

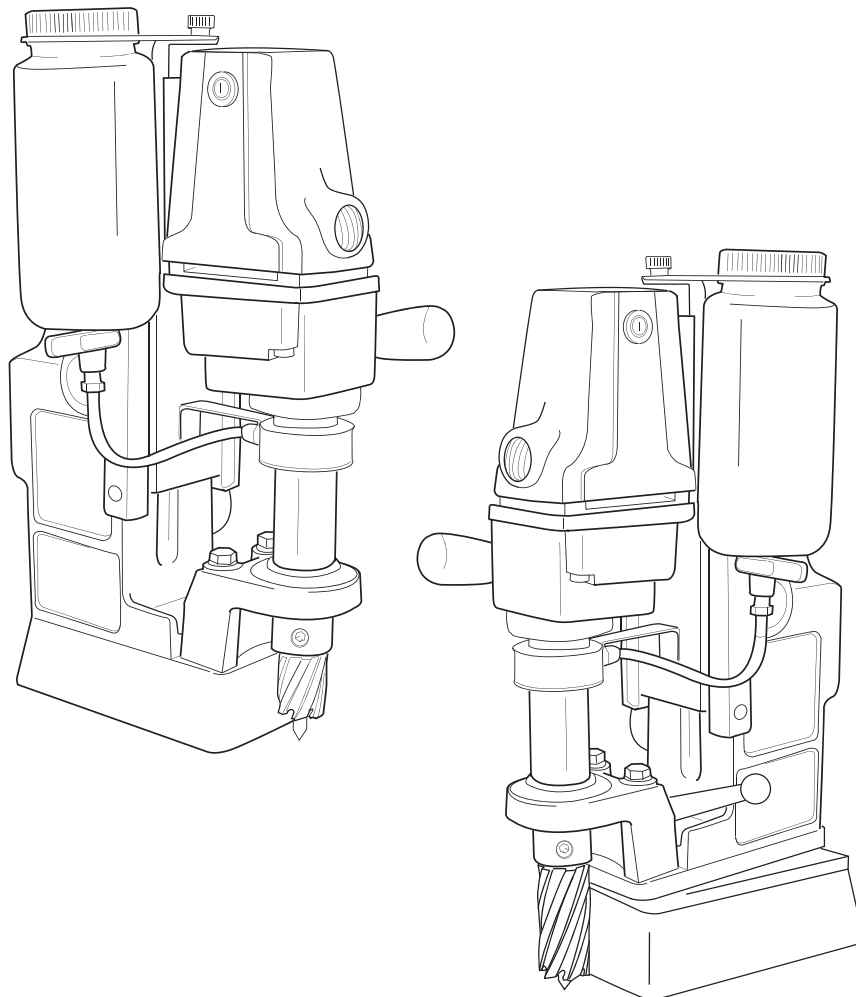


HMD938 SERIES

PORTABLE MAGNETIC DRILLS

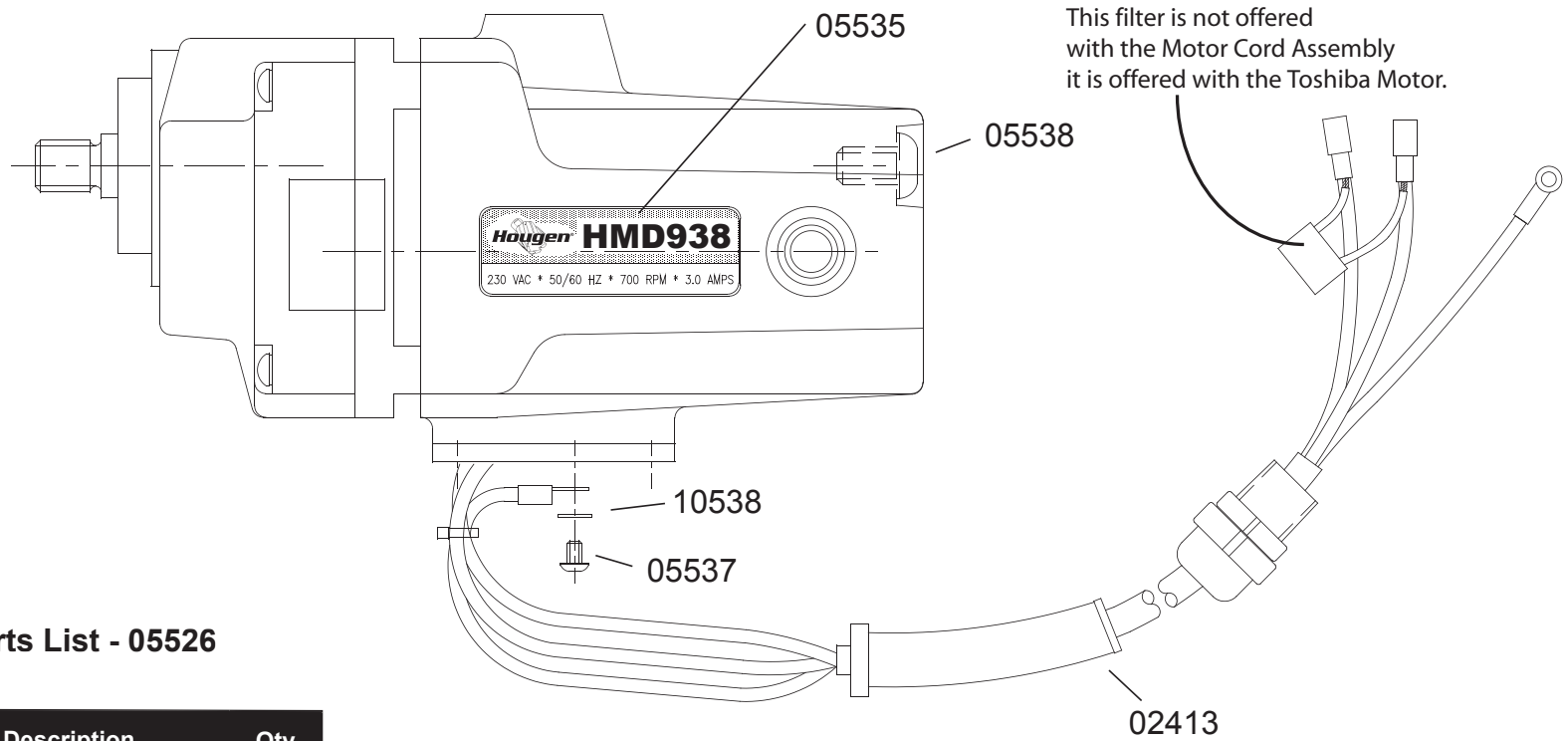
OPERATOR'S MANUAL

COVERS DRILL PART NUMBERS 0938402 & 0938404



FOR USE WITH "12,000-SERIES" HOUGEN® CUTTERS

MOTOR PARTS DIAGRAM

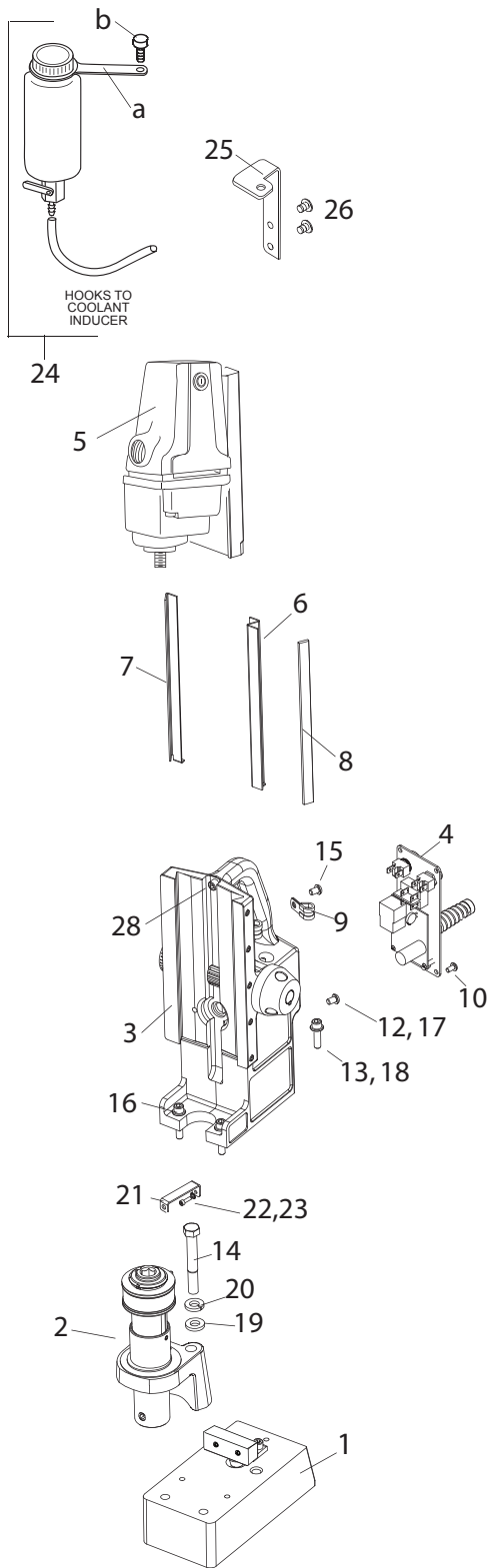


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Motor Parts List - 05526

Part #	Description	Qty
02413	Motor Cord	1
05525	Motor Assembly	1
05535	Label	1
05537	Screw	1
05538	Screw	1
10538	Washer	1

0938402 HMD938 230v with Coolant

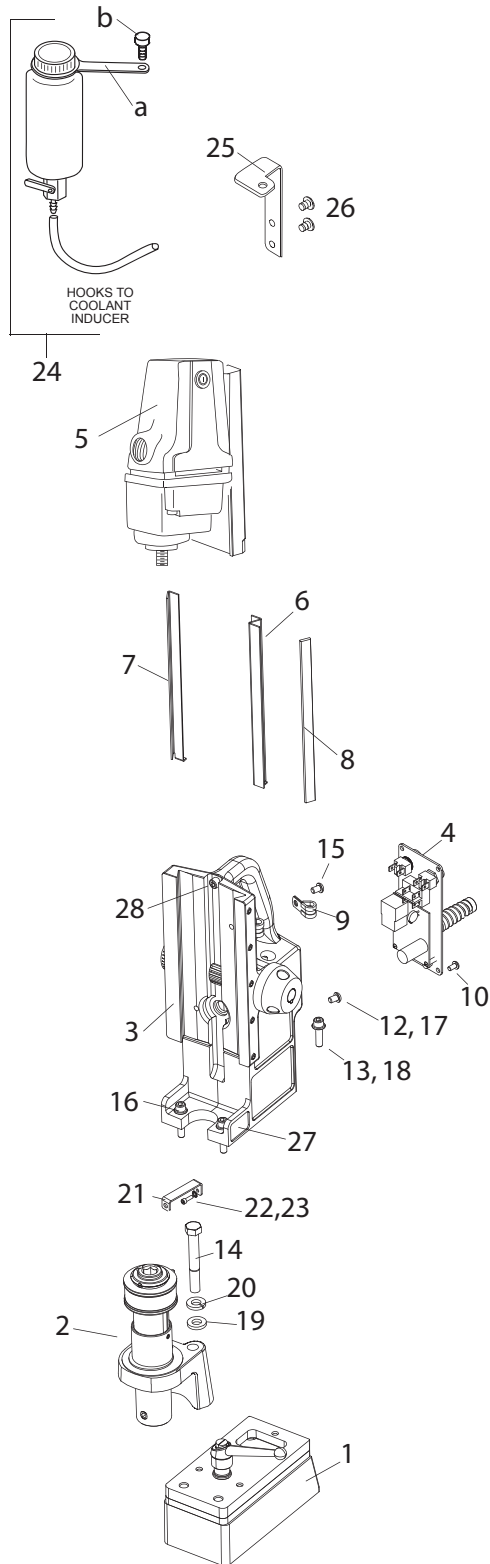


Item	Part #	Description	Qty
1	*05392	Magnet & Switch Assembly Standard Base 230v	1
2	*05531	Arbor/Front Support Assembly	1
3	*04540	Housing Assembly 230v	1
4	*05290	Panel Assembly 230v	1
5	Refer to the following pages for the Motor/Slide Assembly Breakdown		
6	02429	Brass Gib Right Hand	1
7	02430	Brass Gib Left Hand	1
8	02431	Steel Gib	1
9	02420	Cable Clamp	1
10	41044	Screw BHC #10-32 X 3/8	4
12	17002	Screw SHC #6-32 X 1/2 (ground)	1
13	40077	Screw SHC 1/4-20 X 1	1
14	02460	Hex Bolt 3/8-24 X 2-3/4	2
15	02461	Screw BHC 1/4-28 X 3/8	1
16	10553	Screw SHC 1/4-20 X 7/8	2
17	90052	Lock Washer - #6 Ext. Tooth	1
18	90028	Lock Washer	3
19	40392	Flat Washer	2
20	40391	Lock Washer	2
21	05058	Coolant Inducer Bracket	1
22	10649	Screw SHC #10-32 X 3/4	1
23	10560	Lock Washer	1
24	05060	Coolant Bottle Assembly	1
a	05059	Coolant Bottle Holder	1
b	05061	Thumb Screw	1
25	05529	Bottle Holder Bracket	1
26	04157	SCR-FHC #10-32 X 3/8	2
28	40432	SCR-SHC 1/4-28 X 3/8	1
* See Following Pages for Detailed Breakdowns			

The **0938402** is assembled without an electrical plug at the end of the power cord.

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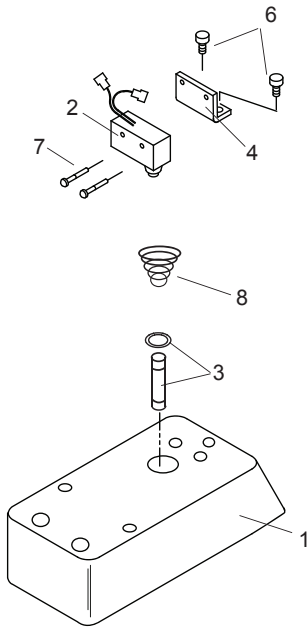
0938404 HMD938 230v with Coolant & Swivel Base



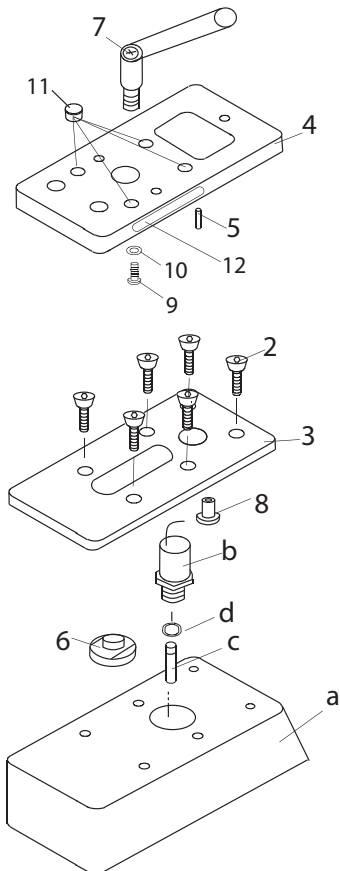
Item	Part #	Description	Qty
1	*05894	Magnet & Switch Assembly Swivel Base 230v	1
2	*05904	Arbor/Front Support Assembly	1
3	*04540	Housing Assembly 230v	1
4	*05290	Panel Assembly 230v	1
5	Refer to the following pages for the Motor/Slide Assembly Breakdown		
6	02429	Brass Gib Right Hand	1
7	02430	Brass Gib Left Hand	1
8	02431	Steel Gib	1
9	02420	Cable Clamp	1
10	41044	Screw BHC #10-32 X 3/8	4
12	17002	Screw SHC #6-32 X 1/2 (ground)	1
13	40077	Screw SHC 1/4-20 X 1	1
14	05736	Hex Bolt 3/8-24 X 2	2
15	02461	Screw BHC 1/4-28 X 3/8	1
16	10553	Screw SHC 1/4-20 X 7/8	2
17	90052	Lock Washer - #6 Ext. Tooth	1
18	90028	Lock Washer	3
19	40392	Flat Washer	2
20	40391	Lock Washer	2
21	05902	Coolant Inducer Bracket	1
22	10649	Screw SHC #10-32 X 3/4	1
23	10560	Lock Washer	1
24	05060	Coolant Bottle Assembly	1
a	05059	Coolant Bottle Holder	1
b	05061	Thumb Screw	1
25	05529	Bottle Holder Bracket	1
26	04157	SCR-FHC #10-32 X 3/8	2
27	07015	Swivel Label	1
28	40432	SCR-SHC 1/4-28 X 3/8	1
* See Following Pages for Detailed Breakdowns			

The **0938404** is assembled without an electrical plug at the end of the power cord.

Magnet Assembly Breakdowns



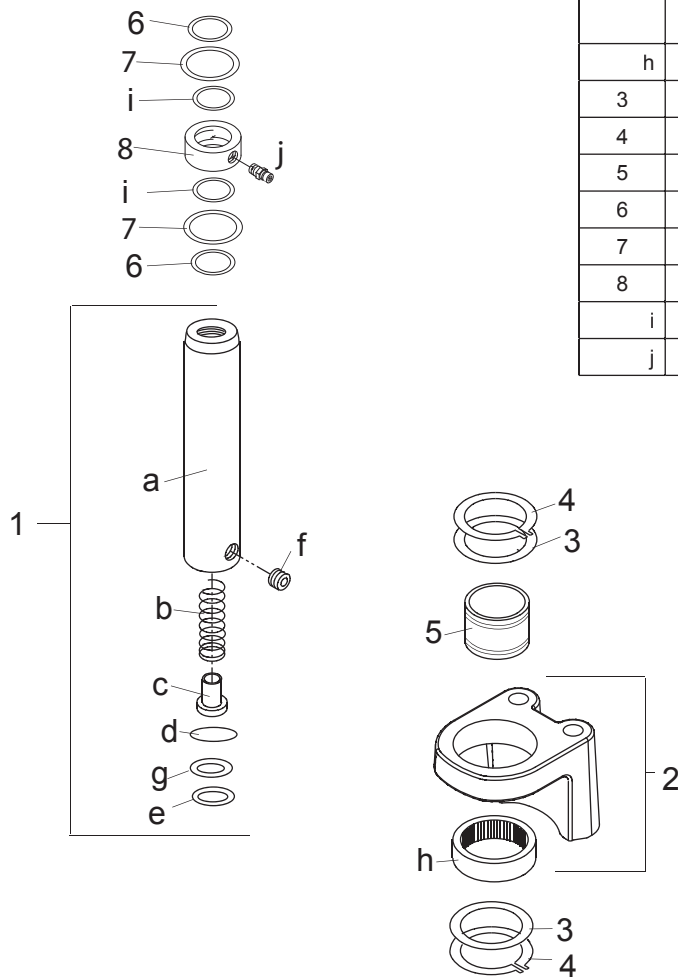
05392 Magnet Assembly 230v 0938402			
Item	Part #	Description	Qty
1	05391	Magnet Assembly 230v	1
2	04885	Safety Switch Assembly	1
3	04910	Plunger Assembly	1
4	04909	Safety Switch Bracket	1
6	10971	Screw SHC 1/4-20 X 1/2	2
7	10972	Screw BHC #6-32 X 7/8	2
8	17271	Tapered Spring	1



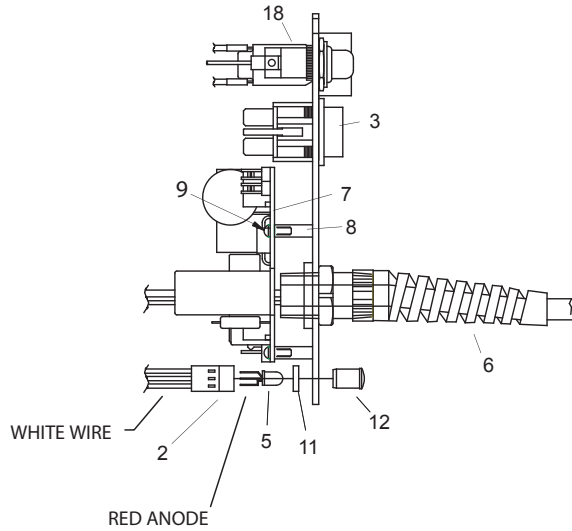
05894 Swivel Magnet Assembly 230v 0938404			
Item	Part #	Description	Qty
1	05895	Magnet/Safety Switch Assembly 230v includes a-d	
a	05896	Magnet Assembly 230v	1
b	05652	Ball Switch Assembly	1
c	05653	Plunger	1
d	05670	Retain. Ring	1
2	05743	Screw FHC 1/4-20 X 3/4	6
3	05657	Slide Housing	1
4	05656	Swivel Housing	1
5	02898	Dowel Pin 3/16 X 1/2	1
6	05658	Pivot Rod	1
7	05659	Clamp Handle Assembly	1
8	07215	Bushing Flange	1
9	41044	Screw BHC #10-32 X 3/8	1
10	90237	Flat Washer #10	1
11	07216	9/16 Hole Plug	4
12	07230	Safety Label	1

Arbor/Front Support Assembly Breakdowns

05531 Coolant Arbor Assembly (Standard Base)			
05904 Coolant Arbor Assembly (Swivel Base)			
Item	Part #	Description	Qty
1	05532	Arbor & Collar Assembly	1
a	05533	Arbor Body	1
b	05050	Spring	1
c	05054	Spring Seat	1
d	04986	Rubber Washer	1
e	10517	Retaining Ring	1
f	10506	SCR-Set 3/8-24 X .396 Flat Pt	2
g	05358	Shim Washer .50 X .75 X .028	1
2	04375	Front Support Bracket (Standard Base) includes h	1
	05734	Front Support Bracket (Swivel Base) includes h	1
h	40232	Needle Bearing	1
3	40234	Thrust Washer 40 X 60 X1	2
4	40398	Retain Ring	2
5	05055	Collar	1
6	40302	Retain Ring for 1-3/8 Shaft	2
7	40301	Thrust Washer 1-3/8 X 2-1/16 X 1/32	2
8	05063	Inducer Assembly	1
i	40300	O-ring 1-3/8 X 1-9/16 X 3/32	2
j	40303	Parker Fitting	1

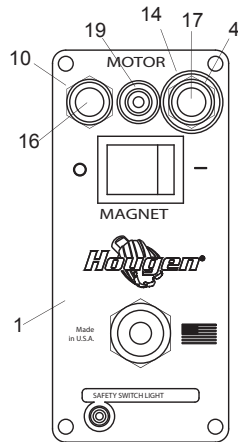


Control Panel Breakdown 230v



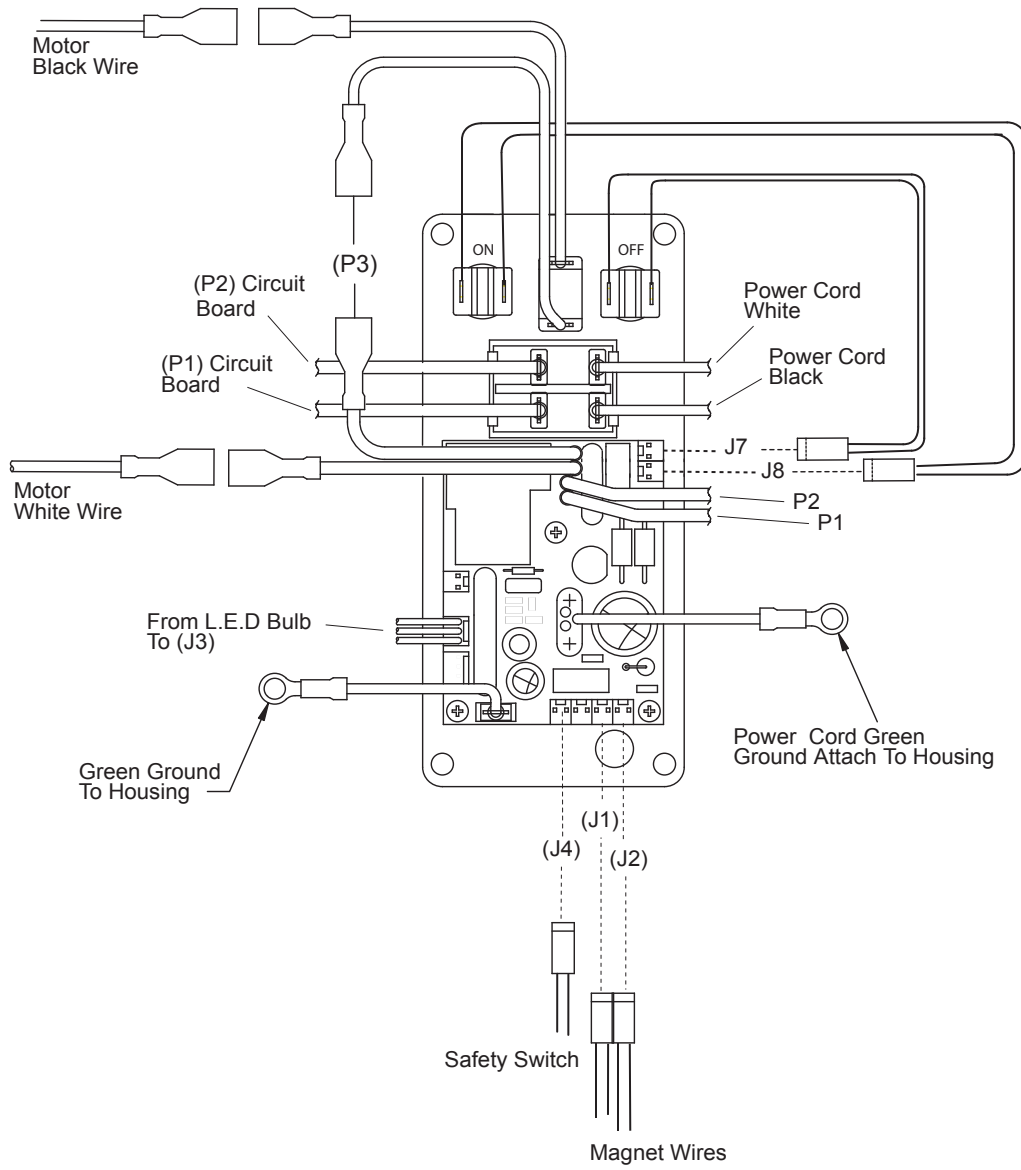
NOTE: WHEN INSERTING L.E.D. DETAIL#5 INTO HARNESS DETAIL#2 MAKE SURE FLAT ON BULB LINES UP WITH WHITE WIRE ON HARNESS.

05290 230v Control Panel Assembly																																																														
Item	Part #	Description	Qty.																																																											
1	05929	Faceplate	1																																																											
2	04877	Wire Harness	1																																																											
3	04664	Magnet Switch	1																																																											
4	01334	Motor ON Switch	1																																																											
5	Bulb L.E.D	1	6	05424	Power Cord (230v) for the 05290	1	7	05827	Circuit Board (230v)	1	8	02548	Stand-Off 3/16 x 9/16 LG	3	9	02547	#4-40X5/16 Phillips Head Screw	3	10	01335	Motor OFF Switch	1	11	04878	Spacer	1	12	04879	Clear Lens	1	13	*90690	Cable Tie	1	14	01226	Switch Guard	1	15	*05205	Wire Harness (board to housing)	1	16	01228	Red Switch Cover	1	17	02409	Green Switch Cover	1	18	05926	Circuit Breaker	1	19	05928	Rubber Boot Seal	1			*not shown	
6	05424	Power Cord (230v) for the 05290	1																																																											
7	05827	Circuit Board (230v)	1																																																											
8	02548	Stand-Off 3/16 x 9/16 LG	3																																																											
9	02547	#4-40X5/16 Phillips Head Screw	3																																																											
10	01335	Motor OFF Switch	1																																																											
11	04878	Spacer	1																																																											
12	04879	Clear Lens	1																																																											
13	*90690	Cable Tie	1																																																											
14	01226	Switch Guard	1																																																											
15	*05205	Wire Harness (board to housing)	1																																																											
16	01228	Red Switch Cover	1																																																											
17	02409	Green Switch Cover	1																																																											
18	05926	Circuit Breaker	1																																																											
19	05928	Rubber Boot Seal	1																																																											
		*not shown																																																												



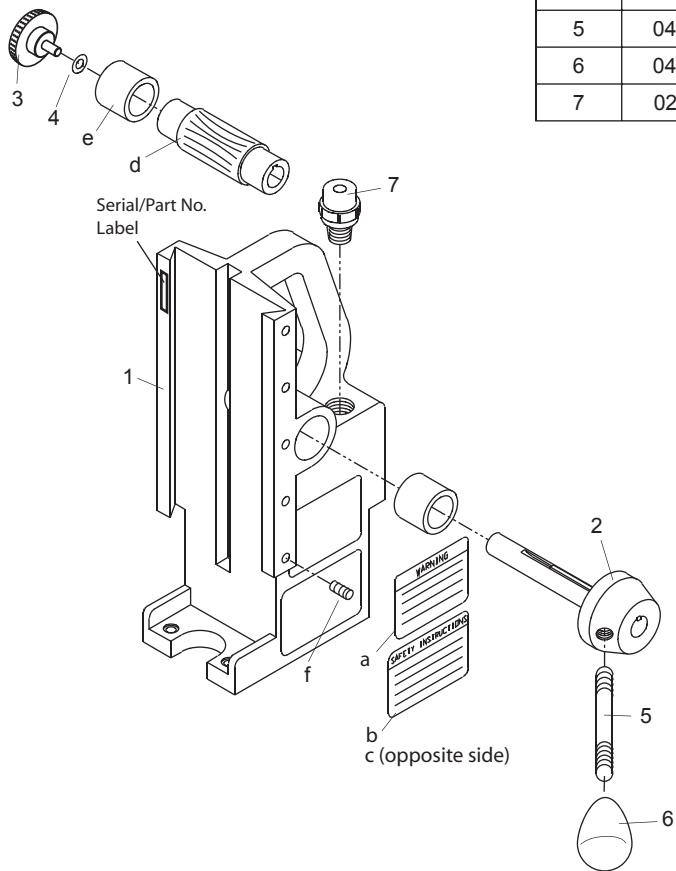
The **05290** is assembled with a standard U.S.A 230v Plug at the end of the Power Cord. When installing the 05290 Control Panel or 05424 Power Cord into a 0938402 and 0938404, this plug will need to be changed.

Control Panel Wiring 230v



Housing Assembly Breakdown

04540 Housing Assembly			
Item	Part #	Description	Qty
1	04541	Housing Assembly for 04540 assy. (includes a-f)	1
a	04530	Warning Label for 04540 assy.	2
b	04529	Safety Label (shown)	1
c	04553	Safety Chain Label for 04540 assy	1
d	40229	Feed Gear	1
e	40231	Bronze Bushing	2
f	40237	Gib Screws	5
2	40254	Hub Assembly	1
3	05839	Comfort Grip Knob	1
4	10679	Flat Washer	1
5	04558	Feed Handle	3
6	04532	Feed Handle Knob	3
7	02411	Strain Relief	1



Motor Slide Assembly Breakdown

Motor & Slide Assemblies 230v			
Item	Part #	Description	Qty
1	05525	Motor Assembly 230v	1
a	05535	Motor Label	1
b	02413	Motor Cord	1
c	05537	SCR-BHC M4 X .7 X 6mm	1
d	10538	Lock Washer #8 ext. Tooth	1
e	05538	SCR-BHC M10 X 1.5 X 16mm	1
f	90690	Cable Tie	1
g	90218	Female Terminal	2
2	05528	Dove Tail Slide (Standard Base)	1
	05899	Dove Tail Slide (Swivel Base)	1
3	02428	Rack Gear (Standard Base)	1
	05825	Rack Gear (Swivel Base)	1
4	05534	SCR-SHC M5 X .8 X 25mm	4
5	04721	Washer - Split Lock 1/4"	4
6	40038	SCR-SHC #10-32 X 5/8	3
7	10560	Washer - #10 EXT. Tooth Lock	3
8	05530	Spacer	1

