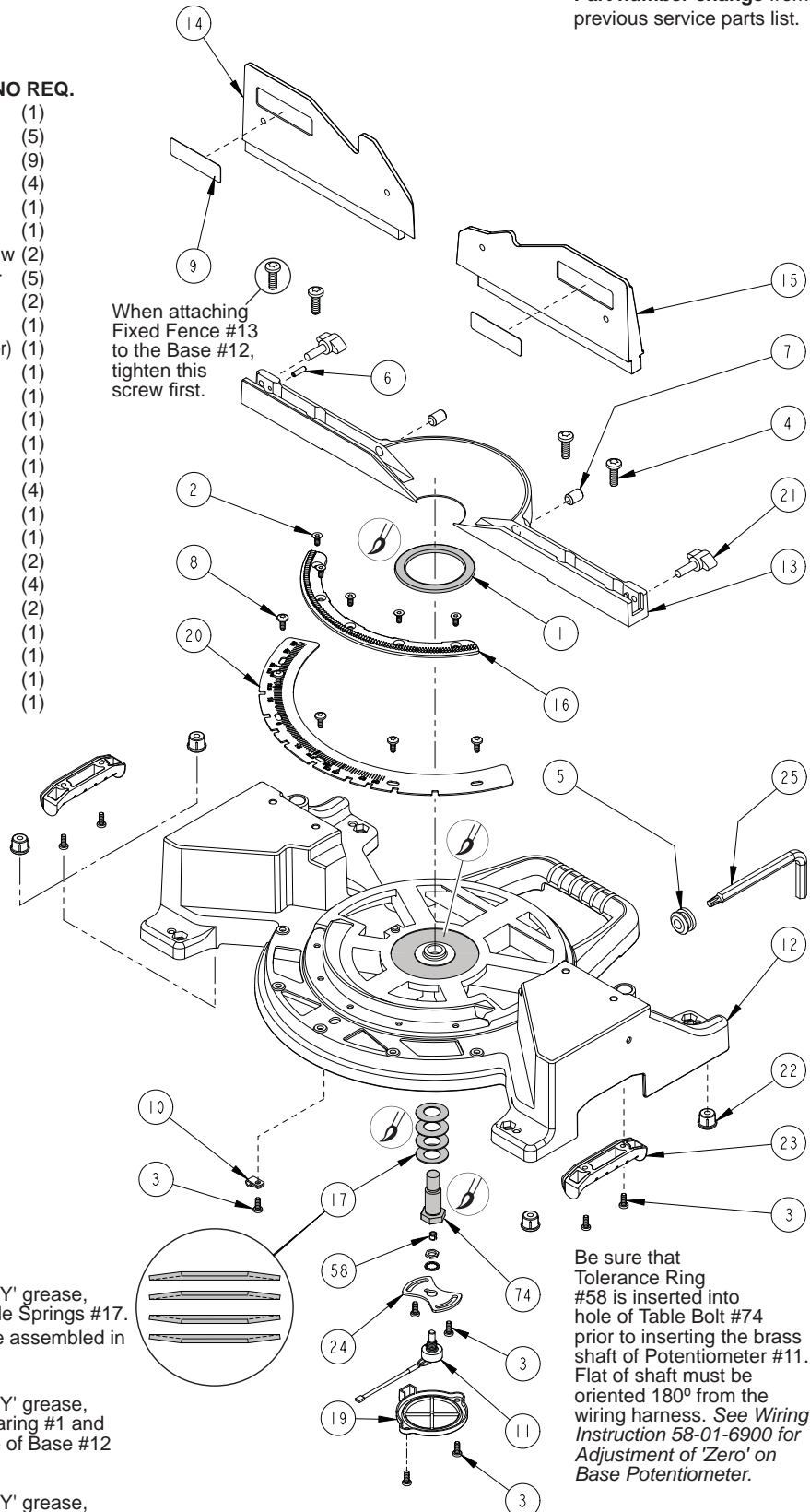


SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS				REVISED BULLETIN	DATE
12" DUAL BEVEL COMPOUND MITER SAW				54-40-6900	Sept. 2011
CATALOG NO.	6950-20	SERIAL NUMBER	B27B	WIRING INSTRUCTION	
				58-01-6901	

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

★ = Part number change from previous service parts list.

FIG.	PART NO.	DESCRIPTION OF PART	NO REQ.
	1	Thrust Bearing	(1)
	2	M5 x 12mm Flat Head T-20 Screw	(5)
	3	M5 x 13mm Pan Head T-25 Screw	(9)
	4	M8 x 25mm Pan Head T-45 Screw	(4)
★	5	Grommet	(1)
	6	M5 x 18mm Hex Socket Set Screw	(1)
	7	M12 x 1 x 18mm T-25 Socket Set Screw	(2)
	8	M5 x 13mm Pan Hd T-25 Shoulder Scr	(5)
	9	Fence Label	(2)
	10	Cable Clamp	(1)
	11	Potentiometer (Incl. Hex Nut & Star Washer)	(1)
	12	28-06-1265 12" Compound Miter Base	(1)
	13	28-35-0100 Fixed Fence	(1)
	14	28-35-0110 Left Fence	(1)
	15	28-35-0115 Right Fence	(1)
	16	32-48-0121 Rack	(1)
	17	40-50-8620 Belleville Spring	(4)
	19	42-92-1130 Potentiometer Cover	(1)
	20	43-82-0170 Miter Scale	(1)
	21	43-98-0275 Lock Knob Bolt	(2)
	22	44-34-0025 Miter Base Foot	(4)
	23	44-52-0950 Handle Grip	(2)
	24	44-66-0970 Potentiometer Plate	(1)
★	25	49-96-0180 1/4" Hex / T-25 Blade Wrench	(1)
	58	42-90-0130 Tolerance Ring	(1)
	74	45-08-0455 Table Bolt	(1)



SERVICE NOTES:

Orient Thrust Bearing #1 with printed ID stripe up, facing away from Base #12.

When assembling the Fixed Fence #13 to the Base #12, secure the left most Screw #4 as illustrated, followed by the other three screws.

Moving Fence Adjustment: (Left Fence)

- Turn Set Screw #7 (located on left side of Fixed Fence #13) clockwise until Set Screw touches Moving Fence #14, then back off 1/8 to 1/4 turn.
- The Moving Fence #14 must be able to be rotated and slide past the Set Screw #6.
- Set Screw #6 must protrude past machined surface of Fixed Fence #13.

Removable Fence Adjustment: (Right Fence)

- Turn Set Screw #7 (located on right side of Fixed Fence #13) clockwise until Set Screw touches Removable Fence #15, then back off 1/8 to 1/4 turn.



LUBRICATION NOTE
Place a light coat of Type 'Y' grease, No. 49-08-5270 to Belleville Springs #17. Belleville Springs are to be assembled in the order shown.

Place a light coat of Type 'Y' grease, to both sides of Thrust Bearing #1 and corresponding center bore of Base #12 as shown.

Place a light coat of Type 'Y' grease, on the shaft of Table Bolt #74 prior to inserting through hole in Base #12 and threading into hole on the bottom of Table #41 (shown on next page).

Be sure that Tolerance Ring #58 is inserted into hole of Table Bolt #74 prior to inserting the brass shaft of Potentiometer #11. Flat of shaft must be oriented 180° from the wiring harness. See Wiring Instruction 58-01-6900 for Adjustment of 'Zero' on Base Potentiometer.



SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS				REVISED BULLETIN	DATE
12" DUAL BEVEL COMPOUND MITER SAW				54-40-6900	Sept. 2011
CATALOG NO.	6950-20	SERIAL NUMBER	B27B	WIRING INSTRUCTION 58-01-6901	

EXAMPLE:

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

FIG.	PART NO.	DESCRIPTION OF PART	NO REQ.
26	05-55-0915	M8 Prevailing Torque Nut	(1)
27	05-81-0130	M4 x 8mm Pan Head T-20 Screw	(6)
28	05-81-0135	M5 x 13mm Pan Head T-25 Screw	(21)
29	05-81-0235	M5 x 7mm Pan Head T-25 Screw	(1)
30	06-86-0640	M5 x 18mm Set Screw	(1)
31	05-88-5910	M3.5 x 8mm Pan Hd Slit T-10 PT Screw	(4)
32	05-88-5988	K50 x 35mm Slit Pan Hd T-20 Screw	(2)
33	05-89-0535	K6 X 13mm Pan Head T-25 Screw	(2)
34	10-20-7900	Fine Adjustment Label	(1)
35	10-20-9125	Fine Adjustment Warning Label	(1)
36	10-20-9135	Round Label	(2)
37	22-09-1580	LCD Assembly	(1)
38	22-38-0175	Cable Clamp	(4)
39	22-90-0250	Grommet	(1)
40	23-66-0705	Calibration Switch	(1)
41	28-06-1240	Compound Miter Table	(1)
42	31-01-1580	Switch Mount (Miter)	(1)
43	31-12-0030	Bearing Cap	(1)
44	32-48-0115	Fine Adjustment Tube Gear	(1)
45	-----	Fine Adjustment Gear	(1)
46	32-48-0130	Reduction Gear	(1)
47	-----	Pinion Gear	(1)
48	34-60-0020	External Retaining Ring	(2)
49	-----	External Retaining Ring	(1)
50	34-60-1450	E-Ring	(1)
51	40-50-0390	Spring	(1)
52	40-50-0455	Miter Detent Spring	(1)
53	40-50-0460	Fine Adjustment Return Spring	(1)
54	-----	Fine Adjustment Chassis	(1)
55	-----	Slide Block	(1)
56	-----	Lock Handle Cap	(1)
57	42-52-1040	Spring Cap	(2)
58	42-90-0130	Tolerance Ring	(1)
59	42-92-1140	Cover (Detent Mech.)	(1)
60	43-06-0035	Brake Disk	(1)

Use this hole to make Brake adjustments!
 Insert a 5mm ball end hex key through hole in bevel scale area and engage pad adjuster on brake. Do not use a standard hex key for this adjustment procedure.

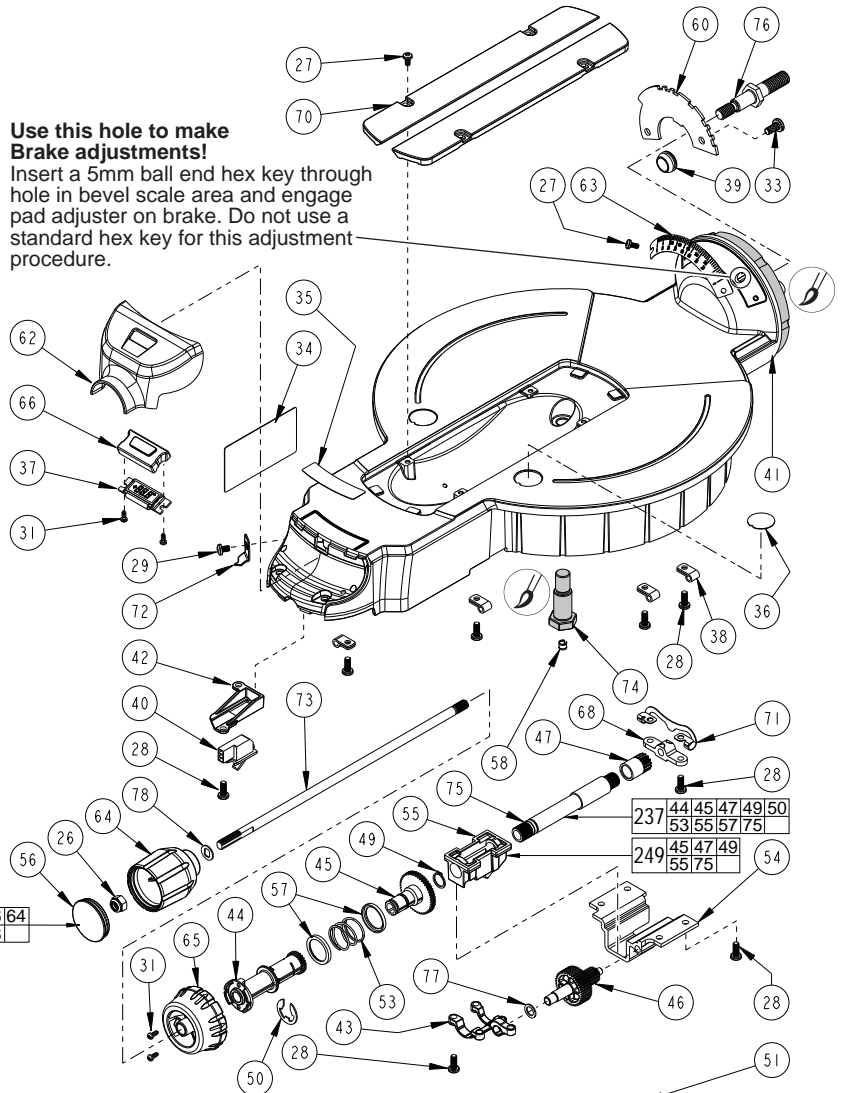
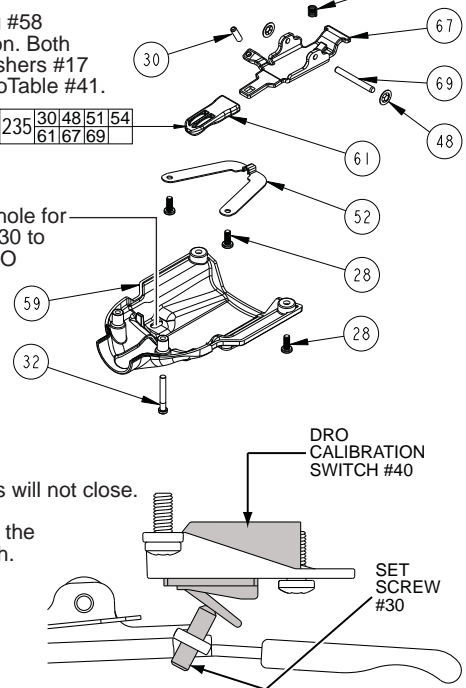


Table Bolt #74 and Tolerance Ring #58 are shown for reference/orientation. Both parts must be routed through Washers #17 and Base #12 prior to assembly to Table #41.

FIG.	PART NO.	DESCRIPTION OF PART	NO REQ.
61	43-62-1340	Detent Lever Handle	(1)
62	43-76-0740	LCD Cover	(1)
63	43-82-0160	Bevel Scale	(1)
64	-----	Table Lock Knob	(1)
65	43-98-0250	Fine Adjustment Knob	(1)
66	44-06-0030	LCD Lens Cover	(1)
67	44-10-0145	Detent Lever	(1)
68	44-40-0105	Lock Block	(1)
69	44-60-0495	Hinge Pin	(1)
70	14-46-1270	Service Kerf Plates (Set of 2)	(1)
71	44-66-1125	Miter Lock Plate	(1)
72	44-72-0061	Miter Pointer	(1)
73	-----	Handle Lock Rod	(1)
74	45-08-0455	Table Bolt	(1)
75	-----	Compound Pinion Tube	(1)
76	45-58-0125	Stud	(1)
78	45-88-3045	Washer	(1)
79	-----	Special Washer	(1)
235	14-48-0100	Chassis Assembly	(1)
236	14-48-0080	Table Lock Rod Assembly	(1)
237	14-48-0090	Fine Adjustment Assembly	(1)
238	28-06-1140	Table Assembly	(1)
249	14-48-0091	Slide Block Assembly	(1)

ADJUSTMENT OF Digital Readout (DRO) CALIBRATION SWITCH:

- Turn the Calibration Set Screw #30 in (toward Switch #40) enough that the calibration switch contacts will not close.
- With the Miter Detent Spring #52 out of the detent notch in the Miter Detent Scale #20, but resting on the Miter Scale, move the Table #41 about 1.5" to either side of the "0" position and return to the "0" notch.
- Insert a 2.5mm hex key into Set Screw #30 and adjust by turning the screw out (clockwise when viewed from the operators position) until the digital read out changes from the set angle to "0". Turn Set Screw #30 an extra 1/4-1/2 turn out.
- Remove 2.5mm adjustment hex key from Set Screw #30. See *Wiring Instruction* for more detail.





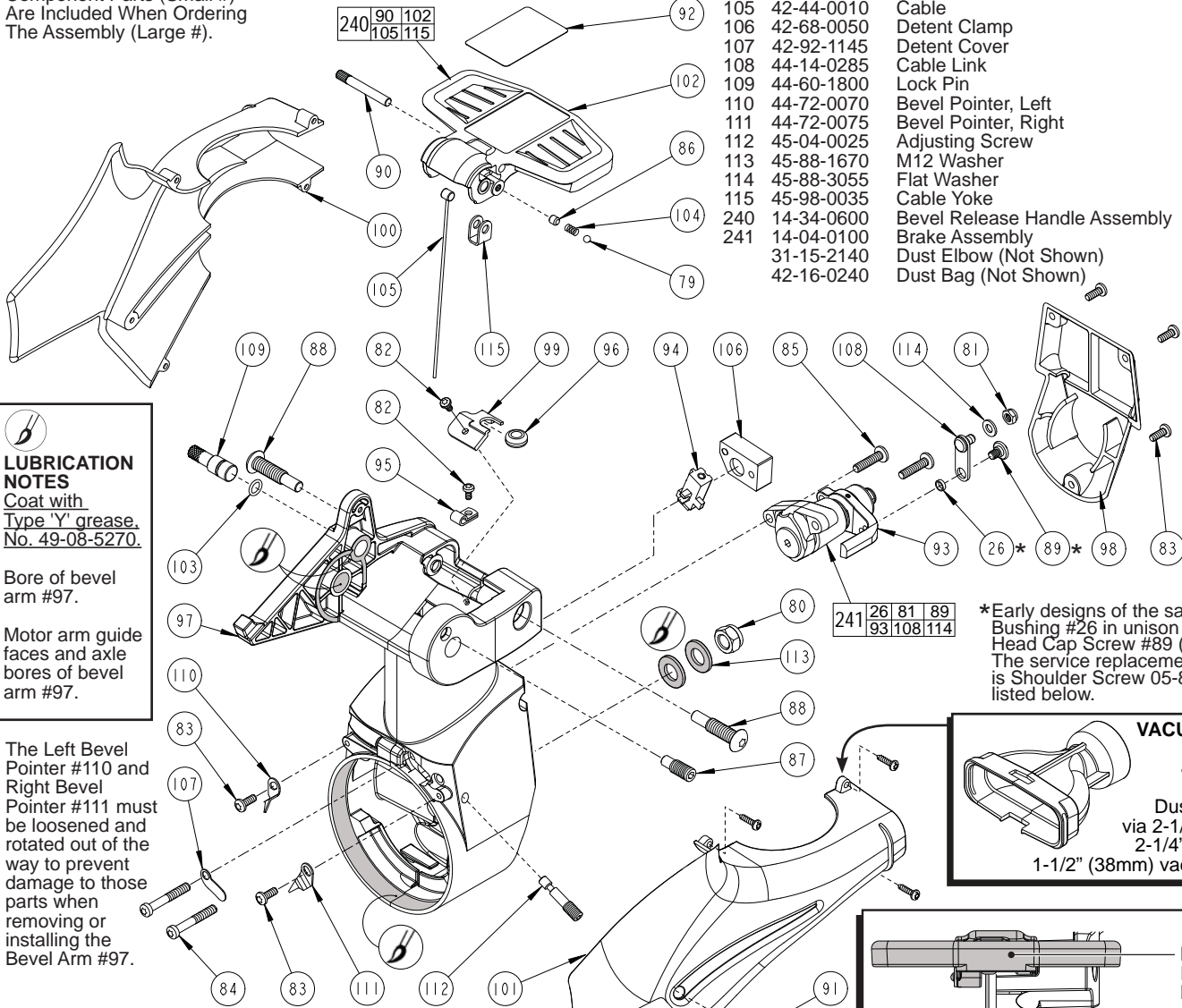
SERVICE PARTS LIST
PAGE 3 OF 6 BEVEL ARM ASSY.

BULLETIN NO.
54-40-6901

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS			REVISED BULLETIN 54-40-6900	DATE Sept. 2011
12" DUAL BEVEL COMPOUND MITER SAW				
CATALOG NO.	6950-20	SERIAL NUMBER	B27B	
			WIRING INSTRUCTION 58-01-6901	

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

FIG.	PART NO.	DESCRIPTION OF PART	NO REQ.
105	42-44-0010	Cable	(1)
106	42-68-0050	Detent Clamp	(1)
107	42-92-1145	Detent Cover	(1)
108	44-14-0285	Cable Link	(1)
109	44-60-1800	Lock Pin	(1)
110	44-72-0070	Bevel Pointer, Left	(1)
111	44-72-0075	Bevel Pointer, Right	(1)
112	45-04-0025	Adjusting Screw	(1)
113	45-88-1670	M12 Washer	(2)
114	45-88-3055	Flat Washer	(1)
115	45-98-0035	Cable Yoke	(1)
240	14-34-0600	Bevel Release Handle Assembly	(1)
241	14-04-0100	Brake Assembly	(1)
	31-15-2140	Dust Elbow (Not Shown)	(1)
	42-16-0240	Dust Bag (Not Shown)	(1)



LUBRICATION NOTES
Coat with
Type 'Y' grease.
No. 49-08-5270.

Bore of bevel arm #97.

Motor arm guide faces and axle bores of bevel arm #97.

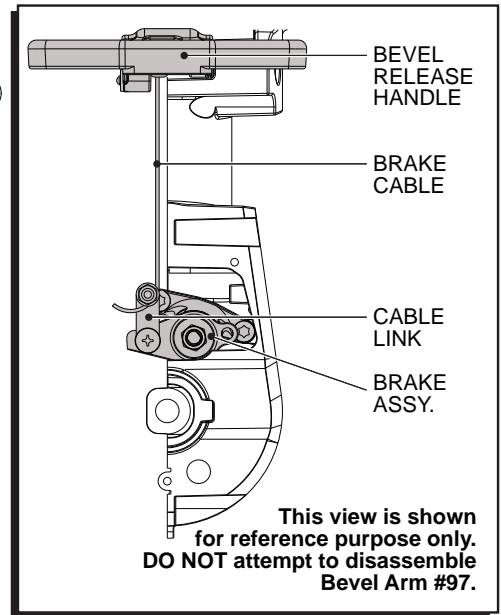
The Left Bevel Pointer #110 and Right Bevel Pointer #111 must be loosened and rotated out of the way to prevent damage to those parts when removing or installing the Bevel Arm #97.

*Early designs of the saw utilized a Bushing #26 in unison with a Button Head Cap Screw #89 (05-73-0155). The service replacement for either is Shoulder Screw 05-89-0540, listed below.

VACUUM HOSE ADAPTER
48-03-0200

Dust collection via 2-1/2" (64mm), 2-1/4" (58mm) or 1-1/2" (38mm) vacuum hose.

FIG.	PART NO.	DESCRIPTION OF PART	NO REQ.
26	42-40-0945	Bushing	(1)
79	02-02-1300	5mm Ball	(1)
80	05-55-0970	M12 Prevailing Torque Nut	(1)
81	05-55-0965	M6 Prevailing Torque Nut	(1)
82	05-81-0130	M4 x 8mm Pan Head T-20 Screw	(2)
83	05-81-0135	M5 x 13mm Pan Head T-25 Screw	(5)
84	05-81-0140	M6 x 40mm Pan Head T-25 Screw	(2)
85	05-81-0145	M6 x 25mm Pan Head T-30 Screw	(2)
86	05-86-0655	M6 x 1 x 6mm Hex Socket Set Screw	(1)
87	05-89-0520	M10 x 1.5mm Hex Socket Stop Screw	(1)
88	05-89-0525	M10 x 1.5 x 44mm T-45 Pivot Screw	(2)
89	05-89-0540	8 x 2.5mm Phillips Pan Hd Shoulder Scr	(1)
90	06-65-0530	Dowel Pin	(1)
91	06-82-9220	K40 x 5/8" Pan Hd Slotted T-20 Screw	(8)
92	10-20-9100	Bevel Lock Label	(1)
93	-----	Caliper	(1)
94	14-48-0075	Detent Assembly	(1)
95	22-38-0175	Cable Clamp	(1)
96	22-90-0245	Grommet	(1)
97	28-04-0400	Bevel Arm	(1)
98	31-15-1510	Back Cover	(1)
99	31-15-1520	Bevel Top Cover	(1)
100	31-15-2145	Dust Chute, Left	(1)
101	31-15-2150	Dust Chute, Right	(1)
102	31-44-2320	Bevel Release Handle	(1)
103	34-40-0250	O-Ring	(1)
104	40-50-3940	Spring	(1)



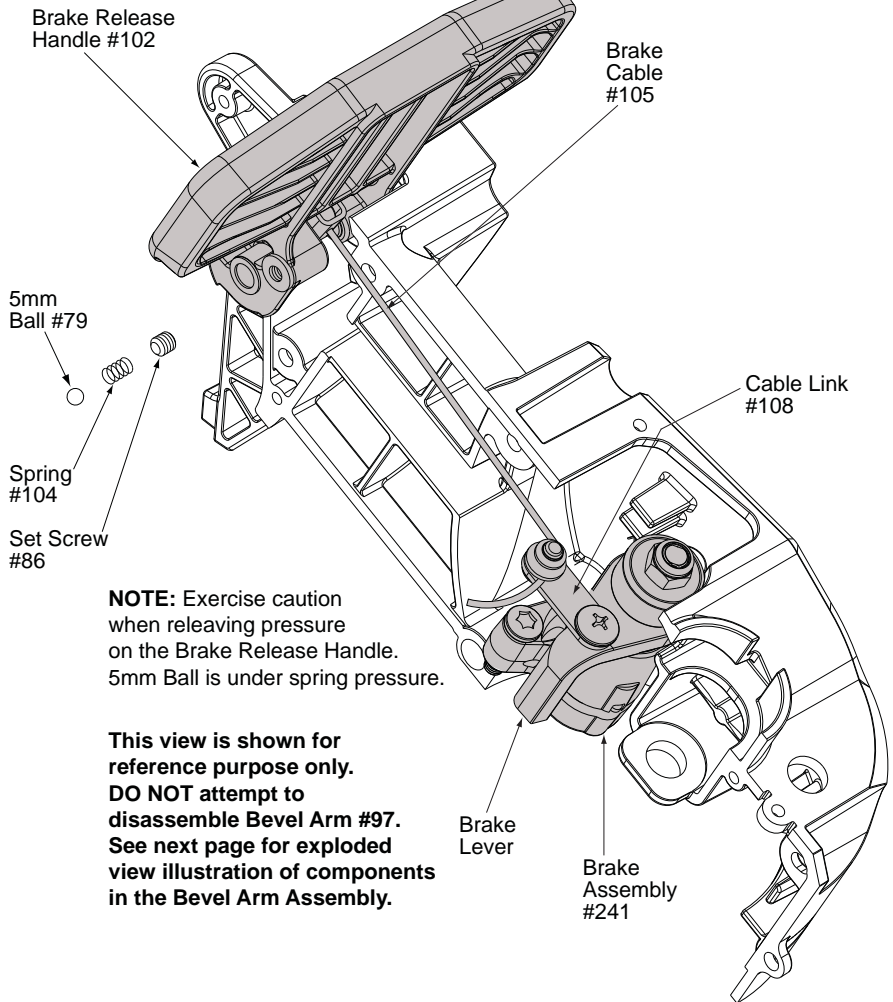
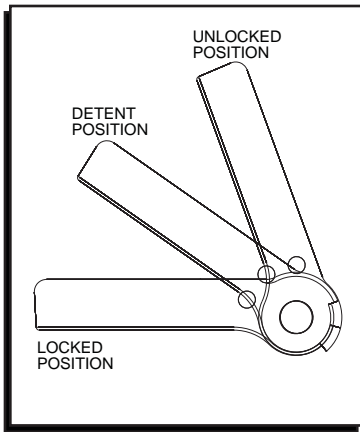
SEE NEXT PAGE FOR SPECIAL INSTRUCTIONS FOR THE ADJUSTMENT OF THE BRAKE CABLE AND THE STATIONARY BRAKE PAD



SERVICE PARTS LIST
4 OF 6 BEVEL ARM ASSY. CONT.

BULLETIN NO.
54-40-6901

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS			REVISED BULLETIN	DATE
12" DUAL BEVEL COMPOUND MITER SAW			54-40-6900	Sept. 2011
CATALOG NO.	6950-20	SERIAL NUMBER	WIRING INSTRUCTION	
		B27B	58-01-6901	

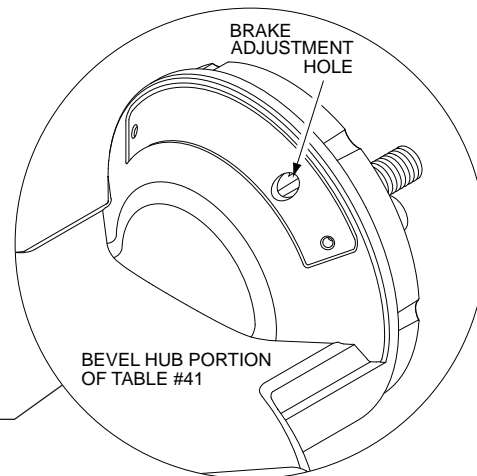


1. ADJUSTMENT OF BRAKE CABLE:
(Reference last page for Bevel Arm Assembly)

- A. Start with Bevel Release Handle #102, Brake Cable #105, Bevel Brake #241 and Cable Link #108 assembled in Bevel Arm #97. Cable inserted into Cable Link but not tightened:
- B. Move Bevel Release Handle to detent position.
- C. Move and hold brake release lever in position by use of a gage block.
 - C.1 For Compound model 6950-20 use special service fixture No. 61-10-0090.
- D. Pull Cable taught using needle nose pliers.
- E. Tighten Cable Locking Nut #81 to 45-50 in./lb.
- F. Lift Bevel Release Handle to release support of brake lever.
- G. Move Bevel Release Handle to locked position.

2. ADJUSTMENT OF STATIONARY BRAKE PAD IN BEVEL ARM:

- A. Remove Dust Chutes #100 and #101. Release Bevel Brake.
- B. Move Bevel Arm #97 to right side hard stop.
- C. Block Bevel Release Handle to hold Brake in the released position.
 - C.1 For Compound model 6950-20 use special service fixture No. 61-10-0280.
- D. Remove Bevel Scale Mounting Screw #27 on right side of Bevel Scale #63, loosen Scale Mounting Screw on left side of Scale and remove Bevel Scale.
- E. Insert a 5mm ball end hex key through right hole in bevel scale area at the rear of the Table (see illustration) and engage pad adjuster on Brake. Do not use a standard hex key for this adjustment procedure.
- F. Turn pad adjuster to the right until it stops against the Disk #60.
- G. Turn pad adjuster to the left 1/8 turn.
- H. Remove hex key from break adjuster.
- I. Reassemble Bevel Scale and Dust Chutes to saw.





SERVICE PARTS LIST
PAGE 5 OF 6 MOTOR ASSEMBLY

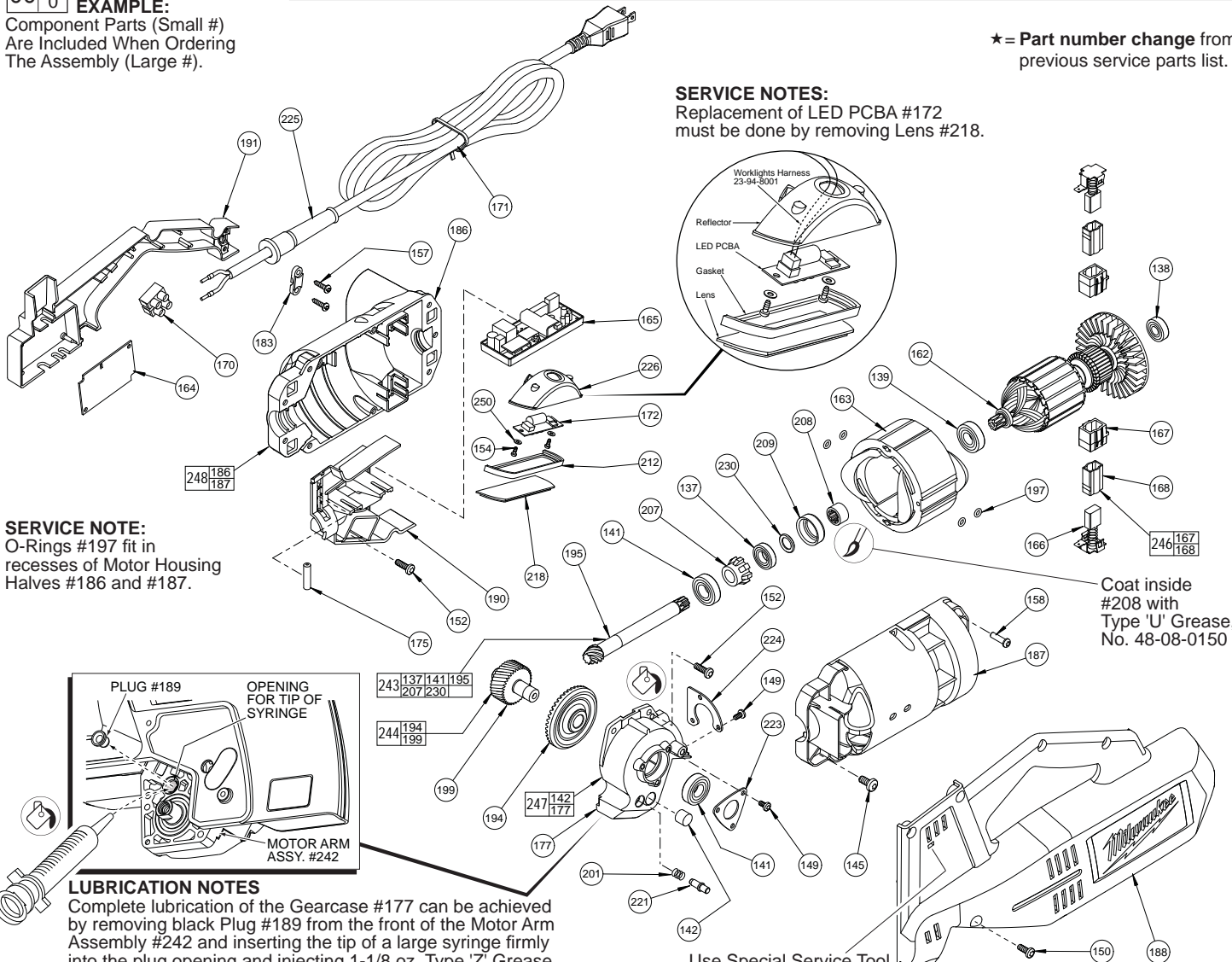
BULLETIN NO.
54-40-6901

SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN	DATE
12" DUAL BEVEL COMPOUND MITER SAW		54-40-6900	Sept. 2011
CATALOG NO.	6950-20	WIRING INSTRUCTION	
SERIAL NUMBER	B27B	58-01-6901	

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

★ = Part number change from previous service parts list.

SERVICE NOTES:
Replacement of LED PCBA #172 must be done by removing Lens #218.



SERVICE NOTE:
O-Rings #197 fit in recesses of Motor Housing Halves #186 and #187.

LUBRICATION NOTES
Complete lubrication of the Gearcase #177 can be achieved by removing black Plug #189 from the front of the Motor Arm Assembly #242 and inserting the tip of a large syringe firmly into the plug opening and injecting 1-1/8 oz. Type 'Z' Grease, No. 49-08-7655 into Gearcase. See the next page for Motor Arm Assembly components.

Use Special Service Tool No. 61-10-0105 to reset DRO Board #164. Insert pin into small square hole located in Motor Case Cover #188. See Wiring Instruction for more detail.

FIG.	PART NO.	DESCRIPTION OF PART	NO REQ.
137	02-04-0100	Ball Bearing	(1)
138	02-04-0852	Ball Bearing	(1)
139	02-04-1212	Ball Bearing	(1)
141	02-08-0510	Ball Bearing	(2)
★142	02-50-2155	Needle Bearing	(1)
145	05-73-0155	M6 x 13 Pan Head T-27 Screw	(4)
149	05-81-0130	M4 x 8 Pan Head T-20 Screw	(6)
150	05-81-0135	M5 x 13 Pan Head T-25 Screw	(8)
152	05-81-0155	M5 x 16 Pan Head T-25 Screw	(4)
★154	05-88-5910	M3.5 x 1.57 x 8mm Pan Hd T-10 Screw	(2)
157	06-82-9220	K40 x 5/8" Slotted T-20 PT Screw	(2)
158	06-95-6290	M5 x 2.24 x 18 Slotted T-20 PT Screw	(9)
162	16-70-5010	Service Armature Assembly	(1)
163	18-70-5000	Service Field	(1)
164	22-09-1060	DRO Board	(1)
165	22-09-1590	120V Motor Control	(1)
166	14-46-1260	Brush Set (Set of 2)	(1)
167	-----	Brush Holder	(2)
168	-----	Brush Tube	(2)
170	22-56-0470	Terminal Block	(1)
171	22-64-6495	120V Cord Set	(1)
★172	14-20-6955	LED PCBA	(1)
175	23-80-0020	Speed Control Sensor	(1)
177	-----	Gear Case	(1)
183	31-17-0155	Cord Clamp	(1)
186	-----	Motor Housing - Left	(1)
187	-----	Motor Housing - Right	(1)

FIG.	PART NO.	DESCRIPTION OF PART	NO REQ.
188	31-50-2210	Motor Case Cover	(1)
190	31-55-0035	Lower Tray	(1)
191	31-55-0040	Upper Tray	(1)
194	-----	Bevel Gear	(1)
195	32-60-0081	Bevel Pinion Shaft	(1)
197	34-40-0260	O-Ring	(4)
199	-----	Pinion Gear	(1)
201	40-50-0390	Spring	(1)
207	42-76-0540	Speed Control Collar	(1)
208	42-90-0095	Coupling	(1)
209	42-96-0080	Bearing Cup	(1)
212	43-44-0055	Gasket	(1)
218	44-06-0115	Lens	(1)
221	44-60-0705	Spindle Lock Pin	(1)
223	44-66-0950	Bearing Plate	(1)
224	44-66-0955	Bearing Plate	(1)
225	44-76-0210	Cord Protector	(1)
★226	44-79-0041	LED Light Reflector	(1)
230	45-36-2010	Spacer	(1)
243	14-29-0240	Bevel Pinion Shaft Assembly	(1)
244	14-29-0250	Gear Service Assembly	(1)
246	22-20-0980	Brush Holder Assembly	(2)
247	14-30-0910	Gear Case Service Assembly	(1)
248	31-50-2206	Motor Housing Assembly	(1)
★250	45-88-3065	Washer	(2)



SERVICE PARTS LIST
PAGE 6 OF 6 MOTOR ARM ASSY.

BULLETIN NO.
54-40-6901

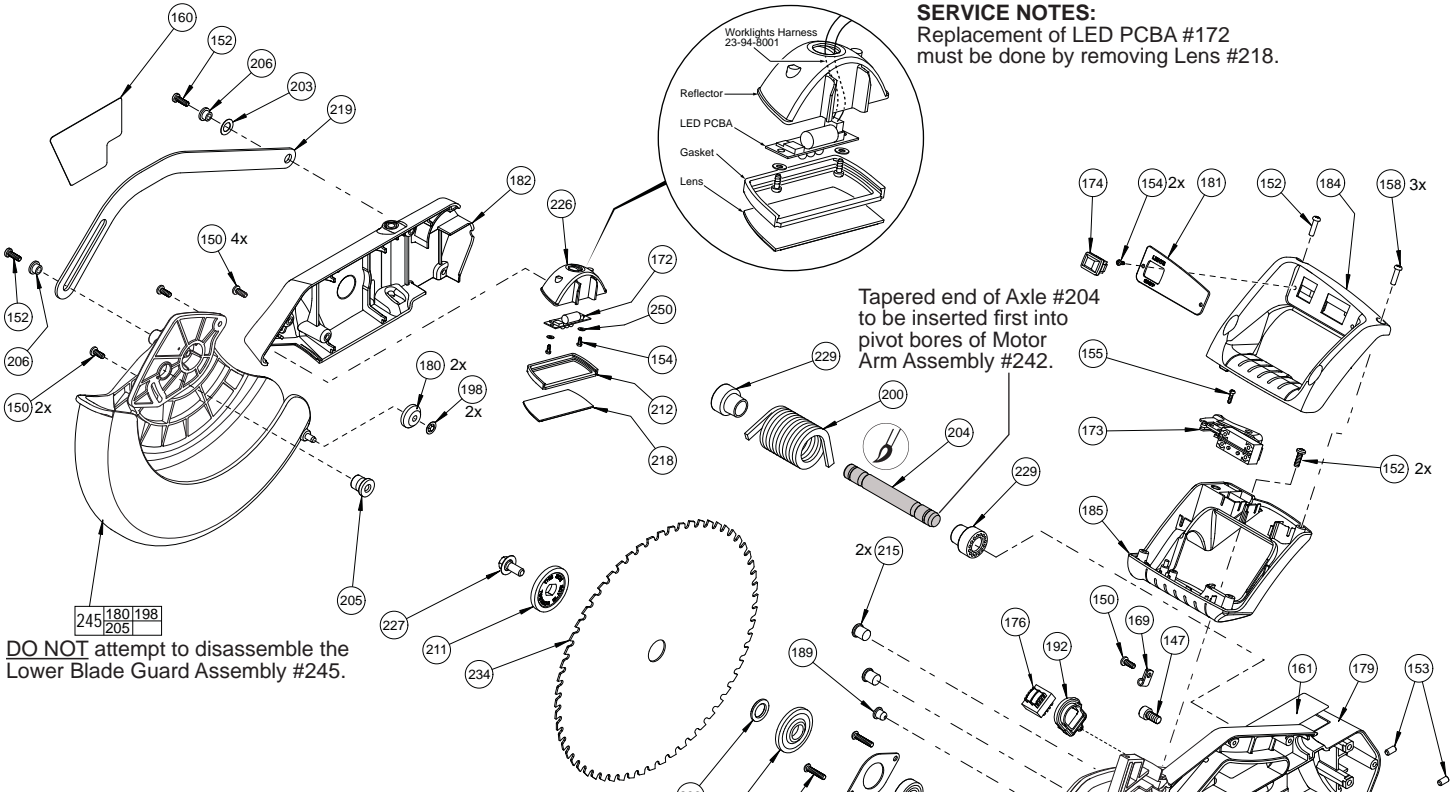
SPECIFY CATALOG NO. AND SERIAL NO. WHEN ORDERING PARTS		REVISED BULLETIN	DATE
12" DUAL BEVEL COMPOUND MITER SAW		54-40-6900	Sept. 2011
CATALOG NO.	6950-20	SERIAL NUMBER	B27B
		WIRING INSTRUCTION	58-01-6901

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EXAMPLE:

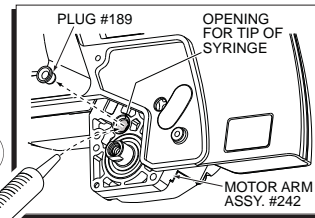
Component Parts (Small #) are Included When Ordering The Assembly (Large #).

★ = Part number change from previous service parts list.



DO NOT attempt to disassemble the Lower Blade Guard Assembly #245.

FIG.	PART NO.	DESCRIPTION OF PART	NO REQ.
140	02-04-1700	Ball Bearing	(1)
143	-----	Needle Bearing	(1)
146	05-73-0160	M5 x 25 Button Head T-25 Screw	(2)
147	05-74-0050	M8 x 16 Socket Head Cap Screw	(1)
★ 148	05-80-0500	K40 x 12mm Flat Head T-20 PT Screw	(1)
150	05-81-0135	M5 x 13 Pan Head T-25 Screw	(7)
152	05-81-0155	M5 x 16 Pan Head T-25 Screw	(5)
153	05-86-0645	M6 Set Screw	(2)
★ 154	05-88-5910	M3.5 x 1.57 x 8mm Pan Hd T-10 Screw	(4)
155	05-88-5915	M3.5 x 1.57 x 12mm Pan Hd T-10 Screw	(1)
158	06-95-6290	M5 x 2.24 x 18 Slotted T-20 PT Screw	(3)
159	10-20-9105	Guard Plate Label	(1)
160	10-20-9110	Arm Warning Label	(1)
161	12-20-0095	Service Nameplate	(1)
169	22-38-0175	Cable Clamp	(1)
★ 172	14-20-6955	LED PCBA	(1)
173	23-66-3035	Switch	(1)
174	23-66-3040	Rocker Switch	(1)
★ 176	23-81-0585	LED Lighting Transformer	(1)
178	-----	Upper Guard	(1)
179	-----	Motor Arm	(1)
180	31-01-2500	Lower Guard Wheel	(2)
181	31-15-2120	Handle Cover	(1)
182	31-15-2160	Transformer Cover	(1)
184	31-44-2325	Top Handle	(1)
185	31-44-2330	Bottom Handle	(1)
189	31-53-0235	Plug	(1)
★ 192	31-55-0401	Transformer Shield	(1)
196	32-75-0080	Spindle Gear	(1)
198	34-60-0020	External Retaining Ring	(2)
200	40-50-0385	Torsion Spring	(1)
203	40-50-3945	Spring washer	(1)
204	42-12-0045	Axle	(1)
205	42-38-0390	Bumper	(1)
206	42-40-0935	Bushing	(2)
210	43-34-0865	Inner Blade Flange	(1)
211	43-34-0870	Outer Blade Flange	(1)
212	43-44-0055	Gasket	(1)
215	43-56-0825	Blade Deflector	(2)
216	43-56-0830	Chip Deflector	(1)
218	44-06-0115	Lens	(1)



LUBRICATION NOTES

Complete lubrication of Gearcase #177 (see previous page) can be achieved by removing black Plug #189 from the front of the Motor Arm Assembly #242 and inserting the tip of a large syringe firmly into the plug opening and injecting 1-1/8 oz. Type 'Z' Grease, No. 49-08-7655 into Gearcase.

LUBRICATION NOTES

Fill outer grooves and coat surface of Axle #204 with Type 'Y' Grease, No. 49-08-5270.

Coat pivot bores of Motor Arm Assembly #242 with Type 'Y' Grease.

FIG.	PART NO.	DESCRIPTION OF PART	NO REQ.
219	44-14-0280	Guard Link	(1)
222	44-66-0945	Bearing Plate	(1)
★ 226	44-79-0041	LED Light Reflector	(1)
227	45-04-0925	Blade Screw	(1)
229	45-36-1640	Spring Support Bushing	(2)
233	45-36-2025	Blade Spacer	(1)
234	42-41-4550	12" Miter Saw Blade	(1)
242	14-38-0690	Motor Arm Assembly	(1)
245	14-32-0205	Lower Blade Guard Assembly	(1)
★ 250	45-88-3065	Washer	(2)