

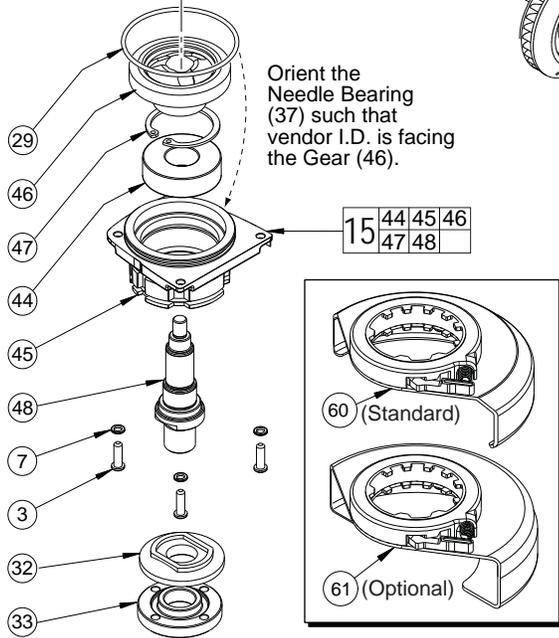
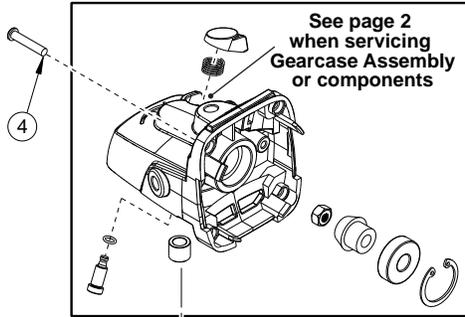


SERVICE PARTS LIST

BULLETIN NO.
54-38-1721

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN 54-38-1720	DATE July 2010
4.5"/5" ANGLE GRINDER with SLIDE SWITCH		WIRING INSTRUCTION See Page 4	
CATALOG NO. 6116-33	STARTING SERIAL NUMBER B64B		

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
2	05-88-1100	M3 x 10 Pan Hd. Screw	(2)
3	05-88-1210	M4 x 14 Pan Hd. T-20 Screw	(4)
4	05-88-1255	M4 x 22 Pan Hd. T-20 Screw	(8)
6	05-88-1290	M4 x 76 T-20 Screw	(2)
7	05-90-0225	M4 Lock Washer (See page 2)	(4 or 6)
9	10-15-1230	Warning Label	(1)
10	12-20-6116	Service Nameplate	(1)



Orient the Needle Bearing (37) such that vendor I.D. is facing the Gear (46).

Orient Retaining Rings (34 & 47) so the bevel side faces away from Ball Bearings (36 & 44).

Rubber Slug (25) is to be placed in a cavity by the bearing bore in the back of Motor Housing (24).

Orient Magnetic Disc Assembly (50) with 'half moon' cut outs facing Ball Bearing (51) as shown. Exercise caution when installing. Make sure that the shoulder of Magnetic Disc Assembly rests against commutator bars with no visible gap.

SEE PAGES 2 & 3 FOR ADDITIONAL SERVICE NOTES

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

*** LUBRICATION NOTE:** When servicing the Gears (28 & 46) or the Gearcase (38), 90-95% of the old grease must be removed prior to new grease being added.

Torque Screws (2) to 3-6 in/lbs.

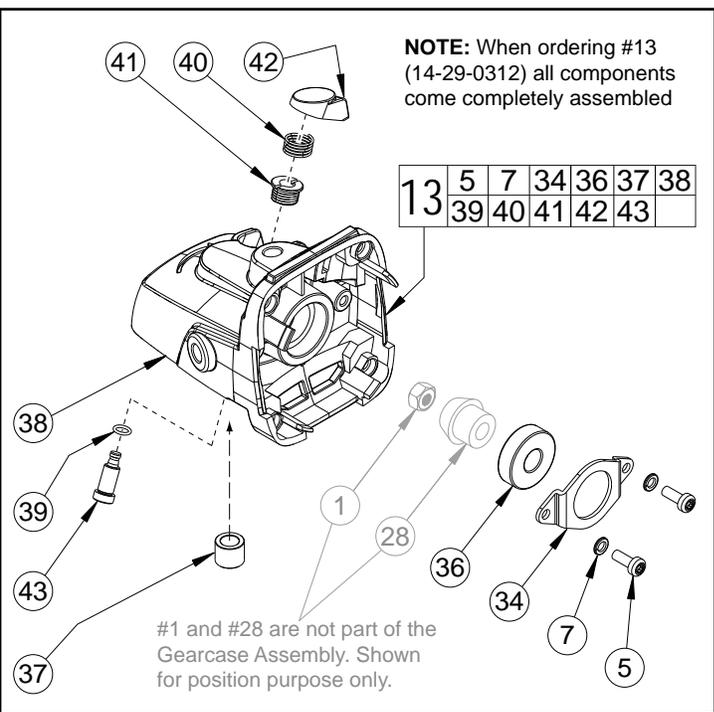
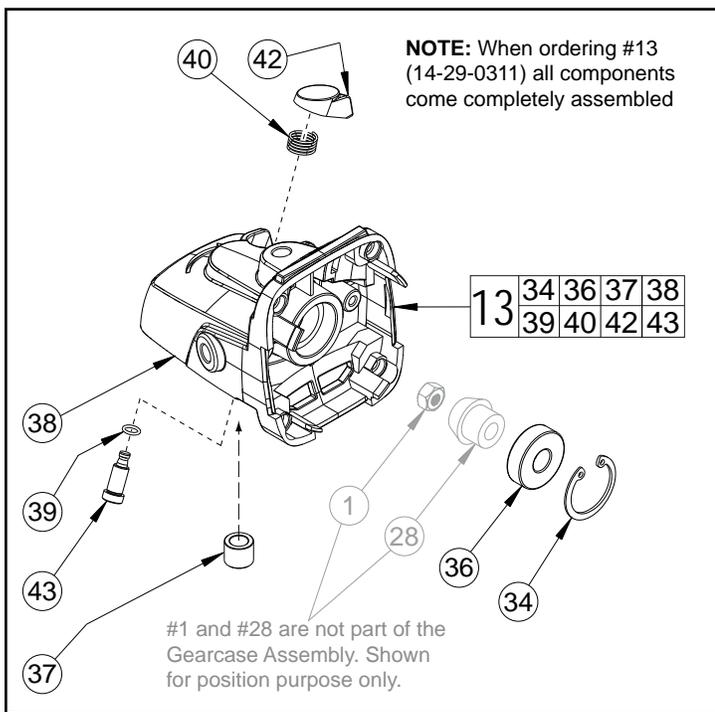
FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
14	14-34-0720	Rear Handle Assembly	(1)
15	14-73-0410	Spindle/Hub Assembly	(1)
16	16-10-7010	Service Armature Assembly	(1)
19	18-07-2305	Service Field	(1)
20	22-09-1735	Module Assembly	(1)
21	22-22-1560	Carbon Brush Assembly	(2)
22	22-64-2020	Cord	(1)
23	23-66-2665	Switch	(1)
24	31-50-3370	Motor Housing	(1)
25	31-53-0240	Rubber Slug	(1)
26	31-92-0430	Slide Switch Button	(1)
27	31-92-0470	Switch Pole	(1)
29	34-40-0180	O-Ring	(1)
31	42-14-0490	Fan Baffle	(1)
32	43-34-0036	Inner Disk Flange	(1)
33	44-40-0035	Outer Flange Nut	(1)
35	44-76-0210	Strain Relief	(1)
44	02-04-1150	Ball Bearing	(1)

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
45	28-53-0410	Lower Gearcase Hub	(1)
46	32-05-1310	Bevel Gear	(1)
47	34-80-2275	Retaining Ring	(1)
48	38-50-1280	Spindle	(1)
50	23-27-0110	Magnetic Disc Assembly	(1)
51	02-04-2110	Ball Bearing	(1)
52	45-88-0406	Washer	(1)
60	43-54-1070	4.5" T27 Guard Assembly (Standard)	(1)
	43-54-1075	5" T27 Guard Assembly (Standard)	(1)
61	43-54-1090	4.5" T1 Guard Assembly (Optional)	(1)
	43-54-1095	5" T1 Guard Assembly (Optional)	(1)
	42-62-0100	Side Handle (Not Shown)	(1)
	49-96-7215	Spanner Wrench (Not Shown)	(1)

FIG. LUBRICATION (*See lubrication note above):
28,46 Type "Y" Grease, No. 49-08-5270, Must Be Applied To All Gear Teeth.

29,38 Lightly coat with grease O-Ring and bearing bore in Gearcase.

38 .3 -.4 Ounces (9-12 Grams) Type "Y" Grease, No. 49-08-5270.



#13 14-29-0311 GEARCASE ASSEMBLY

#13 14-29-0312 GEARCASE ASSEMBLY

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	05-55-0620	M5 Armature Hex Nut	(1)
13	14-29-0311	Gearcase Assembly	(1)
28	32-60-1310	Bevel Pinion	(1)
34	34-80-1001	Retaining Ring	(1)
36	02-04-0620	Ball Bearing	(1)
37	02-50-0025	Needle Bearing	(1)
38	-----	Gearcase	(1)
39	34-40-0450	O-Ring	(1)
40	40-50-1330	Compression Spring	(1)
42	42-42-0590	Spindle Lock Button	(1)
43	42-60-1660	Spindle Lock Pin	(1)

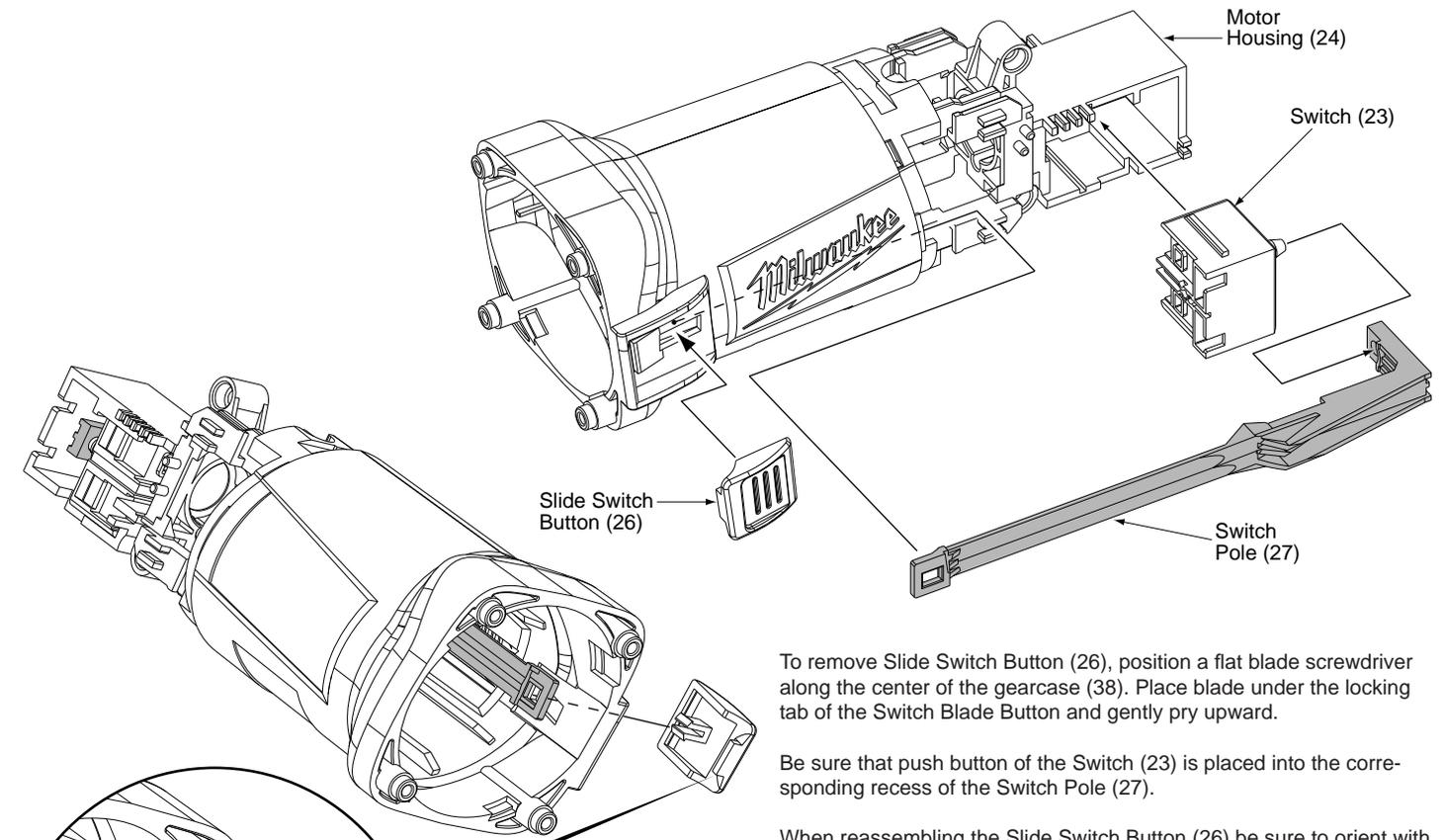
FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	05-55-0620	M5 Armature Hex Nut	(1)
5	05-88-1280	M4 x 10 Pan Hd. T-20 Screw	(2)
7	05-90-0225	M4 Lock Washer (2 of 6)	(6)
13	14-29-0312	Gearcase Assembly	(1)
28	32-60-1310	Bevel Pinion	(1)
34	44-66-0450	Bearing Retainer	(1)
36	02-04-0620	Ball Bearing	(1)
37	02-50-0025	Needle Bearing	(1)
38	-----	Gearcase	(1)
39	34-40-0450	O-Ring	(1)
40	40-50-1330	Compression Spring	(1)
41	42-42-0580	Spindle Lock Tube	(1)
42	42-42-0590	Spindle Lock Button	(1)
43	42-60-1660	Spindle Lock Pin	(1)

FIG. NOTE:

- 1 Torque Armature Nut (1) to 47 in/lbs, 55 kg/cm.
- 37 Orient the Needle Bearing (37) such that the side with the vendor I.D. is facing the Gear (46).
- 43,46 Functionally check Spindle Lock mechanism. Spindle Lock Pin (43) must return briskly when released from engagement in Gear (46), reference illustration on first page.

FIG. NOTE:

- 1 Torque Armature Nut (1) to 47 in/lbs, 55 kg/cm.
- 7 There are 2 Lock Washers (7) that are utilized in the 14-29-0312 Gearcase Assembly (13). There are 4 Lock Washers used to help secure the Lower Gearcase Hub (45). There is a total quantity of 6. Reference illustration above and on page 1.
- 37 Orient the Needle Bearing (37) such that the side with the vendor I.D. is facing the Gear (46).
- 41 When replacing Spindle Lock Tube (41), 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.
- 43,46 Functionally check Spindle Lock mechanism. Spindle Lock Pin (43) must return briskly when released from engagement in Gear (46), reference illustration on first page.

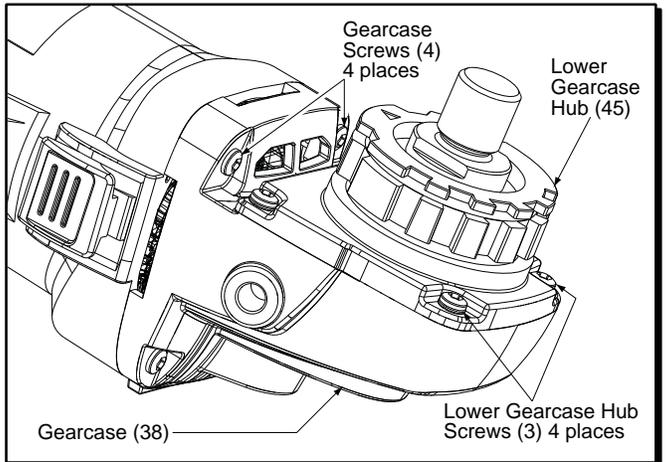
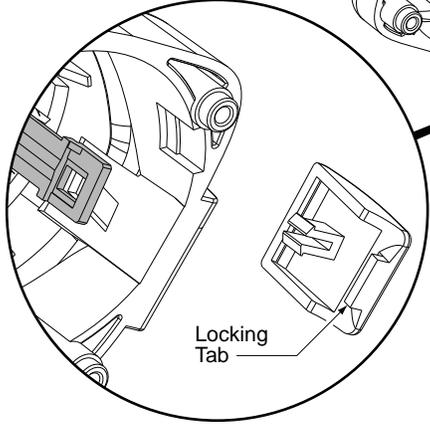


To remove Slide Switch Button (26), position a flat blade screwdriver along the center of the gearcase (38). Place blade under the locking tab of the Switch Blade Button and gently pry upward.

Be sure that push button of the Switch (23) is placed into the corresponding recess of the Switch Pole (27).

When reassembling the Slide Switch Button (26) be sure to orient with the locking tab as shown, towards the gearcase (38).

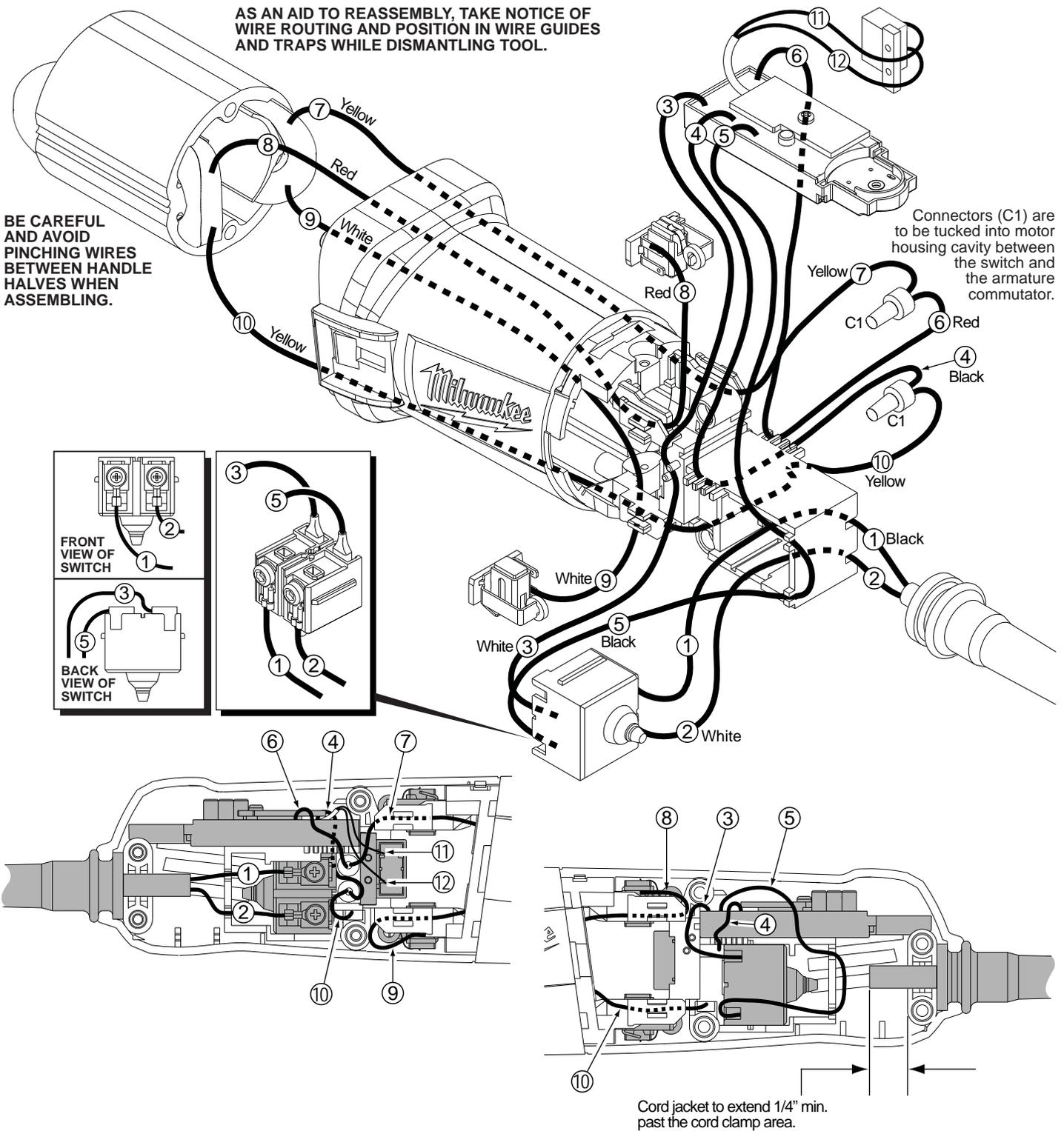
When servicing the Motor Housing (24) or the Switch Pole (27) it is recommended to snap the Slide Switch Button (26) into the Switch Pole, as shown prior to installing the Field (19).



When servicing the Gearcase (38), first remove the four Screws (3) and Lower Gearcase Hub (45) to prevent damage to the bottom two Screws (4) that secure the Gearcase.

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.



Connectors (C1) are to be tucked into motor housing cavity between the switch and the armature commutator.

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	22-09-1725	--	--	Component of PC Board.
4	Black	22-09-1725	--	--	Component of PC Board.
5	Black	22-09-1725	--	--	Component of PC Board.
6	Red	22-09-1725	--	--	Component of PC Board.
7	Yellow	18-07-2305	--	--	Component of Service Field.
8	Red	18-07-2305	--	--	Component of Service Field.
9	White	18-07-2305	--	--	Component of Service Field.
10	Yellow	18-07-2305	--	--	Component of Service Field.
11	White	22-09-1725	--	--	Component of PC Board.
12	White	22-09-1725	--	--	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.
CONNECTOR DESCRIPTION		
C1	22-56-0150	2