

**MPV-31  
Wide Area  
Vacuum**

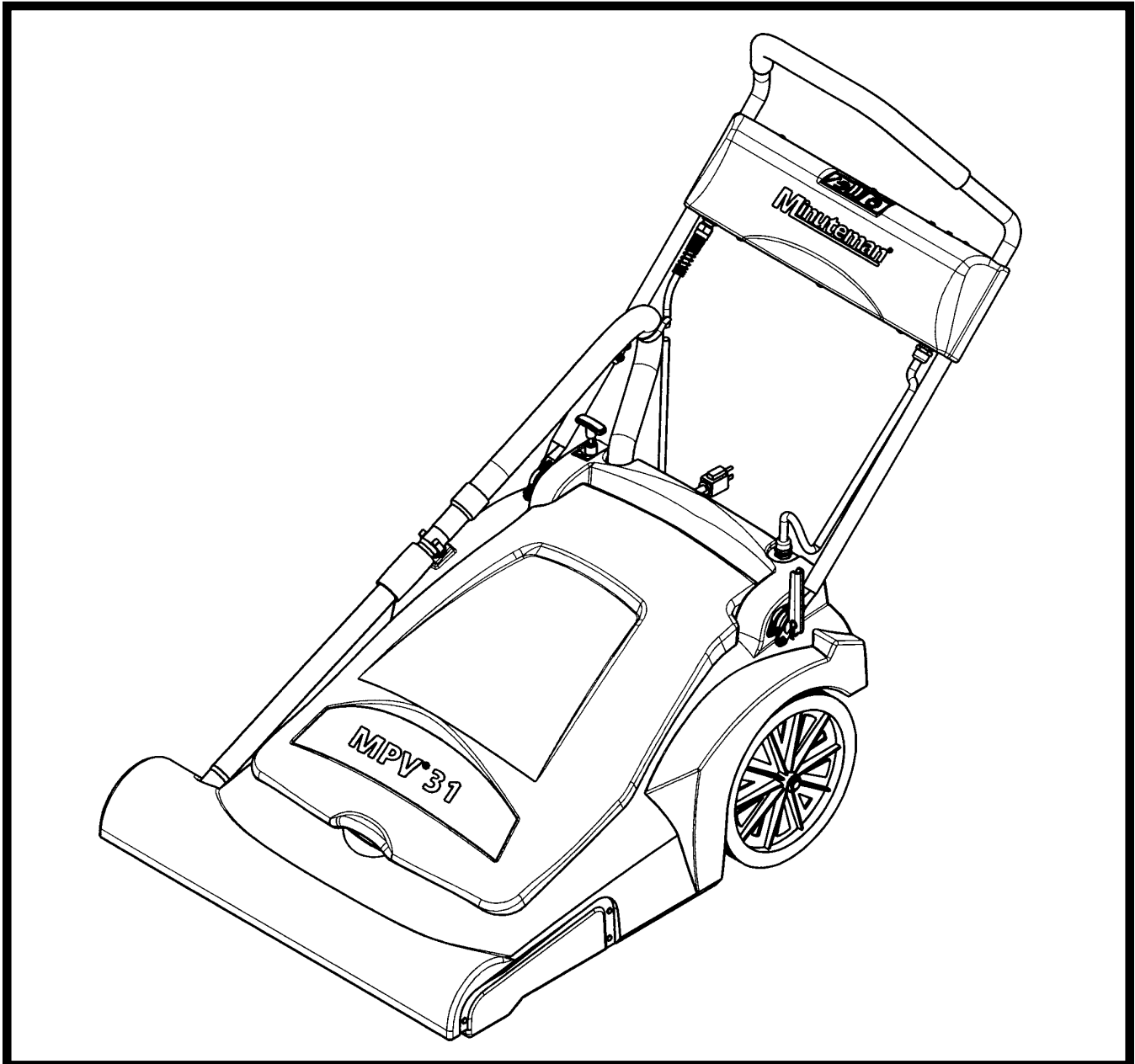
**Model:  
C27120-00  
C27230-00**

**OPERATION**

**SERVICE**

**PARTS**

**CARE**



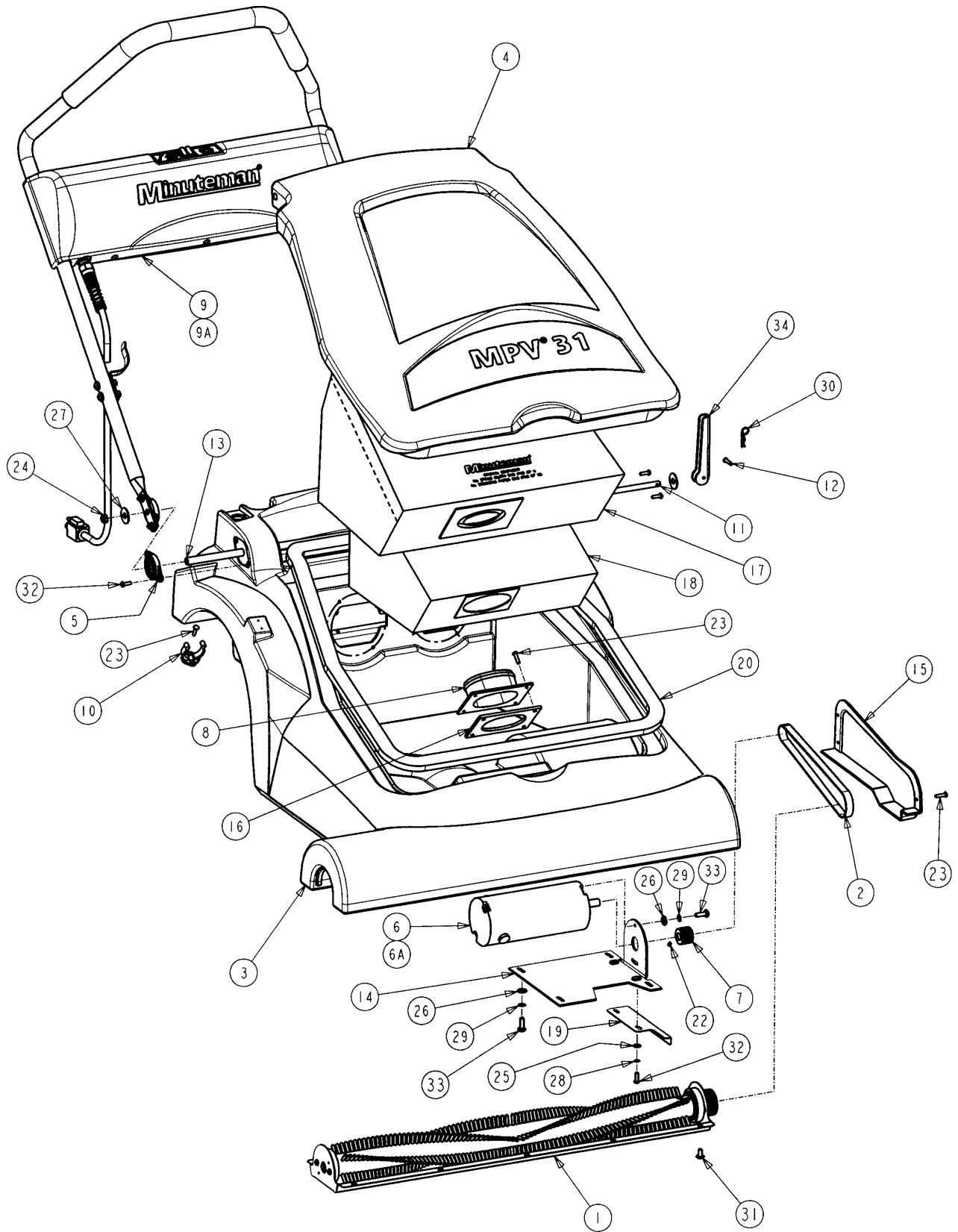
Revised 1/03

**Minuteman<sup>®</sup>**

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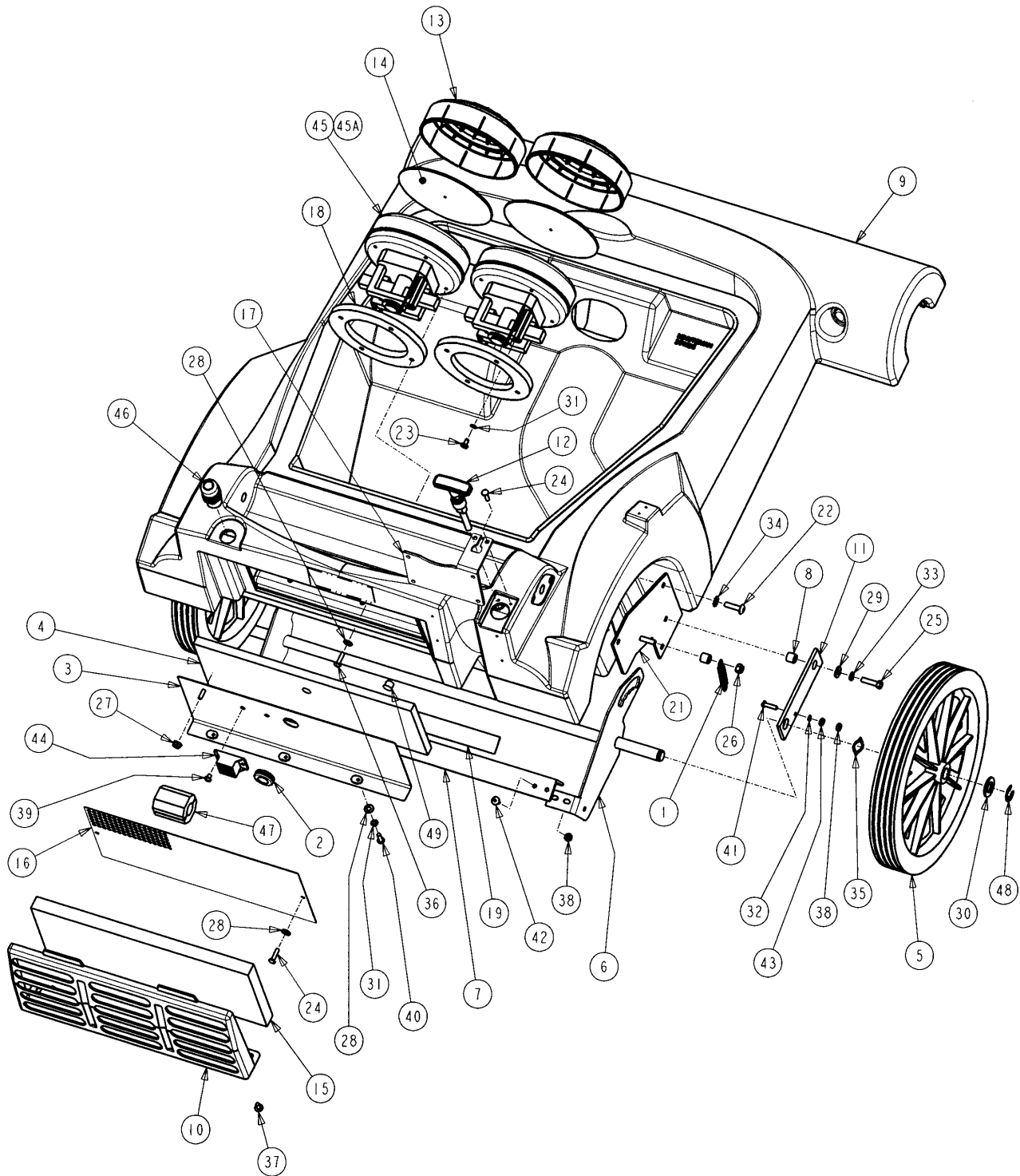
# Main Assembly - Front Veiw



## Parts List

Item	Part No.	Qty.	Description
1	270101	1	Brush Main Assy
2	270112	1	Belt, Brush Drive
3	270125	1	Body Wide Area Vac
4	270126	1	Lid, Wide Area Vac
5	270143	2	Handle Pivot Jaw
6	270144	1	Brush Motor
6A	270144-240	1	Motor, Brush - 240 VDC
7	270145	1	Pulley, Brush Motor
8	270146	1	Bag Adapter Flange
9	270159	1	Handle Assy Wav - 120 Vac
9A	270159-230	1	Handle Assy Wav 230 Vac
10	270161	1	Tool Clip
11	270163	1	Handle Tension Rod
12	270164	1	Clevis Pin, .188 x .875
13	270166	1	Handle Adjust Tube
14	270173	1	Brush Motor Bracket
15	270174	1	Belt Cover
16	270181	1	Gasket, Nozzle Adapter
17	270182	1	Filter Bag, Cloth (Optional)
18	270183	1	Filter Bag, Paper
19	270187	1	Belt Guard, Rear
20	270193	1	Gasket, Lid
21	361218	2	Cable Tie, BLack
22	711003	2	SCR-SK 10-32 x .25
23	711161	9	SCR Hi/Lo #10 3/4 PL
24	711375	1	Nut-Nyloc 3/8-16 x 1/2 Nut
25	711503	2	WSR, Flat #10
26	711505	6	WSR-Flat 1/4
27	711507	2	WSR-Flat .37 x 1.12 x .06
28	711534	2	WSR-External Lock #10
29	711564	6	WSR-External Lock 1/4
30	711808	1	Cotter Pin-Hair #13
31	712560	10	SCR-MCH 1/4-20 x .50 SS NYL
32	712812	6	SCR-MC 10-24 x .62 PPH ST PL
33	713002	6	BLT-HH 1/4-20 x 3/4 #5
34	270178MCH	1	Lever, Kick, w/Hole

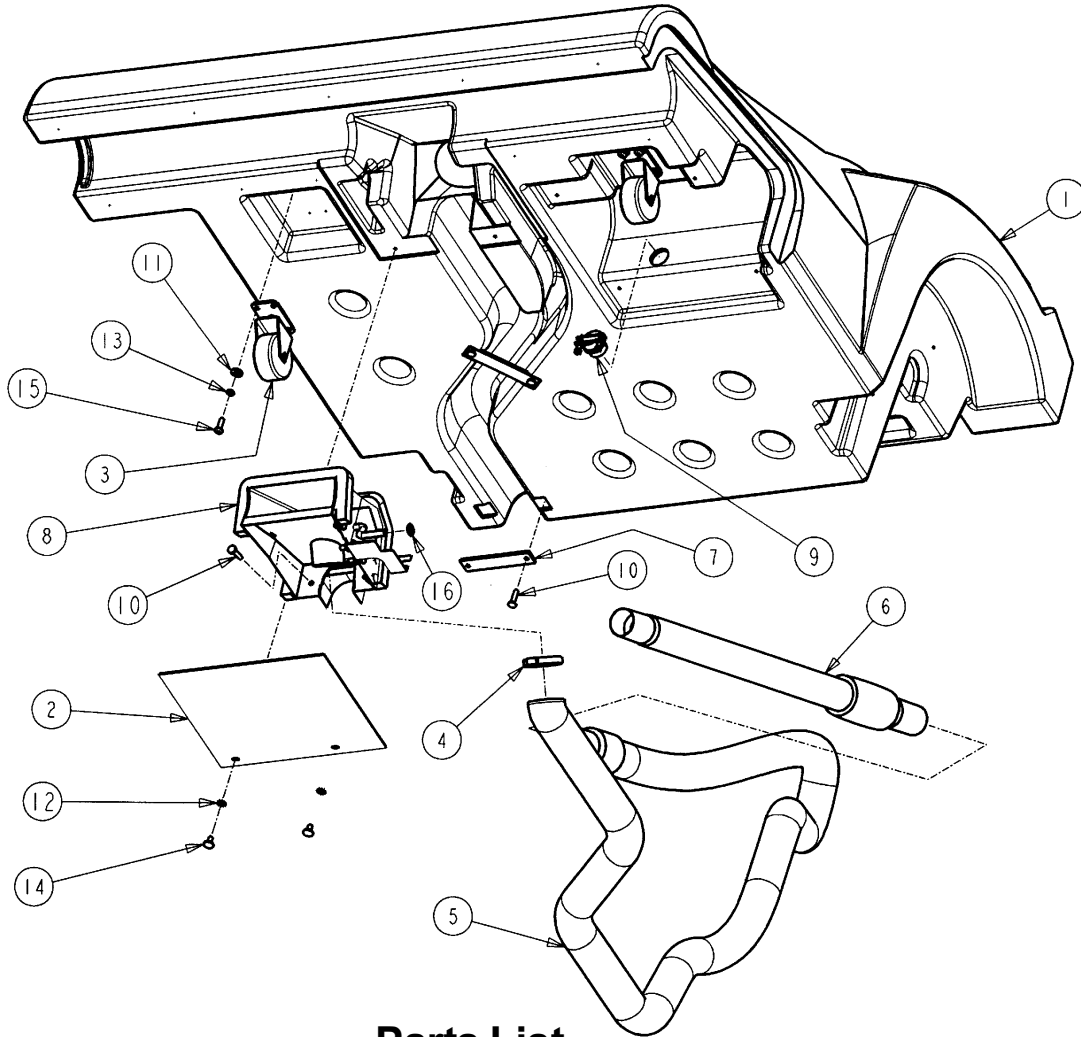
# Main Assembly - Rear Veiw



## Parts List

Item	Part No.	Qty.	Description
1	210413	2	Spring, Extension
2	260274	1	Grommet Z-421
3	270115	1	Sound Isolation Plate - WMT
4	270116	1	Sound Isolation Felt
5	270117	2	Wheel, Rear
6	270118	1	Rear Axle Weldment
7	270122	1	Foot Adjust Bar
8	270124	4	Wheel Roller Tube
9	270125	1	Body, Wide Area Vac
10	270127	1	Exhaust Filter Cover
11	270133	2	Offset Arm
12	270138	1	Remote Cable Assy, Diverter
13	270147	2	Dome Filter
14	270148	2	Post Filter, Dome
15	270168	1	Exhaust Filter
16	270186	1	Exhaust Filter Support
17	270189	1	Hose Retainer - Large
18	270210	2	Seal w/MTG Holes
19	270215	1	Non-Slip Strip
20	270218	1	Wheel Back Plate WMT - LF (Not Shown)
21	270219	1	Wheel Back Plate WMT - RT
22	710182	6	SCR-MC 1/4-20 x 1.00 STPL
23	711124	2	Pan Head ST #10 x .37 NI
24	711161	8	SCR-Hi/Lo #10 x 3/4 PL
25	711207	2	BLT-HH 1/4-20 x 1.00 STPL
26	711373	2	Nut-Hex 1/4-20
27	711427	1	Nut-Flanged Wizz 10-32
28	711503	13	WSR-Flat #10
29	711505	2	WSR-Flat 1/4
30	711527	2	WSR-Flat .63 x 1.12 x .09
31	711534	5	WSR-External Lock #10
32	711543	2	WSR-Helical #10
33	711544	2	WSR-Helical 1/4
34	711565	6	WSR-External Lock 5/16
35	711583	2	WSR-Wave .78 x 1.00 x .02
36	712131	8	SCR-TR 10-24 x .75 - Torx
37	712540	2	SCR-MC 10-24 x .37 SS TH
38	712638	6	Nut, Hex 10-24 SS Nyloc
39	712800	2	SCR-MC 10-24 x .24 ST PL
40	712812	3	SCR-MC 10-24 x .62 PPH ST PL
41	712813	2	SCR-MC 10-24 x .75 STPL
42	712822	4	SCR-MC 10-24 x .50 TH SS
43	712900	2	Nut-Hex 10-24 STPL
44	741300	1	Terminal Block C=2 P=4
45	746004	2	Vac Motor Assy Wav
45A	746027	2	Vac Motor Assy Wav 230 Vac
46	746033	1	Heyco 3200, Strain Relief
47	746034	1	Ferrite MPV-31 (230V Model Only)
48	808756	2	E Ring .62 5133-62
49	830804	5	Hole Plug - Heyco Blk 2633

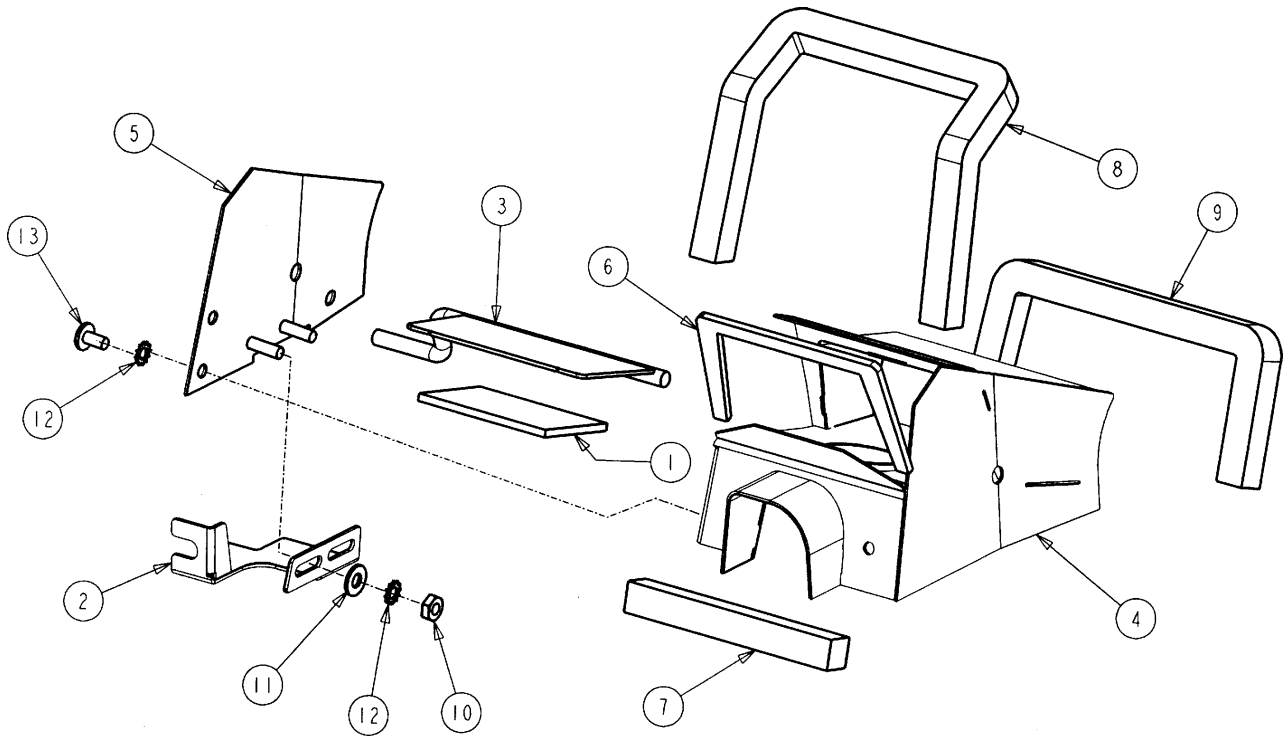
## Main Assembly - Bottom View



### Parts List

Item	Part No.	Qty.	Description
1	270125	1	Body, Wide Area Vac
2	270134	1	Diverter Base Plate
3	270141	2	Caster - 2.00" Dia Jarvis
4	270142	1	Crimp Clamp 1-5/8 Dia (410R)
5	270160	1	Hose and Cuff Assy
6	270162	1	Telescoping Wand
7	270188	3	Hose Retainer - Small
8	270204	1	Diverter Assy
9	270217	1	Strain Relief, Romex 1/2"
10	711161	8	SCR Hi/Lo #10 x 3/4 PL
11	711503	8	WSR, Flat #10
12	711534	2	WSR-External Lock #10
13	711543	8	WSR-Helical #10
14	712540	2	SCR-MC 10-24 x .37 SS TH
15	712812	8	SCR-MC 10-24 x .62 PPH ST PL
16	75-89-A	1	Speed Nut

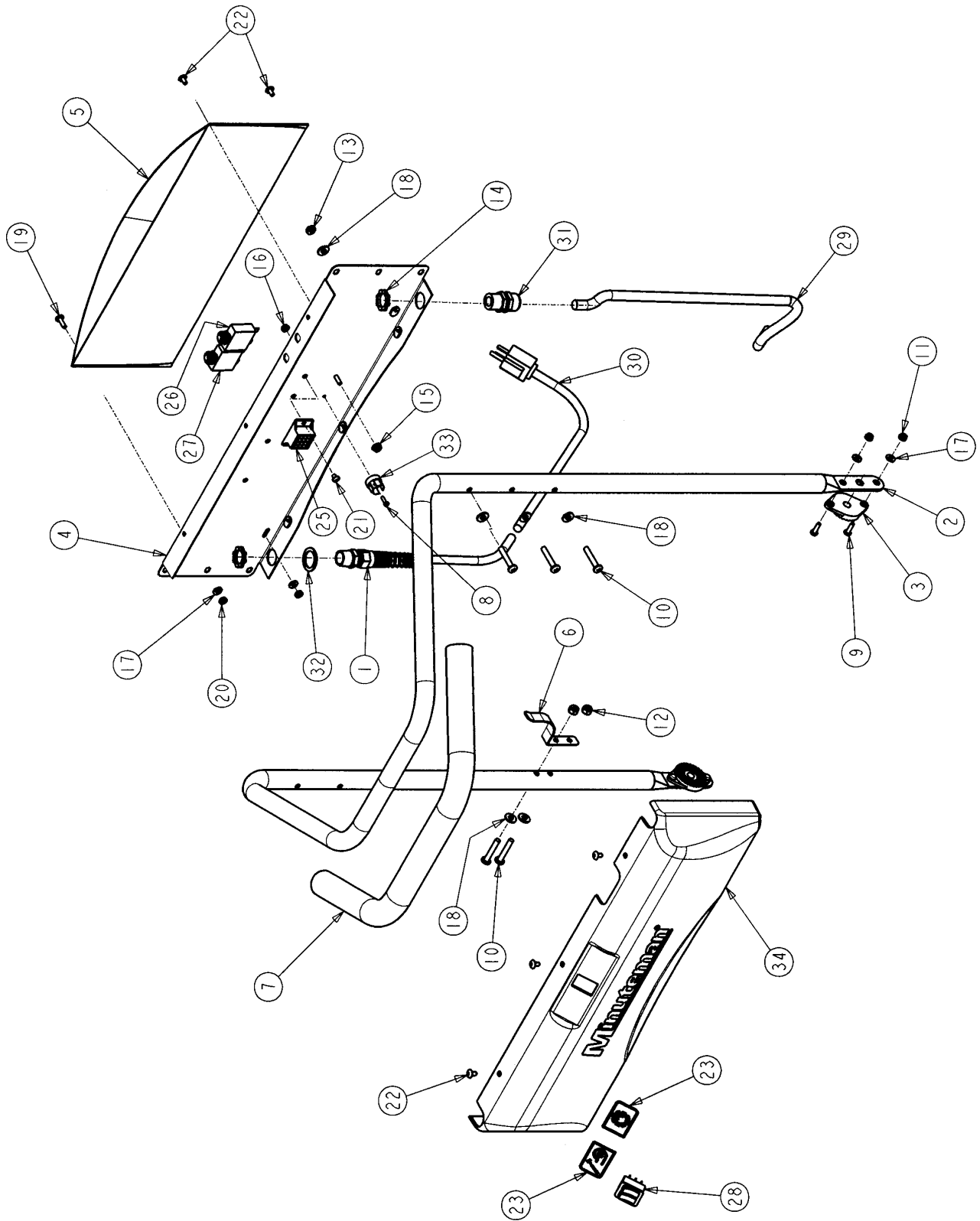
# Diverter Assembly



## Parts List

Item	Part No.	Qty.	Description
1	270190	1	Diverter Flap Gasket
2	270191	1	Diverter Cable Adj Bracket
3	270196	1	Diverter Flap Sub-Assy
4	270197	1	Diverter Base Assy
5	270202	1	Diverter Wall -Right
6	270208	1	Diverter Flap Seal
7	270211	1	Diverter Seal - Rear
8	270212	1	Diverter Seal - Top
9	270213	1	Diverter Seal - Front
10	711310	2	Nut, Hex 10-32 ST PL
11	711503	2	WSR, Flat #10
12	711534	5	WSR-External Lock #10
13	712540	3	SCR-MC 10-24 x .37 SS TH

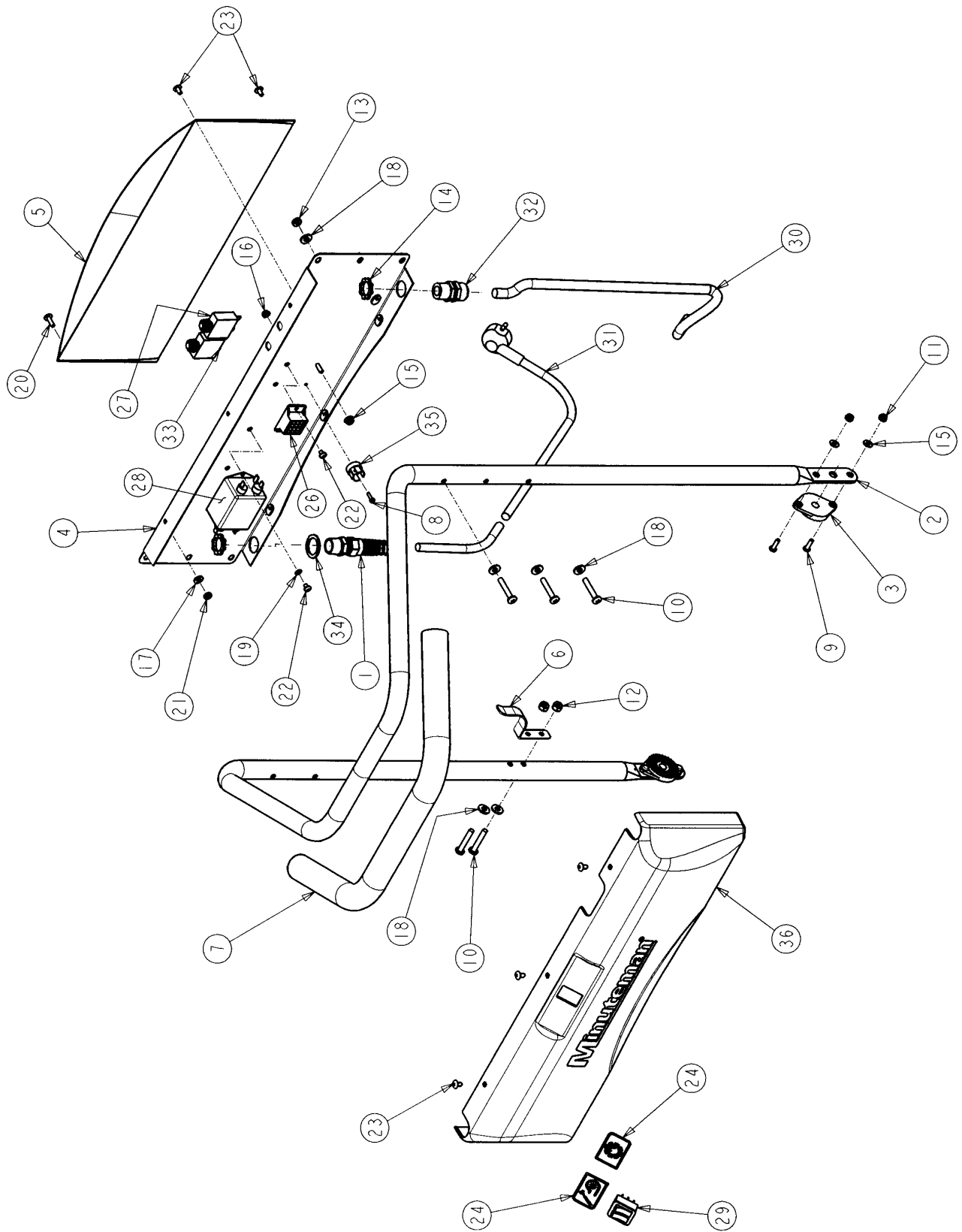
# Handle Bar Assembly 270159



## Parts List

Item	Part No.	Qty.	Description
1	150003	1	Relief, Strain 100 x 50
2	270113	1	Handle, Wide Area Vac
3	270143	2	Handle Pivot Jaw
4	270154	1	Tool Caddy Weldment
5	270167	1	Tool Net, Mesh
6	270216	1	Hang-Up Hook
7	360108	1	Handle, Sleeve
8	710303	1	SCR-MC 6-32 x .50 ST PL Pan HD
9	710356	4	SCR-MC 10-32 x .62 Pan HD
10	710385	8	SCR-MC 1/4-20 x 1.50 ST NI
11	711350	4	Nut Nyloc 10-32
12	711373	2	Nut-Nloc 1/4-20
13	711387	6	Nut-Nyloc 1/4-20 1/2 Nut
14	711400	2	Nut-Pipe Lock 1/2"
15	711427	1	Nut-Flanged Wizz 10-32
16	711435	1	Nut-Flanged Wizz 6-32
17	711503	6	WSR, Flat #10
18	711505	14	WSR-Flat 1/4
19	712536	2	SCR-MC 10-24 x .62 SS
20	712638	2	Nut, Hex 10-24 SS Nyloc
21	712800	4	SCR-MC 10-24 x .25 ST PL
22	712816	8	SCR-MC 10-24 x .37 STPL
23	715428	1	Decal, Brush/Vacuum
24	740099	2	Cable Tie - Small
25	741300	1	Terminal Block C=2 P=4
26	746005	1	Circuit Breaker - 15A
27	746006	1	Circuit Breaker - 3A
28	746007	1	Switch, Dreeds Dual 25A Illuminated
29	746019	1	Cord Assy 14/5 SJT
30	746021	1	Cord Assy 12/3 x 75'
31	746033	1	Heyco 3200, Strain Relief
32	829720	1	Washer
33	831261	1	Rectifier 12A 400V
34	270155SP	1	Tool Caddy Top - Printed

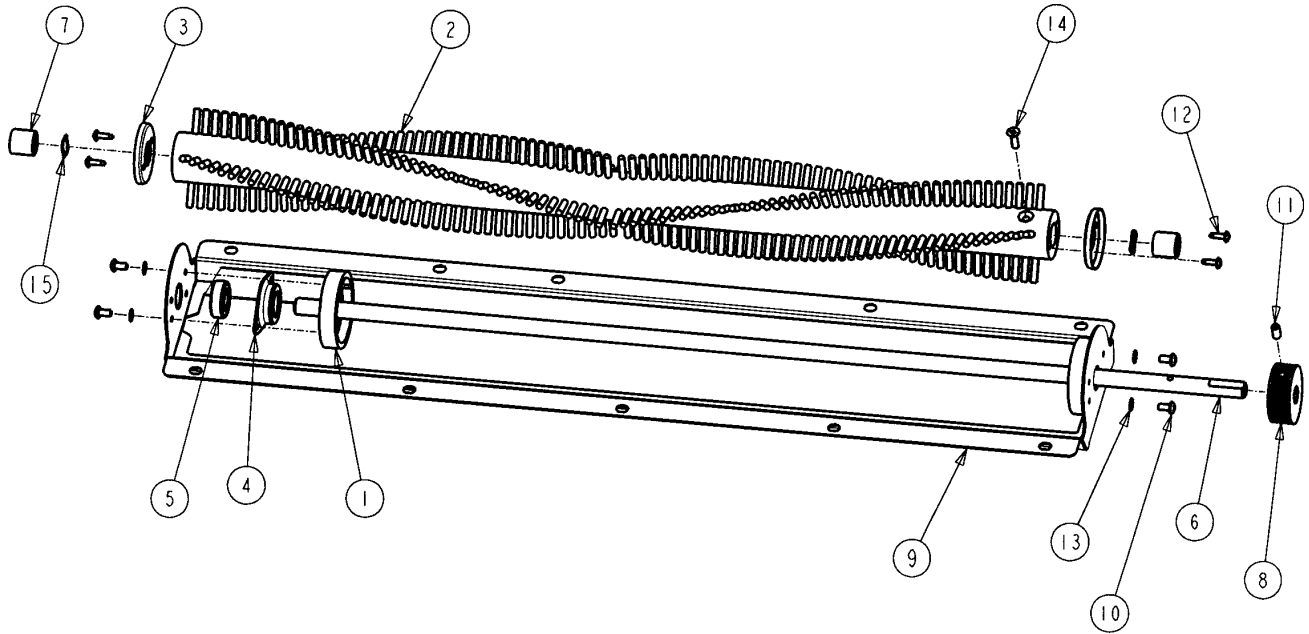
# Handle Bar Assembly 270159-230



## Parts List

Item	Part No.	Qty.	Description
1	150003	1	Relief, Strain 100x 50
2	270113	1	Handle, Wide Area Vac
3	270143	2	Handle Pivot Jaw
4	270154	1	Tool Caddy Weldment
5	270167	1	Tool Net, Mesh
6	270216	1	Hang-Up Hook
7	360108	1	Handle, Sleeve
8	710303	1	SCR-MC 6-32 x .50 ST PL Pan HD
9	710356	4	SCR-MC 10-32 x .62 STPL
10	710385	8	SCR-MC 1/4-20 x 1.50 ST NI
11	711350	4	Nut Nyloc 10-32
12	711373	2	Nut-Nloc 1/4-20
13	711387	6	Nut-Nyloc 1/4-20 1/2 Nut
14	711400	2	Nut-Pipe Lock 1/2"
15	711427	1	Nut-Flanged Wizz 10-32
16	711435	1	Nut-Flanged Wizz 6-32
17	711503	6	WSR, Flat #10
18	711505	14	WSR-Flat 1/4
19	711534	2	WSR-External Lock #10
20	712536	2	SCR-MC 10-24 x .62 SS
21	712638	2	Nut, Hex 10-24 SS Nyloc
22	712800	4	SCR-MC 10-24 x .25 ST PL
23	712816	8	SCR-MC 10-24 x .37 STPL
24	715428	1	Decal, Brush/Vacuum
25	740099	2	Cable Tie - Small
26	741300	1	Terminal Block C=2 P=4
27	746400	1	Circuit Breaker - 10A
28	742256	1	RFI Filter Corcom 10VSI
29	746007	1	Switch, Dreefs Dual 25A Illuminated
30	746019	1	Cord Assy 14/5 SJT
31	746032	1	Cord Assy 14/3 x 75' Power Wav 230V
32	746033	1	Heyco 3200, Strain Relief
33	746035	1	Circuit Breaker - 2.0A
34	829720	1	Washer
35	831261	1	Rectifier 12 A 400V
36	270155SP	1	Tool Caddy Top - Printed

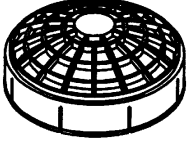
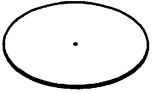
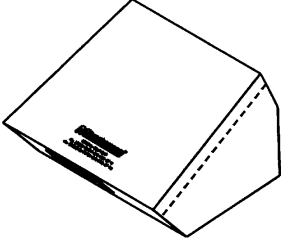
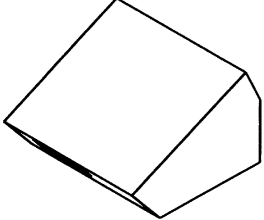
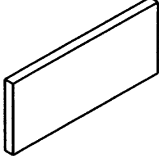
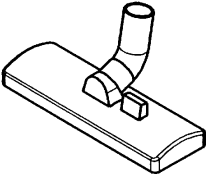
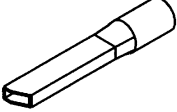
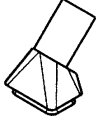
# Brush Assembly 270101



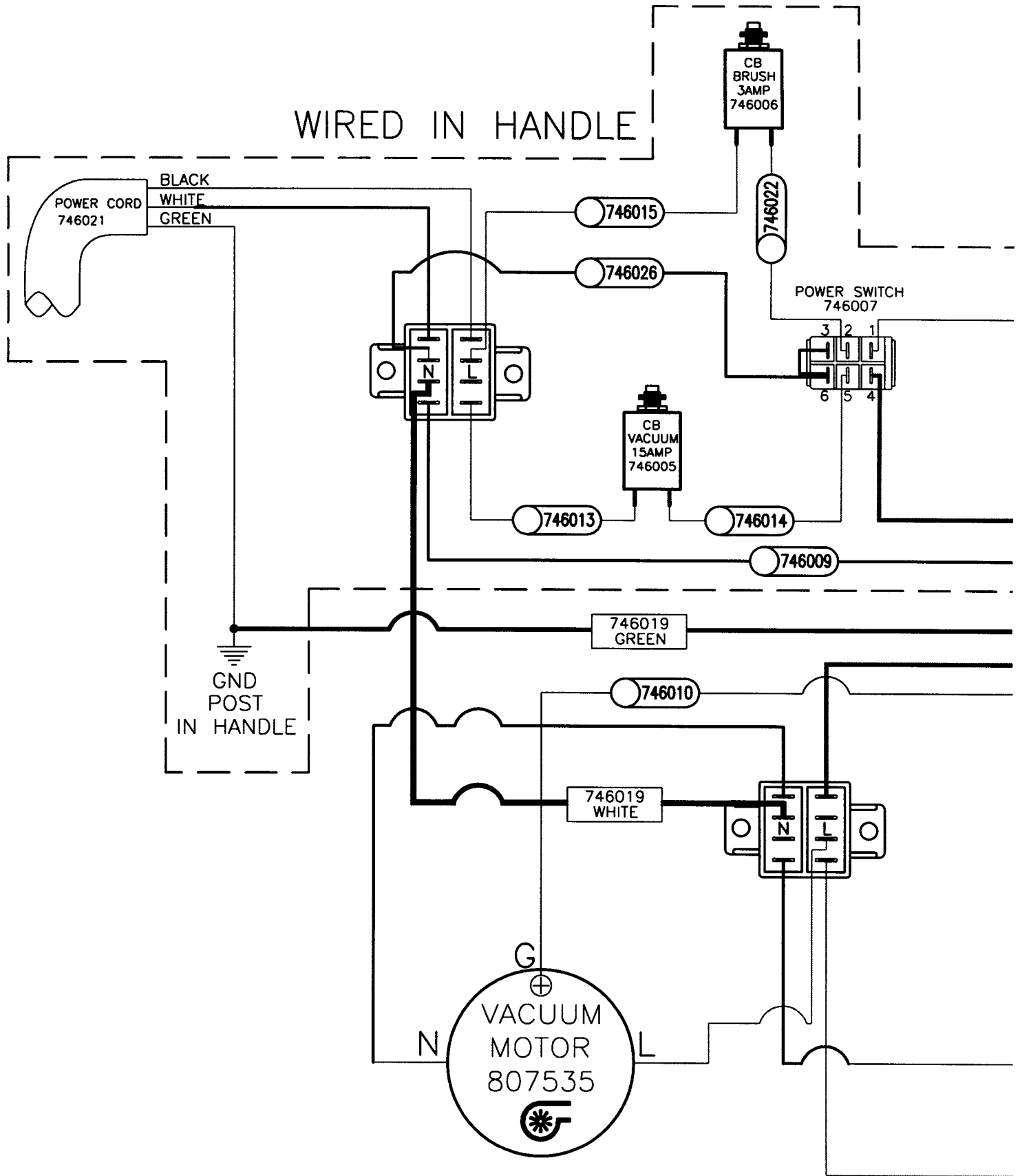
## Parts List

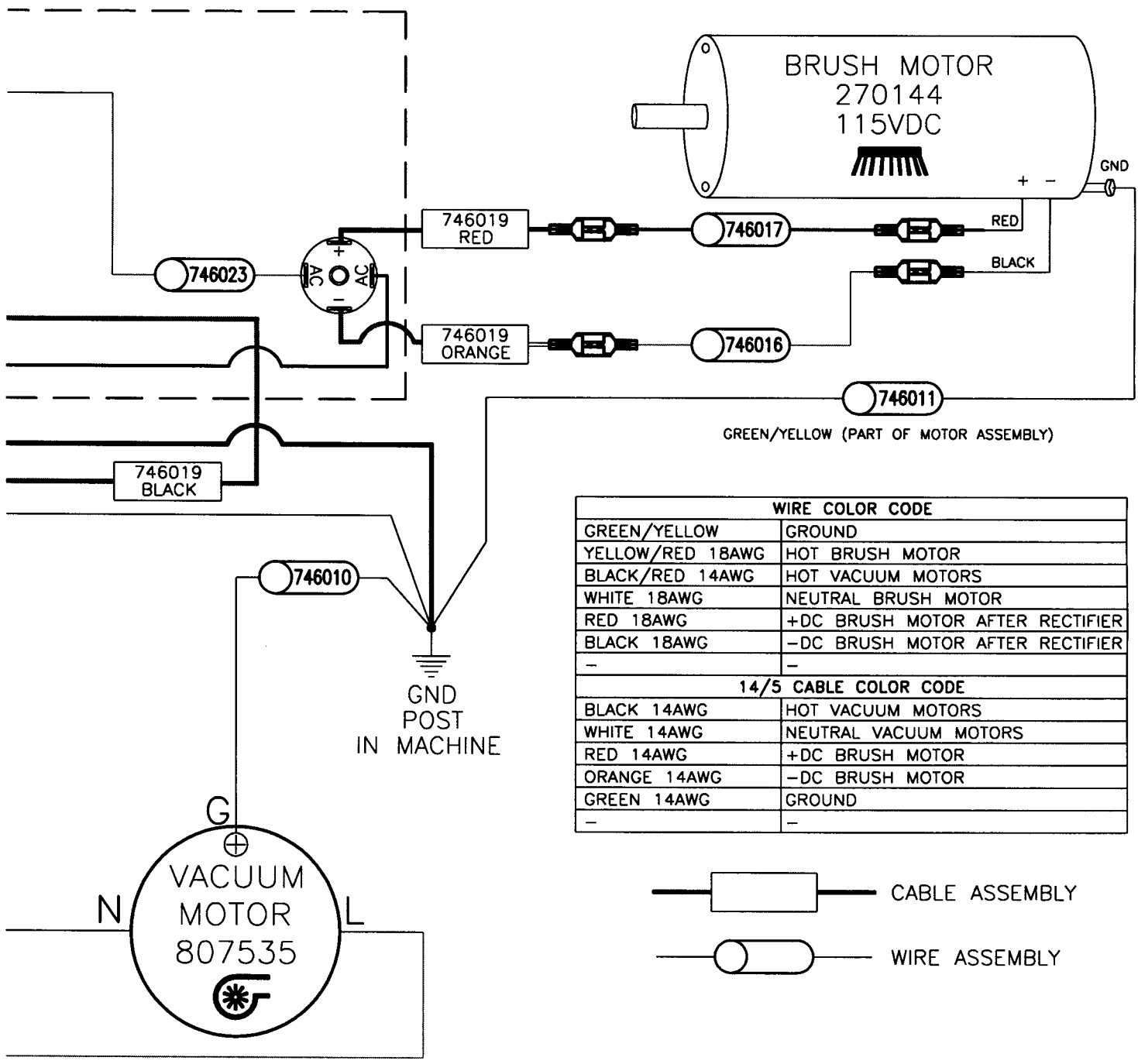
Item	Part No.	Qty.	Description
1	270102	2	Bearing Support Ring -Main Broom
2	270103	1	Broom - Main
3	270104	2	Dust Cap - Main Broom Bearing
4	270105	2	Bearing Retainer Ring
5	270106	2	Radial Ball Bearing
6	270107	1	Main Broom Shaft
7	270108	2	Bushing - Main Broom Spacer
8	270109	1	Brush Pulley
9	270110	1	Brush Shoe
10	710353	4	SCR-MC 10-32 x .37 ST PL
11	711016	1	SCR-SK 1/4-20 x .50 - Cup Pt. Set SCR
12	711181	4	SCR-ST-B Hi-Lo #8 x .50 PL
13	711534	4	WSR-External Lock #10
14	712826	2	SCR-FHMS 10-32 x .625
15	827903	2	Washer

## Replacement Parts

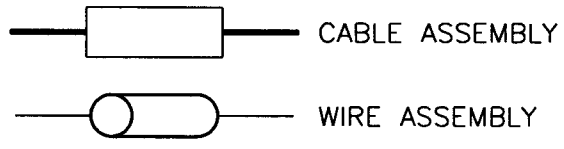
	270147	Dome Filter
	270148PKG	Post Filter, Dome (Qty 10/Pkg)
	270182	Filter Bag, Cloth
	270183PKG	Filter Bag, Paper (Qty 10/Pkg)
	270168	Exhaust Filter, Foam
	829561	Combination Floor Tool 1-1/4"
	829562	Crevice Tool 1-1/4"
	829563	Dust Bush 1-1/4"

# Wiring Diagram 120VAC

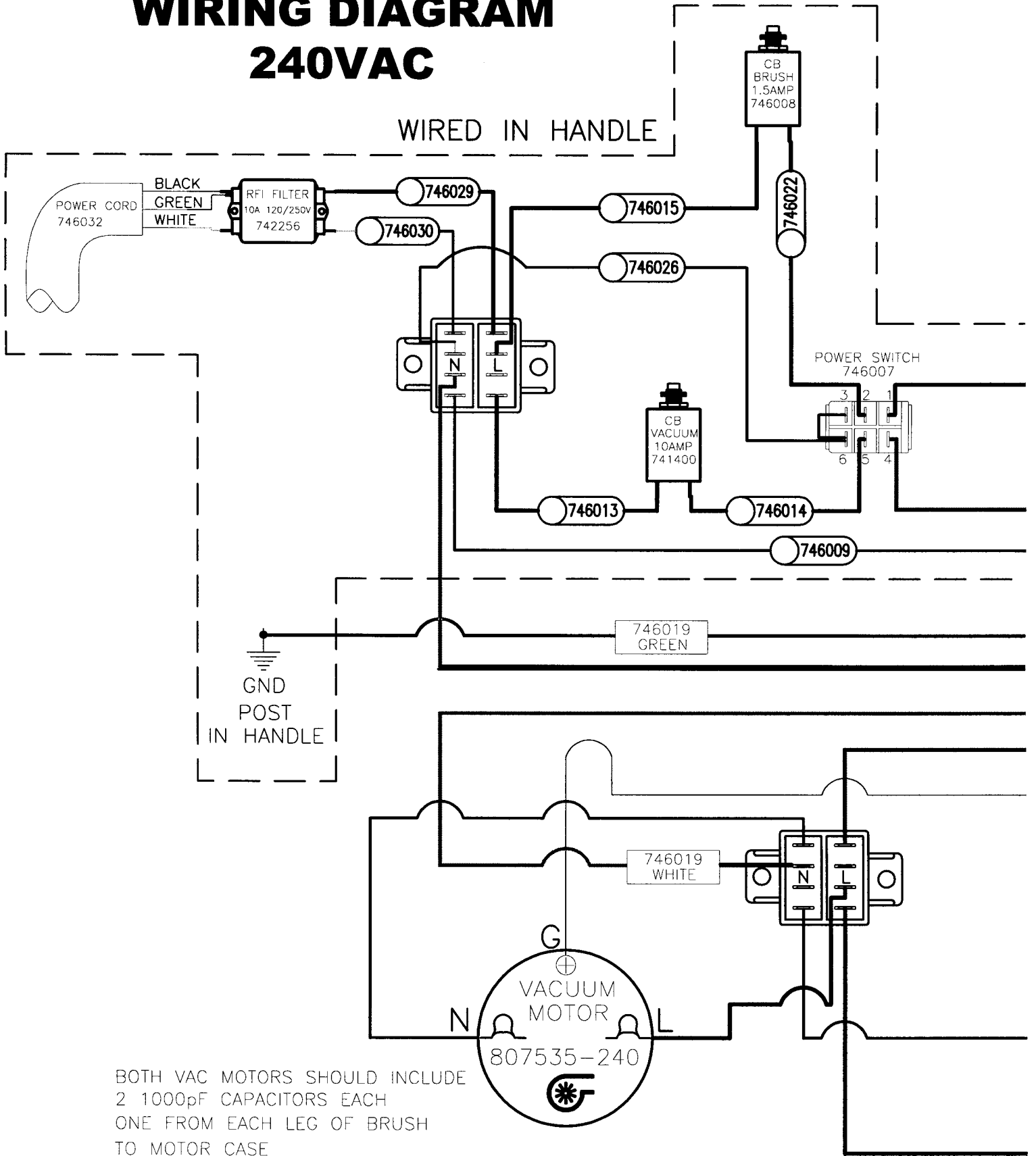




WIRE COLOR CODE	
GREEN/YELLOW	GROUND
YELLOW/RED 18AWG	HOT BRUSH MOTOR
BLACK/RED 14AWG	HOT VACUUM MOTORS
WHITE 18AWG	NEUTRAL BRUSH MOTOR
RED 18AWG	+DC BRUSH MOTOR AFTER RECTIFIER
BLACK 18AWG	-DC BRUSH MOTOR AFTER RECTIFIER
-	-
14/5 CABLE COLOR CODE	
BLACK 14AWG	HOT VACUUM MOTORS
WHITE 14AWG	NEUTRAL VACUUM MOTORS
RED 14AWG	+DC BRUSH MOTOR
ORANGE 14AWG	-DC BRUSH MOTOR
GREEN 14AWG	GROUND
-	-

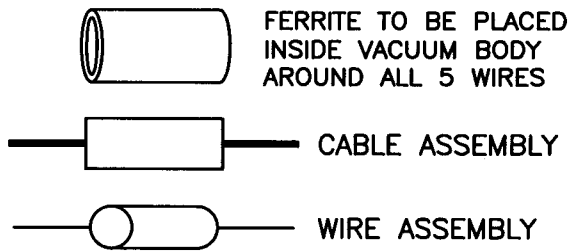


# WIRING DIAGRAM 240VAC



BOTH VAC MOTORS SHOULD INCLUDE  
2 1000pF CAPACITORS EACH  
ONE FROM EACH LEG OF BRUSH  
TO MOTOR CASE

WIRE COLOR CODE	
GREEN/YELLOW	GROUND
YELLOW/RED 18AWG	HOT BRUSH MOTOR
BLACK/RED 14AWG	HOT VACUUM MOTORS
WHITE 18AWG	NEUTRAL BRUSH MOTOR
RED 18AWG	+DC BRUSH MOTOR AFTER RECTIFIER
BLACK 18AWG	-DC BRUSH MOTOR AFTER RECTIFIER
-	-
14/5 CABLE COLOR CODE	
BLACK 14AWG	HOT VACUUM MOTORS
WHITE 14AWG	NEUTRAL VACUUM MOTORS
RED 14AWG	+DC BRUSH MOTOR
ORANGE 14AWG	-DC BRUSH MOTOR
GREEN 14AWG	GROUND
-	-



2 INTERNAL 1000pF CAPACITORS  
ONE FROM EACH LEG OF  
BRUSH TO MOTOR CASE

