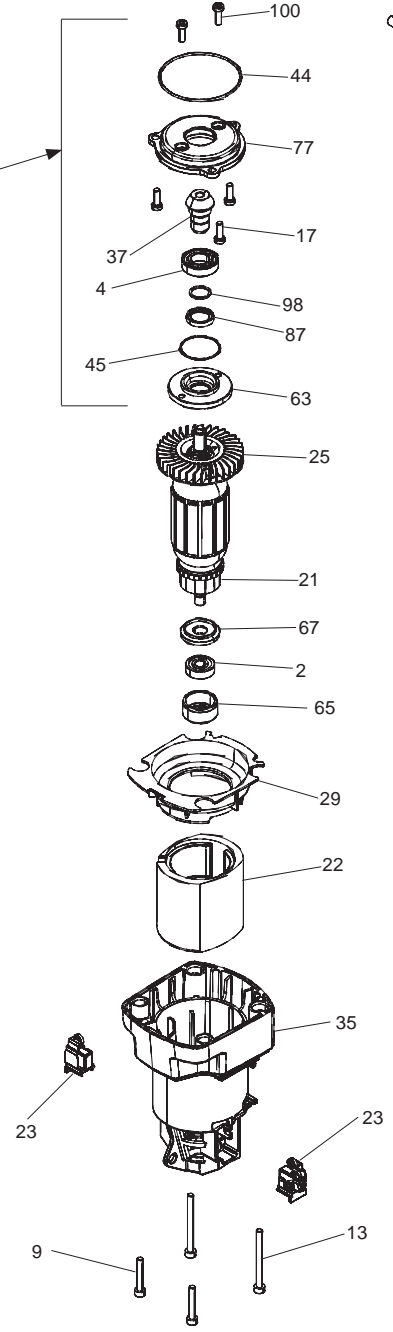
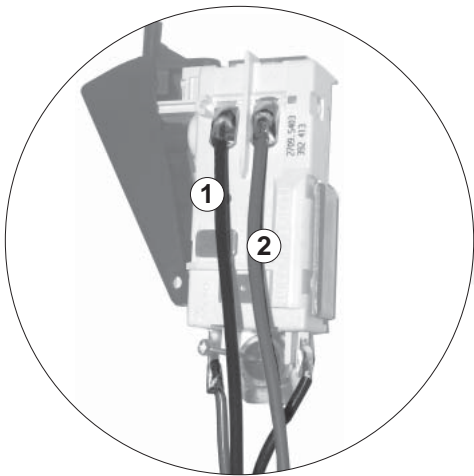


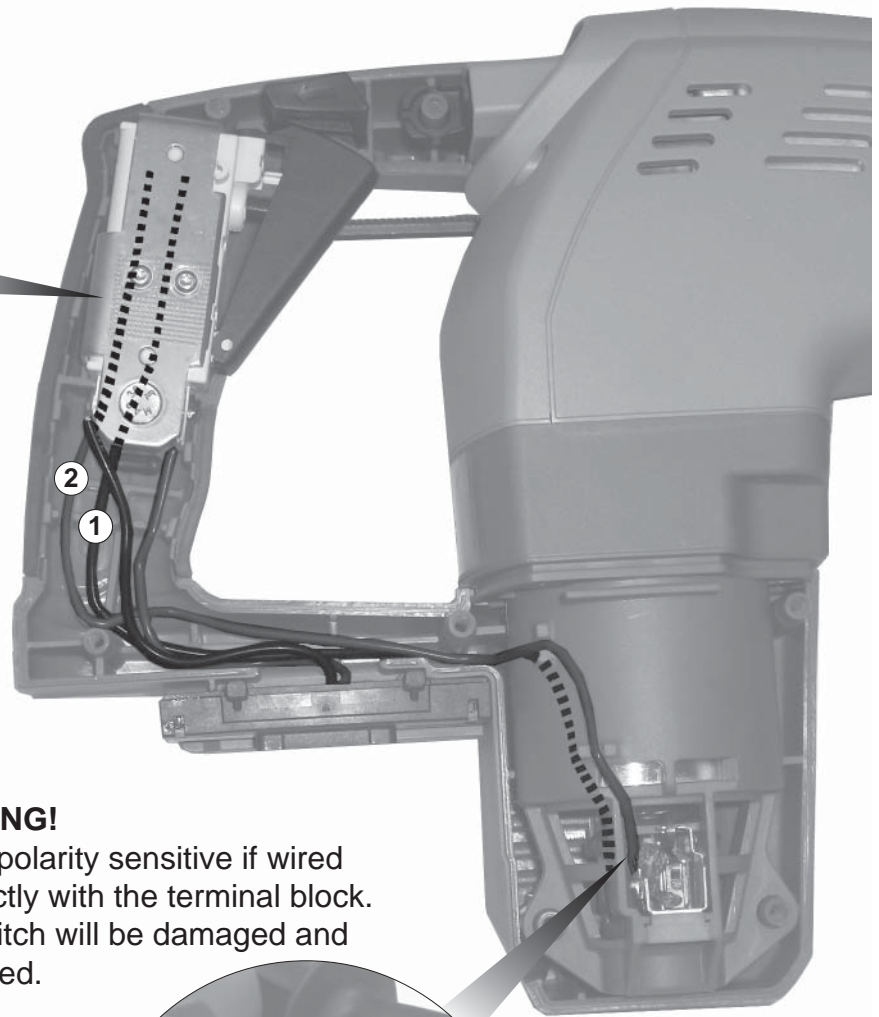
SEE BACK PAGE OF THIS BULLETIN
FOR ADDITIONAL SERVICE NOTES

FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.
	2	Ball Bearing	(1)
	4	Ball Bearing	(1)
★	9	M4 x 24 Thread Form Screw	(2)
★	13	M4 x 45 Thread Form Screw	(2)
★	17	M4 x 12 Thread Form Screw	(3)
	18	Screw	(7)
	21	Armature	(1)
	22	Field	(1)
	23	Carbon Brush Set	(1)
	24	Connector Block Assembly	(1)
	25	Fan	(1)
	26	Switch Board	(1)
	27	Wire	(1)
	28	Wire	(1)
	29	Air Deflector Ring	(1)
	34	Handle Assembly	(1)
	35	Motor Housing	(1)
	37	Pinion	(1)
	41	O-Ring	(1)
	44	O-Ring	(1)
	45	O-Ring	(1)
	63	Bearing Cover	(1)
	65	Rubber Sleeve	(1)
	67	Insulating Disc	(1)
	77	Bearing End Plate	(1)
	78	Bearing End Plate Assembly	(1)
	87	Seal Ring	(1)
	91	Forward/Reverse Lever	(1)
	98	Spring Ring	(1)
★	100	Screw	(2)
★	48-55-0756	Molded Carrying Case (Not Shown)	(1)
	14-46-0015	Side Handle Assembly (Not Shown)	(1)
	43-46-0172	Depth Gauge (Not Shown)	(1)
	14-46-0756	Service Kit (Not Shown)	(1)
	12-20-6756	Service Nameplate (Not Shown)	(1)



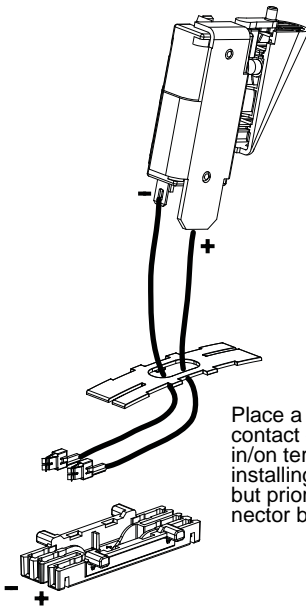


Connect the terminals of leadwire assemblies to the tabs on the bottom of the switch and solder, as shown.

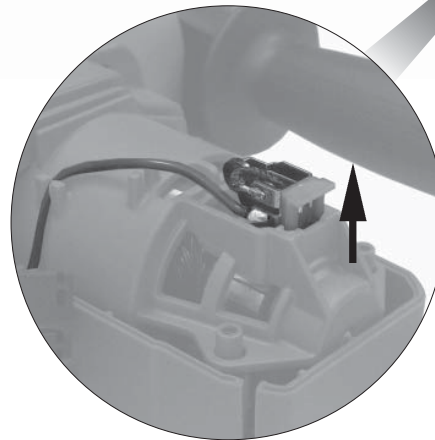


WARNING!

Switch polarity sensitive if wired incorrectly with the terminal block. The switch will be damaged and destroyed.



Place a heavy coat of Type "X" contact grease, No. 49-08-5000, in/on terminals of wires after installing into connector block but prior to snapping on the connector block cover.



WIRING SPECIFICATIONS

Wire No.	Wire Color	Origin or Gauge	Length	Terminals, Connectors and 1 or 2 End Wire Preparation
1	Black	23-94-0410	-----	Strip one end .25 and solder to switch / Strip the other end .18 and solder to brush assy.
2	Red	23-94-0415	-----	Strip one end .25 and solder to switch / Strip the other end .18 and solder to brush assy.

SERVICE NOTES

Disassembly:

- 33, 71 When, removing shift lever (71) from gear case cover (33) follow instructions listed on service bulletin. [see fig. 1]
- 19, 33 Release locking tabs on gearbox cover (33) using two flat bladed screwdrivers when removing from gearbox assembly (19). [see fig. 3]
- 4, 21, 37 Remove armature pinion (37) from armature (21) using Special Service Fixtures 61-10-0035. Note: Place separator plates 61-10-0011 under ball bearing (4) as illustrated in fig. 5.
- 40, 53, 56, 80 To remove retaining ring (80) from spindle (53) use service fixture 61-30-0290. Note: Spindle gear / clutch gear (40) must be compressed against Belleville spring washers (56) before retaining ring can be removed. (see fig.8)
- 21, 23, 35 Remove carbon brushes (23) from motor housing (35) prior to removing armature assembly (21).

Reassembly:

- 88, 97 Small diameter end of striker (88) must face stop washer (97) in assembly.
- 53, 97 Chamfer side of stop washer (97) to face front of spindle (53).
- 31, 5 Raised bosses on mount bracket (58) must face crankcase (31) in assembly.
- 33, 71 When reinstalling shift lever (71) into gearcase cover (33) follow instructions shown in fig. 2.
- 9, 10, 11, 12, 13, 14, 15, 16, 17 Apply Blue Loctite ® METCo part # 44-22-0090 to fasteners listed if removed and being reinstalled. New fasteners in service kit will not require additional Loctite®.
- 81, 83 Taper of holding ring (83) to face spring ring (81) in assembly.
- 57, 59 Wide portion of conical spring (57) to face plate (59).
- 36, 51, 92 When reassembling bevel gear (36) onto reduction gear shaft (51) a .001 - .002 clearance must be maintain between bevel gear (36) and spacer (92). [see fig.2]
- 4, 87 Flared edge of seal (87) to face ball bearing (4) in assembly.
- 53, 56 Reassemble Belleville Spring washers (56) onto spindle (53) as shown in fig. 7.
- 21, 25 When replacing a fan (25) on armature assembly (21), refer to illustration shown in fig. 6 for press dimensions.
- 43, 51 Install a new spring ring retainer (43) if removed from reduction gear shaft (51).

Service Kit 14-46-0757 Contains:

Fig.	Part No.	Desc. Of Part	Qty.
9	05-78-0041	Screw	2
10	05-74-0215	Screw	4
11	05-74-0220	Screw	1
12	05-78-0051	Screw	2
13	05-78-0021	Screw	2
14	05-74-0460	Screw	2
15	05-74-0470	Screw	2
16	05-78-0031	Screw	4
17	05-78-0051	Screw	3
23	22-18-0690	Carbon Brush Set	1
41	34-40-0083	O-Ring	1
42	34-40-0130	O-Ring	1
43	34-40-0430	Spring Ring	1
44	34-40-0435	O-Ring	1
45	34-40-0440	O-Ring	1
46	34-40-0445	O-Ring	1
47	34-40-1025	O-Ring	1
48	34-40-1305	O-Ring	1
49	34-40-4451	O-Ring	1
50	34-40-4465	Seal Ring	1
60	42-52-0420	Dust Cap	1
62	42-76-0830	Thrust Collar	1
65	42-96-0205	Rubber Sleeve	1
66	42-96-0210	Sleeve	1
68	43-44-0875	Seal	1
70	43-84-0443	Felt	1
79	44-90-0183	Spring Ring	1
80	44-90-0350	Spring Ring	1
86	45-06-0090	Seal Ring	1
87	45-06-0095	Seal Ring	1
98	45-88-1775	Spring Ring	1
99	45-88-1780	Spring Ring	1
100	05-74-0715	Screw	2
	49-08-5350	Type "P" Grease	1
	49-08-4255	Type "Q" Grease	1

NOTE: CHECK THE CLUTCH TORQUE. CLUTCH MUST SLIP AT 17 TO 26 FT. LBS. AT THE SPINDLE, CHECKED CLOCKWISE AS VIEWED FROM THE FRONT OF THE TOOL. SELECTOR KNOB MUST BE SET TO THE HAMMER ONLY SETTING.

LUBRICATION

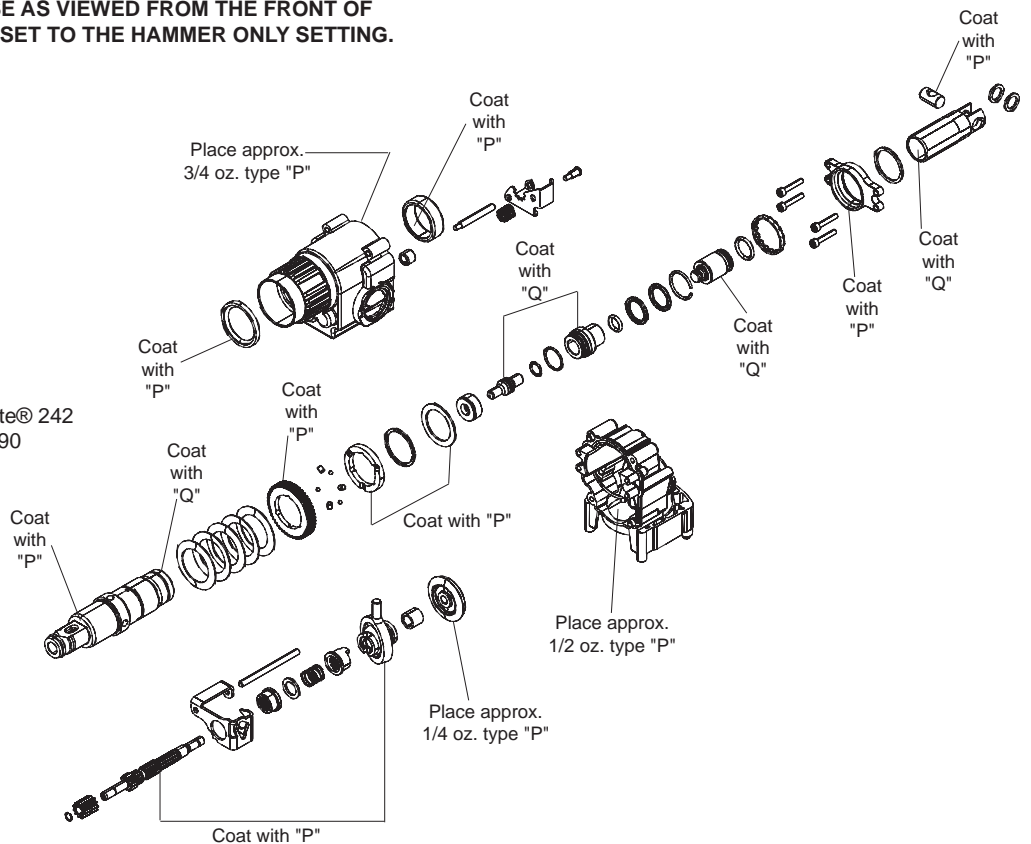
Type "Q" grease, No. 49-08-4255
Coat with a total of 1/4 oz.

Type "P" grease, No 49-08-5350
Cover with a total of 1-3/4 oz.
(1-1/2 oz. to fill, 1/4 oz. to coat)

TORQUE SPECIFICATIONS

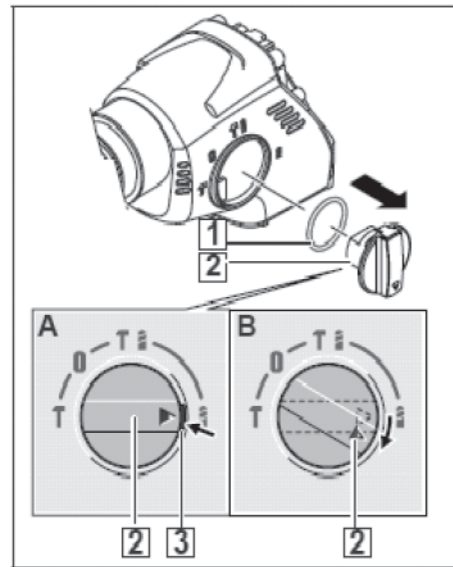
Screws in plastic 15 in. lbs.

Screws in metal 22 in. lbs. Use Blue Loctite® 242
Metco Cat. No. 44-22-0090



Removing the shift lever

- 1 Bring the shift lever (2) into the Drill-Only position (Illustration A).
- 2 Press in and hold the locking device (3) (Illustration A) and turn the shift lever past the drill icon (Illustration B) until the shift lever (2) can be pulled from the housing.
- 3 Remove the O-ring (1).



Installing the shift lever

- 1 Lightly grease the O-ring (1) and install it into the Shift Lever (2).
- 2 Position the triangle located on the shift lever to the Hammer / Drill icon and insert it into the gearcase (Illustration A). Press the locking device and turn clockwise (Illustration B) until the shift lever (2) engages audibly. After that, turn it back to the required position (C) and release the locking device.

