



# SERVICE PARTS LIST

**BULLETIN NO.**  
**54-06-2977**

<b>SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS</b>		REVISED BULLETIN 54-06-2976	DATE June 2012
<b>1/2" PISTOL GRIP DRILL with SPINDLE LOCK</b>			
<b>CATALOG NO.</b>	<b>0302-20</b>	<b>STARTING SERIAL NO.</b>	<b>084C</b>
		WIRING INSTRUCTION <b>See Pages 2 &amp; 3</b>	

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

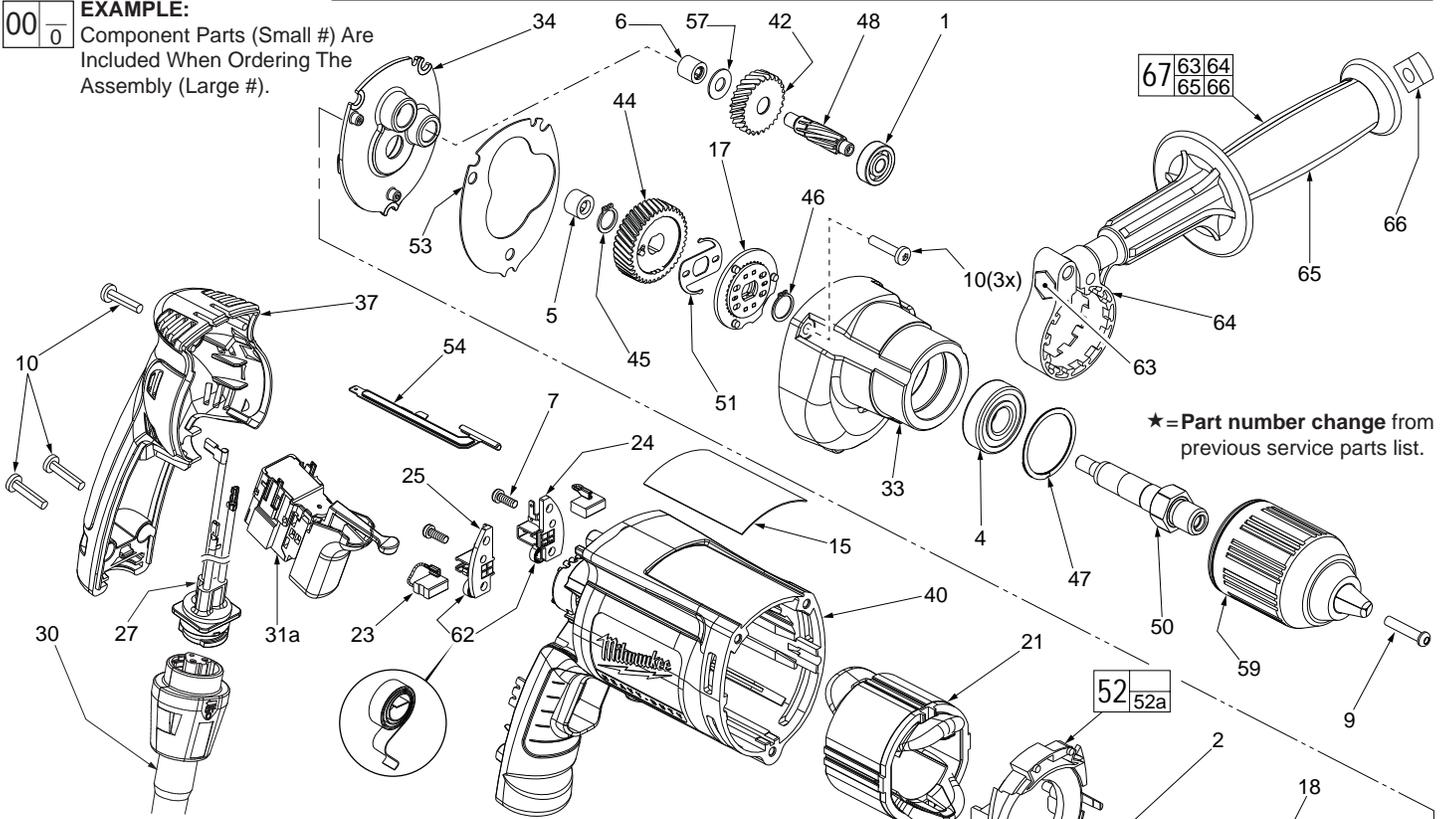


FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
1	02-04-0640	Ball Bearing	(1)
2	02-04-0645	Ball Bearing	(1)
3	02-04-0852	Ball Bearing	(1)
4	02-04-1229	Ball Bearing	(1)
5	02-50-1611	Needle Bearing	(1)
6	02-50-2400	Needle Bearing	(1)
★ 7	05-88-1610	M3.5 x 10 Pan Hd. Plastite T-10	(2)
9	06-81-2925	1/4-20 x 1-1/8" L.H. Flat Hd. Screw	(1)
10	06-82-7275	7-18 x 3/4 Slotted Plastite T-20	(6)
15	12-99-2565	Service Nameplate	(1)
17	14-29-0040	Spindle Lock Assembly	(1)
18	16-10-2210	Armature	(1)
★ 21	18-07-7220	Field	(1)
23	22-18-1310	Brush Assembly	(2)
★ 24	22-20-0090	Left Brush Holder	(1)
★ 25	22-20-0095	Right Brush Holder	(1)
27	22-56-1010	Pin Housing Assembly	(1)
30	48-76-4008	Quik-Lok Cord Set	(1)
31a	23-66-2605	Switch (Defond) See page 2 wiring	(1)
31b	23-66-2585	Switch (Marquardt) See page 3 wiring	(1)
33	28-14-2390	Gearcase	(1)
34	28-28-2320	Diaphragm	(1)
37	31-15-2030	Handle Halve	(1)
★ 40	31-50-3040	Motor Housing	(1)
42	32-40-0100	Intermediate Gear	(1)
44	32-75-0101	Spindle Gear	(1)
45	34-60-0810	External Retaining Ring	(1)
46	34-60-0900	External Retaining Ring	(1)
47	34-80-2300	Retaining Ring	(1)
48	36-66-0100	Intermediate Shaft	(1)
50	38-50-5752	Output Spindle	(1)
51	40-50-8525	Click Spring	(1)
52	42-14-0450	Baffle Assembly	(1)
52a	45-30-0030	Slug (Not shown)	(2)
53	43-44-0985	Gasket	(1)
54	44-60-1700	Ground Pin	(1)
57	45-88-7990	Thrust Washer	(1)
59	42-66-0755	1/2" Keyless Chuck	(1)
62	23-52-1610	Brush Spring	(2)
63	06-75-2850	3/8-16 x 5-1/2" Hex Cap Screw	(1)
64	42-68-0800	Side Handle Clamp	(1)

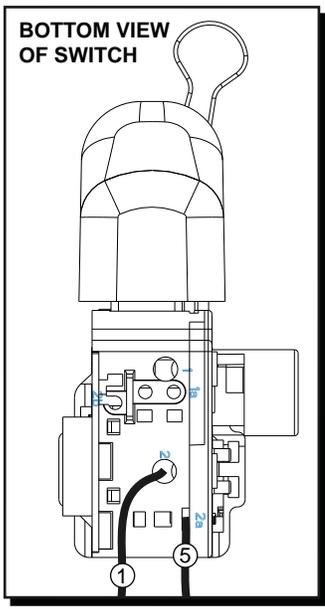
FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
65	43-62-0845	Side Handle	(1)
66	06-54-0325	3/8-16 Square Nut	(1)
67	49-15-0265	Side Handle Assembly	(1)
★	23-94-0490	White Leadwire Assy. (See pages 2 & 3)	(1)
★	23-94-0495	Red Leadwire Assy. (See pages 2 & 3)	(1)
	31-53-0205	Lock Button Plug (Not Shown)	(1)

**LUBRICATION (Type "Y" Grease, No. 49-08-5270)**  
 • Place 5 gm. (.02 oz.) of grease on top of the inserted intermediate ball bearing (1) and on the intermediate pinion (48).

• After inserting all gearing, place 13 gm. (.46 oz.) of grease at the armature pinion location in the gearcase (33) and fill to the top of the intermediate gear (42). Grease must contact at least 25% of the intermediate gear teeth.

**Before assembly, lightly coat all press fit areas with lightweight spindle oil.**

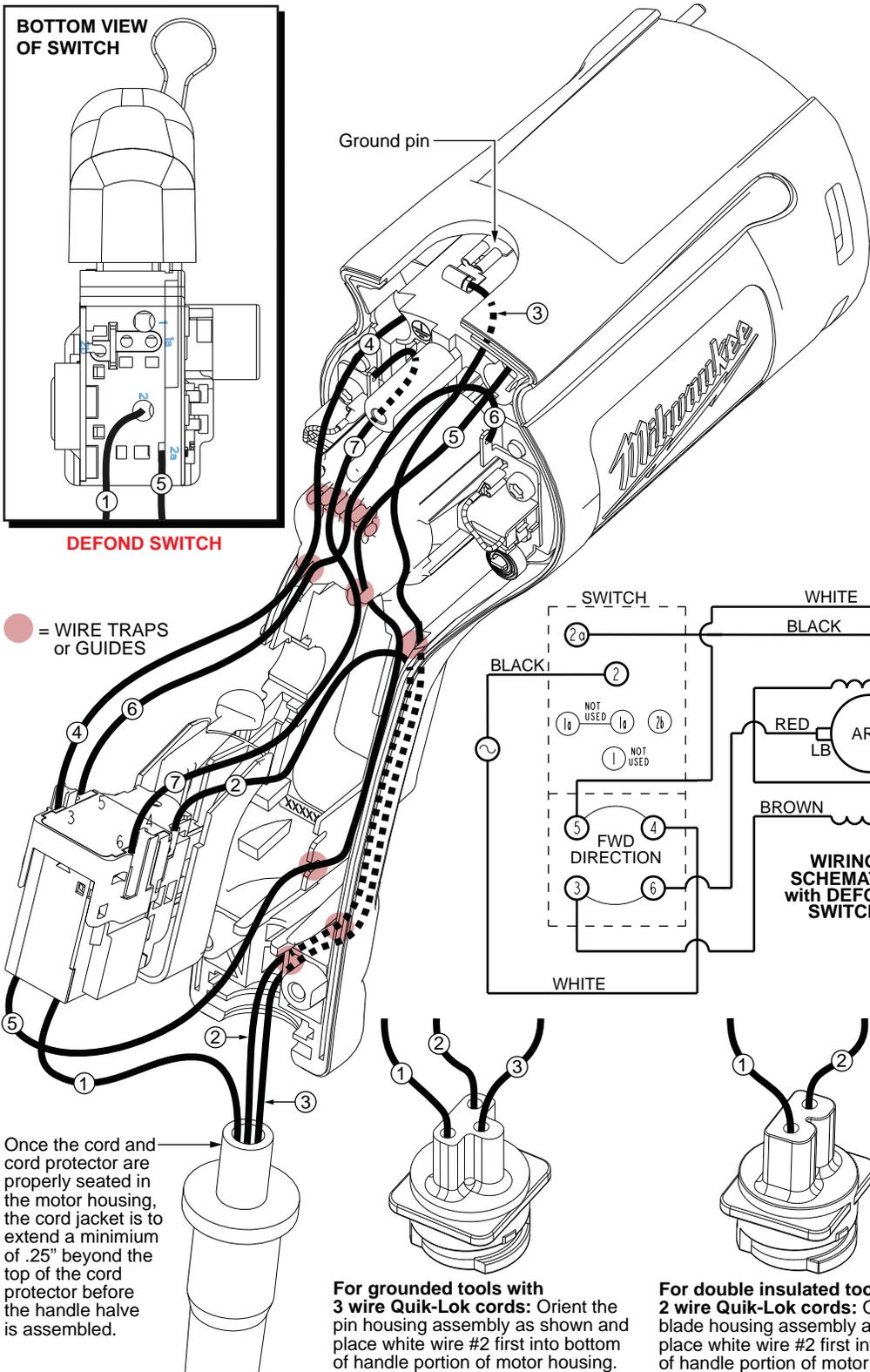
**FIG. NOTES:**  
 4,44 Support the output ball bearing inside the gearcase before pressing off the spindle gear.  
 5,6 Needle bearings to be pressed flush to .010 under flush from the end which has the vendors identification.



**BOTTOM VIEW OF SWITCH**

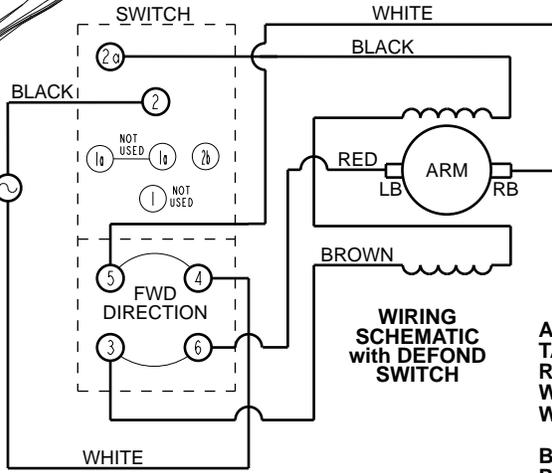
**DEFOND SWITCH**

Ground pin

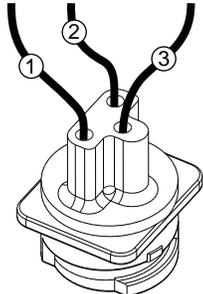


● = WIRE TRAPS or GUIDES

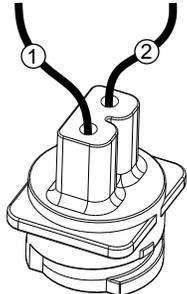
Once the cord and cord protector are properly seated in the motor housing, the cord jacket is to extend a minimum of .25" beyond the top of the cord protector before the handle half is assembled.



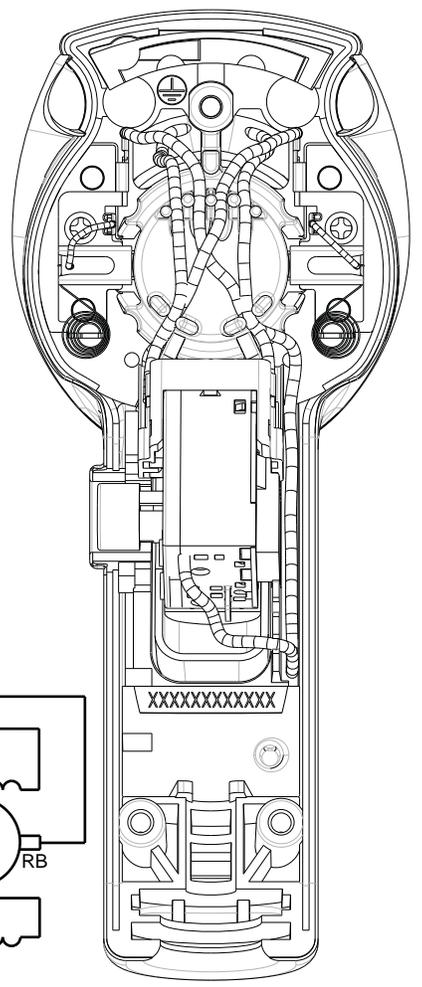
**WIRING SCHEMATIC with DEFOND SWITCH**



**For grounded tools with 3 wire Quik-Lok cords:** Orient the pin housing assembly as shown and place white wire #2 first into bottom of handle portion of motor housing.



**For double insulated tools with 2 wire Quik-Lok cords:** Orient the blade housing assembly as shown and place white wire #2 first into the bottom of handle portion of motor housing.



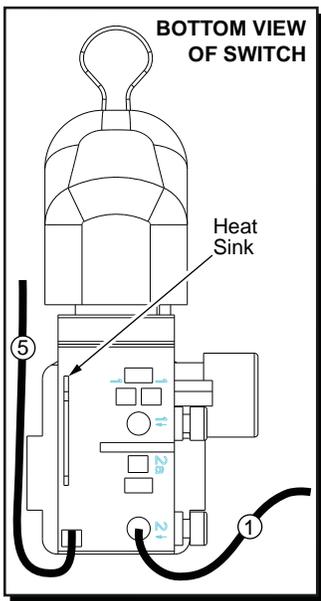
AS AN AID TO REASSEMBLY, TAKE NOTICE OF WIRE ROUTING AND POSITION IN WIRE GUIDES AND TRAPS WHILE DISMANTLING TOOL.

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

FOR DOUBLE INSULATED TOOLS DISREGARD GREEN GROUND WIRE #3 AND GROUND PIN.

**WIRING SPECIFICATIONS**

Wire No.	Wire Color	Origin or Gauge	Length	Terminals, Connectors and 1 or 2 End Wire Preparation
1	Black	*	-----	*Component of cord set, pin hsg. assy. or blade hsg. assy. Connect to #2 on switch bottom.
2	White	*	-----	*Component of cord set, pin hsg. assy. or blade hsg. assy. Connect to #4 on switch top.
3	Green	*	-----	*Component of cord set, pin hsg. assy. or blade hsg. assy. Connect to male tab on ground terminal.
4	Brown	Field	-----	Component of field. Connect to #3 on switch top.
5	Black	Field	-----	Component of field. Connect to #2a on switch bottom.
6	White	23-94-0490	-----	Leadwire assembly. Connect to right brush holder and #5 on switch top.
7	Red	23-94-0495	-----	Leadwire assembly. Connect to left brush holder and #6 on switch top.

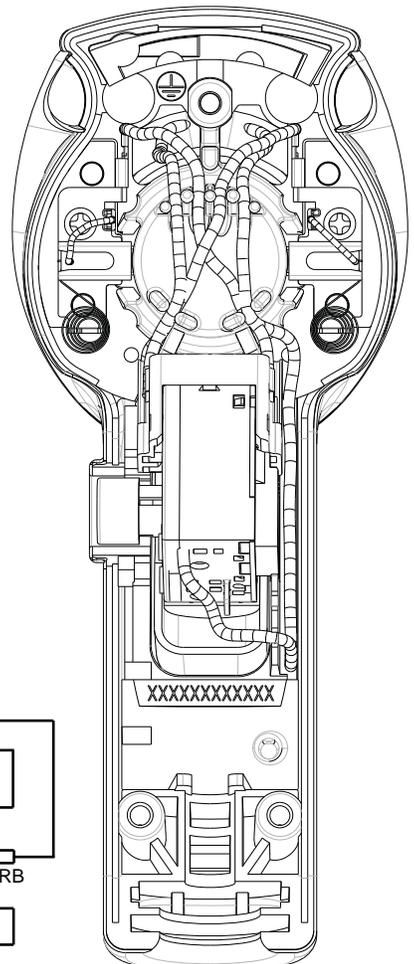


**BOTTOM VIEW OF SWITCH**

Heat Sink

**MARQUARDT SWITCH**

Ground pin

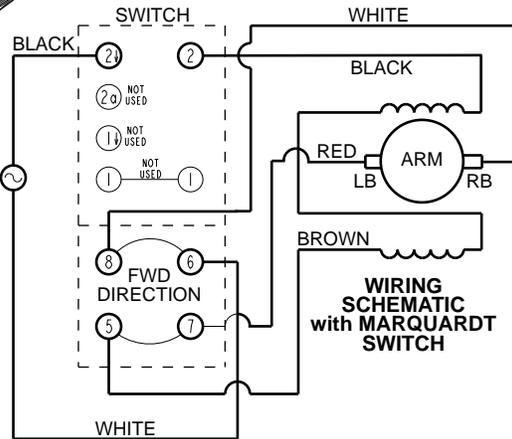


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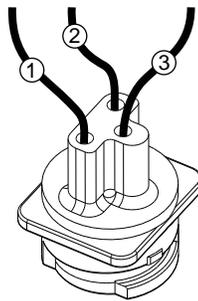
BE CAREFUL AND AVOID PINCHING WIRES BETWEEN HANDLE HALVES WHEN ASSEMBLING.

FOR DOUBLE INSULATED TOOLS DISREGARD GREEN WIRE #3 AND GROUND PIN.

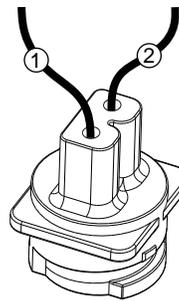
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**For grounded tools with 3 wire Quik-Lok cords:** Orient the pin housing assembly as shown and place white wire #2 first into bottom of handle portion of motor housing.



**For double insulated tools with 2 wire Quik-Lok cords:** Orient the blade housing assembly as shown and place white wire #2 first into the bottom of handle portion of motor housing.

**WIRING SPECIFICATIONS**

Wire No.	Wire Color	Origin or Gauge	Length	Terminals, Connectors and 1 or 2 End Wire Preparation
1	Black	*	-----	*Component of cord set, pin hsg. assy. or blade hsg. assy. Connect to #2↓ on switch bottom.
2	White	*	-----	*Component of cord set, pin hsg. assy. or blade hsg. assy. Connect to #6 on switch top.
3	Green	*	-----	*Component of cord set, pin hsg. assy. or blade hsg. assy. Connect to male tab on ground terminal.
4	Brown	Field	-----	Component of field. Connect to #5 on switch top.
5	Black	Field	-----	Component of field. Connect to #2 on switch bottom.
6	White	23-94-0490	-----	Leadwire assembly. Connect to right brush holder and #8 on switch top.
7	Red	23-94-0495	-----	Leadwire assembly. Connect to left brush holder and #7 on switch top.