

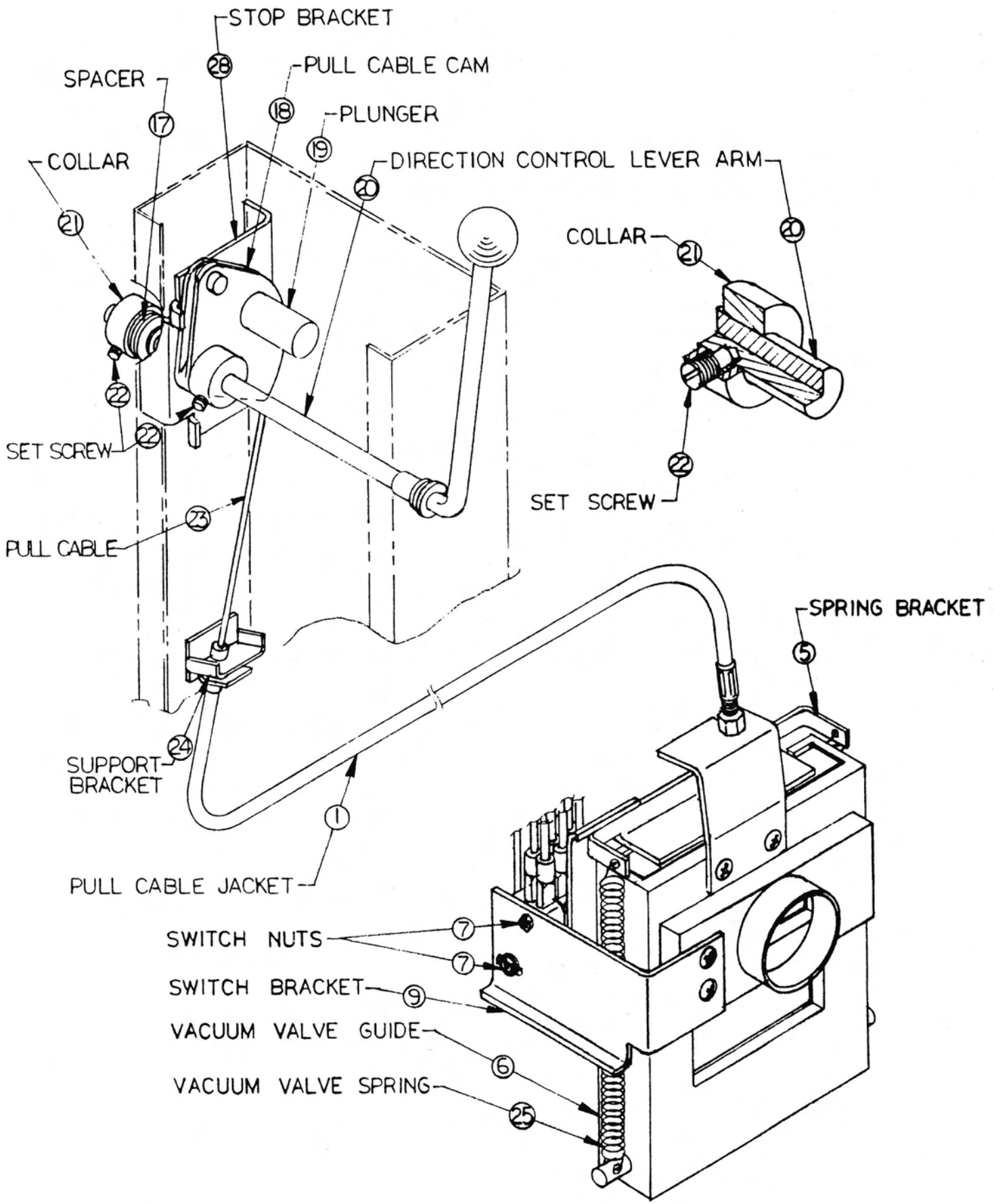
SUPERNOVA 700
VACUUM VALVE AND BRUSH MOTOR REVERSE SWITCH
ADJUSTMENT PROCEDURES

VACUUM VALVE PULL CABLE ADJUSTMENT _____

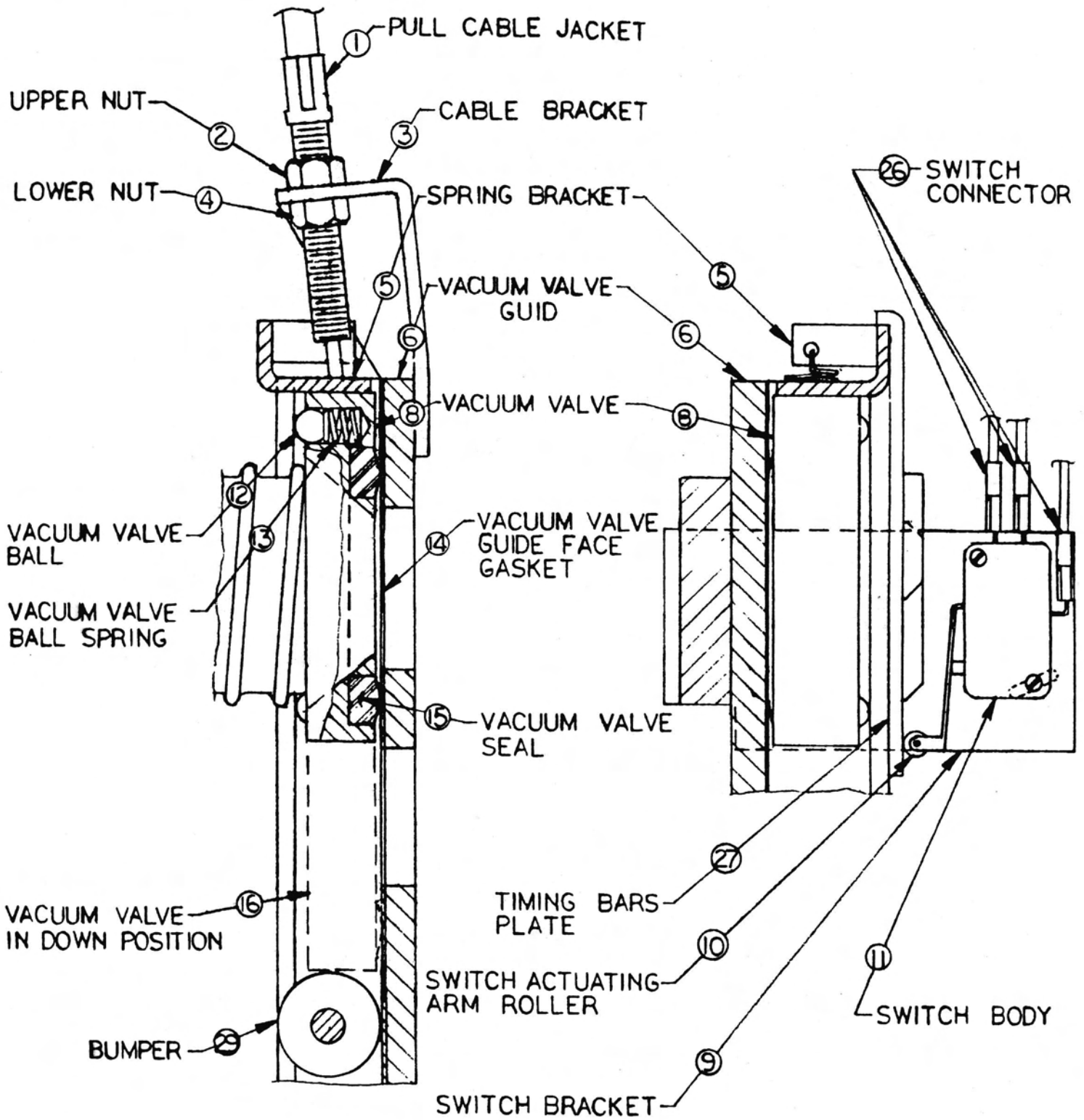
1. Drain the solution tank, and remove the recovery pail from the machine.
2. Make sure the power cord is unplugged from the power receptacle.
3. Shift the direction control lever arm to the up (backward) position.
4. Open the machine's motor housing by actuating the latch handle lever and lifting the motor housing from the front.
5. To MOVE THE VACUUM VALVE, item (8), UP:
 - Step 1. Loosen the lower pull cable jacket nut, item (4).
 - Step 2. Tighten upper pull cable jacket nut, Item (2), until the desired position is reached. [In its normal position, the upper edge of the spring bracket, item (5), is flush with the upper edge of the vacuum valve guide, item (6).]
 - Step 3. Retighten lower cable jacket nut, item (4).
6. To MOVE THE VACUUM VALVE, item (8), DOWN:
 - Step 1. Loosen the upper cable jacket nut, item (2), until the vacuum valve, item (8), reaches the desired position.
 - Step 2. Tighten the lower cable jacket nut, item (4).

BRUSH MOTOR REVERSING SWITCHES ADJUSTMENT _____

1. Drain the solution tank, and remove the recovery pail from the machine.
2. Make sure the power cord is unplugged from the power receptacle.
3. Shift the direction control lever arm to the up (backward) position.
4. Adjust the pull cable, if required, to insure that the vacuum valve is in the correct position. (See vacuum valve pull cable adjustment procedure.)
5. **Make the adjustment:**
 - Step 1. Slightly loosen the two switch nuts, item (7), located on the switch bracket, item (9).
 - Step 2. Rotate the three switches by pushing their bodies, item (11), toward the timing bar plate, item (27), until the switch actuating arm rollers, item (10), touch the timing bar plate, Item (27).
 - Step 3. While holding the switches, item (11), in position, retighten the two switch nuts, item (7).



ADJUSTMENT INSTRUCTIONS



PARTS DIAGRAM

**POLARIS 500 & 700
SUPERNOVA 700**

**POLARIS 500 & 700
SUPERNOVA 700**

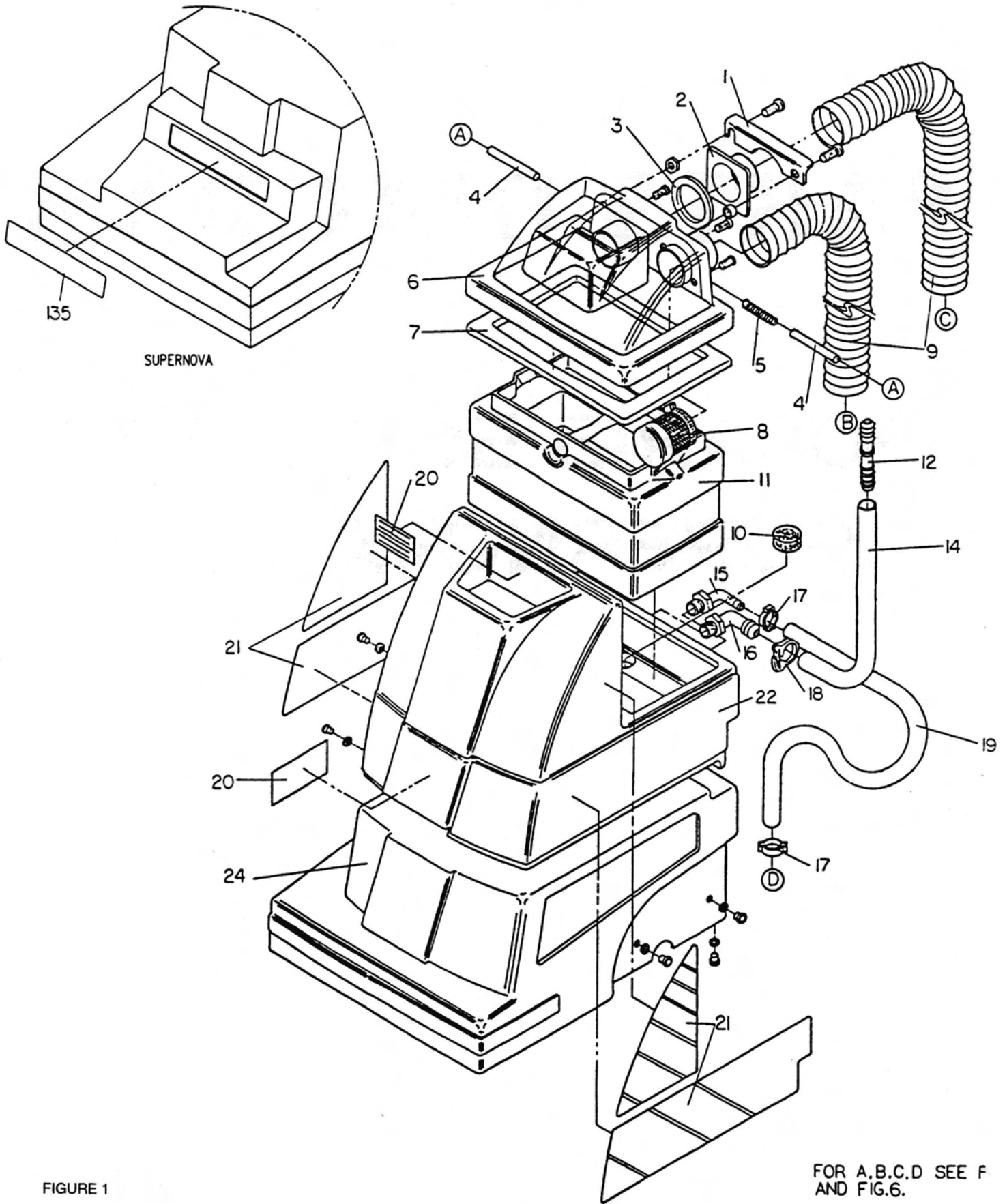
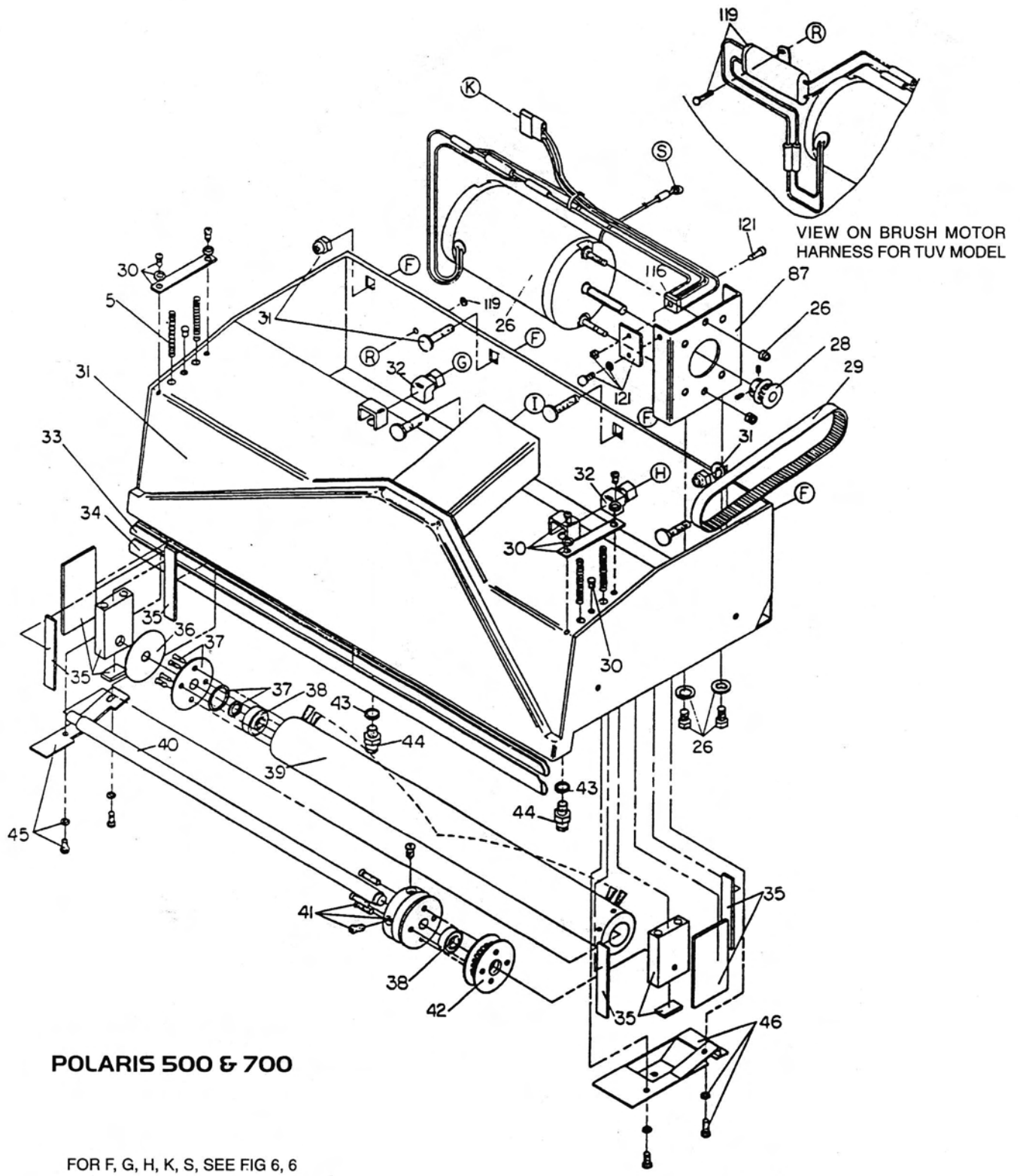


FIGURE 1

FOR A, B, C, D SEE F
AND FIG. 6.

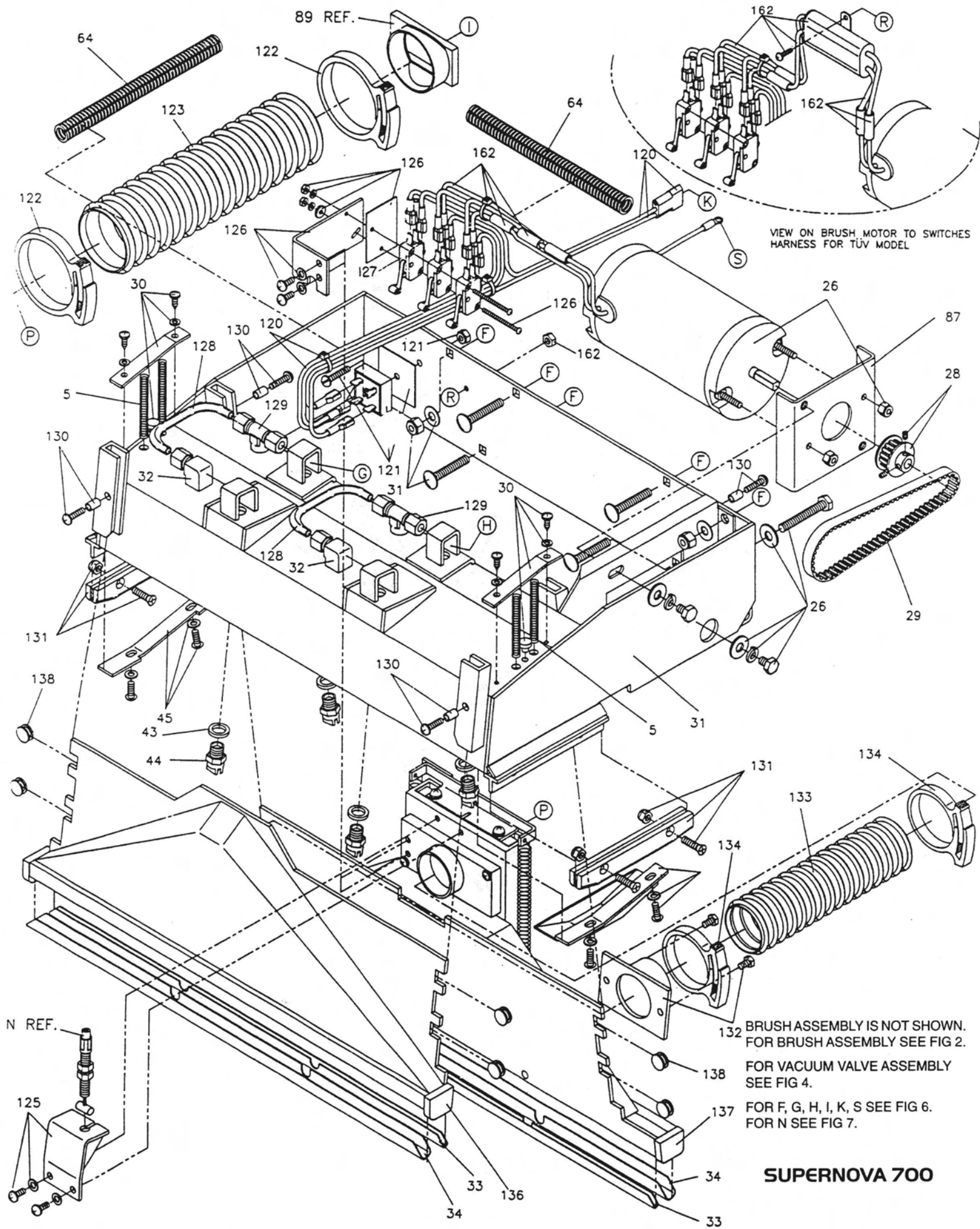


POLARIS 500 & 700

FOR F, G, H, K, S, SEE FIG 6, 6

10137

FIGURE 2



VIEW ON BRUSH MOTOR TO SWITCHES HARNESS FOR TÜV MODEL

132 BRUSH ASSEMBLY IS NOT SHOWN.
FOR BRUSH ASSEMBLY SEE FIG. 2.
FOR VACUUM VALVE ASSEMBLY
SEE FIG. 4.
FOR F, G, H, I, K, S SEE FIG. 6.
FOR N SEE FIG. 7.

SUPERNOVA 700

FIGURE 3

POLARIS 500 & 700

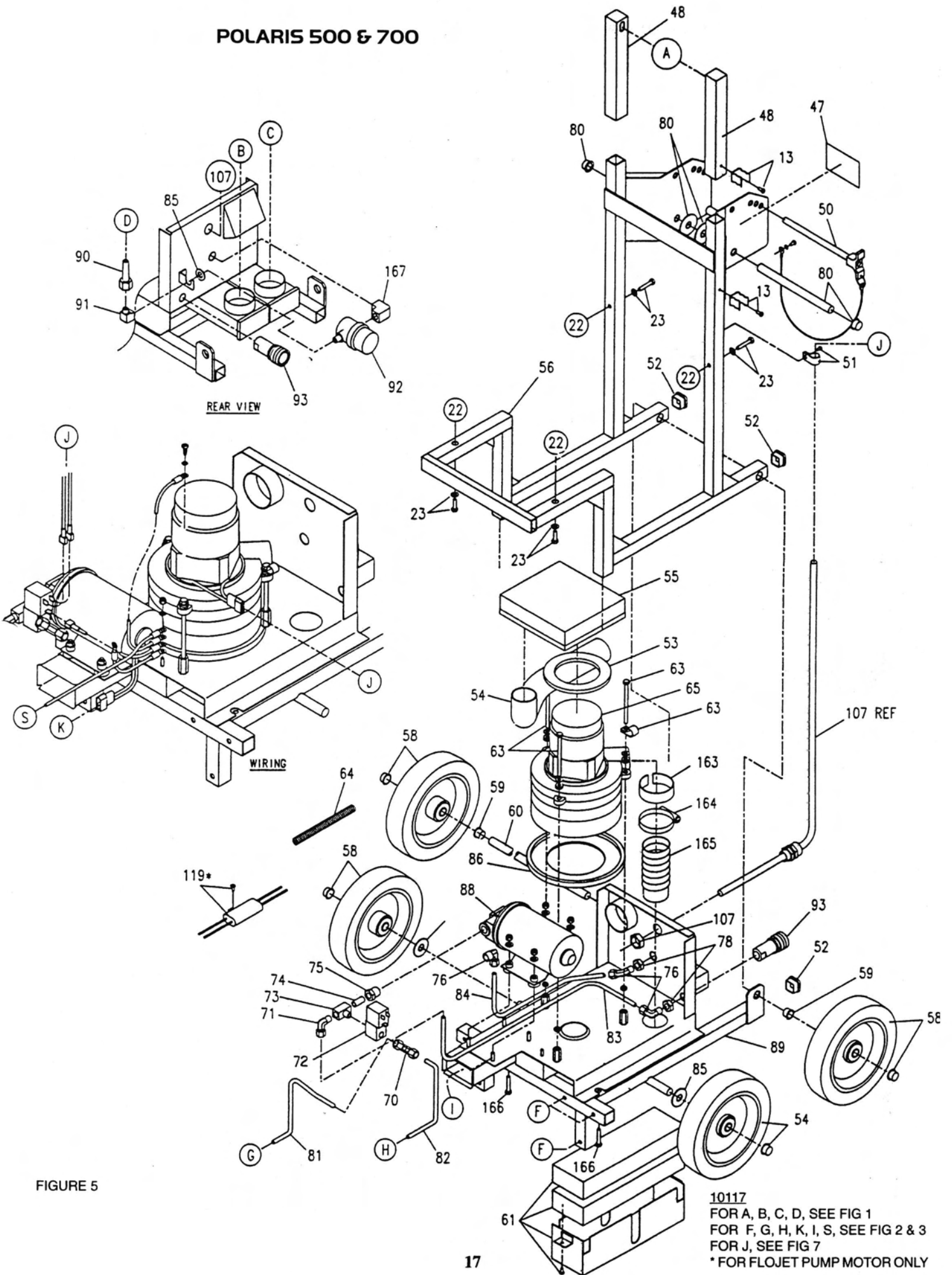


FIGURE 5

10117
 FOR A, B, C, D, SEE FIG 1
 FOR F, G, H, K, I, S, SEE FIG 2 & 3
 FOR J, SEE FIG 7
 * FOR FLOJET PUMP MOTOR ONLY

SUPERNOVA 700

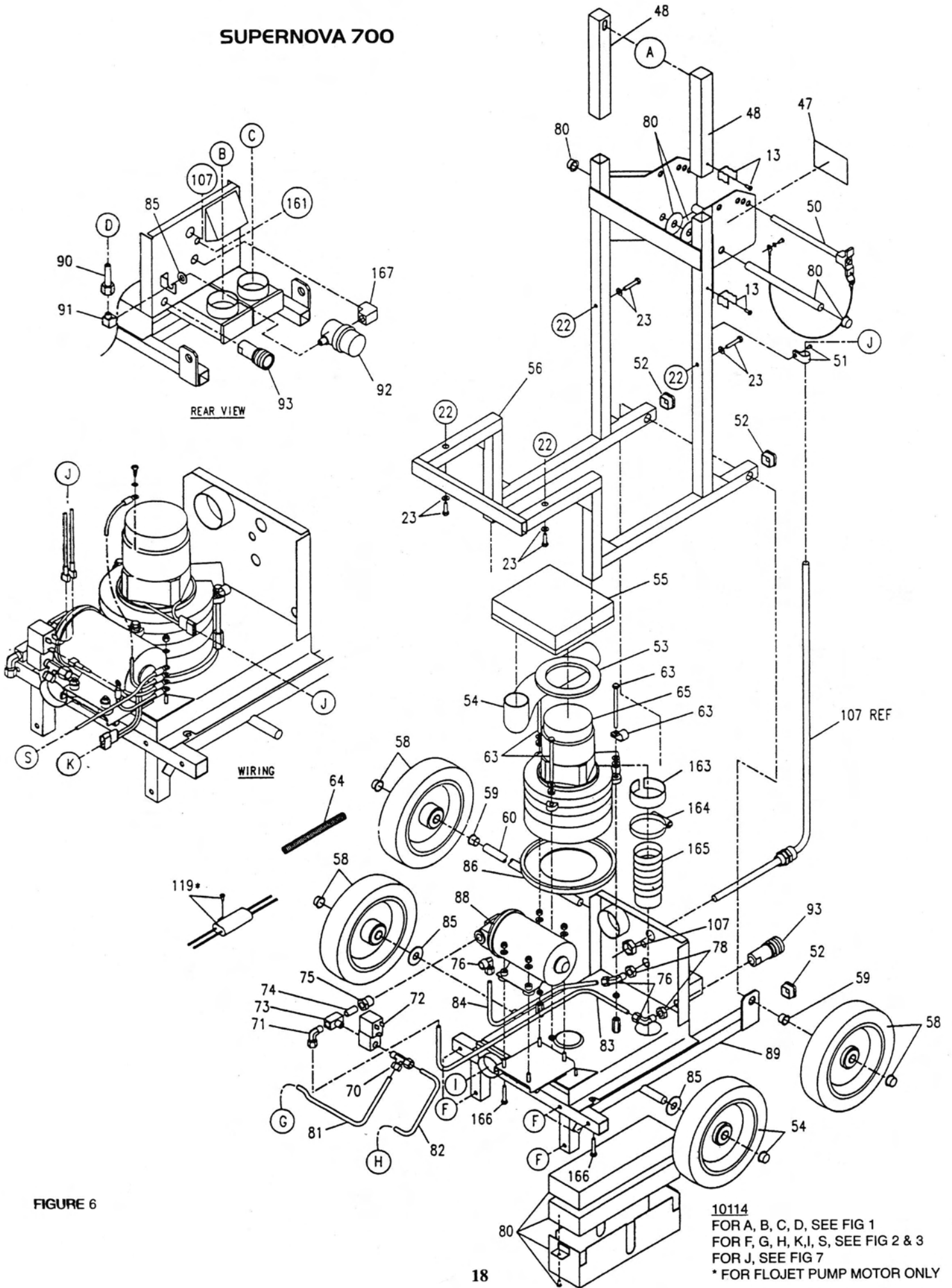
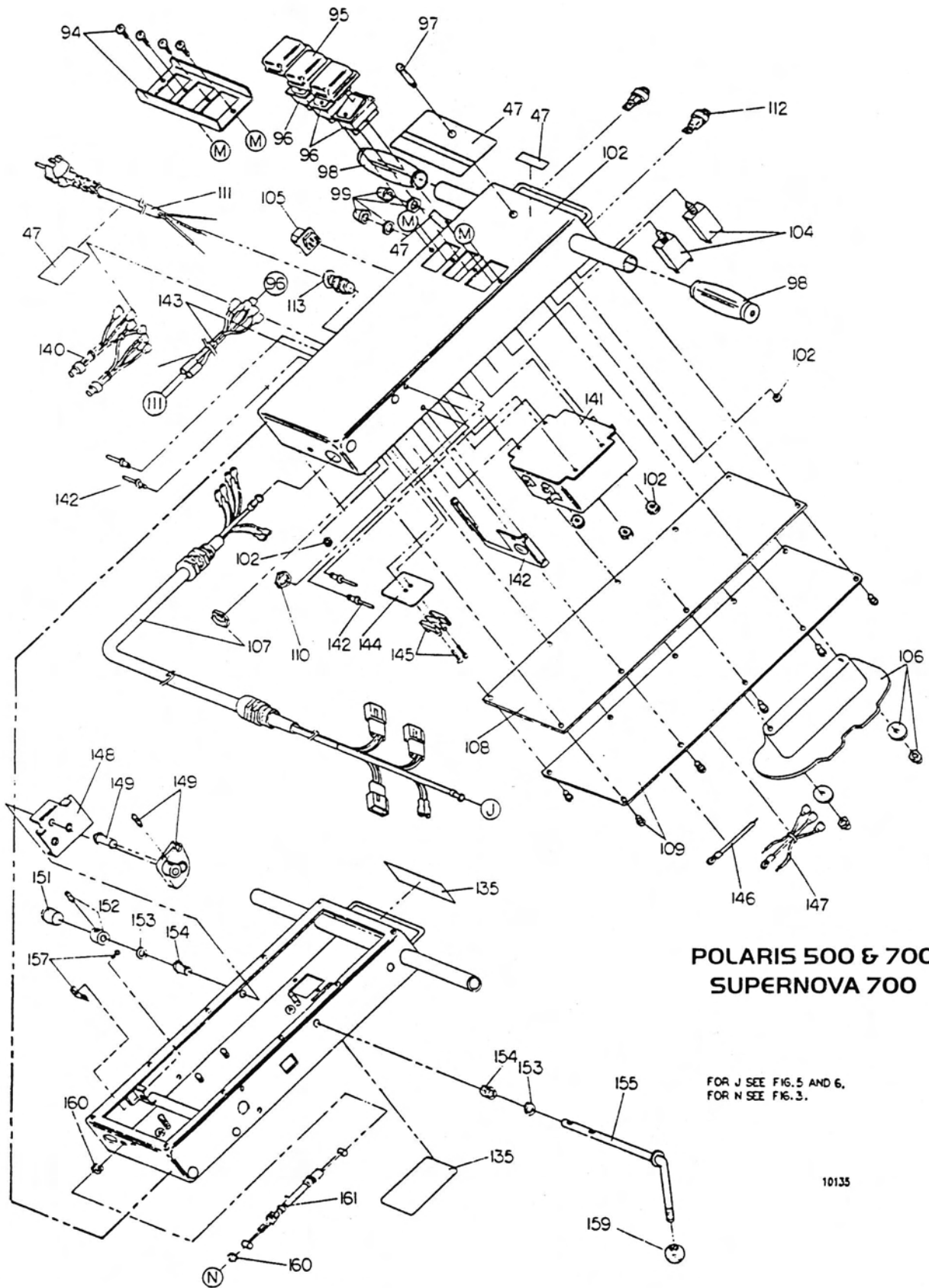


FIGURE 6

10114
 FOR A, B, C, D, SEE FIG 1
 FOR F, G, H, K, I, S, SEE FIG 2 & 3
 FOR J, SEE FIG 7
 * FOR FLOJET PUMP MOTOR ONLY



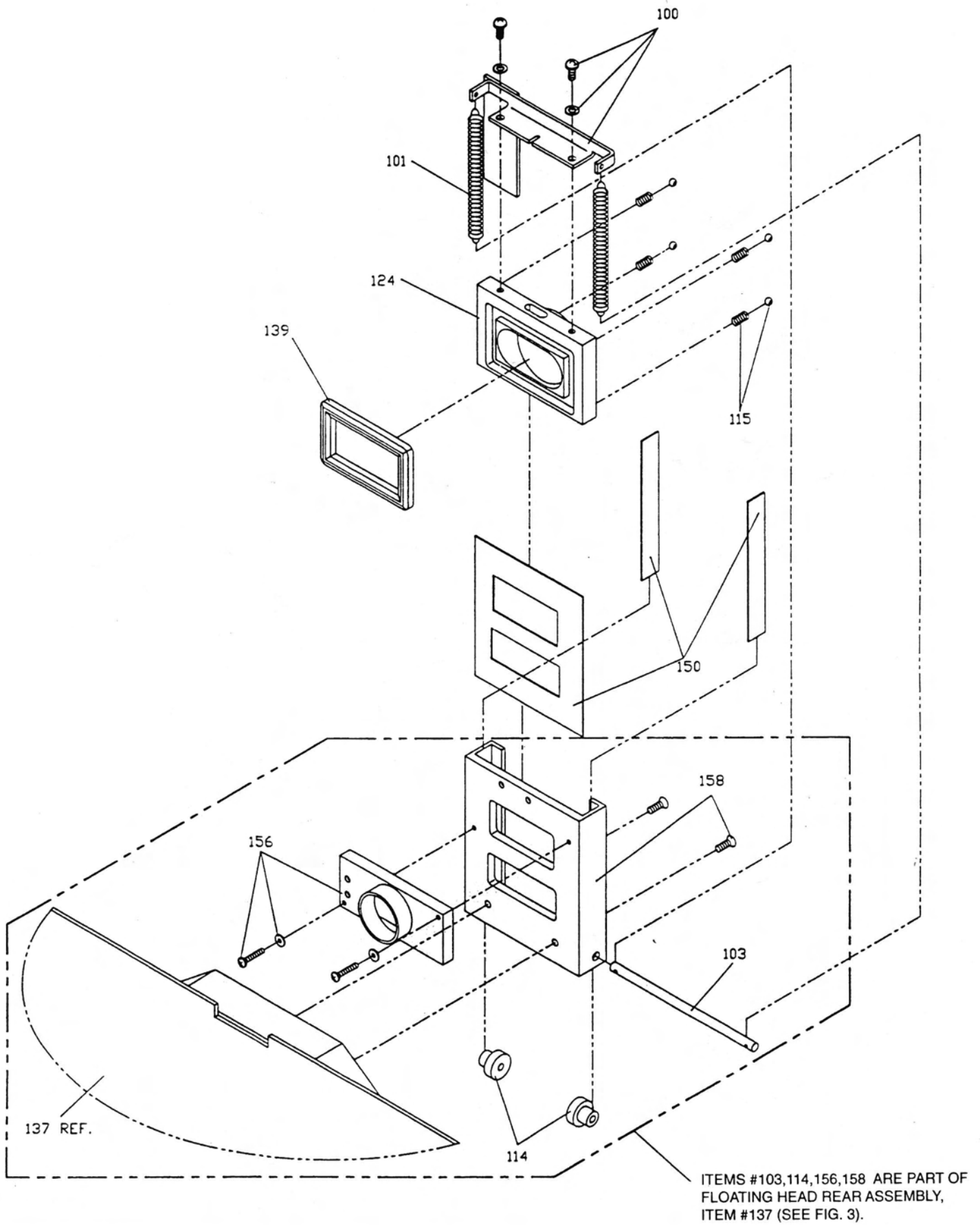
**POLARIS 500 & 700
SUPERNOVA 700**

FOR J SEE FIG. 5 AND 6,
FOR N SEE FIG. 3.

10135

ADDITIONAL PARTS FOR SUPERNOVA

FIGURE 7



SUPERNOVA 700

FIGURE 4

PARTS LIST

POLARIS AND SUPERNOVA 500 & 700 MODELS

Item	Description	Part No.		qty	fig
		Polaris	Supernova		
1	CLIP, ADAPTER RETAINER	D02391	D02391	1	1
2	HOSE, ADAPTOR	D02359	D02359	1	1
3	SEAL, VACUUM INTAKE	E02431	E02431	1	1
4	SHAFT, LID PIVOT	D02373-1	D02373-1	2	1
5	SPRING, DOME PIVOT	D02372	D02372	1	1
	SPRING, SLIDE BLOCK	D02372	D010159	4	2 & 3
6	VACUUM LID ASSEMBLY	80491-1A	80491-1A	1	1
7	GASKET, VACUUM LID	E03431	E03431	1	1
8	FILTER SCREEN ASSEMBLY, VACUUM LID	82407A	82407A	1	1
9	HOSE, VACUUM, 2" ID	J00618	J00618	2	1
10	PLUG, SOLUTION TANK	L00767	L00767	1	1
11	RECOVERY PAIL (POLARIS 500)	F02465-7	F02465-7	1	1
	RECOVERY PAIL (POLARIS 700)	F02465-6	F02465-6	1	1
12	DRAIN NOZZLE, 1/2 BARB x 1/2 BARB	A00165	A00165	1	1
13	CLIP ASSEMBLY, DRAIN HOSE	80263-3A	80263-3A	2	5 & 6
14	HOSE, DRAIN, 5/8 OD x 1/8 WALL	J00598	J00598	1	1
15	90 ELBOW, 1/2 MP x 3/8 BARB	A00138	A00138	1	1
16	90 ELBOW, 1/2 MP x 5/8 BARB	A00099	A00099	1	1
17	CLAMP, HOSE, 5/8	J00637	J00637	2	1
18	CLAMP, HOSE, 7/8	J00652	J00652	1	1
19	HOSE, SOLUTION, 3/8 ID	J00613	J00613	1	1
20	LABEL KIT	82570-1A	82570-1A	1	1
21	DECAL KIT (POLARIS 500)	H02561	H02561	1	1
	DECAL KIT (POLARIS 700)	H02552	H02552	1	1
22	SOLUTION TANK ASSEMBLY (POLARIS 500)	F02463-10	F02463-10	1	1
	SOLUTION TANK ASSEMBLY (POLARIS 700)	F02463-9	F02463-9	1	1
23	SOLUTION TANK MOUNTING KIT	82310A	82310A	1	5 & 6
24	HOUSING, MOTOR, 14"	F02470-3	F02470-6	1	1
	HOUSING, MOTOR, 17"	F02470-2	F02470-6	1	1
26	BRUSH DRIVE MOTOR ASSEMBLY (115V)	82538A	82524A	1	2 & 3
	BRUSH DRIVE MOTOR ASSEMBLY (220V)	82538-1A	82523A	1	2 & 3
27	WIRE ASSEMBLY, GROUND (BRUSH MOTOR)	00185-6A	00185-6A	1	2 & 3
	WIRE ASSEMBLY, GROUND (VACUUM MOTOR)	00185-6A	00185-6A	1	5
28	PULLEY, BRUSH DRIVE MOTOR	D00398-A	D00398-6	1	2 & 3
29	BELT, TIMING	L00779-1	L00779	1	2 & 3
30	COVER PLATE ASSEMBLY, SPRING	82378A	D010154	1	2 & 3

PARTS LIST

POLARIS AND SUPERNOVA 500 & 700 MODELS

Item	Description	Part No.		qty	fig
		Polaris	Supernova		
31	BRUSH CHAMBER ASSEMBLY (14")	82405A		1	2 & 3
	BRUSH CHAMBER ASSEMBLY (17")	82406A	D010055	1	2 & 3
32	90 ELBOW, 1/8 FP x 1/4 C (14")	A00144	A00144	1 (2)	2 & 3
	90 ELBOW, 1/8 FP x 1/4 C (17")	A00144	A00144	2	2 & 3
33	GLIDE, BACK (14")	D02388-1		1	2 & 3
	GLIDE, BACK (17")	D02389-1	D010076	1 (2)	2 & 3
34	GLIDE, FRONT (14")	D02388		1	2 & 3
	GLIDE, FRONT (17")	D02389	D010075	1 (2)	2 & 3
35	SLIDE BLOCK ASSEMBLY	80500A	80500A	2	2
36	WASHER, SLIDE BLOCK, 1/16 THK, 25/64 ID, 2" OD	F00504	F00504	1	2
37	STRING GUARD ASSEMBLY	82235A	82235A	1	2
38	BEARING, BRUSH	G00536	G00536	2	2
39	BRUSH, ROTARY (14")	F02475		1	2
	BRUSH, ROTARY (17")	F02476	F010057	1	2
40	SHAFT, BRUSH (14")	D02386		1	2
	SHAFT, BRUSH (17")	D02387	D02387	1	2
41	SLINGER ASSEMBLY, ROTARY BRUSH	82376A	82376A	1	2
42	PULLEY, ROTARY BRUSH	D00398-2	D00398-2	1	2
43	WASHER, 3/32 THK, 7/16 ID, 5/8 OD (14")	C02298	C02298	1	2 & 3
	WASHER, 3/32 THK, 7/16 ID, 5/8 OD (17")	C02298	C02298	2 (4)	2 & 3
44	SPRAY TIP (14")	A00091-1		1	2 & 3
	SPRAY TIP (17")	A00091	A00089	2 (4)	2 & 3
45	COVER PLATE ASSEMBLY, OPEN END	82368A	810152A		2 & 3
46	COVER PLATE ASSEMBLY, PULLEY END	82367A	810153A	1	2 & 3
47	LABEL KIT, ENGLISH	H00563	83547A	1	1,5,6,7
48	PIVOT EXTENSION LID FRAME (POLARIS 500)	D02344-1	D02344-1	2	5 & 6
	PIVOT EXTENSION, LID FRAME (POLARIS 700)	D02344	D02344	2	5 & 6
50	PIN ASSEMBLY, RETAINING	82383A	82383A	1	5 & 6
51	CLAMP ASSEMBLY, CORD	80187A	80187A	1	5 & 6
52	CAP, END	K00712-4	K00712-4	4	5 & 6
53	GASKET, COOLING AIR DUCT	E02450	E02450	1	5 & 6
54	HOSE, EXHAUST, 2"	J00654	J00654	1	5 & 6
55	DUCT, COOLING AIR	D02394	D02394	1	5 & 6
56	FRAME, UPPER	D02397	D010074	1	5 & 6
58	WHEEL ASSEMBLY	82535A	82535A	1	5 & 6
59	BUSHING	K00674	K00674	2	5 & 6
60	AXLE, WHEEL	D02398	D02398	1	5 & 6
61	MUFFLER KIT (OPTIONAL)	81331A	81331A	1	5 & 6

PARTS LIST

POLARIS AND SUPERNOVA 500 & 700 MODELS

Item	Description	Part No.		qty	fig
		Polaris	Supernova		
63	VACUUM MOTOR MOUNTING ASSEMBLY (2 STAGE)	82291A	8229A	1	5 & 6
	VACUUM MOTOR MOUNTING ASSEMBLY (3 STAGE)	80317-3A	80317-3A	1	5 & 6
64	LOOM, CORRUGATED	F00463	F0463	1	5 & 6
65	VACUUM MOTOR, 2 STAGE, 115V (POLARIS 500 14")	00520-1A	02517-2A	1	5 & 6
	VACUUM MOTOR, 2 STAGE, 115V (POLARIS 500 17")	02517-2A	02517-2A	1	5 & 6
	VACUUM MOTOR, 2 STAGE, 220V (POLARIS 500, 700)	02521A	02521A	1	5 & 6
70	BUSHING, 1/8 MP x 1/4 C	A00125		1	5
71	90 ELBOW, 1/8 MP x 1/4 C	A00132	A00132	1	5 & 6
72	SOLENOID, 1/8 NPT (115V)	G02536	G02536	1	5 & 6
	SOLENOID, 1/8 NPT (220V)	G02537	G02537	1	5 & 6
73	BRANCH TEE, MALE 1/8 NPT	A00152	A00152	1	5 & 6
74	NIPPLE, SHORT, 1/8 NPT	A00055	A00055	1	5 & 6
75	BUSHING, REDUCER, 3/8 NPT (50 PSI)	A00168-1	A00168-1	1	5 & 6
	BUSHING, REDUCER, 1/4 NPT (100 PSI)	A00168-18		1	5 & 6
76	90 ELBOW, 3/8 MP x 1/4 C (50 PSI)	A00133	A00133	1	5 & 6
77	90 ELBOW, 1/4 MP x 1/4 C (100 PSI)	A00140		1	5 & 6
78	NUT, HEX	A00124	A00124	2	5 & 6
80	SHAFT ASSEMBLY, HANDLE	804186A	80418-6A	1	5 & 6
81	TUBE, SOLENOID TO R SPRAY TIP (17")	A00085-9	A00085-17	1	5 & 6
82	TUBE, SOLENOID TO SPRAY TIP (14")	A00085-12	A00085-18	1	5 & 6
83	TUBE, PUMP TO ACCESSORY LINE	A00085-10	A00085-19	1	5 & 6
84	TUBE, PUMP TO SOLUTION INTAKE LINE	A00085-11	A00085-20	1	5 & 6
85	SPACER, 3/16 THK, 1/2 ID, 1" OD	C00240	C00240	3	5 & 6
86	GASKET, VACUUM MOTOR	E02448	E02448	1	5 & 6
87	BRACKET, BRUSH DRIVE MOTOR	D02370	D03385	1	2 & 3
88	PUMP, INTERNAL BYPASS, 115V, 50 PSI	00512A	00512A	1	5 & 6
	PUMP, INTERNAL BYPASS, 220V, 50 PSI	025141A	025141A	1	5 & 6
	PUMP, 115V, 100PSI	02513F-100A		1	5 & 6
89	LOWER FRAME ASSEMBLY	82359A	810070A	1	5 & 6
90	ADAPTER, 3/8 BARB x 1/4 FP	A00061	A00061	A	5 & 6
91	90 ELBOW, 1/4 FP x 1/4 MP	A00052	A00052	1	5 & 6
92	FILTER STRAINER, IN-LINE	K00709	K00709	1	5 & 6
	SCREEN, IN-LINE STRAINER	K00709-1	K00709-1	1	5 & 6
	CAP, IN-LINE STRAINER	K00709-2	K00709-2	1	5 & 6
93	QUICK DISCONNECT, 1/4 FP x 1/4 FP	A00102	A00102	1	5 & 6
4	SWITCH GUARD ASSEMBLY	82414A	82414A	1	7
95	COVER, ROCKER SWITCH	B00214-2	B00214-2	3	7
96	SWITCH, LIGHTED, ROCKER	B02211-1	B02211-1	3	7

PARTS LIST

POLARIS AND SUPERNOVA 500 & 700 MODELS

Item	Description	Part No.		qty	fig
		Polaris	Supernova		
97	LIGHT, INDICATOR, GREEN LENS	B02196	B02196	1	7
98	GRIP, HANDLE, BLACK	K00715B-1	K00715B-1	2	7
99	BOOT, FLEX, CIRCUIT BREAKER	B02193	B02193	1	7
	BOOT, FLEX, CIRCUIT BREAKER (TUV)	B02193	B02193	2	7
100	SPRING, BRACKET, VACUUM VALVE, ASSEMBLY		83349A	1	4
101	SPRING, VACUUM VALVE SLIDE RETURN		D03371	2	4
102	HANDLE, ADJUSTABLE	D02403	D02338-2	1	7
103	SHAFT, VACUUM VALVE		D03356	1	4
104	CIRCUIT BREAKER, 3 A	B02192		1	7
	CIRCUIT BREAKER, 4 A		B02192-1	1	7
	CIRCUIT BREAKER, 1.5 A (TUV)	B02191	B02191	1	7
105	OUTLET ASSY, ACCESSORY (OPTIONAL)	80188A	80188A	1	7
	OUTLET ASSY, ACCESSORY (250V TUV)(OPTIONAL)	80198A	80198A	1	7
106	CORD WRAP ASSEMBLY	82408A	82408A	1	7
107	CORD ASSEMBLY, HANDLE TO LOWER FRAME	00185-28A	B010090	1	5,6,7
	CORD ASSY, HANDLE TO LOWER FRAME (250VAC, TUV)	00185-33A	B010090		
108	GASKET, HANDLE	E03432	E03432	1	7
109	COVER PLATE ASSEMBLY	82409A	82409A	1	7
110	LOCK NUT (115VAC)	B02214	B02214	1	7
	LOCK NUT (250VAC)	B02214	B02214	1	7
111	CORD, POWER (115VAC)	B00221	B00221-4	1	7
	CORD, POWER (250VAC)	B00225	B00225	1	7
112	SWITCH, 10 A, 250VAC		B02173	2	7
113	STRAIN RELIEF, POWER CORD (115VAC)	B02215	B02215	1	7
	STRAIN RELIEF, POWER CORD (250VAC)	B02215	B02215	1	7
114	BUMPER, VACUUM VALVE		E03435	2	4
115	SPRING AND BALL KIT		83372A	1	4
116	RECTIFIER		M00843	1	2
119	RFI FILTER ASSEMBLY, 2A 250VAC		B02175	1	5 & 6
120	HARNESS, RECTIFIER		00185-41A	1	2 & 3
	HARNESS, RECTIFIER (250VAC, TUV)		00185-31A	1	2 & 3
121	MOUNTING BOARD	802171A	802202A	1	2 & 3
122	CLAMP, 2 1/8 x 2 3/8		J00657	2	3
123	HOSE, AIR VALVE ASSEMBLY, 2"		J00621	1	3
124	SLIDE, VACUUM VALVE, ASSEMBLY		D03364	1	4
125	BRACKET, FRONT, PULL CABLE ASSEMBLY		83382A	1	3
126	SWITCH BRACKET ASSEMBLY		83383A	1	3
127	SWITCH, MOTOR REVERSE		B02172	3	3

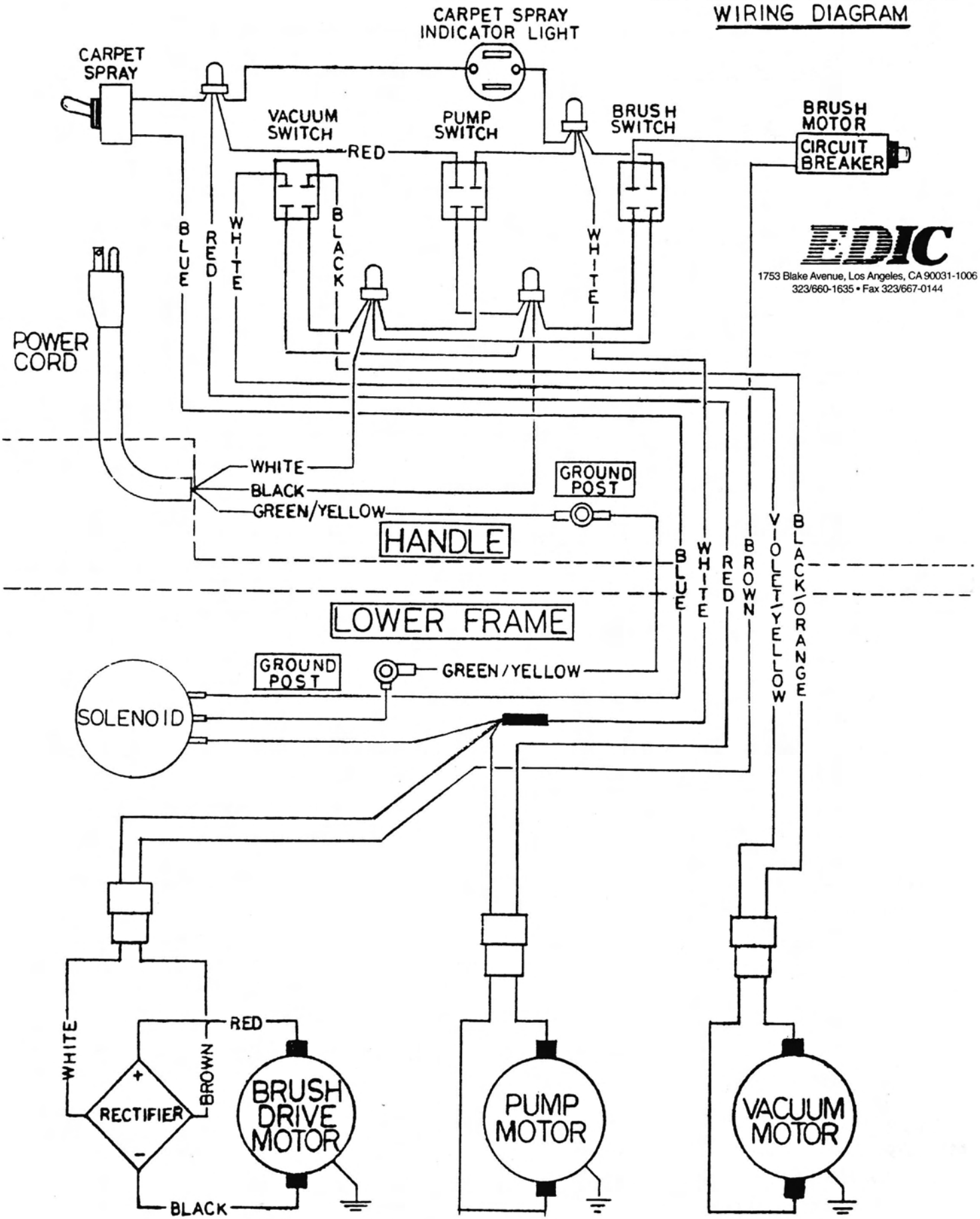
PARTS LIST

POLARIS AND SUPERNOVA 500 & 700 MODELS

Item	Description	Part No.		qty	fig
		Polaris	Supernova		
128	TUBE, TIP CONNECTOR		A00085-15	2	3
129	BRANCH TEE, FEMALE		A00156	2	3
130	FLOATING HEAD RETAINING PIN, ASSEMBLY		83374A	1	3
131	GLIDE, SIDE		80465A	1	3
132	ADAPTER, FRONT HEAD		83361A	1	3
133	HOSE, FRONT HEAD ASSEMBLY, 1 1/2"		J00618-1	1	3
134	CLAMP, 1 1/4 x 1 7/16		J00656	2	3
135	LABEL TWO-WAY		H03561	1	1
136	FLOATING HEAD, FRONT		810078A	1	3
137	FLOATING HEAD, REAR, ASSEMBLY		810072A	1	3
138	BUTTON, GLIDE		F00464	8	3
139	SEAL, SLIDE BLOCK		E03434	1	4
140	WIRE CONNECTOR ASSEMBLY, HANDLE, JUMPER		00185-37A	1	7
	WIRE CONNECTOR ASSEMBLY, HANDLE, JUMPER (250VAC, TUV)		00185-38A	1	7
141	FILTER, RFI, 16A, ASSEMBLY (250VAC, TUV)		B02174	1	7
142	SHIELD PLATE, RFI, ASSEMBLY (TUV)		D03371	1	7
143	HARNESS, RFI FILTER TO SWITCHES (250VAC, TUV)		00185-35A	1	7
	HARNESS, POWER CORD TO SWITCHES		00185-30A	1	7
144	INSULATOR, TERMINAL BLOCK (250VAC, TUV)		B02195	1	7
145	TERMINAL BLOCK (250VAC, TUV)		B02190	1	7
146	HARNESS, TERM BLOCK TO GROUND POST ASSY (250VAC, TUV)		00185-39A	1	7
147	HARNESS, TERM BLOCK TO RFI FILTER (250VAC, TUV)		00185-36A	1	7
148	STOP BRACKET		D03350	1	7
149	CAM WITH PLUNGER, PULL CABLE		83346A	1	7
150	GASKET, VACUUM VALVE GUIDE		80459A	1	4
151	CAP, PROTECTIVE		K02716	1	7
152	COLLAR, SHAFT, 3/8 ID		C02277	1	7
153	WASHER, TEFLON, 3/8 ID		C02287	2	7
154	BUSHING, 3/8 ID		K00678	2	7
155	LEVER ARM		D03347	1	7
156	ADAPTER PLATE, VALVE GUIDE		D03363	1	4
157	CLIP, PULL CABLE, ASSEMBLY		83357A	1	7
158	GUIDE, VACUUM VALVE, ASSEMBLY		D03345	1	4
159	KNOB, BALL		K02712	1	7
160	FROMMET		E00449	2	7
161	CABLE		D03369	1	3 & 7
162	HARNESS, SWITCHES		00185-42A	1	3
163	GASKET HORN	E02441	E02441	1	5 & 6
164	CLAMP, HOSE, SCREW TYPE	J00639	J00639	1	5 & 6
165	HOSE ASSEMBLY, VACUUM EXHAUST	800618A	800618A	1	5 & 6
166	SCREW, MACHINE, HEX HEAD, 1/4-20 x 1 1/4	C02310	C02310	2	5 & 6
167	90 ELBOW, 1/4 FP x 1/4 FP	A00154	A00154	1	5 & 6

POLARIS MODEL 500 & 700

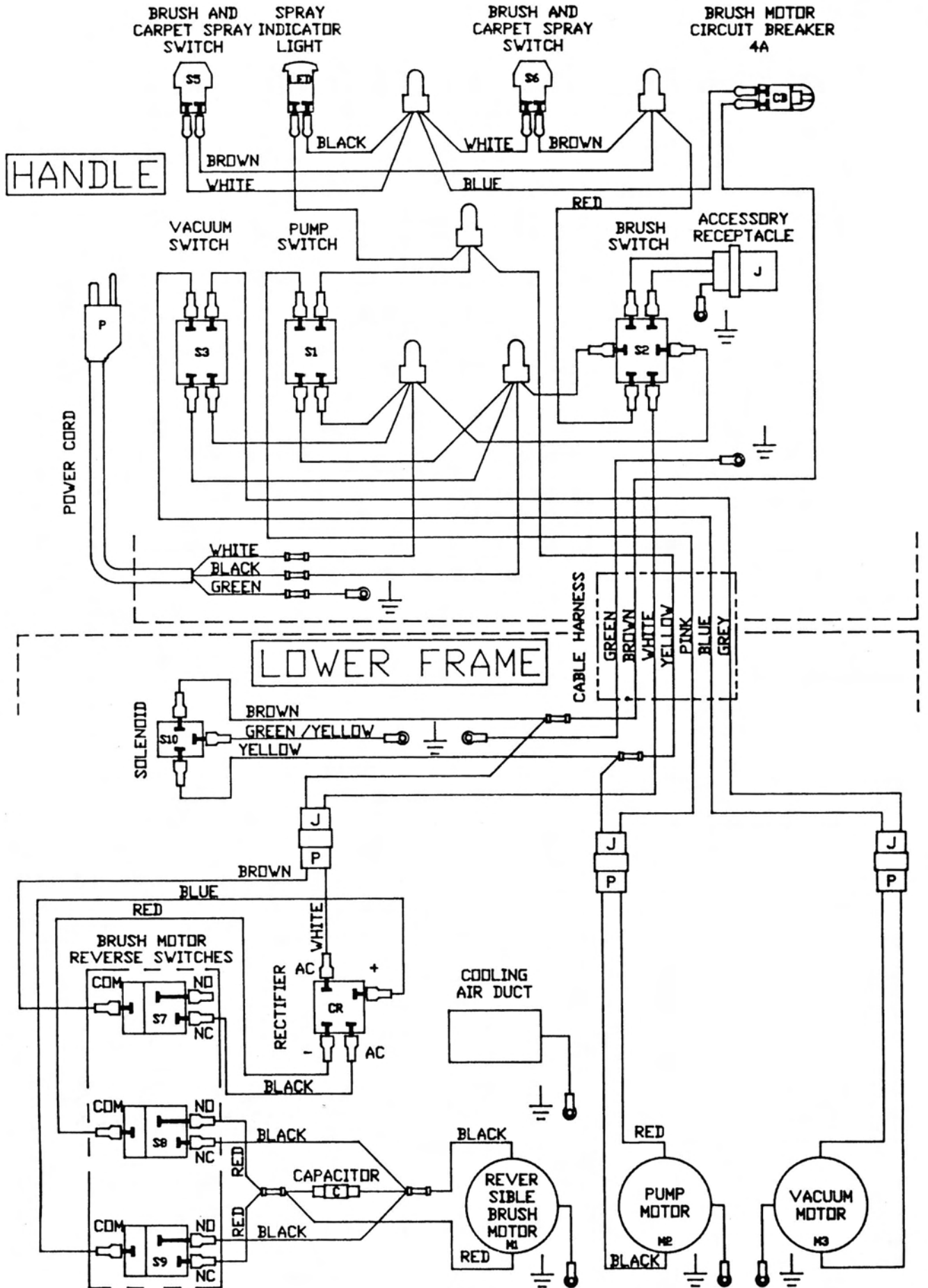
115V AND 230V AC 50/60 HZ
WIRING DIAGRAM



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SUPERNOVA 700

115 V AC, 60 HZ
WIRING DIAGRAM, ND.10092



NOTES



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