applying excessive grease to 25 link chain will cause noise.
 - Reinstall base shrouds.
 - Reconnect main power supply.
- ⇒ **Retrofit installation is complete.**