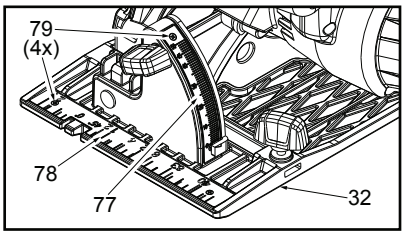
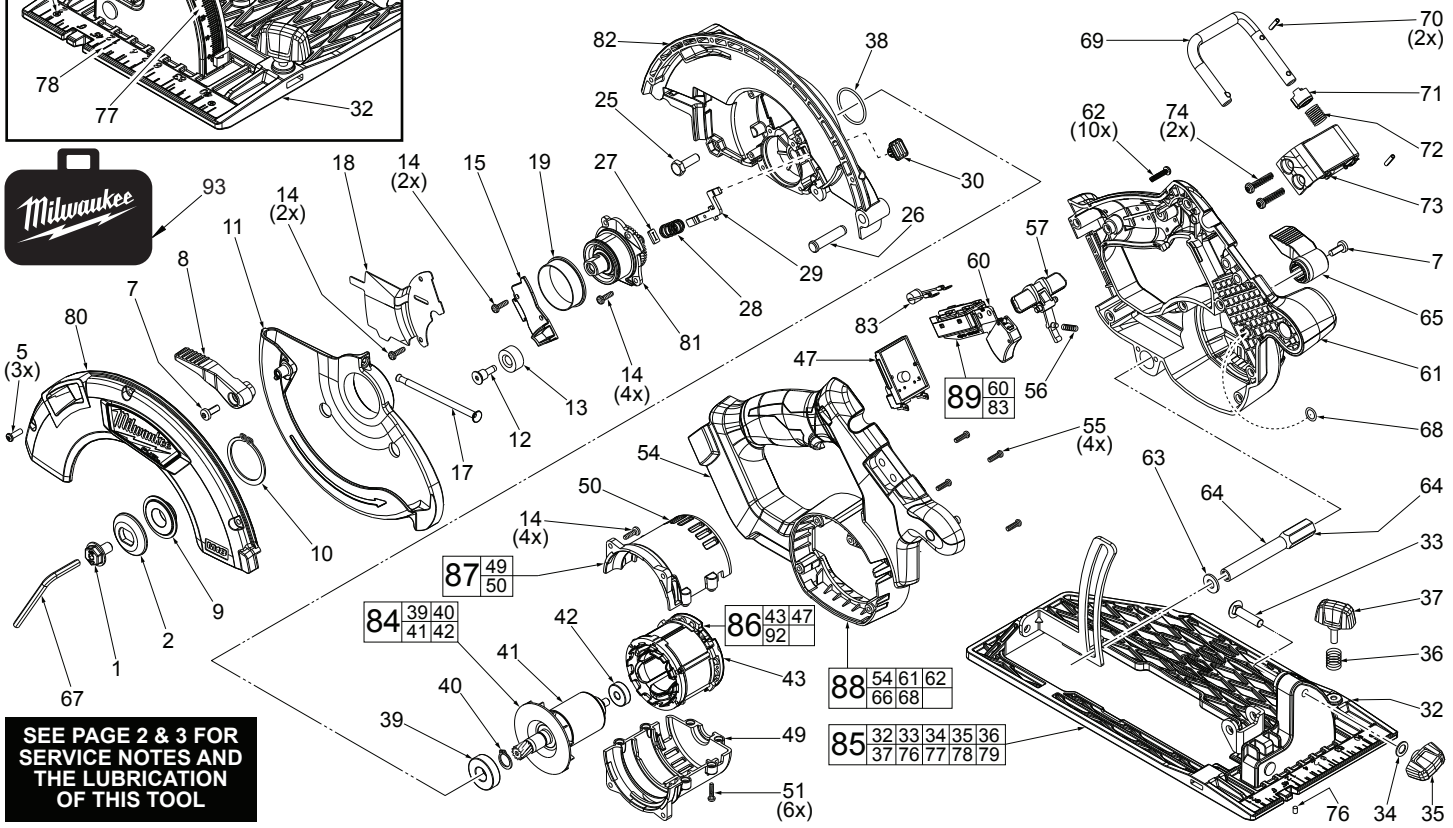
SERVICE PARTS LIST

BULLETIN NO. 54-40-2660

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS	REVISED BULLETIN	DATE
Cordless M18 FUEL™ 7-1/4" Circular Saw		Aug. 2020
CATALOG NO. 2731-20 STARTING SERIAL NO. **F95A**	WIRING INSTRUCTION	**See Page Four**



EXAMPLE:
Component Parts (Small #) Are Included When Ordering The Assembly (Large #).



SEE PAGE 2 & 3 FOR SERVICE NOTES AND THE LUBRICATION OF THIS TOOL

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	06-75-1012	Blade Screw	1
2	43-34-0795	Outer Flange	1
5	05-78-5316	M4 x 14mm Pan Hd. Taptite T-20 Screw	3
7	06-82-5314	10-24 x 1/2" Pan Hd. Taptite T-25 Screw	2
8	44-10-1008	Lower Guard Lever	1
9	43-34-0790	Inner Flange	1
10	34-60-0860	Retaining Ring	1
11	28-41-0101	Lower Guard	1
12	45-04-0485	10-32 x 13/16" Bumper Screw	1
13	42-38-0222	Rubber Bumper	1
14	06-82-5285	6-32 x 1/2" Pan Hd. Taptite T-15 Screw	12
15	31-15-0265	Spindle/LED Cover	1
16	22-06-2732	LED Assembly (Not Shown, see page 4)	1
17	40-50-0045	Lower Guard Spring	1
18	44-66-0398	Retaining Plate	1
19	45-14-0015	Plastic Sleeve	1
25	06-75-5860	1/4-20 x 3/4" Hex Hd. Screw	1
26	44-60-0741	Pivot Pin	1
27	45-06-0720	Felt Seal	1
28	40-50-8046	Spindle Lock Spring	1
29	44-20-0653	Spindle Lock Plate	1
30	42-42-1030	Spindle Lock Button	1
32	----------	Shoe	1
33	06-10-0110	M6 x 28mm Carriage Bolt	1
34	45-88-1560	Washer	1
35	43-98-0705	Bevel Adjustment Knob	1
36	40-50-0650	Rip Fence Spring	1
37	43-98-0605	Rip Fence Knob	1
38	34-40-0360	O-Ring	1
39	02-04-0795	Ball Bearing	1
40	34-60-0610	Retaining Ring	1
41	----------	Rotor	1
42	02-04-5382	Ball Bearing	1
43	----------	Stator with PCBA	1
47	----------	Battery Connector Block	1
49	23-16-0090	Motor Insulator - Top	1
50	23-16-0095	Motor Insulator - Bottom	1
51	06-82-1080	M3.0 x 14mm Pan Hd. T-10 ST Screw	6
52	23-94-2731	High Voltage Wire with Terminal (See page 4)	1
53	10-20-0359	Warning Label (Not Shown)	1

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
54	31-44-0983	Housing Support - Right Housing Halve	1
55	05-88-5380	M3.5 x 12mm T-10 Screw	4
56	40-50-1760	Switch Lock-Out Spring	1
57	42-42-0345	Switch Lock-Out Button	1
60	23-66-2635	Switch with Screws	1
61	31-44-0986	Housing Cover - Left Housing Halve	1
62	06-82-7470	6-19 x 11/16" Pan Hd. Plastite T-15 Screw	10
63	45-88-1515	Washer	1
64	45-08-0395	Depth Shaft	1
65	44-10-0018	Depth Lever	1
66	12-20-0041	Service Nameplate (Not Shown)	1
67	49-96-0600	Hex Key	1
68	34-40-4480	O-Ring	1
69	43-74-0065	Saw Hook Bar	1
70	44-60-0585	Saw Hook Pin	2
71	45-22-1005	Detent Sleeve	1
72	40-50-0985	Saw Hook Spring	1
73	43-76-0035	Saw Hook Housing	1
74	06-82-0052	M6 x 2.69 x 32mm T-25 PT Screw	2
75	22-56-0150	Wire Connector (Not Shown, see page 4)	1
76	06-83-1600	Set Screw	1
77	31-51-0137	Bevel Scale	1
78	31-51-0132	Front Scale	1
79	06-81-0015	M2.5 x 3.175 Phillips Screw	4
80	28-20-0027	Upper Guard Cover Assembly w/Logo Plate	1
81	38-50-0160	Output Shaft Assembly	1
82	28-14-0172	Upper Guard Gearcase Assy. w/Bushing	1
83	23-38-2840	Diode Assembly with Terminals	1
84	23-40-7115	Rotor Assembly	1
85	14-74-0505	Shoe Assembly	1
86	23-58-7116	Stator / Electronics Assembly	1
87	23-16-0005	Motor Insulator Assembly	1
88	14-38-0020	Housing Assembly	1
89	23-66-2639	Switch/Diode Assembly with Switch Screws	1
91	49-22-2731	Rip Fence (Not Shown)	1
92	----------	Mico Switch (Not Shown)	1
93	48-55-3500	Contractors Bag	1

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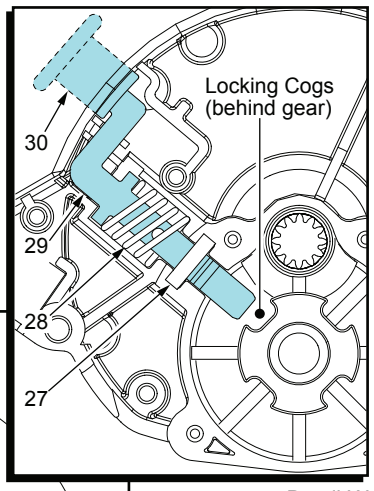
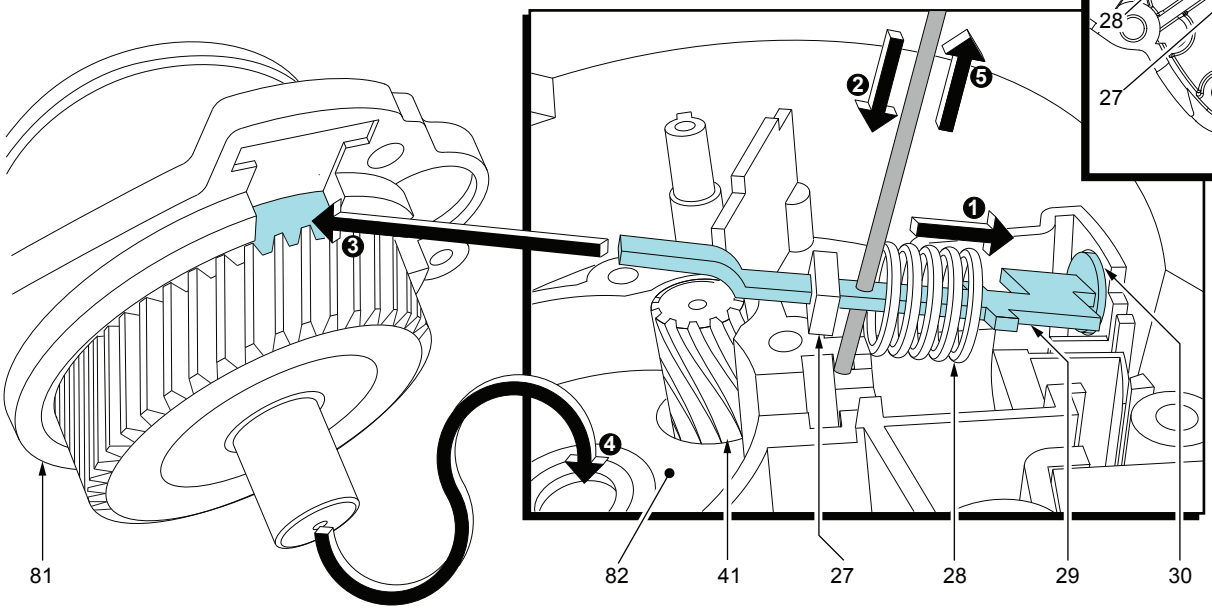
Detail 'A' shows Spindle Lock Spring (28) and Felt Seal (27) in place in the respective cavities of the Upper Guard Gearcase Assembly (82). **NOTE:** The spindle hub and gear of the Output Shaft Assembly (81) are not shown for clarity, so the four Locking Cogs of the Lock Block can be seen.



Detail 'A'



ASSEMBLING OUTPUT SHAFT ASSEMBLY (81)
INTO UPPER GUARD GEARCASE ASSEMBLY (82)

To prevent damage to the Felt Seal (27) 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 (28) back on the Spindle Lock Plate (29) 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 (82).

3. Insert the open end of the spindle lock plate (29) into the opening of the Output Shaft Assembly (81) behind the gear, as shown.

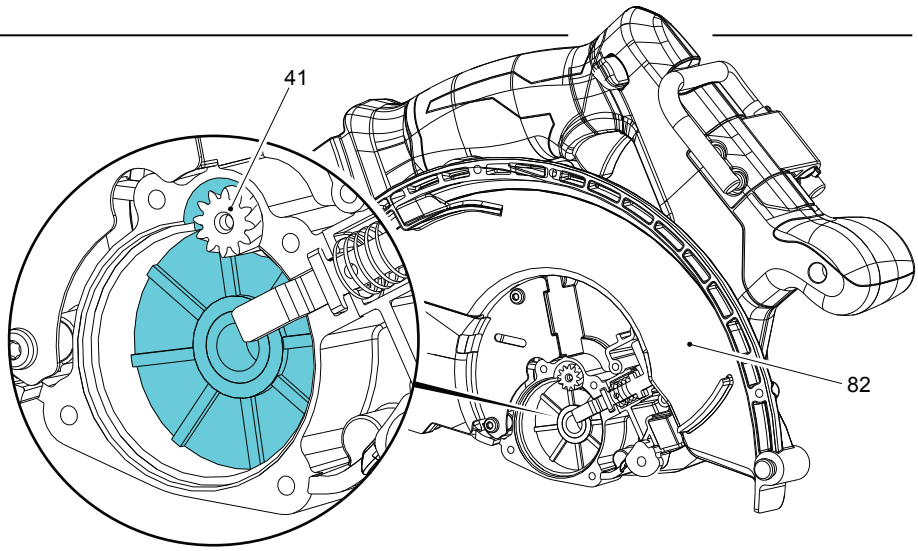
4. Insert the bearing shaft portion of the output shaft assembly into the needle bearing of the upper guard gearcase assembly. Carefully wiggle the entire output shaft assembly until the gearing of the output shaft assembly engages with the pinion gearing of the Rotor (41) and the output shaft assembly slides into place.

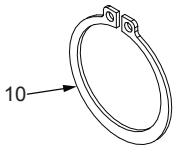
   Secure the output shaft assembly to the upper guard gearcase assembly with the use of four screws (14), not shown. It is recommended to alternate the tightening of the screws.

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 (30) 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 (82). The grease should be directed toward the pinion end of the rotor (41).

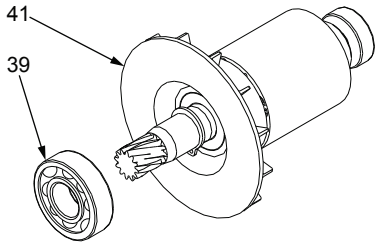
When servicing, remove 90-95% of the existing grease prior to installing Type 'Y'. Original grease may be similar in color but not compatible with 'Y'.





Retaining Ring (10) has a side with edges that are slightly rounded compared to the other side. When installing on the tool, position retaining ring with the rounded edge facing the lower guard.

Orient Ball Bearing (39) so that the seal faces the fan of the Rotor (41) and the open side faces the gearcase.



IMPORTANT:

- Strong magnetic force. Care must be taken when installing the Rotor (41) into the Stator Assembly (43). 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 (82). 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 (50,49) in place around the rotor/stator assembly. Secure the halves with six Screws (51). 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 (14). See figure 3. When tightening, alternate the screws to assure square, even pressure.

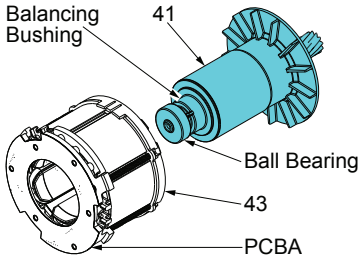


Figure 1

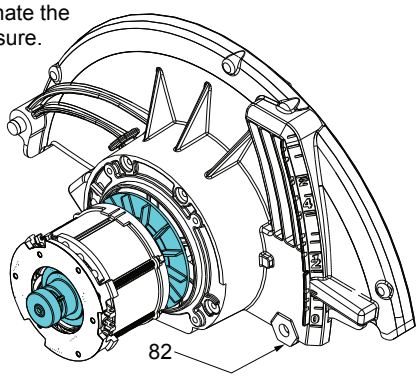


Figure 2

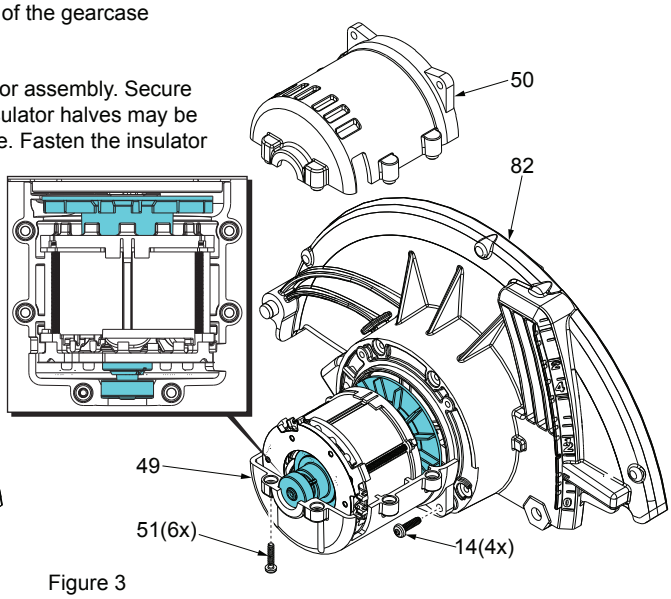
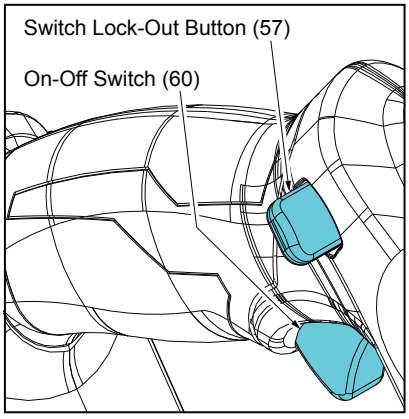


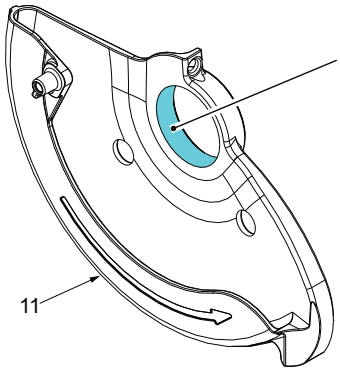
Figure 3



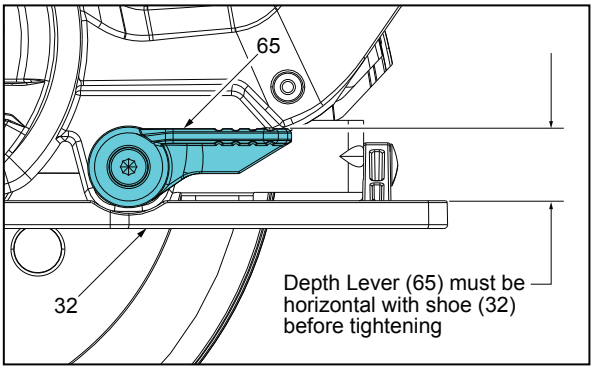
Functionally check Switch Lock-Out (57) by attempting to turn on tool by applying a reasonable amount of force, up to 8 lbs., to the switch trigger (60). The tool must not turn on.

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.

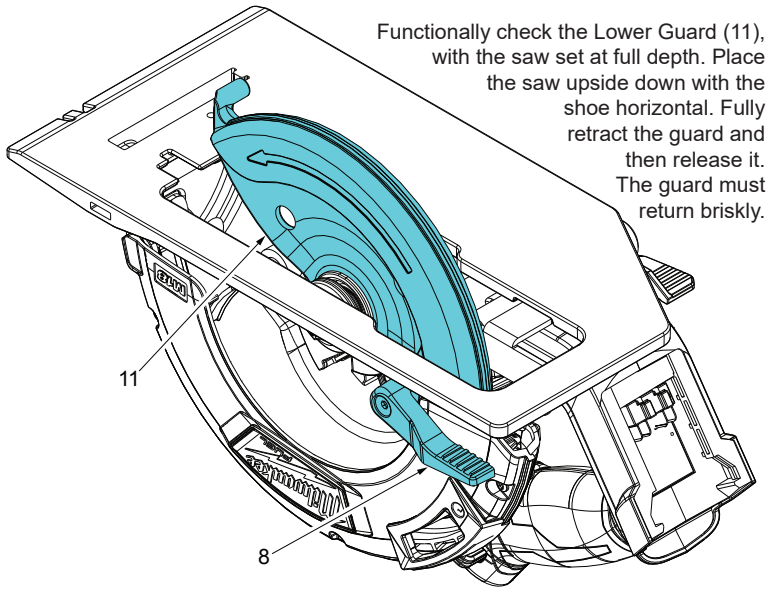
Repeat the switch check two more times.



NOTE:
Do not use grease on inside diameter of Lower Guard (11). Apply a dry PTFE spray lubricant or something similar.

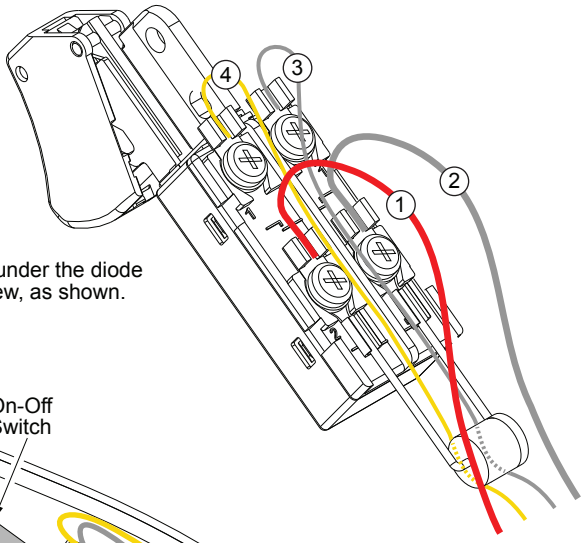


Functionally check the Lower Guard (11), with the saw set at full depth. Place the saw upside down with the shoe horizontal. Fully retract the guard and then release it. The guard must return briskly.



WIRING OF THE ON-OFF SWITCH

- **Orient the diode with the grey stripe to the right as shown.** Place ring terminals of diode assembly onto the switch prior to installing red wires #1 and white wire #2.
- Place ring terminal of red wire #1 (from the top PCBA position) at the bottom left position of switch over diode terminal. Be sure wire is routed over the diode assembly.
- Place ring terminal of white wire #2 (from the battery connector block) at the bottom right position of the switch over diode terminal. Be sure wire is routed over the diode assembly.
- Secure diode assembly and wires #1 and #2 with 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.



= WIRE TRAPS or GUIDES

Switch Lock-Out Button

On-Off Switch

Micro Switch

Diode Assembly

O-Ring #67 is seated inside boss cavity. #67 helps retain Hex Key #68.

#52

Slot

Slot

Battery Connector Block

#75 Wire Connector

This view is shown without the Wire Ribbon (between the Battery Connector Block and the PCBA) for clarity. Wire Ribbon is to be placed in this trap

LED Assy.

Motor Insulator (Top and Bottom)

High Voltage Wire #52 is routed through the slot in the Housing Support #54 and grounded by a screw #14 to Motor Insulator halve #50.

Opening in Gearcase

Stator / Electronics Assembly (Encased in the Motor Insulator Halves) Containing: Stator, PCBA, Battery Connector Block and Micro Switch

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 taut.

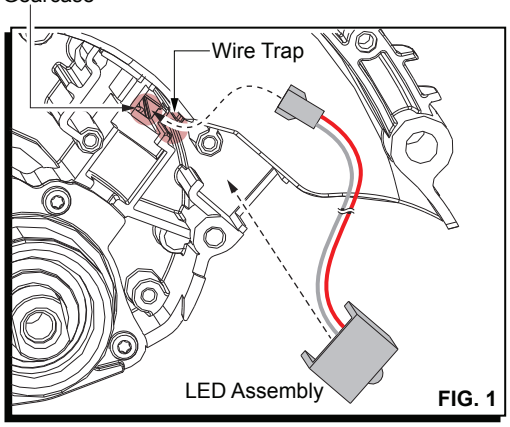


FIG. 1

Figure 2:
- Connect the male connector of the LED Assembly with the Female connector from Battery Connector Block.

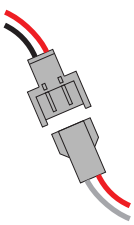


FIG. 2

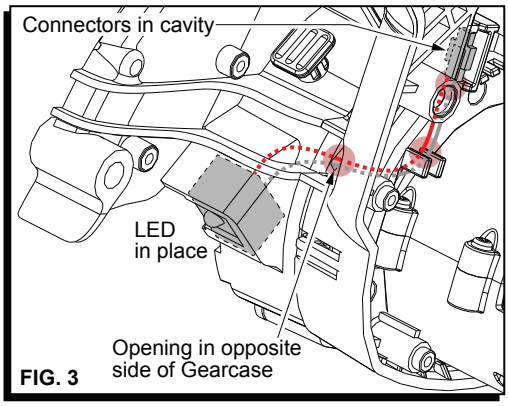


FIG. 3

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.