



STERN Pinball Inc.

Avengers: IQ Premium/LE Disc Leveling Bushing

Part Replacement Instructions

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Note: This instruction sheet is provided as a guide for installation. The installation is performed by the owner of the product. It is the responsibility of the person installing to make sure it is installed properly and securely.

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1. Kit Contents

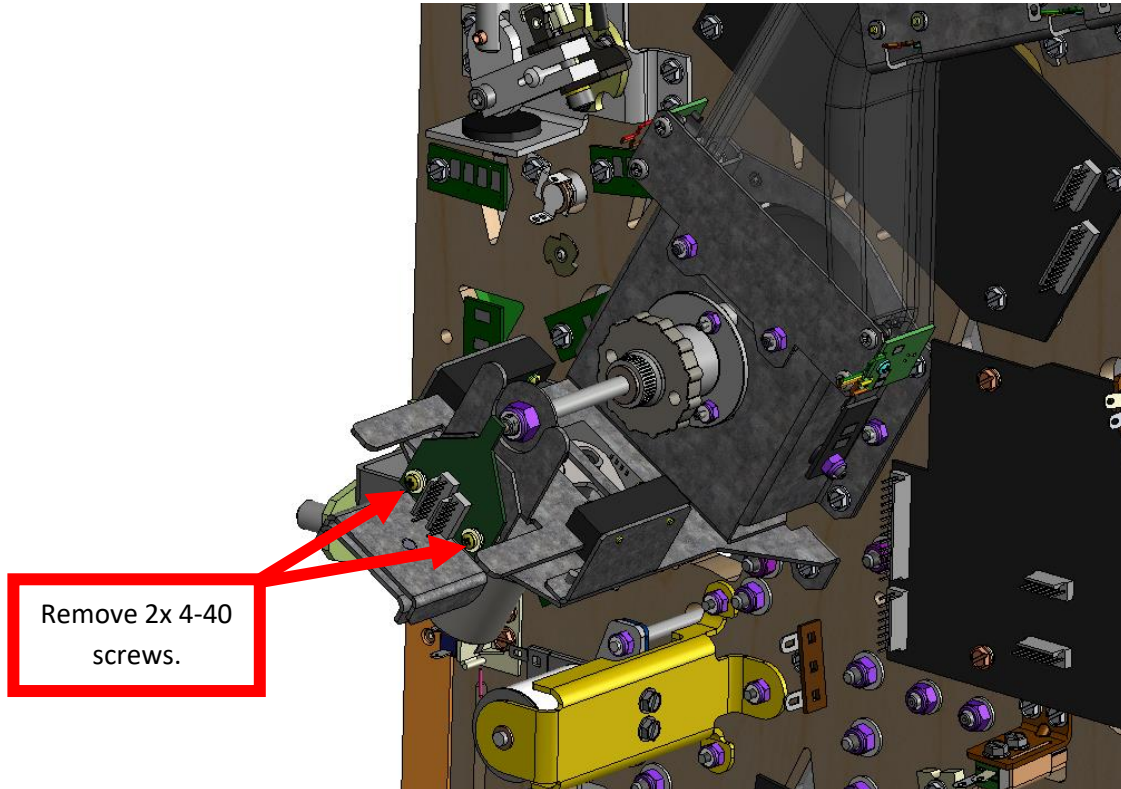
(1) 545-1231-00	LEVELING BUSHING	QTY 1
(2) 270-5002-00	¼" RETAINING RING	QTY 1
(3) 535-2390-00	RING, PROTECTOR, DISC SCOOP	QTY 1

2. Tools Required for Replacement

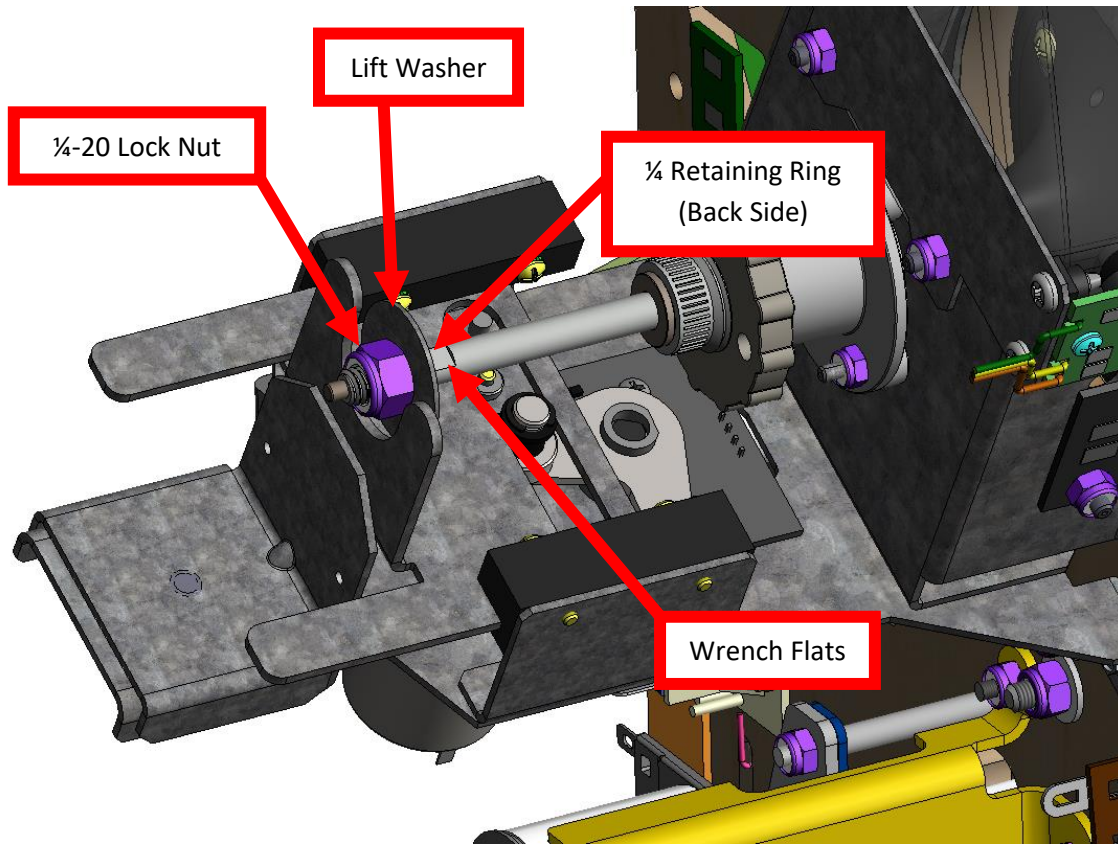
1. 7/16" Nut Driver
2. 3/16" Wrench
3. #1 Phillips Screwdriver
4. Pliers or similar tool for E-Clip removal.

3. Remove Original Leveling Bushing

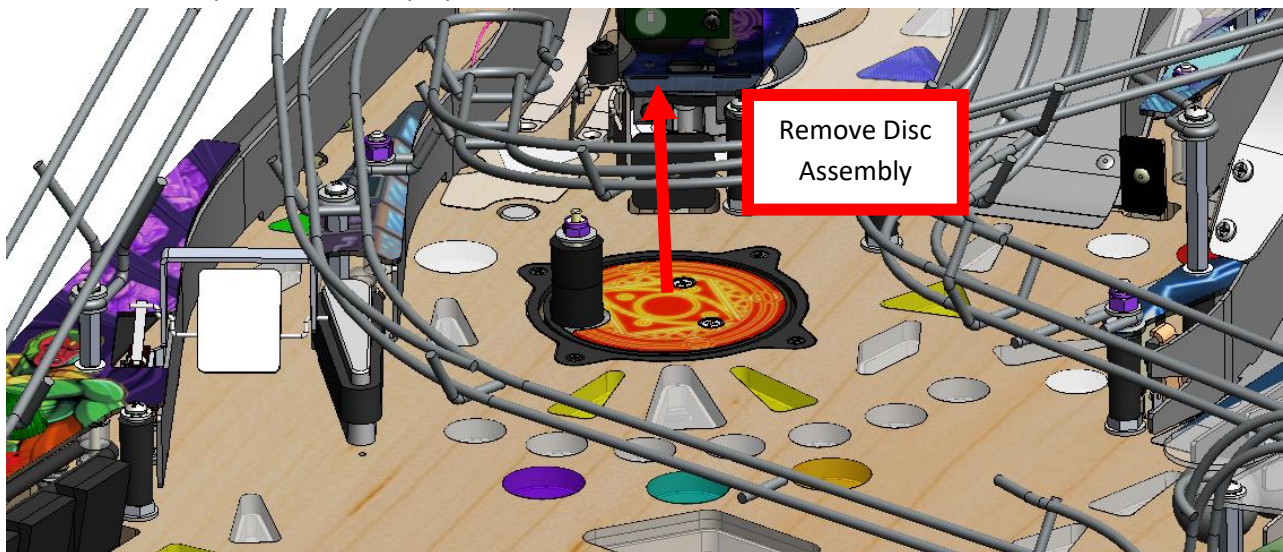
1. With game powered on and the interlock engaged, use Strange motor test to move the disc to the 'down' position. Test can be accessed by entering Service Menu -> DIAG -> GAME -> STRANGE MOTOR TEST.
2. Power off machine and move playfield to the upright service position. Please consult your game manual for instructions on how to do this properly.
3. Using a #1 Phillips screwdriver, remove the two (2) 4-40 screws securing the magnetic sensor board to the mechanism. Save hardware for re-installation.



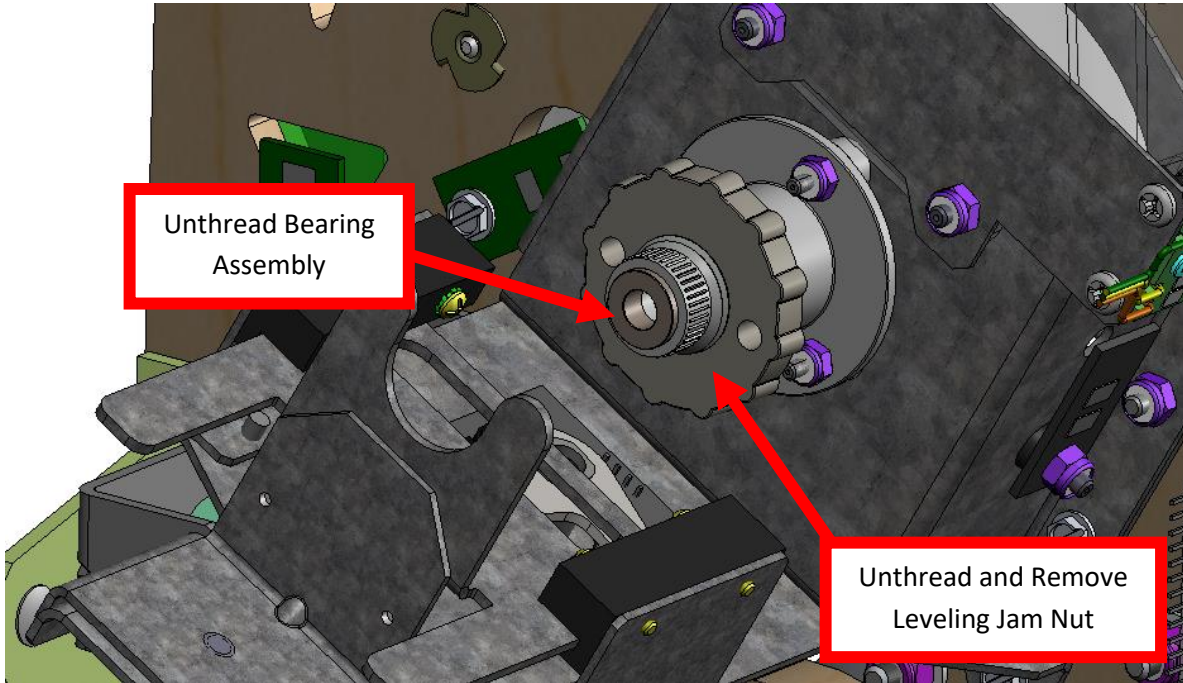
4. Using the 3/16" wrench and 7/16" nut driver, remove the 1/4-20 locking nut from the end of the shaft. Flats are present on the shaft for the 3/16" wrench. The lift washer can be removed. After the lift washer is removed, use pliers or similar tool to remove the 1/4" retaining ring from the shaft.



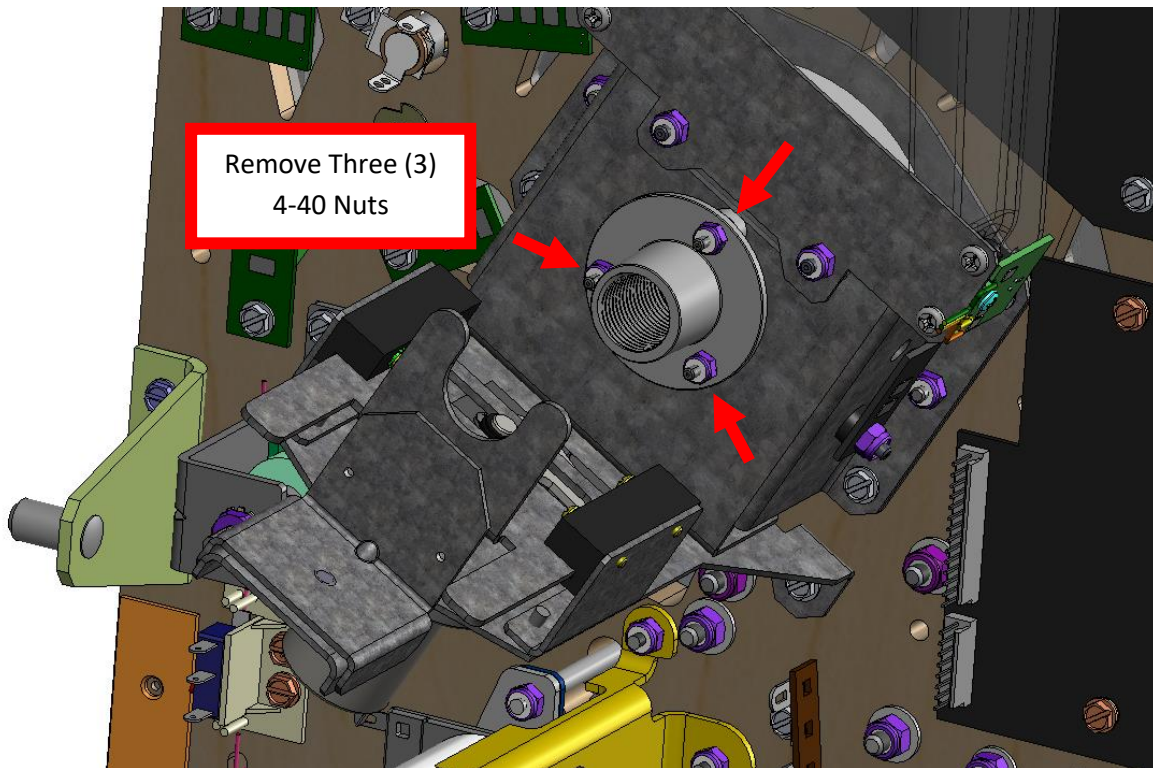
5. Move playfield to the lower playfield service position. Remove the disc shaft assembly from the game by pulling it out from the top surface of the playfield.



6. Raise playfield to upright service position. Unthread and remove the leveling jam nut. Remove the leveling bearing assembly by unthreading it completely by hand from the white leveling bushing.



7. With a ¼" nut driver, remove the three (3) 4-40 nylon locking nuts securing the white leveling bushing to the main spinner bracket. Set nuts aside for re-installation.



4. Installation of Replacement Leveling Bushing

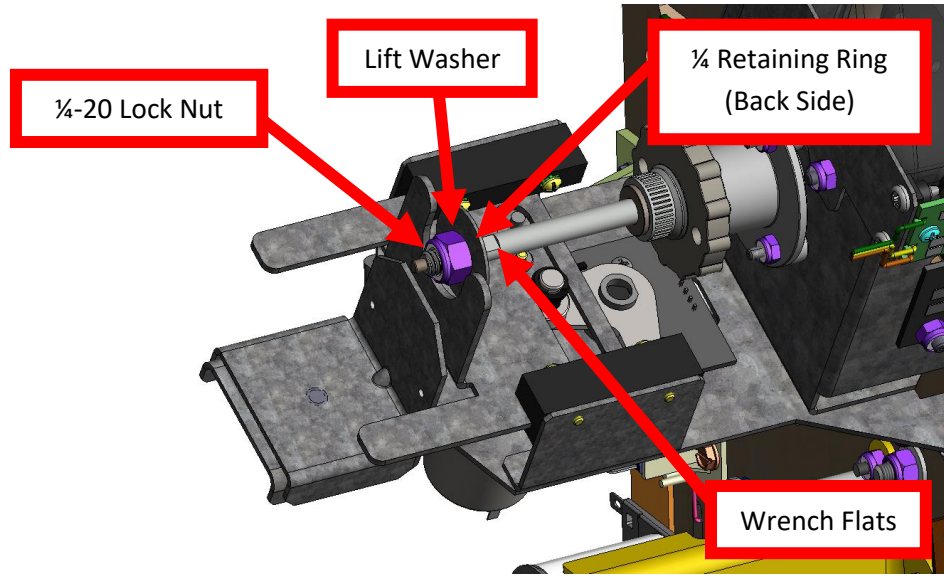
1. With a $\frac{1}{4}$ " nut driver, install the leveling bushing and three (3) 4-40 nylon locking nuts.



2. Insert disc shaft assembly from top side of playfield. Re-install leveling bushing and jam nut. Install replacement $\frac{1}{4}$ " retaining ring onto shaft if original was damaged. Retaining ring will push onto the matching groove in the disc shaft.



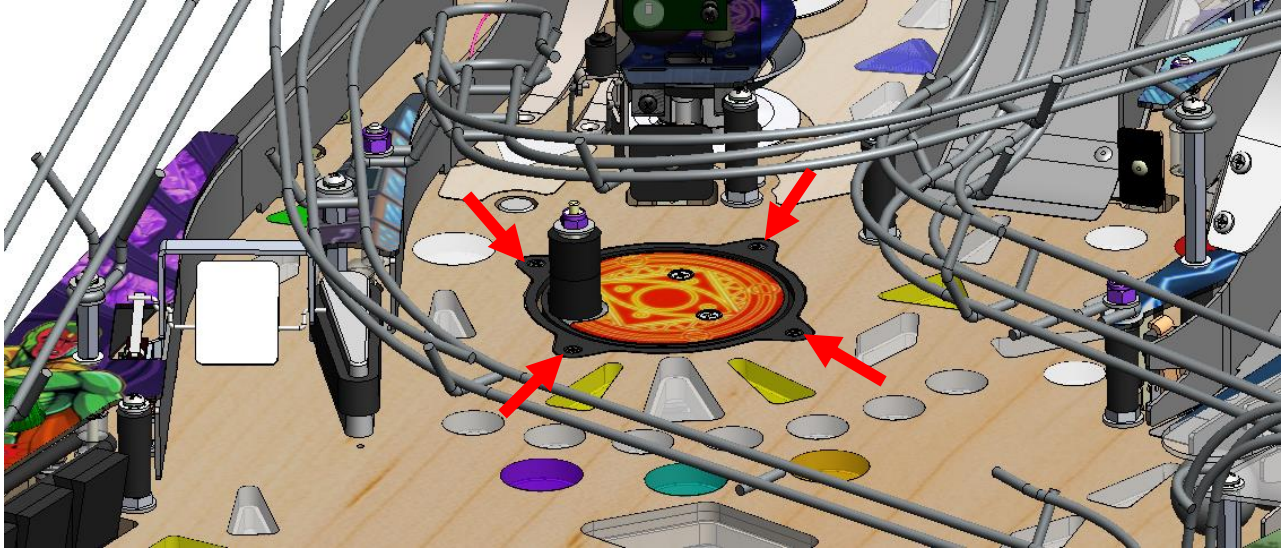
- Using the 3/16" wrench and 7/16" nut driver, re-install the 1/4-20 locking nut and lift washer on the end of the shaft. Flats are present on the shaft for the 3/16" wrench.



- Reinstall the two (2) 4-40 screws and magnetic angle sensor.
- If needed, see Section 4 for replacement of playfield protection ring. Otherwise, begin leveling and magnetic sensor calibration per the provided supplementary instruction sheet.

5. Install Replacement Protection Ring (Optional)

1. With the playfield in the down service position, use a #1 Phillips screwdriver to remove the four (4) 4-40 flat head screws indicated below. Remove the protection ring, rubber rings, and retaining clips from the game.
2. Transfer the screws, rubber rings, and retaining clips to the new protection ring.
3. Reinstall the new protection ring to the playfield.



4. Return playfield to game play position, reinstall glass, and power on game.