SERVICE PARTS LIST

BULLETIN NO. 54-40-2703

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN	DATE
M18 FUEL™ SAWZALL® Reciprocating Saw		54-40-2702	Oct. 2017
CATALOG NO. 2720-20	STARTING SERIAL NO. **F39D**	WIRING INSTRUCTION **SEE PAGE 5**	

★ = **Part number change** from previous service parts list.

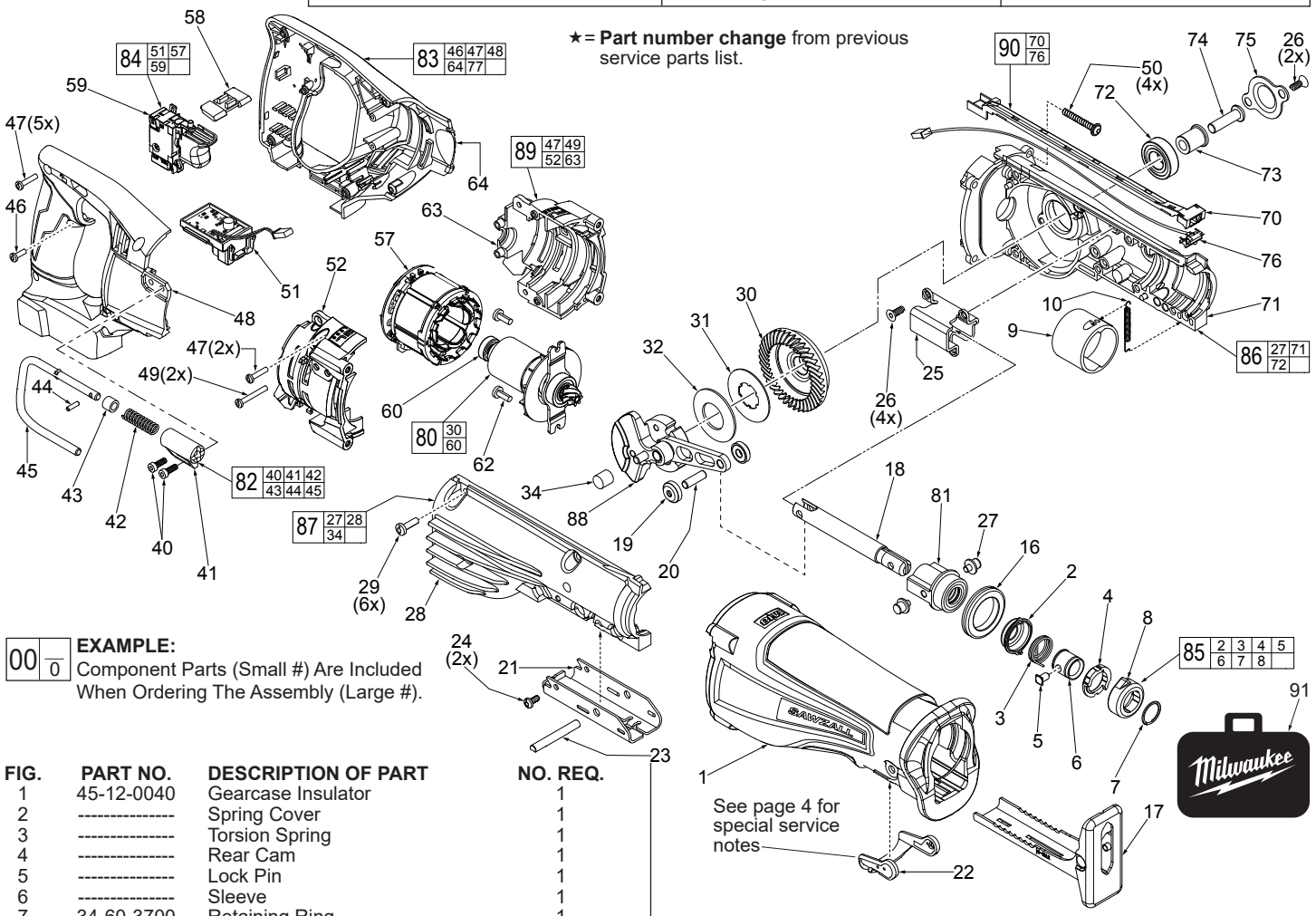
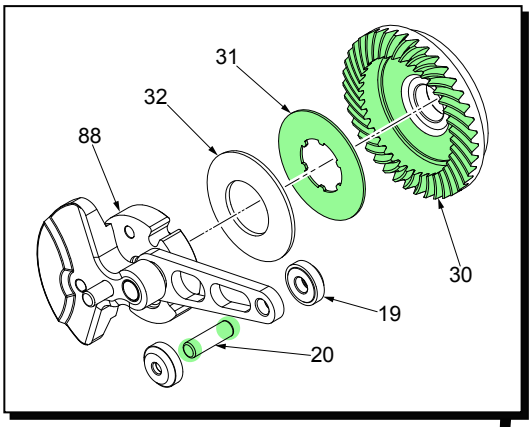
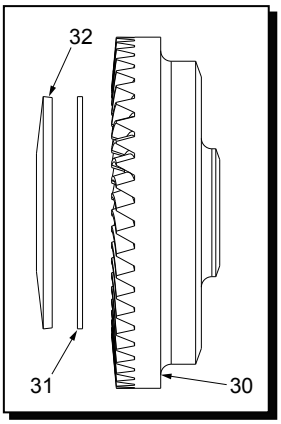


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	45-12-0040	Gearcase Insulator	1
2	----------	Spring Cover	1
3	----------	Torsion Spring	1
4	----------	Rear Cam	1
5	----------	Lock Pin	1
6	----------	Sleeve	1
7	34-60-3700	Retaining Ring	1
8	----------	Front Cam	1
9	31-11-0105	Barrel Cam	1
10	40-50-8805	Extension Spring	1
16	45-06-0230	'H' Seal	1
17	45-16-0135	Shoe Assembly	1
18	38-50-0076	Spindle	1
19	42-40-2052	Rollers	2
20	06-65-0145	Pin - Connecting Rod	1
21	44-86-0225	Shoe Retainer	1
22	31-15-2015	Shoe Release Lever	1
23	44-60-1635	Shoe Pin	1
24	06-82-7253	8-32 x 3/8" Pan Hd. Taptite T-20 Screw	2
25	43-56-0045	Orbit Slot	1
26	06-82-8890	1/2-DG50 Thread Form T-25 Screw	6
27	06-65-0135	Pivot Pin	2
28	----------	Gearcase Halve - Right	1
29	06-82-5411	10-24 x 0.625 Pan Hd. Taptite T-25 Scr.	6
★ 30	----------	Bevel Gear	1
31	43-06-0025	Metal Plate	1
32	40-50-0595	Disc Spring	1
34	02-50-1640	Needle Bearing	1
40	05-78-0910	M4 x 12mm Fillister Hd. Screw	2
41	----------	Rafter Hook Mounting Bracket	1
42	----------	Rafter Hook Spring	1
43	----------	Rafter Hook Bushing	1
44	----------	Spring Pin	1
45	----------	Rafter Hook	1
46	06-82-7240	6-19 x 1/2" Pan Hd. Plast. T-15 Screw	1
47	06-82-7261	6-19 x 11/16" Pan Hd. Plast. T-15 Scr.	7
48	----------	Handle Halve - Right	1
49	06-82-7290	6-19 x 1-1/8" Pan Hd. Plast. T-15 Scr.	2
50	05-88-8309	M5 x 35mm Pan Hd. Taptite T-20 Screw	4
51	----------	Control Board/Terminal Connector Block	1

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
52	----------	Motor Cage - Right	1
57	----------	Stator/PCBA Assembly	1
58	42-42-0195	Lockoff Shuttle	1
59	----------	On-Off Switch	1
60	02-04-0645	Ball Bearing	1
62	06-82-5324	10-24 x 1/2" Pan Hd. Tapt. T-25 Screw	2
63	----------	Motor Cage - Left	1
64	----------	Handle Halve - Left	1
70	----------	LED Tray	1
71	----------	Gearcase Halve - Left (w/ locating pins)	1
72	02-04-1516	Ball Bearing	1
73	42-40-0076	Spacer	1
74	06-08-0019	Drive Hub Bolt (Left Hand Thread)	1
75	44-66-0280	Bearing Retaining Plate	1
76	----------	LED Assembly	1
77	12-20-2669	Service Nameplate (Not Shown)	1
★ 80	14-50-0515	Rotor / Gear Assembly	1
81	14-86-0105	Front Bushing Assembly	1
82	14-36-0340	Rafter Hook Assembly	1
83	14-34-0265	Handle Halve Assembly	1
★ 84	14-20-0326	Electronics Assembly	1
85	14-46-1064	Quik-Lok® Blade Clamp Kit	1
86	14-30-0185	Gearcase Halve - Left Assembly	1
87	14-30-0180	Gearcase Halve - Right Assembly	1
88	14-09-1000	Crankshaft Assembly	1
89	14-50-0215	Motor Cage Assembly	1
90	22-09-2600	LED and Tray Assembly	1
91	42-55-2720	Carrying Case	1
92	23-94-0082	High Voltage Wire (See page 5)	1
93	22-56-0150	Closed End Connector (See page 5)	1

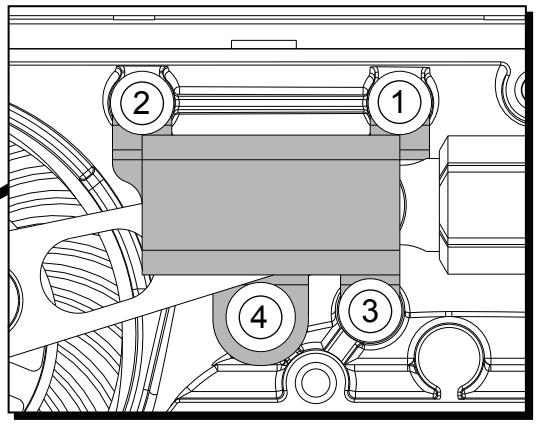
MILWAUKEE ELECTRIC TOOL CORPORATION
13135 W. Lisbon Road, Brookfield, WI 53005





Concave side of disc spring (32) must face toward metal plate (31) and bevel gear (30).

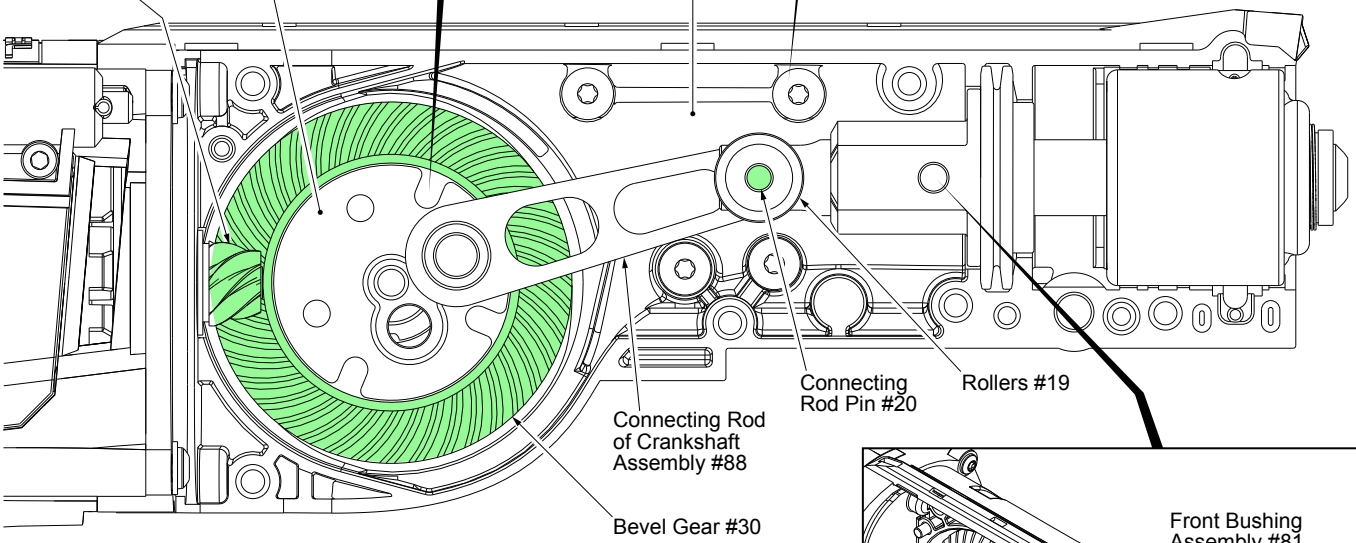
When securing the orbit slot (25), tighten screws (26) in the order shown.

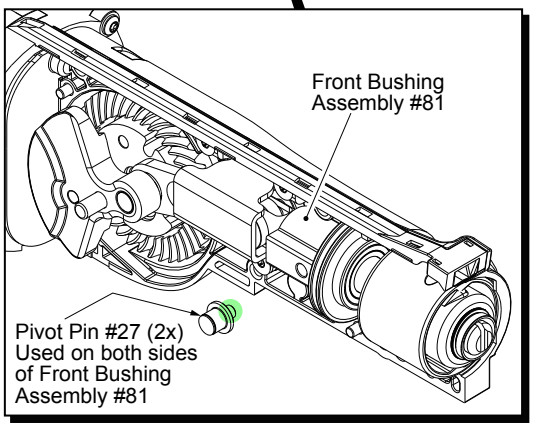


Pinion Gear of Rotor Assembly #80

NOTE: Counter Weight of Crankshaft Assembly #88 has been removed for clarity (to reveal pinion gear)

NOTE: Orbit Slot #25 has been removed from this view for clarity (to reveal Connecting Rod Pin #20 and Rollers #19)





LUBRICATION: Type 'L' Grease No. 49-08-4175 (16 oz. tub)

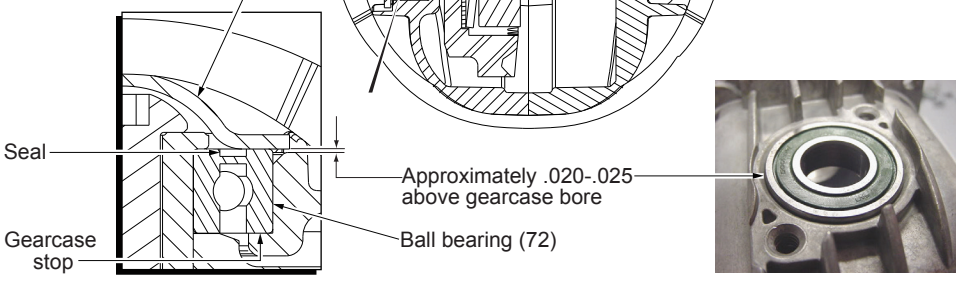
- Place 30g ±3g (approx. 1 ounce) on top of gear (30) and pinion gear of rotor assembly (80), being sure to cover the middle of the gear and all teeth.
- Place 15g ±3g (approx. .5 ounce) to the area where the gear (30) and the connecting rod of crank shaft assembly (88) interface.
- Coat both sides of the metal clutch plate (31).
- Lightly coat both pivot pins (27) where connections go into holes of front bushing assembly (81).
- Lightly coat both ends of pin (20) prior to installing rollers (19).

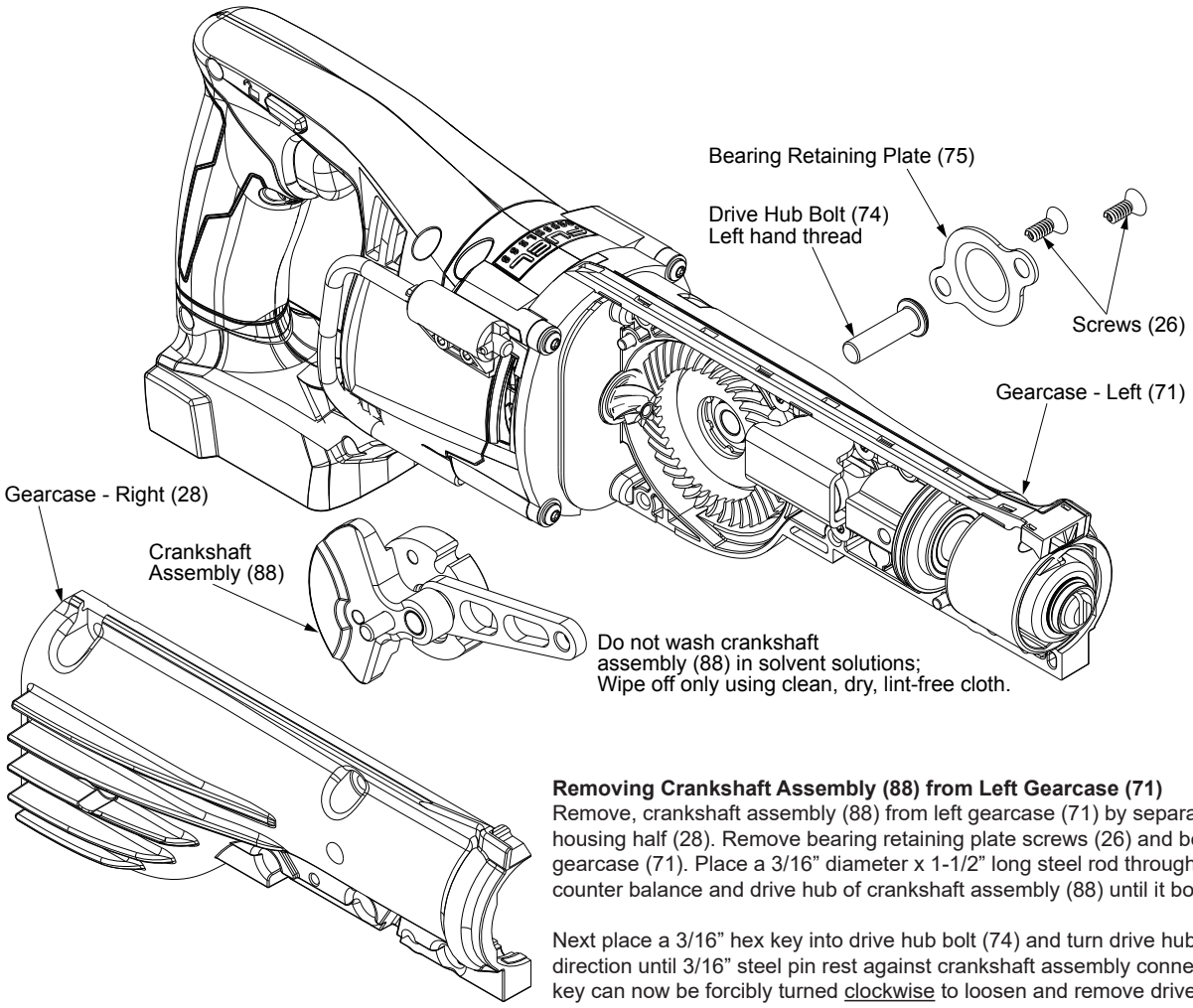
BACK VIEW

Ball bearing (3) to be pressed to gearcase stop with seal to the outside.

Press needle bearing (5) flush to subflush .005".

Retaining Plate (75)



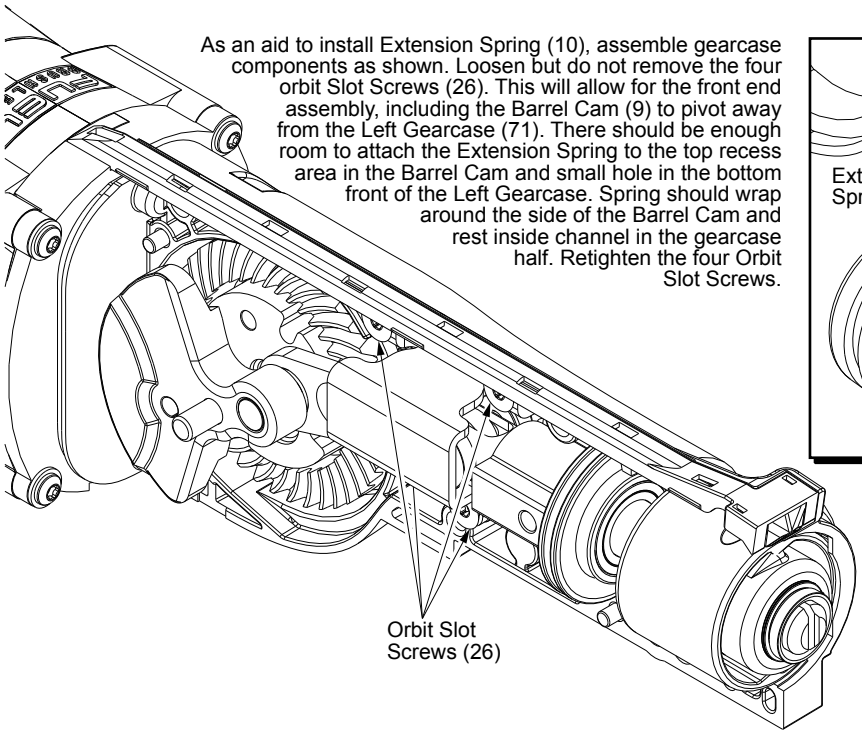


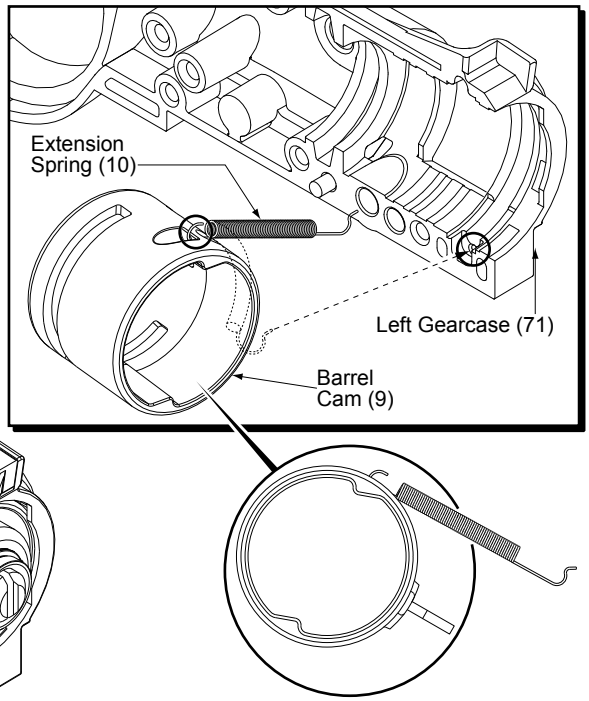
Removing Crankshaft Assembly (88) from Left Gearcase (71)
Remove, crankshaft assembly (88) from left gearcase (71) by separating / removing right housing half (28). Remove bearing retaining plate screws (26) and bearing plate (75) from left gearcase (71). Place a 3/16" diameter x 1-1/2" long steel rod through the holes found in the counter balance and drive hub of crankshaft assembly (88) until it bottoms out.

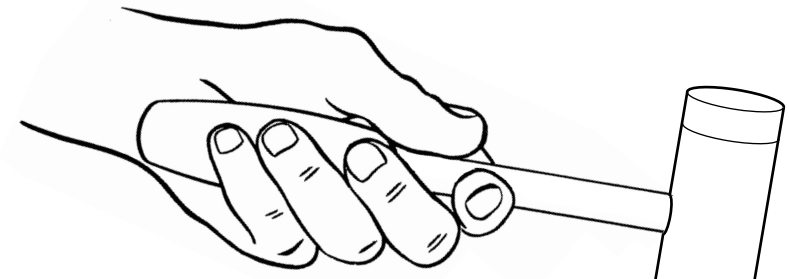
Next place a 3/16" hex key into drive hub bolt (74) and turn drive hub bolt slowly in a clockwise direction until 3/16" steel pin rest against crankshaft assembly connecting rod. The 3/16" hex key can now be forcibly turned clockwise to loosen and remove drive hub bolt (74).

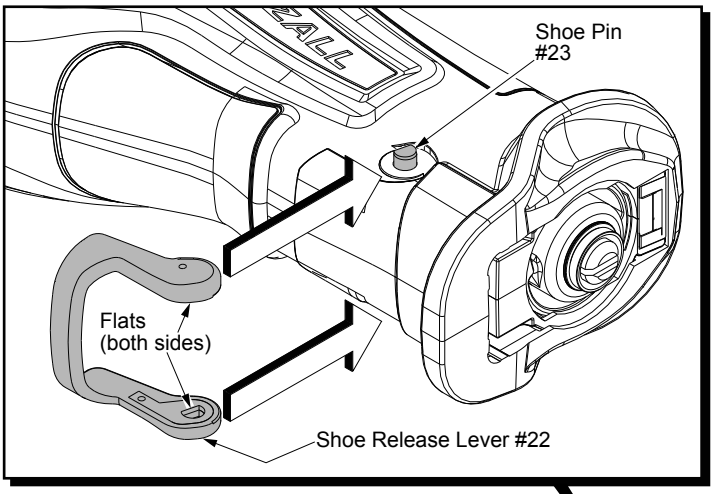
Reinstalling Crankshaft Assembly (88) into Left Gearcase (71)
To reinstall drive hub bolt (74) to crankshaft assembly (88) apply Blue Loctite® (44-20-0090) to threads of drive hub bolt (74) and insert through spacer (73) aligning threads of drive hub bolt (74) with internal threads of crankshaft assembly hub. Use a 3 /16" hex key to turn the drive hub bolt (74) slowly in a counter clockwise direction until 3/16" steel pin rest against crankshaft assembly connecting rod (See 'Removing Crankshaft Assembly' instructions above). Using an inch pound torque wrench and a 3/16" hex key, torque drive hub bolt (74) to 210-240 in. lbs. or bolt can be tightened using a ft. lbs. torque wrench to 17-20 ft. lbs.

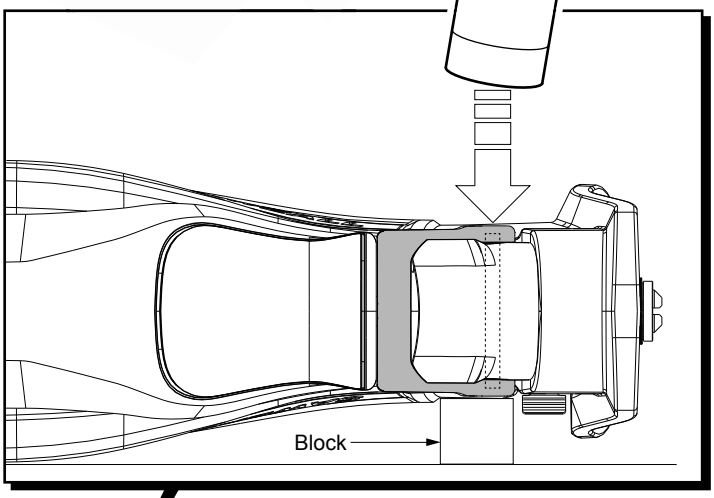
As an aid to install Extension Spring (10), assemble gearcase components as shown. Loosen but do not remove the four orbit Slot Screws (26). This will allow for the front end assembly, including the Barrel Cam (9) to pivot away from the Left Gearcase (71). There should be enough room to attach the Extension Spring to the top recess area in the Barrel Cam and small hole in the bottom front of the Left Gearcase. Spring should wrap around the side of the Barrel Cam and rest inside channel in the gearcase half. Retighten the four Orbit Slot Screws.

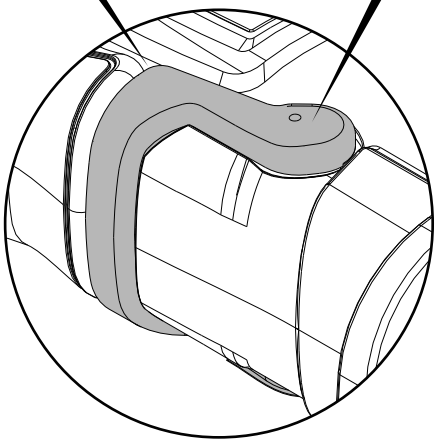












To properly install the Shoe Release Lever #22 onto the Shoe Pin #23 do the following:

Insert the shoe pin through the hole in the gearcase insulator. Center the shoe pin with equal amounts of the pin protruding from each side of the tool.

Rotate the shoe pin so the flats of the pin will align with the flats in the shoe release lever cavities.

The shoe release lever is stiff but flexible. Place the shoe release lever over the gearcase insulator. Lift one end of the shoe release lever onto the shoe pin (with flats aligned) and press into place.

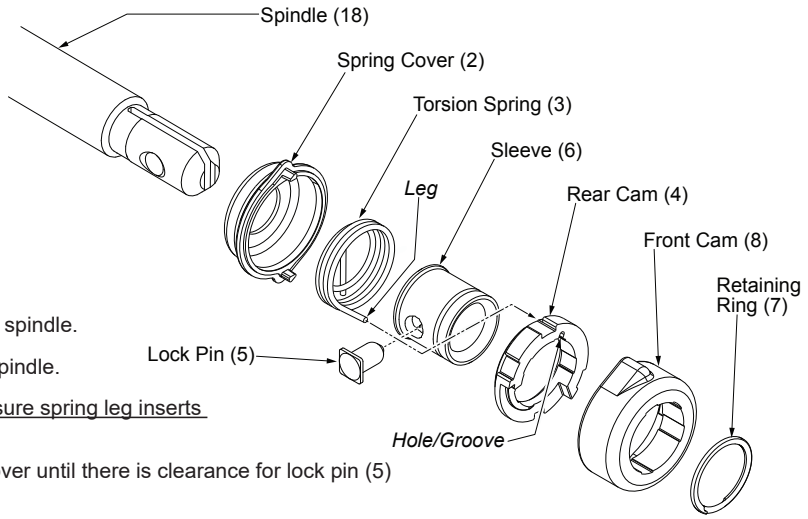
Pull the other end of the shoe release lever over the other side of the pin and press in place.

Place the tool on its side on a hard flat surface. Place a small wood block approximately 1-1/8" thick under the tool, between the hard surface and the shoe release lever, directly beneath the pin.

With a rubber mallet, strike the shoe release lever several times to completely seat the lever onto the pin and to asure that the pin is properly centered within the gearcase.

REMOVING THE STEEL QUIK-LOK® BLADE CLAMP -

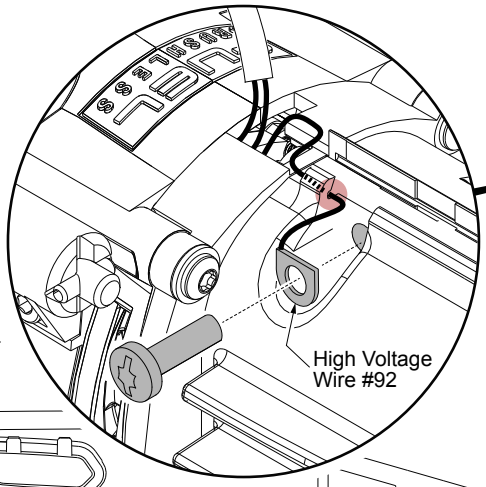
- Remove external retaining ring (7) and pull front cam (8) off.
- Pull lock pin (5) out and remove remainder of parts and discard.



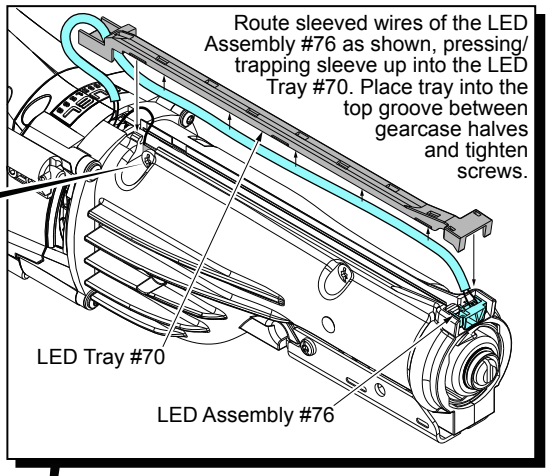
REASSEMBLY OF THE STEEL QUIK-LOK® BLADE CLAMP

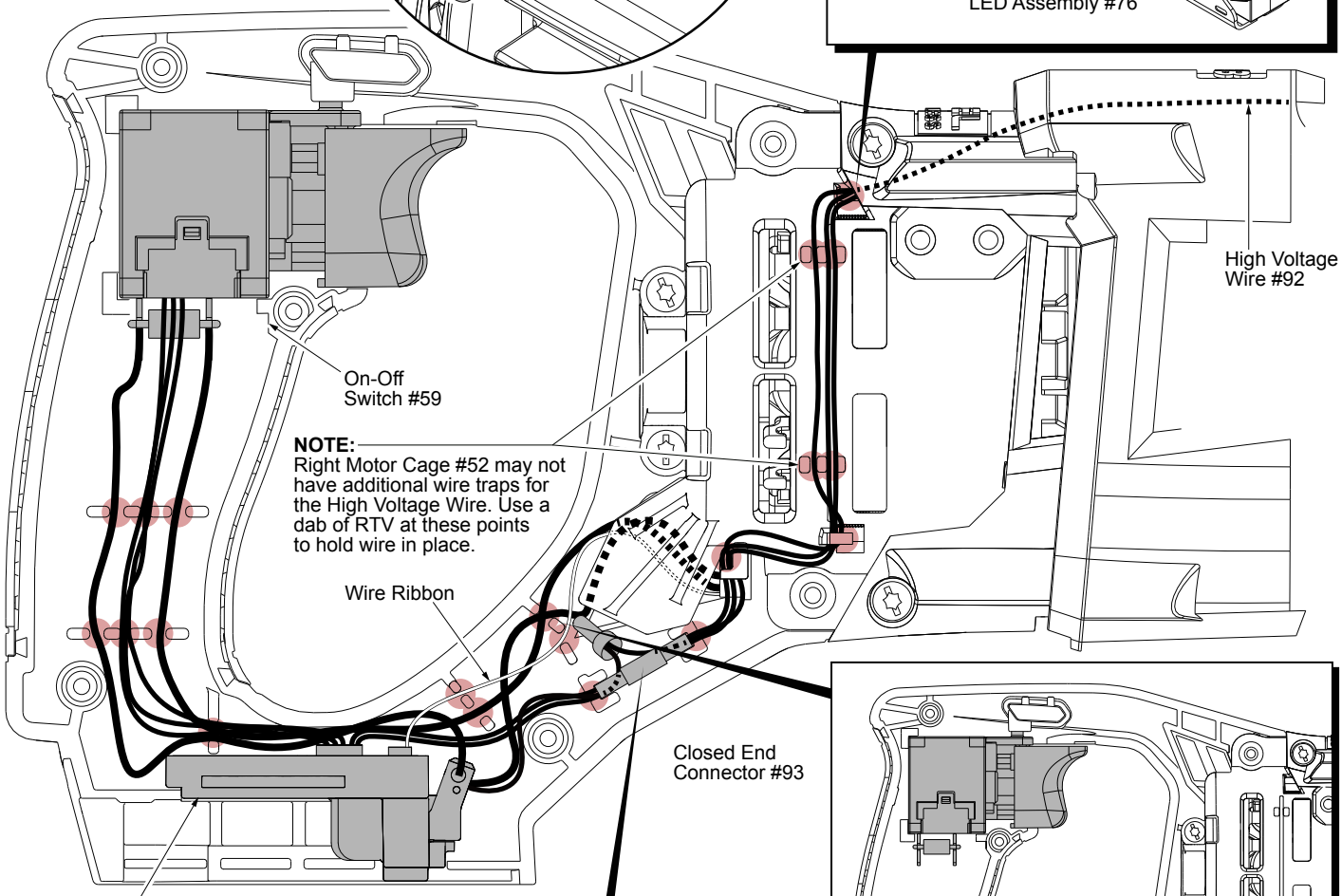
- Coat new lock pin with powdered graphite.
- Hold tool in a vertical position.
- Place spring cover onto spindle.
- Slide torsion spring (3) onto spindle with spring leg on hole side of spindle.
- Slide sleeve (6) onto spindle aligning hole on sleeve with hole in spindle.
- Slide rear cam over sleeve until it bottoms on sleeve shoulder, ensure spring leg inserts into groove of cam.
- Rotate rear cam in the direction of the arrows located on spring cover until there is clearance for lock pin (5) to be inserted into sleeve/spindle holes. Insert lock pin.
- Align front cam (8) inner ribs with rear cam outer slots and slide front cam onto sleeve until it bottoms. Retaining ring groove should be completely visible.
- Attach retaining ring (7) by separating coils and inserting end of ring into groove, then wind remainder of ring into groove. Ensure ring is seated in groove.
- Blade clamp should rotate freely. During normal usage, debris may not allow blade clamp to rotate freely. The use of spray lubricant can help free blade clamp. In extreme conditions, follow these instructions to remove, clean and reassemble blade clamp.

Prior to installing the LED and Tray Assembly #90, route High Voltage Wire #92 around and through the Motor Cage Assembly #89 as shown. Secure to the Gearcase Halve #28 with Screw #29.

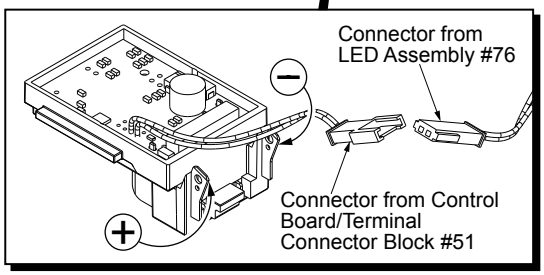


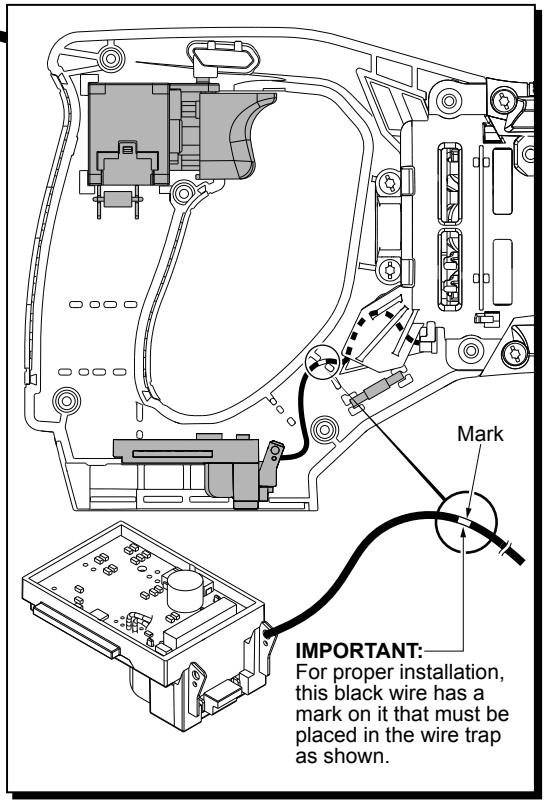
Route sleeved wires of the LED Assembly #76 as shown, pressing/ trapping sleeve up into the LED Tray #70. Place tray into the top groove between gearcase halves and tighten screws.

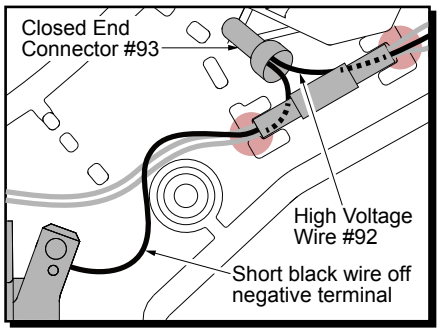




= WIRE TRAPS or GUIDES







Strip short black wire (from the negative terminal of the Control Board/Terminal Connector Block #51) to about 3/16". StripHigh Voltage Wire #92 to approximately 3/16". Twist the metal strands of both wires together. Twist a Closed End Connector #93 over the wire strands. Crimp the barrel of the connector to secure the wires. Route the High Voltage Wire as shown above starting with the HV wire in the bottom of the LED/Terminal connector cavity, under the joined connectors.