



# SERVICE PARTS LIST

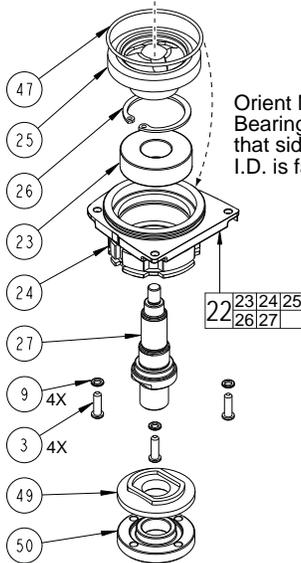
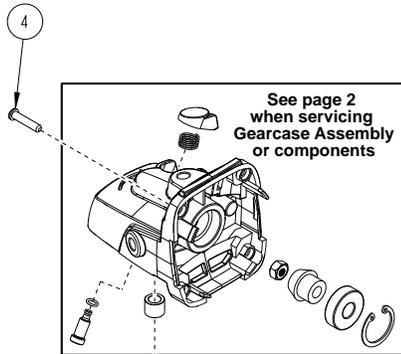
**BULLETIN NO.**  
54-38-1761

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN	DATE
<b>5" / 6" RAT-TAIL ANGLE GRINDER</b>		54-38-1760	July 2010
<b>CATALOG NO. 6123-31</b>	STARTING SERIAL NUMBER	WIRING INSTRUCTION <b>See Page 3</b>	
	<b>B68B</b>		

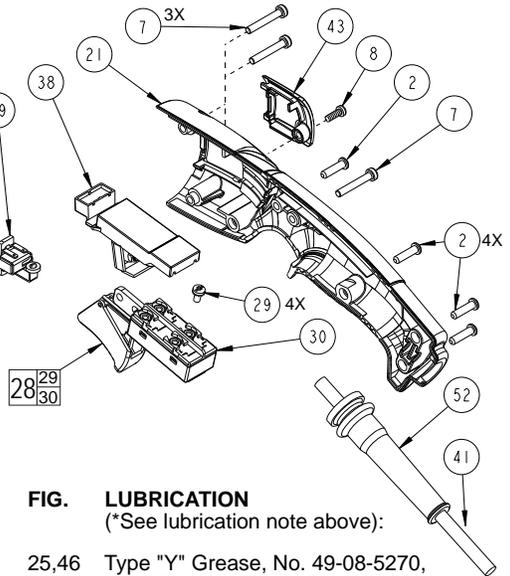
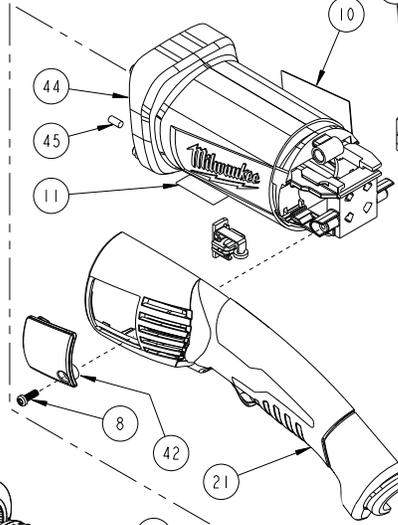
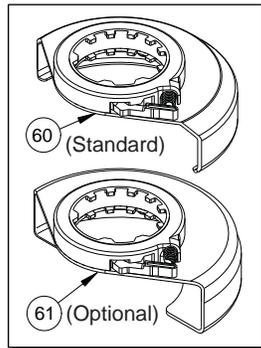
**EXAMPLE:**  
00 0 Component Parts (Small #) Are Included  
When Ordering The Assembly (Large #).

**\* LUBRICATION NOTE:**  
When servicing the Gears (25 & 46) or the Gearcase (15), 90-95% of the old grease must be removed prior to new grease being added.

Rubber Slug (45) is to be placed in a cavity by the bearing bore in the back of Motor Housing (44).



Orient Needle Bearing (14) such that side with vendor I.D. is facing Gear (25).



**FIG. LUBRICATION**  
(\*See lubrication note above):

- 25,46 Type "Y" Grease, No. 49-08-5270, Must Be Applied To All Gear Teeth.
- 15,47 Lightly coat with grease O-Ring and bearing bore in Gearcase.
- 15 .3 -.4 Ounces (9-12 Grams) Type "Y" Grease, No. 49-08-5270.

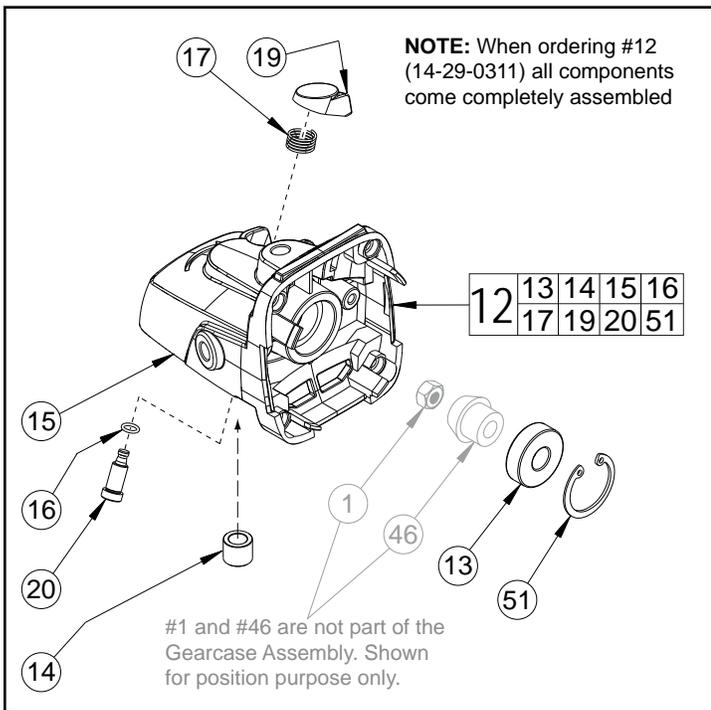
Orient Magnetic Disc Assembly (33) with 'half moon' cut outs facing Ball Bearing (35) as shown. Exercise caution when installing. Make sure that the shoulder of Magnetic Disc Assembly rests against commutator bars with no visible gap.

Orient Fan Baffle (48) with small notch to the top and large notch to the bottom.

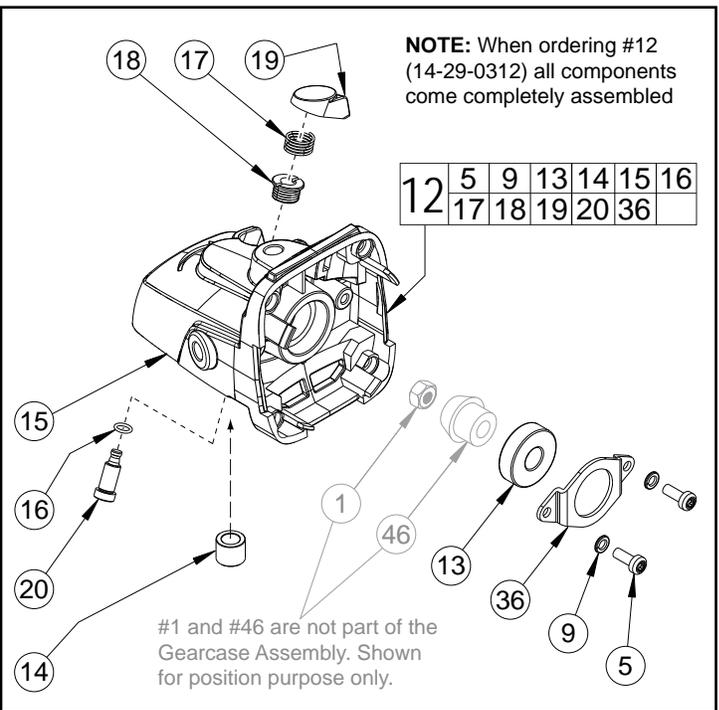
Orient Retaining Rings (26 & 51) so the bevel side faces away from Ball Bearings (13 & 23).

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
2	05-88-1200	M4 x 16 Pan Hd. T-20 Screw	(4)
3	05-88-1210	M4 x 14 Pan Hd. T-20 Screw	(4)
4	05-88-1250	M4 x 20 Pan Hd. T-20 Screw	(4)
6	05-88-1290	M4 x 76 Pan Hd. T-20 Screw	(2)
7	05-88-1650	M4 x 25 Pan Hd. T-20 Screw	(3)
8	05-88-1610	M3.5 x 10 Pan Hd. T-10 Screw	(2)
9	05-90-0225	M4 Lock Washer (See page 2)	(4 or 6)
10	12-20-6116	Service Nameplate	(1)
11	10-15-1230	Warning Label	(1)
21	14-34-0810	Rear Handle Assembly	(1)
22	14-73-0410	Spindle/Hub Assembly	(1)
23	02-04-1150	Ball Bearing	(1)
24	28-53-0410	Lower Gearcase Hub	(1)
25	32-05-1310	Bevel Gear	(1)
26	34-80-2275	Retaining Ring	(1)
27	38-50-1280	Spindle	(1)
28	14-78-0525	Switch Assembly	(1)
29	05-88-1600	M4 x 10 Pan Hd. Slit. T-15 Screw	(4)
30	23-66-2685	Switch	(1)
31	16-10-7010	Service Armature Assembly	(1)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
33	23-27-0110	Magnetic Disc Assembly	(1)
34	45-88-0406	Washer	(1)
35	02-04-2110	Ball Bearing	(1)
37	18-07-2325	Service Field	(1)
38	22-09-1800	Module Assembly	(1)
39	22-22-1560	Carbon Brush Assembly	(2)
41	22-64-2020	Cord	(1)
42	31-15-2205	Brush Cover - Left	(1)
43	31-15-2200	Brush Cover - Right	(1)
44	31-50-2600	Motor Housing	(1)
45	31-53-0240	Rubber Slug	(1)
47	34-40-0180	O-Ring	(1)
48	42-14-0490	Fan Baffle	(1)
49	43-34-0036	Inner Disk Flange	(1)
50	44-40-0035	Outer Flange Nut	(1)
52	44-76-0210	Strain Relief	(1)
60	43-54-1075	5" T27 Guard Assembly (Standard)	(1)
	43-54-1080	6" T27 Guard Assembly (Standard)	(1)
61	43-54-1095	5" T1 Guard Assembly (Optional)	(1)
	43-54-1085	6" T1 Guard Assembly (Optional)	(1)
	42-62-0100	Side Handle (Not Shown)	(1)
	49-96-7215	Spanner Wrench (Not Shown)	(1)



**#12 14-29-0311 GEARCASE ASSEMBLY**



**#12 14-29-0312 GEARCASE ASSEMBLY**

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	05-55-0620	M5 Armature Hex Nut	(1)
12	14-29-0311	Gearcase Assembly	(1)
13	02-04-0620	Ball Bearing	(1)
14	02-50-0025	Needle Bearing	(1)
15	-----	Gearcase	(1)
16	34-40-0450	O-Ring	(1)
17	40-50-1330	Compression Spring	(1)
19	42-42-0590	Spindle Lock Button	(1)
20	42-60-1660	Spindle Lock Pin	(1)
46	32-60-1310	Bevel Pinion	(1)
51	34-80-1001	Retaining Ring	(1)

**FIG. NOTE:**

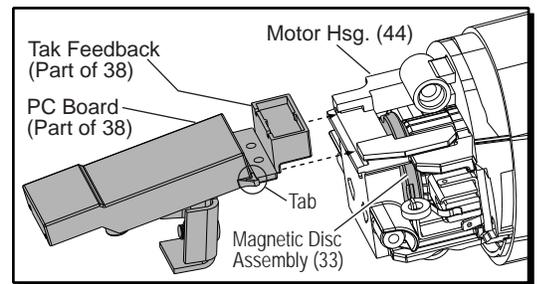
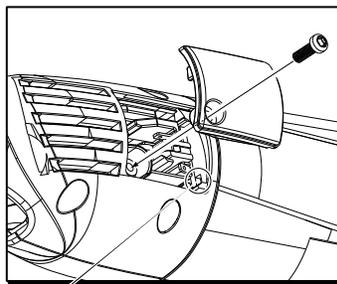
- 1 Torque Armature Nut (1) to 47 in/lbs, 55 kg/cm.
- 14 Orient the Needle Bearing (14) such that the side with the vendor I.D. is facing the Gear (25).
- 20,25 Functionally check Spindle Lock mechanism. Spindle Lock Pin (20) must return briskly when released from engagement in Gear (25), reference illustration on first page.

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	05-55-0620	M5 Armature Hex Nut	(1)
5	05-88-1280	M4 x 10 Pan Hd. T-20 Screw	(2)
9	05-90-0225	M4 Lock Washer (2 of 6)	(6)
12	14-29-0312	Gearcase Assembly	(1)
13	02-04-0620	Ball Bearing	(1)
14	02-50-0025	Needle Bearing	(1)
15	-----	Gearcase	(1)
16	34-40-0450	O-Ring	(1)
17	40-50-1330	Compression Spring	(1)
18	42-42-0580	Spindle Lock Tube	(1)
19	42-42-0590	Spindle Lock Button	(1)
20	42-60-1660	Spindle Lock Pin	(1)
36	44-66-0450	Bearing Retainer	(1)
46	32-60-1310	Bevel Pinion	(1)

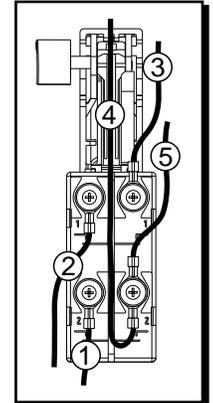
**FIG. NOTE:**

- 1 Torque Armature Nut (1) to 47 in/lbs, 55 kg/cm.
- 9 There are 2 Lock Washers (9) that are utilized in the 14-29-0312 Gearcase Assembly (12). There are 4 Lock Washers used to help secure the Lower Gearcase Hub (24). There is a total quantity of 6. Reference illustration above and on page 1.
- 14 Orient the Needle Bearing (14) such that the side with the vendor I.D. is facing the Gear (25).
- 18 When replacing Spindle Lock Tube (18), apply a few drops of thread locking sealant to outside threads prior to installation. Torque Spindle Lock Tube to 12 in/lbs, 14 kg/cm.
- 20,25 Functionally check Spindle Lock mechanism. Spindle Lock Pin (20) must return briskly when released from engagement in Gear (25), reference illustration on first page.

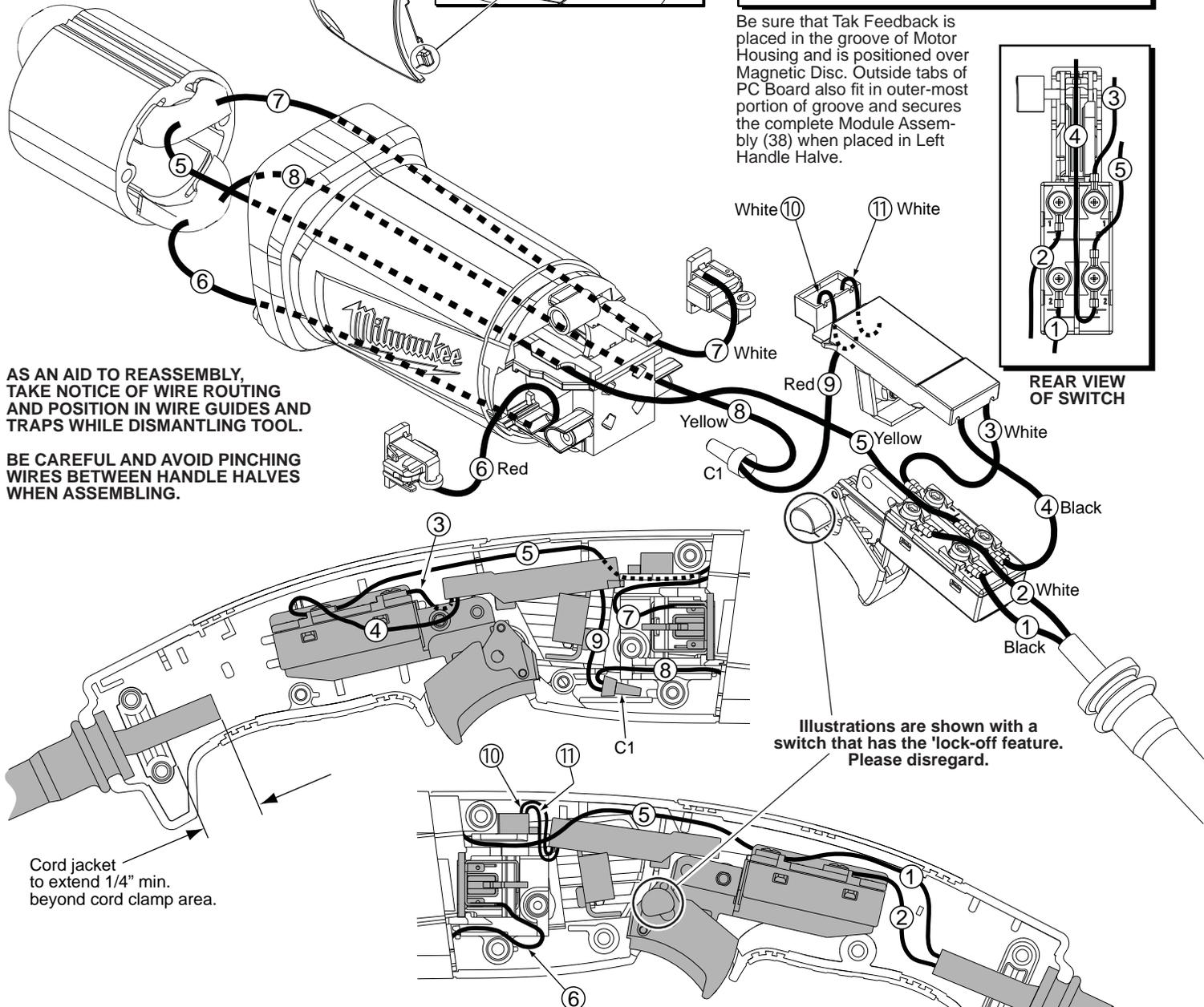
Right Brush Cover (43) has to be taken off in order to remove Right Rear Handle of tool for servicing. Brush Covers fit tightly in the Motor Housing. Do not try and pry the Brush Covers open around the exterior of part. Brush Covers have tabs that lock into notches of the Motor Housing (44) and work like hinges. Once Screw (8) is removed, insert a small pin or equivalent into the screw hole to aid in lifting Brush Cover. To reinstall Brush Covers, insert tabs into Motor Housing notches and snap down into place. Secure with Screw.



Be sure that Tak Feedback is placed in the groove of Motor Housing and is positioned over Magnetic Disc. Outside tabs of PC Board also fit in outer-most portion of groove and secures the complete Module Assembly (38) when placed in Left Handle Halve.



REAR VIEW OF SWITCH



AS AN AID TO REASSEMBLY, TAKE NOTICE OF WIRE ROUTING AND POSITION IN WIRE GUIDES AND TRAPS WHILE DISMANTLING TOOL.

BE CAREFUL AND AVOID PINCHING WIRES BETWEEN HANDLE HALVES WHEN ASSEMBLING.

Illustrations are shown with a switch that has a 'lock-off feature'. Please disregard.

**WIRING SPECIFICATIONS**

Wire No.	Wire Color	Origin or Part No.	Gauge	Length	Terminals, Connectors and End Wire Preparation
1	Black	22-64-2020	--	--	Component of Cord Set.
2	White	22-64-2020	--	--	Component of Cord Set.
3	White	22-09-1800	--	--	Component of PC Board.
4	Black	22-09-1800	--	--	Component of PC Board.
5	Yellow	18-07-2325	--	--	Component of Service Field.
6	Red	18-07-2325	--	--	Component of Service Field.
7	White	18-07-2325	--	--	Component of Service Field.
8	Yellow	18-07-2325	--	--	Component of Service Field.
9	Red	22-09-1800	--	--	Component of PC Board.
10	White	22-09-1800	--	--	Component of PC Board.
11	White	22-09-1800	--	--	Component of PC Board.

BULK LEAD WIRE - BULLETIN 58-01-0003

**NOTE:**

All leads must be held to  $\pm 1/16"$ . All lead lengths are before stripping.

**TERMINAL DESCRIPTION**

Code	Part No.	Qty.
<b>CONNECTOR DESCRIPTION</b>		
C1	22-56-0150	1