## **SERVICE PARTS LIST**

Milwaukee #77 Two styles of Brush Card

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS

18 Volt 3/8" Square Impact Wrench

2651-20 CATALOG NO.

STARTING SERIAL NO.

**B77D** 

DATE REVISED BULLETIN Aug. 2014 54-26-2702

WIRING INSTRUCTION SEE PAGE 3

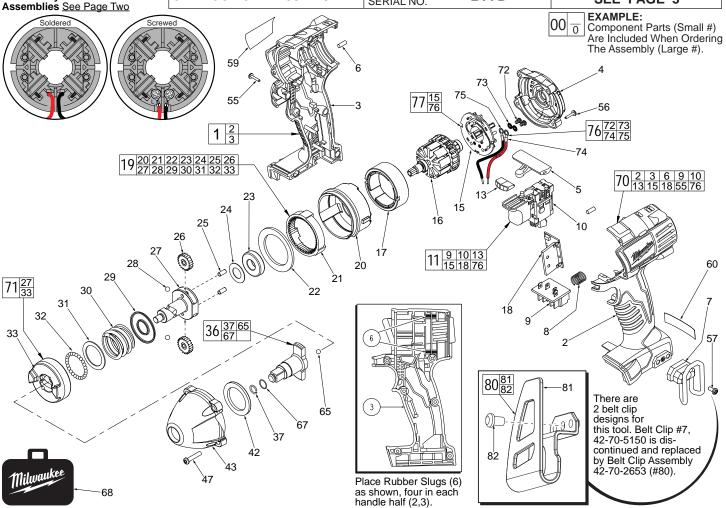
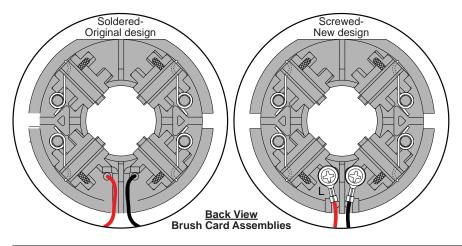


FIG. PART NO. DESCRIPTION OF PART NO. REQ. 1 31-44-2435 Handle Assembly (1)		D4.DT.110	DECODIDETION OF DADE	NO 550		DADTNO	DESCRIPTION OF DARK	VO DEO
Left Handle Half	FIG.	PART NO.	DESCRIPTION OF PART	NO. REQ.	FIG.	PART NO.		
Right Handle Half								` '
4 42-52-0062 End Cap (1) 47 06-82-7010 8-18 x 24 Pan Hd. Screw (4) 5 45-24-0300 Forward / Reverse Shuttle (1) 55 06-82-6350 M3 Pan Hd. T-10 Screw (7) 6 45-30-0250 Rubber Slug (8) 56 06-82-7336 M3 Pan Hd. T-10 Screw (4) 7 42-70-5150 Belt Hook (1) 57 06-82-5275 6-32 x 5/16" Slt. Pan Hd. T-15 Screw (1) 8 40-50-1090 Spring (1) 59 12-20-2650 Service Nameplate Kit (1) 60 10-20-2695 Warning Label (1) 10 23-66-2830 Switch (1) 65 02-02-1300 5mm Steel Ball (1) 12 23-66-1238 Switch (1) 65 02-02-1300 5mm Steel Ball (1) 11 23-66-1238 Switch (1) 66 02-02-1300 5mm Steel Ball (1) 11 23-66-1238 Switch (1) 66 02-02-1300 5mm Steel Ball (1) 11 23-66-1238 Switch (1) 67 34-40-1885 Rubber Ring (1) 11 23-66-1230 Service Armature Assembly (1) 68 42-55-2650 Carrying Case (1) 15 Service Armature Assembly (1) 70 23-66-1239 Switch and Housing Kit (1) 16 16-01-3010 Service Armature Assembly (1) 71 14-46-7110 Cam Shaft/Hammer Kit (1) 17 18-01-3011 Service Field (1) 72 05-88-0928 M3 x 5mmPan Hd. T10 Screw (2) 18 Service Field (1) 74 Service Assembly (1) 75 Leadwire Assembly - Red (1) 17 Leadwire Assembly - Black (1) 18 Ball Bearing (1) 80 42-70-2653 Belt Clip Assembly (1) 19 Leadwire As								(1)
5         45-24-0300         Forward / Reverse Shuttle         (1)         55         06-82-6350         M3 Pan Hd. T-10 Screw         (7)           6         45-30-0250         Rubber Slug         (8)         56         06-82-7336         M3 Pan Hd. T-10 Screw         (4)           7         42-70-5150         Belt Hook         (1)         57         06-82-5275         6-32 x 5/16" Slt. Pan Hd. T-15 Screw         (1)           8         40-50-1090         Spring         (1)         59         12-20-2650         Service Nameplate Kit         (1)           10         23-66-2830         Switch         (1)         60         10-20-2695         Warning Label         (1)           11         23-66-2830         Switch/Brush Card Assembly         (1)         *67         34-40-1885         Rubber Ring         (1)           13         ————————————————————————————————————								(1)
6 45-30-0250 Rubber Slug (8) 56 06-82-7336 M3 Pan Hd. T-10 Screw (4) 42-70-5150 Belt Hook (1) 57 06-82-5275 6-32 x 5/16" Slt. Pan Hd. T-15 Screw (1) 8 40-50-1090 Spring (1) 59 12-20-2650 Service Nameplate Kit (1) 9								(4)
7 42-70-5150 Belt Hook (1) 57 06-82-5275 6-32 x 5/16" Slt. Pan Hd. T-15 Screw (1) 8 40-50-1090 Spring (1) 59 12-20-2650 Service Nameplate Kit (1) 10 23-66-2830 Switch (1) 60 10-20-2695 Warning Label (1) 11 23-66-1238 Switch/Brush Card Assembly (1) 65 02-02-1300 5mm Steel Ball (1) 11 23-66-1238 Switch/Brush Card Assembly (1) 68 42-55-2650 Carrying Case (1) 15 ——————————————————————————————————								
8	6			(8)				(4)
9	/			(1)				' (1)
10		40-50-1090		(1)				
11								
LED Assembly								
16       16-01-3010       Service Armature Assembly       (1)       71       14-46-1710       Cam Shaft/Hammer Kit       (1)         17       18-01-3011       Service Field       (1)       72       05-88-0928       M3 x 5mmPan Hd. T10 Screw       (2)         18       ————————————————————————————————————		23-66-1238				34-40-1885	Rubber Ring	(1)
16       16-01-3010       Service Armature Assembly       (1)       71       14-46-1710       Cam Shaft/Hammer Kit       (1)         17       18-01-3011       Service Field       (1)       72       05-88-0928       M3 x 5mmPan Hd. T10 Screw       (2)         18       ————————————————————————————————————				(1)		42-55-2650		(1)
16       16-01-3010       Service Armature Assembly       (1)       71       14-46-1710       Cam Shaft/Hammer Kit       (1)         17       18-01-3011       Service Field       (1)       72       05-88-0928       M3 x 5mmPan Hd. T10 Screw       (2)         18       ————————————————————————————————————	15		Brush Card	(1)	70	23-66-1239		(1)
21	16	16-01-3010	Service Armature Assembly	(1)	71	14-46-1710	Cam Shaft/Hammer Kit	(1)
21	17	18-01-3011	Service Field	(1)	72	05-88-0928	M3 x 5mmPan Hd. T10 Screw	(2)
21	18		PCB Assembly	(1)	73	45-88-1980	Spring Washer	(2)
21	19	14-30-0920		(1)	74			(1)
21	20				75		Leadwire Assembly - Black	(1)
22	21		Ring Gear	(1)	76	14-46-2395	Leadwire/Screw/Washer Kit	(1)
23	22			(1)	77	14-46-2024	Brush Card Assembly	(1)
25	23				80	42-70-2653	Belt Clip Assembly	(1)
25	24		Washer	(1)	81		Belt Clip	(1)
31 Washer (1) 32 3.0mm Steel Ball (30) 33 Hammer (1)  MILWAUKEE ELECTRIC TOOL CORPORATION 13135 W Lishon Road Brookfield WI 53005	25		Pin	(2)	82		Belt Clip Screw	
31 Washer (1) 32 3.0mm Steel Ball (30) 33 Hammer (1)  MILWAUKEE ELECTRIC TOOL CORPORATION 13135 W Lishon Road Brookfield WI 53005			Planet Gear	(2)			•	( )
31 Washer (1) 32 3.0mm Steel Ball (30) 33 Hammer (1)  MILWAUKEE ELECTRIC TOOL CORPORATION 13135 W Lishon Road Brookfield WI 53005	27		Cam Shaft	(1)				
31 Washer (1) 32 3.0mm Steel Ball (30) 33 Hammer (1)  MILWAUKEE ELECTRIC TOOL CORPORATION 13135 W Lishon Road Brookfield WI 53005	28		3/16" Steel Ball	(2)				
31 Washer (1) 32 3.0mm Steel Ball (30) 33 Hammer (1)  MILWAUKEE ELECTRIC TOOL CORPORATION 13135 W Lishon Road Brookfield WI 53005			Washer	(1)				
31 Washer (1) 32 3.0mm Steel Ball (30) 33 Hammer (1)  MILWAUKEE ELECTRIC TOOL CORPORATION 13135 W Lishon Road Brookfield WI 53005			Compression Spring	(1)				
32 3.0mm Steel Ball (30) MILWAUKEE ELECTRIC TOOL CORPORATION 33 (1) 13135 W Lishon Road, Brookfield, WI 53005								
33 Hammer (1)   MILVAGUE ELECTRIC TOCK CONTROL ON   13135 W Lisbon Road Brookfield WI 53005			3.0mm Steel Ball			B.A	WALKEE ELECTRIC TOOL CORD	ODATION
k36 42-06-0305 3/8" Square Drive Anvil Assembly (1)						IV		
		42-06-0305		(1)			13133 W. LISDOH ROAU, DIOOKHEID,	



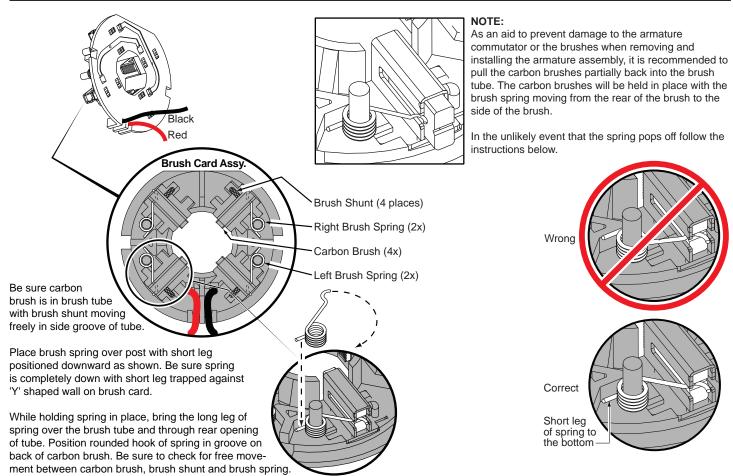
## NOTE

There are two Brush Card Assembly designs.

On the original brush card design the red and black wires that go to the switch are soldered on the brush card.

On the new brush card design the red and black wires that go to the switch are secured to the brush card with spring washers and screws.

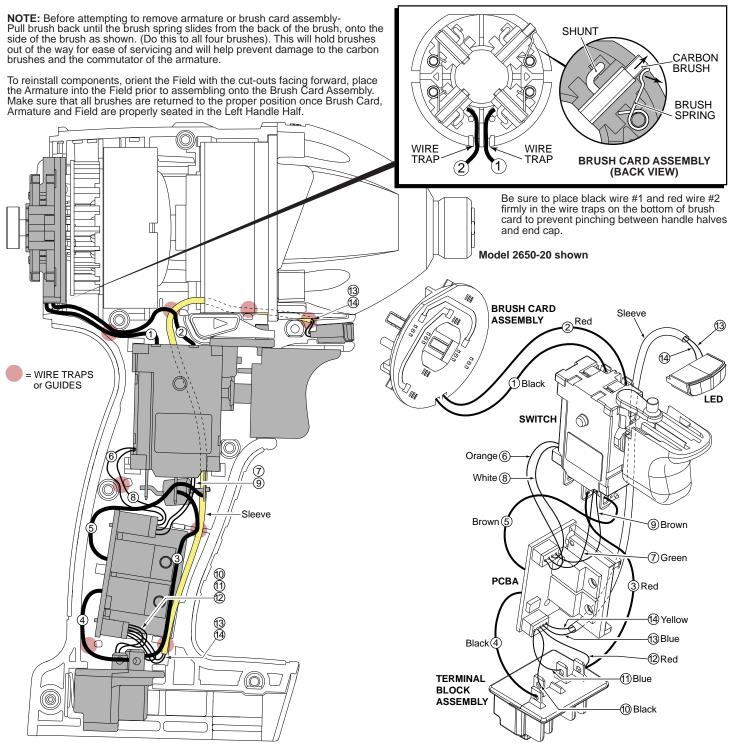
The new brush card design is <u>directly interchangeable</u> in tools that have the old brush card design.



## FIG. NOTES

- 15,16,17 See service note and illustration on the back of bulletin to aid with the removal and installation of the the Brush Card (15), Armature (16) and Field (17).
- 17 Field (17) to be positioned with side cut-outs to the front.
- 20,21 Position Ring Gear (21) with three lugs face down to interlock in the bottom of Rear Case (20).
- 20,43 Be sure to match the raised contours on the bottom of Rear Case (20) with raised contour on bottom of Front Case (43) when assembling.
- 29,30 Make sure concave side of Washer (29) faces Spring (30).
- 42,43 Tappered end of Front Washer (42) to face Front Case (43).

- FIG. LUBRICATION (Type 'J' Grease, No. 49-08-4220):
- 21,26 Lightly coat I.D. of the Ring Gear (21) and center of the two Planet Gears (26) with grease.
- 27 Place a dab of grease in the ball grooves of the Cam Shaft (27).
- 36,37 Lightly coat front washer surface of Anvil (36) with grease, place a dab in the Ball holes of Anvil and in Needle Bearing inside the Anvil.
- Coat inside grooves of Bushing (inside of 43) with grease.



WIRING SPECIFICATIONS								
Wire No.	Wire Color	Origin or Gauge	Length	Terminals, Connectors and 1 or 2 End Wire Preparation				
1	Black			Component of Brush Card Assy. Connect to M2 on Switch.				
2	Red			Component of Brush Card Assy. Connect to M1 on Switch.				
3	Red			Component of Switch/Brush Card/Terminal Block Assembly.				
4	Black			Component of Switch/Brush Card/Terminal Block Assembly.				
5	Brown			Component of Switch/Brush Card/Terminal Block Assembly.				
6	Orange			Component of Switch/Brush Card/Terminal Block Assembly.				
7	Green			Component of Switch/Brush Card/Terminal Block Assembly.				
8	White			Component of Switch/Brush Card/Terminal Block Assembly.				
9	Brown			Component of Switch/Brush Card/Terminal Block Assembly.				
10	Black			Component of Switch/Brush Card/Terminal Block Assembly.				
11	Blue			Component of Switch/Brush Card/Terminal Block Assembly.				
12	Red			Component of Switch/Brush Card/Terminal Block Assembly.				
13	Blue			Component of Switch/Brush Card/Terminal Block Assy. (LED)				
14	Yellow			Component of Switch/Brush Card/Terminal Block Assy. (LED)				

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.