ASSEMBLING OUTPUT SHAFT ASSEMBLY (19) INTO UPPER GUARD GEARCASE ASSEMBLY (90)

To prevent damage to the Felt Seal (23) it is recommended to temporarily remove the felt seal until steps 1 and 2 are completed.

1. With the use of both hands, compress the Spindle Lock Spring (24) back on the Spindle Lock Plate (25) past the small hole on the plate.

2. While holding the spring back with one hand, quickly insert a thin metal instrument into the small hole on the plate. The metal instrument should capture the entire spring (all coils should be behind that tool).

With the spindle lock spring trapped behind the small hole on the spindle lock plate, slide the felt seal back onto the spindle lock plate. Position the felt seal above the corresponding cavity in the Upper Guard Gearcase.

3. Insert the open end of the spindle lock plate (25) into the opening of the Output Shaft Assembly (19) behind the gear, as shown.

4. Insert the bearing shaft portion of the output shaft assembly into the needle bearing of the upper guard gearcase assembly. Carefully wiggle the entire output shaft assembly until the gearing of the output shaft assembly engages with the pinion gearing of the Rotor (47) and the output shaft assembly slides into place.

Secure the output shaft assembly to the upper guard gearcase assembly with the use of four screws (#13, 06-82-5285, not shown). It is recommended to alternate the tightening of the screws.

5. Remove the thin metal instrument. Check for the proper functioning of the spindle locking mechanism. Rotate the spindle shaft and depress the Spindle Lock Button (26) at the same time. The spindle lock plate should drop into one of four cogs that lock the spindle. Spindle lock mechanism must return briskly when released from engagement in the lock block cog.

LUBRICATION

Type 'Y' Grease, No. 49-08-5270
Apply 3.0 grams (.10 oz) of 'Y' Grease to the gear bore in Upper Guard Gearcase (90). The grease should be directed toward the pinion end of the rotor (47).

When servicing, remove 90-95% of the existing grease prior to installing Type 'Y'. Original grease may be similar in color but not compatible with 'Y'.
IMPORTANT:

- **Strong magnetic force.** Care must be taken when installing the Rotor (47) into the Stator Assembly (49). Do not allow rotor bearing or balancing bushing to hit PCBA on the back end of the stator. This could cause damage to the PCBA. See figure 1.

- Insert the rotor/stator assembly into pinion bore of the Upper Guard Gearcase Assembly (90). Carefully wiggle and push the rotor/stator until the ball bearing in front of the fan is fully seated in the bearing bore of the gearcase. See figure 2.  
  **NOTE:** As an aid to installation, apply a light film of lubricant to the bearing bore of the gearcase before assembling the rotor/stator.

- Place the Bottom and Top Motor Insulators (55,56) in place around the rotor/stator assembly. Secure the halves with six Screws (57). A light tapping on the back of the assembled insulator halves may be necessary to completely seat the insulator halves onto the upper guard gearcase. Fasten the insulator halves to the gearcase with four Screws (13). See figure 3. When tightening, alternate the screws to assure square, even pressure.

![Figure 1](image1)

![Figure 2](image2)

![Figure 3](image3)

**NOTE:**

- Do not use grease on inside diameter of Lower Guard (11). Apply a dry Teflon® spray lubricant or something similar.

Functionally check Switch Lock-Out (64) by attempting to turn on tool by applying a reasonable amount of force, up to 8 lbs., to the switch trigger (60). The tool must not turn on. Release trigger. Actuate the lock-out lever and apply a reasonable amount of force to the switch trigger. The tool must turn on. While the trigger is still in the "ON" position, release the lock-out. Release the trigger. The tool must stop and the lock-out lever must again prevent the actuation of the Switch. Repeat the switch check two more times.

Functionally check the Lower Guard (11), with the saw set at full depth. Place the saw upside down with the shoe horizontal. Fully retract the guard and then release it. The guard must return briskly.

Depth Lever (76) must be horizontal with shoe (41) before tightening.
**WIRING OF THE ON-OFF SWITCH**

- Place ring terminal of red wire #1 (from the battery connector block) at the bottom right position of switch.
- Place ring terminal of red wire #2 (from the PCBA) at the bottom left position of the switch.
- Orient the diode with the grey stripe to the right as shown. Place ring terminals of diode assembly over the terminals of red wires #1 and #2 and secure with two switch screws.
- Route white wire #3 (from the battery connector block) between red wires #1 and #2, and under the diode assembly, to the upper right position of the switch. Secure the ring terminal with a switch screw, as shown.
- Route yellow wire #4 (from the battery connector block) between red wires #1 and #2, and under the diode assembly, to the upper left position of the switch. Secure the ring terminal with a switch screw, as shown.

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**Figure 1:**

Shown without the Spindle Lock Assembly for clarity.

- Insert the LED Assembly into cavity of Upper Guard Gearcase as shown.
- Route male connector and wires through the openings in the Gearcase and Housing Support.
- Be sure that LED wires are in Gearcase trap and pull taunt.

**Figure 2:**

- Connect the male connector of the LED Assembly with the Female connector from Battery Connector Block.

**Figure 3:**

- Place the joined connectors in the Housing Support cavity and route all wires in the appropriate wire traps as shown in main illustration.