

3402

HEAVY-DUTY DUST COLLECTOR INSTRUCTION MANUAL



Caution: Read Manual Before Operating Machine

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Features and Specifications



FEATURES

Two 3.2 HP Motors - two 3.2 HP motors provides high cfm for fast pick-up of airborne particles.

2" Inlet - 2" inlet attaches 25' crushproof vacuum hose.

Heavy-Duty Locking Casters - allows maneuverability on any surface, with self locking casters.

Steel Handle - easy mobility on congested jobsites.

Hand Lever Filter Shaker - unclogs filter & helps preserve filter life.

Foot Lever - provides dust free, easy emptying.

Dust Pan - 50 lb (9 gallon) "one-step" dustpan removal for fast and efficient clean-out.

Product Specifications

Volt.	Vac Pressure/Hg	Max Airflow (cfm)	Filter Area (ft ²)	Filter Efficiency %@0.3 microns	Sound Level (dBA)	Length	Width	Height	Weight
110	7.1	200	13	99.99%	78	34" (86.4 cm)	19.5" (49.5 cm)	44" (111.76 cm)	99 lb (44.9 kg)

GENERAL RULES FOR SAFE OPERATION

READ AND SAVE ALL INSTRUCTIONS FOR FUTURE USE: Before use, be sure everyone operating this equipment reads and understands this manual as well as any labels packaged with or attached to the tool.

- 1. KNOW YOUR EQUIPMENT:** Read this manual carefully to learn equipment applications and limitations as well as potential hazards associated with this type of equipment.
- 2. GROUND YOUR TOOL:** See Grounding (See Page 7).
- 3. AVOID DANGEROUS ENVIRONMENTS:** Do not use in rain, damp or wet locations, or in the presence of explosive atmospheres (gaseous fumes, dust or flammable materials). Remove materials or debris that may be ignited by sparks.
- 4. KEEP WORK AREA CLEAN AND WELL LIT:** Cluttered, dark work areas invite accidents.
- 5. DO NOT USE ON STEPS.**
- 6. DRESS PROPERLY:** Do not wear loose clothing.
- 7. USE SAFETY EQUIPMENT:** Everyone in the work area should wear safety goggles or glasses complying with current safety standards. Wear hearing protection during extended use and a dust mask for dusty operations.
- 8. KEEP BYSTANDERS AWAY:** Children and bystanders should be kept at a safe distance from the work area to avoid distracting the operator and contacting the tool or extension cord. Operator should be aware of who is around them and their proximity.
- 9. PROTECT OTHERS IN THE WORK AREA:** Provide barriers or shields as needed to protect others from debris.
- 10. USE PROPER ACCESSORIES:** Using accessories that are not recommended may be hazardous. Be sure accessories are properly installed and maintained.
- 11. CHECK FOR DAMAGED PARTS:** Inspect guards and other parts before use. Check for misalignment, binding of moving parts, improper mounting, broken parts and any other conditions that may affect operation. If abnormal noise or vibration occurs, turn the tool off immediately and have the problem corrected before further use. Do not use damaged equipment. Tag damaged tools "DO NOT USE" until repaired. A guard or other damaged parts should be properly repaired or replaced. For all repairs, insist on only identical National replacement parts.
- 12. REMOVE ALL ADJUSTING KEYS AND WRENCHES:** Make a habit of checking that the adjusting keys, wrenches, etc. are removed from the tool before turning it on.
- 13. GUARD AGAINST ELECTRIC SHOCK:** Prevent body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. Before use always check the work area for hidden wires or pipes. Use a Ground Fault Circuit Interrupter (GFCI) to reduce shock hazards.
- 14. AVOID ACCIDENTAL STARTING:** Be sure equipment is turned off before plugging it in. Do not use a tool if the power switch does not turn the tool on and off.
- 15. DO NOT ABUSE CORD:** Never unplug by pulling the cord from the outlet. Pull plug rather than cord to reduce the risk of damage. Keep the cord away from heat, oil, sharp objects, cutting edges and moving parts.
- 16. STAY ALERT:** Watch what you are doing, and use common sense. Do not use when you are tired, distracted or under the influence of drugs, alcohol or any medication causing decreased control.
- 17. STARTING MACHINE:** On/off switch must be in off position before connecting to power source.
- 18. DO NOT DEFEAT OR ALTER A SWITCH OR SAFETY DEVICE**
- 19. UNPLUG EQUIPMENT:** When it is not in use, unplug tool before changing accessories or performing recommended maintenance.
- 20. MAINTAIN EQUIPMENT CAREFULLY:** Keep handles dry, clean and free from oil and grease. Periodically inspect tool cords and extension cords for damage. Have damaged parts repaired or replaced.

Safety

- 21. STORE IDLE EQUIPMENT:** When not in use, store in a dry, secured place. Keep away from children.
- 22. MAINTAIN LABELS AND NAMEPLATES:** These carry important information. If unreadable or missing, contact National for a free replacement.
- 23. DO NOT DROP:** Take caution when moving or transporting.



WARNING: EXPOSURE TO DUST MAY CAUSE RESPIRATORY AILMENTS. USE APPROVED NIOSH OR OSHA RESPIRATOR, SAFETY GLASSES OR FACE SHIELDS, GLOVES AND PROTECTIVE CLOTHING. PROVIDE ADEQUATE VENTILATION TO ELIMINATE DUST, OR TO MAINTAIN DUST LEVEL BELOW THE THRESHOLD LIMIT VALUE FOR NUISANCE DUST AS CLASSIFIED BY OSHA.



WARNING: ALWAYS WEAR RESPIRATOR PROTECTION, APPROPRIATE FOR THE APPLICATION, AS SPECIFIED BY OSHA REGULATIONS AND YOUR EMPLOYER. NEVER OPERATE OR MAINTAIN EQUIPMENT BEFORE READING AND UNDERSTANDING THE INSTRUCTIONS FOR OPERATION AND MAINTENANCE. OBEY ALL SAFETY SIGNS AND INSTRUCTIONS WHILE OPERATING OR MAINTAINING EQUIPMENT.



WARNING: IMPROPERLY CONNECTING THE GROUNDING WIRE CAN RESULT IN THE RISK OF ELECTRIC SHOCK. CHECK WITH A QUALIFIED ELECTRICIAN IF YOU ARE IN DOUBT AS TO WHETHER THE OUTLET IS PROPERLY GROUNDED. DO NOT MODIFY THE PLUG PROVIDED WITH THE TOOL. NEVER REMOVE THE GROUNDING PRONG FROM THE PLUG. DO NOT USE THE TOOL IF THE CORD OR PLUG IS DAMAGED. IF THE PLUG WILL NOT FIT THE OUTLET, HAVE A PROPER OUTLET INSTALLED BY A QUALIFIED ELECTRICIAN.



WARNING: ELECTRICAL CORDS CAN BE HAZARDOUS. MISUSE CAN RESULT IN FIRE OR DEATH BY ELECTRICAL SHOCK. READ CAREFULLY AND FOLLOW ALL DIRECTIONS.



WARNING: RECOMMENDED USE OF GFI RECEPTACLE.

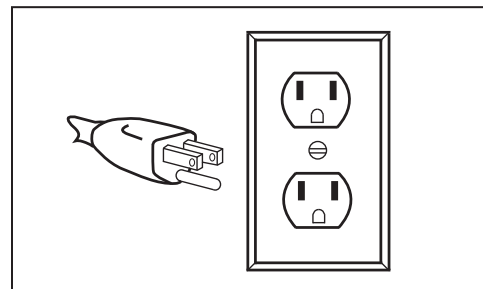


FIG. A

GROUNDING

Tools marked "Grounding Required" have a three wire cord and three prong grounding plug. The plug must be connected to a properly grounded outlet (See Figure A). If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user, reducing the risk of electric shock.

The grounding prong in the plug is connected through the green wire inside the cord to the grounding system in the tool. The green wire in the cord must be the only wire connected to the tool's grounding system and must never be attached to an electrically "live" terminal.

Your tool must be plugged into an appropriate outlet, properly installed and grounded in accordance with all codes and ordinances. The plug and outlet should look like those in Figure A.

Safety



WARNING: ELECTRICAL CORDS CAN BE HAZARDOUS. MISUSE CAN RESULT IN FIRE OR DEATH BY ELECTRICAL SHOCK. READ CAREFULLY AND FOLLOW ALL DIRECTIONS.

EXTENSION CORDS

Grounded tools require a three wire extension cord. Double insulated tools can use either a two or three wire extension cord. As the distance from the supply outlet increases, you must use a heavier gauge extension cord. Using extension cords with inadequately sized wire causes a serious drop in voltage, resulting in loss of power and possible tool damage.

The smaller the gauge number of the wire, the greater the capacity of the cord. For example, a 14 gauge cord can carry a higher current than a 16 gauge cord. When using more than one extension cord to make up the total length, be sure each cord contains at least the minimum wire size required. If you are using one extension cord for more than one tool, add the nameplate amperes and use the sum to determine the required minimum wire size.

GUIDELINES FOR USING EXTENSION CORDS

- If you are using an extension cord outdoors, make sure it is marked with the suffix "W-A" ("W" in Canada) to indicate that it is acceptable for outdoor use.
- Be sure your extension cord is properly wired and in good electrical condition. Always replace a damaged extension cord or have it repaired by a qualified person before using it.
- Protect your extension cords from sharp objects, excessive heat and damp or wet areas.
- Keep away from water. Do not use if wet.
- Inspect thoroughly before each use. **DO NOT USE IF DAMAGED.**
- Make sure equipment is OFF before connecting cord outlet.
- FULLY INSERT plug into outlet.
- Do not remove, bend or modify any metal prongs or pins of cord.
- Do not use excessive force to make connections.
- Do not connect a three prong plug to a two-hole cord.
- Avoid overheating. Uncoil cord and do not cover it with any material.
- Do not walk on cord.
- Do not drive, drag or place objects over cord.

GENERAL SAFETY

1. Cables damaged through crushing or splitting can be dangerous if used and should be replaced immediately. Risk of personal injury.
2. Do not connect the machine to an unearthened socket. Risk of personal injury.
3. Make sure the assembly area is firm, so the dust extractor does not tip over. Risk of personal and material injury.
4. Risk of pinching when handling the toggle fastener.
5. Do not vacuum hot or smoldering particles, as the machine can catch fire. If a fire should break out, remove the plug from the socket and extinguish the fire using the available fire-fighting equipment. An appropriate pre-separator should be connected between the suction pipe and the dust extractor when sucking up soot, ash and hot materials.
6. The machine must not be used in environments where explosives may be present. Serious risk of explosion.
7. Do not look into the suction pipe or suction hose if blocked. Serious risk of eye injury.
8. Do not direct the suction hose towards body parts when the machine is running. Avoid placing your hand or other parts of the body against the suction inlet if the suction hose is not fitted. Risk of personal injury.

9. Do not suck up water without use of the water separator. The absolute filter can be damaged.
10. Check, when lifting the machine, that the dust container is empty and that no one else is standing under the lifted machine. Risk of personal injury and material damage.



CAUTION: MACHINE IS DESIGNED FOR INTERMITTENT USE, I.E. NOT MORE THEN 2 HOURS CONTINUOUSLY.



CAUTION: DISCONNECT THE MACHINE FROM THE POWER SOURCE BEFORE AND DURING INSPECTION AND/OR MAINTENANCE.



CAUTION: A DUST MASK SHOULD BE WORN WHEN WORKING WITH USED FILTERS.

Machine Operation



FIG. B

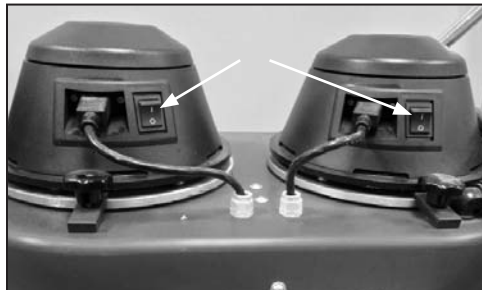


FIG. C

START-UP

1. Pull up on the foot lever to release the dustpan. Check that the dustpan is completely empty then replace (See Figure B).
2. Connect the machine to the proper power source, as indicated on the machine's serial tag.
3. Start the machine by pushing the power switches on the motors to the ON position one at a time (See Figure C).
4. Turn the machine off by pushing the power switches on the motors to the OFF position.
5. The filter should be shaken and the dustpan completely emptied before and after every use.

STANDARD FILTER INSPECTION

1. Turn machine off.
2. Knock material off filter via the hand shaker, motorized shaker or reverse pulse.
3. Pull up on foot lever to release dustpan then remove and empty if necessary.
4. Lock rear casters (Figure D) then carefully tip machine back onto the push handle.
5. Remove any material between the pleats, by hand only.

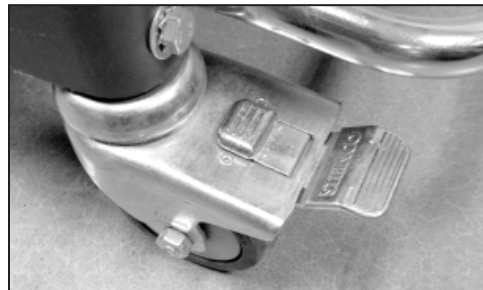


FIG. D



CAUTION: CLOGGED MATERIAL SHOULD ONLY BE REMOVED BY HAND. USING AN OBJECT TO DISLodge MATERIAL MAY TEAR THE FILTER. CONSULT YOUR NATIONAL REPRESENTATIVE IF MATERIAL BLOCKAGE IS EXCESSIVE.

6. Inspect the pleats of the filter for tears and material blockage.
7. Carefully tip machine back onto the casters and replace dustpan.

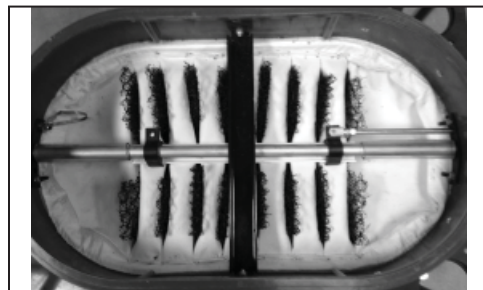


FIG. E

STANDARD FILTER REMOVAL

1. First follow preceding **Filter Inspection** procedure to determine if removal is necessary.
2. Turn the machine on then block the inlet with a flat and rigid material to place the machine under vacuum pressure.
3. Remove all of the housing-component socket truss screws with a 5/32 hex-wrench (Figure F).
4. Turn the machine off and disconnect the power source.
5. Separate the motor deck from the housing then disconnect the motor deck ground wire from the subsequent assembly via the push-on terminal.
6. Disconnect the three power cord wires from the terminal block on the underside of the motor deck (Figure G).
7. Remove the motor deck.
8. Disconnect the clear differential pressure gage tubes from their respective barbed fittings if so equipped.
9. Remove the HEPA filter housing spacer and HEPA adapter assembly if so equipped; make sure to disconnect the HEPA adapter assembly ground wire via push-on terminal before removing.
10. Remove the reverse pulse/motorized shaker assembly and housing spacer if so equipped; make sure to disconnect the component ground wire via push-on terminal before removing (Figure G).
11. Inspect the top of the filter for material.
12. Remove the filter housing spacer assembly; make sure to disconnect the filter housing spacer assembly ground wire from the base via push on terminal.
13. Turn the filter housing spacer assembly over on a table then work the filter off the filter shaker insert.

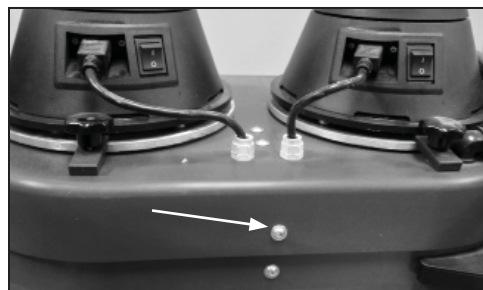


FIG. F

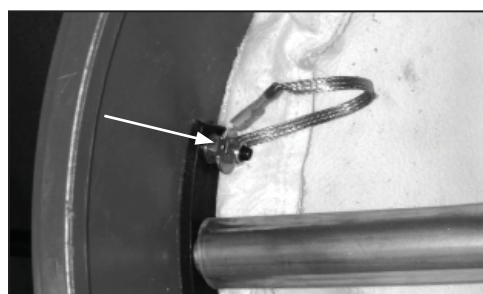


FIG. G



FIG. H

Machine Maintenance

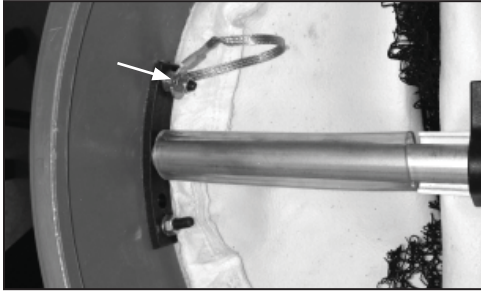


FIG. I

STANDARD FILTER INSTALLATION

1. Turn the filter housing spacer assembly over on a table then fit the filter over the filter shaker insert.
2. Make sure each pleat is fully supported and the ground wire is on the filter side of the assembly.
3. Connect the filter housing spacer assembly ground wire to the base via the push-on terminal (Figure H).
4. Seat the filter housing spacer assembly on the base oriented as it was removed.
5. Seat the reverse pulse/motorized shaker assembly and housing spacer (if so equipped) on the filter housing spacer assembly oriented as removed; make sure to connect the component ground wire to the filter housing spacer assembly via push-on terminal.
6. Seat the HEPA adapter assembly and housing spacer (if so equipped) on the preceding housing component oriented as removed; make sure to connect the component ground wire to the preceding assembly via push on terminal.
7. Connect the motor deck ground wire to the preceding assembly.
8. Connect the three power cord wires to the their respective terminals in the terminal block on the underside of the motor deck.
9. Seat the motor deck on the preceding housing spacer.
10. Connect the clear differential pressure gage tubes to their respective barbed fittings if so equipped.
11. Turn the machine on then block the inlet with a flat and rigid material to place the machine under vacuum pressure.
12. Secure all of the housing-components then turn the machine off.

HEPA FILTER REPLACEMENT PROCEDURE



NOTE: THE DIFFERENTIAL PRESSURE GAGE MEASURES THE PRESSURE ABOVE, AGAINST THE PRESSURE BELOW THE HEPA FILTER, THEREBY MEASURING THE RESTRICTION OF AIRFLOW THROUGH THE FILTER. FILTERS SHOULD BE REPLACED WHEN THE GAGE CONSISTENTLY READS 4 INCHES.

1. Turn the machine on then block the inlet with a flat and rigid material to place the machine under vacuum pressure.
2. Remove the motor deck socket truss screws.
3. Turn the machine off and disconnect the power source.
4. Unscrew the cable grip in the HEPA filter housing spacer.
5. Push about a foot of the power cord into the HEPA filter housing spacer.
6. Separate the motor deck from the HEPA filter housing spacer then disconnect the motor deck ground wire from the HEPA filter adapter plate assembly via the push-on terminal.
7. Disconnect the three power cord wires from the terminal block on the underside of the motor deck (See Figure K).
8. Remove the motor deck.
9. Remove the four lock nuts retaining the two HEPA filter brackets.
10. Remove the ring-to-tab terminal, HEPA filter brackets and HEPA filter.
11. Center the new filter on the HEPA adapter plate, gasket side down.
12. Position the provided lengths of self-adhering flat gasket material on the HEPA filter frame (if not already done so) to cushion the HEPA filter brackets.
13. Replace the HEPA filter brackets and ring-to-tab terminal then thread the locking nuts over the rods and tighten.



CAUTION: DO NOT OVER TIGHTEN. THE EFFECTIVENESS OF THE FILTER MAY BE COMPROMISED IF ITS FRAME IS BENT.

14. Set the motor deck on the HEPA filter housing spacer.
15. Connect the three power cord wires to their respective terminals in the terminal block on the underside of the motor deck.
16. Connect the motor deck ground wire to the HEPA adapter plate assembly via the push-on terminal then seat the motor deck on the HEPA filter housing spacer.
17. Pull any unnecessary slack in the power cord back through the cable grip then secure the cable.
18. Connect the power source.
19. Turn the machine on then block the inlet with a flat and rigid material to place the machine under vacuum pressure.
20. Secure the motor deck then turn the machine off.



FIG. J

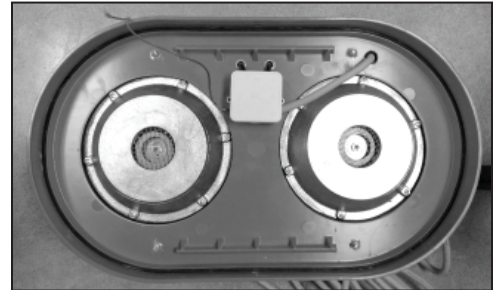


FIG. K

Machine Maintenance

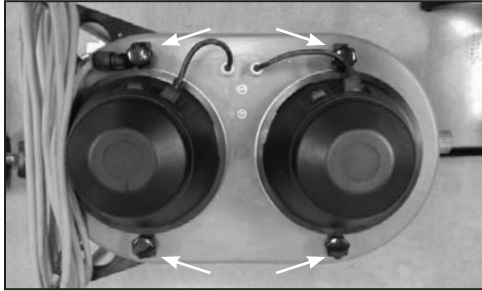


FIG. L

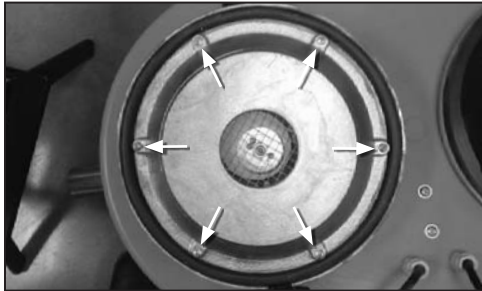


FIG. M



FIG. N

MOTOR BRUSHES INSPECTION

1. Turn the machine off then disconnect the power source.
2. Disconnect both motor terminals.
3. Loosen the motor retaining knobs enough to remove both motors (See Figure L).
4. Remove the 12 screws from the bottoms of the motor assemblies (See Figure M).
5. Remove the plastic motor covers to access the tops of the motors.
6. Remove the 2 metal motor-cap-retaining clips per motor (See Figure N).
7. Carefully dislodge the plastic motor cap via the built in hooks on both sides of each motor brush. (TIP: Dislodge one side of a cap first, then the other.)
8. Remove the motor brush retainers via the 2 phillips screws per brush.
9. Remove each of the brushes and inspect for excessive or uneven wear.



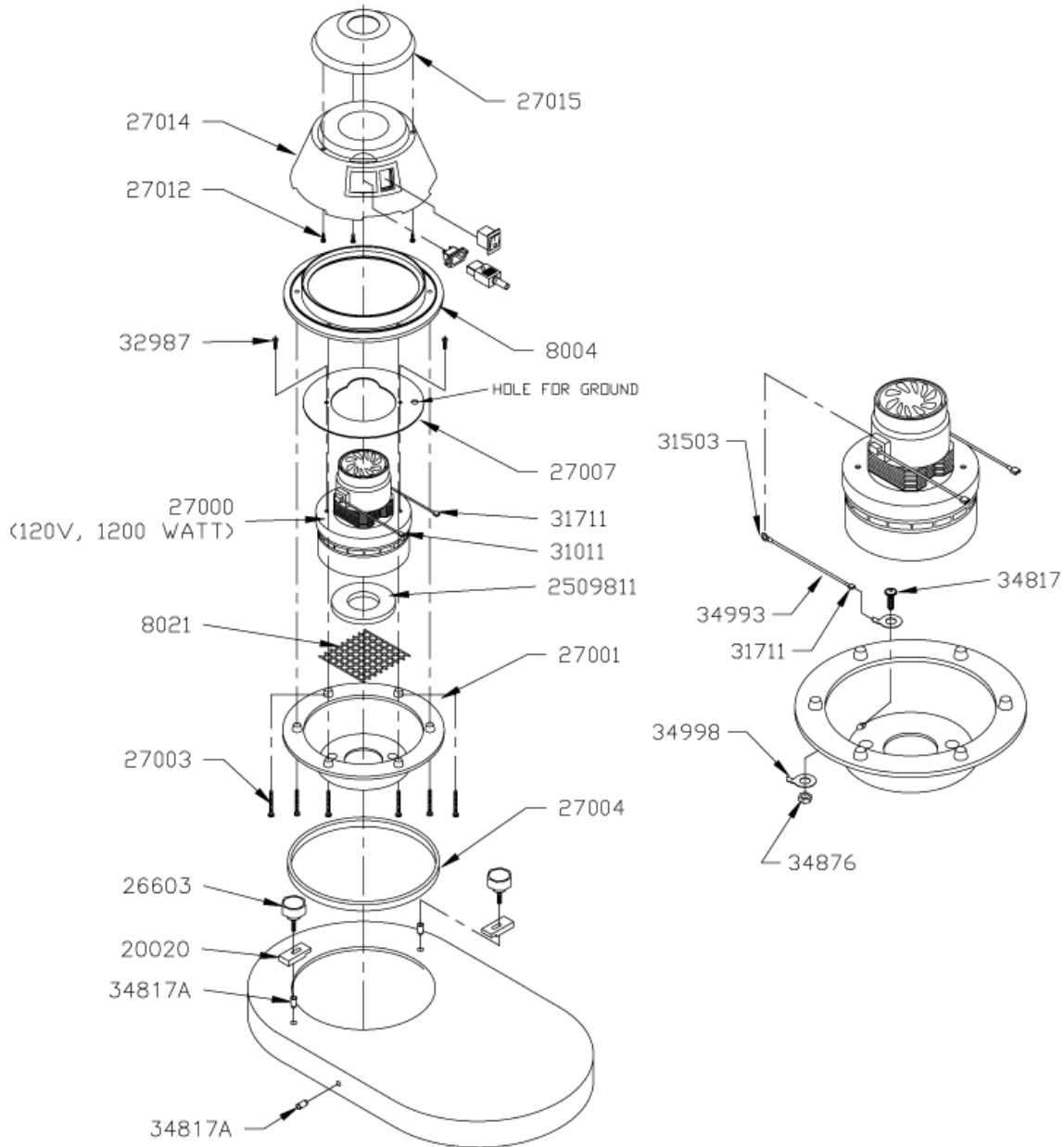
NOTE: A BRUSH SHOULD BE REPLACED IF ITS LENGTH IS LESS THAN 0.25 INCHES.

10. Reverse the procedure to install the brushes.
11. Reassemble and secure both motor assemblies with the 12 motor cover screws. Do not over tighten the screws, as the cover will crack.
12. Position both motors in the deck and secure with the motor retaining knobs.
13. Connect both motor terminals.

Troubleshooting Guide

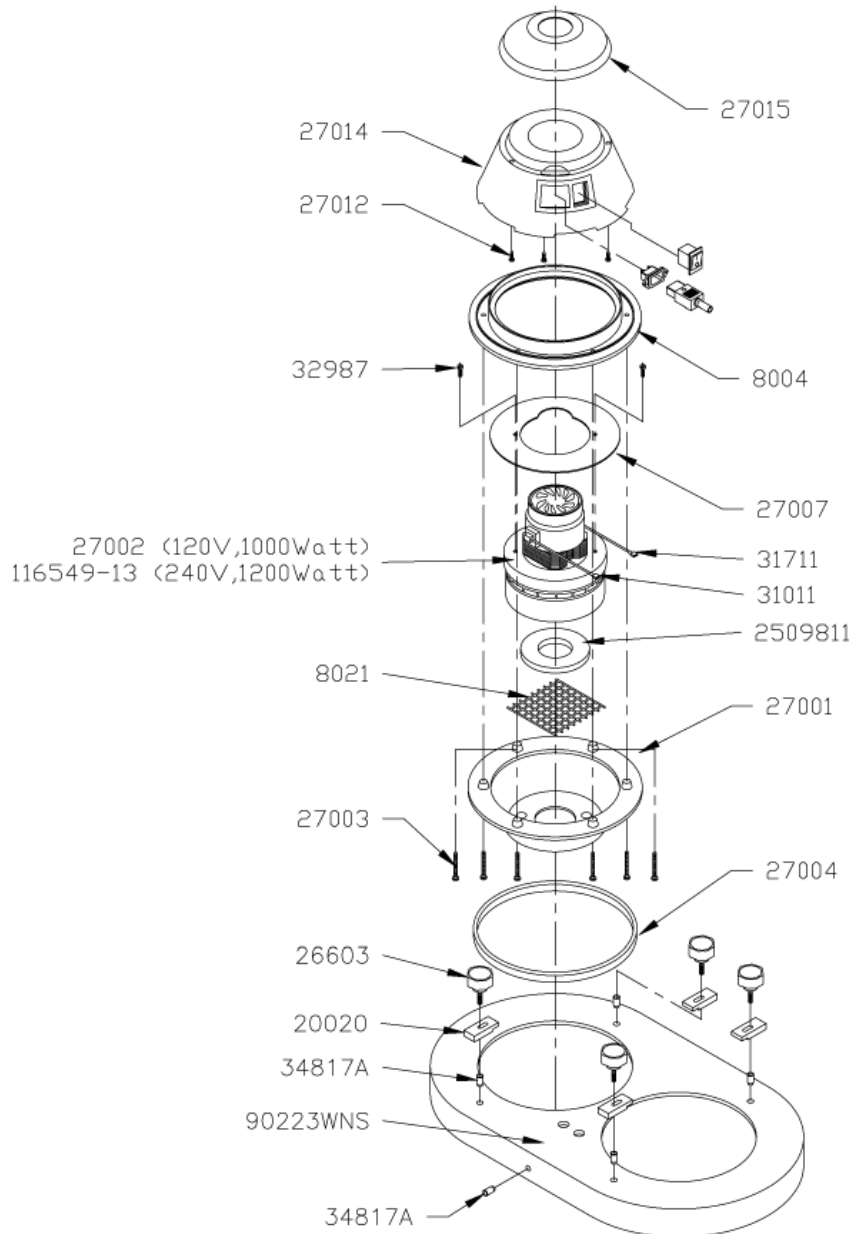
Problem	Cause	Solution
Insufficient vacuum pressure	Motors are not on and/or working.	Turn both motors on, check motor brushes.
	Dustpan improperly seated.	Remove dustpan, inspect seal and replace dustpan.
	Filter clogged or improperly seated.	Follow Filter Inspection Procedure (See Page 11).
	Clogged hose.	Remove hose and re-inspect vacuum pressure, if vacuum pressure returns to normal snake hose.
	Unit is improperly sealed.	Block the inlet with a flat and rigid material to place the unit under vacuum pressure then inspect for air leaks.
Material in exhaust or on top side of filter	Poor filter seal or torn filter.	Follow Filter Inspection Procedure (See Page 11).
Unusual or high pitch noises	Motor bearings or motor bushings	Follow relevant motor bushing inspection procedure, section IV. Check motor bearings for noise by hand.
	Worn or poorly seated seals, retainers improperly installed	Block the inlet with a flat and rigid material to place the unit under vacuum pressure then remove retainers and turn the unit off. Inspect the seals for damage, then reseal and secure components again under vacuum pressure.

Parts List and Diagrams



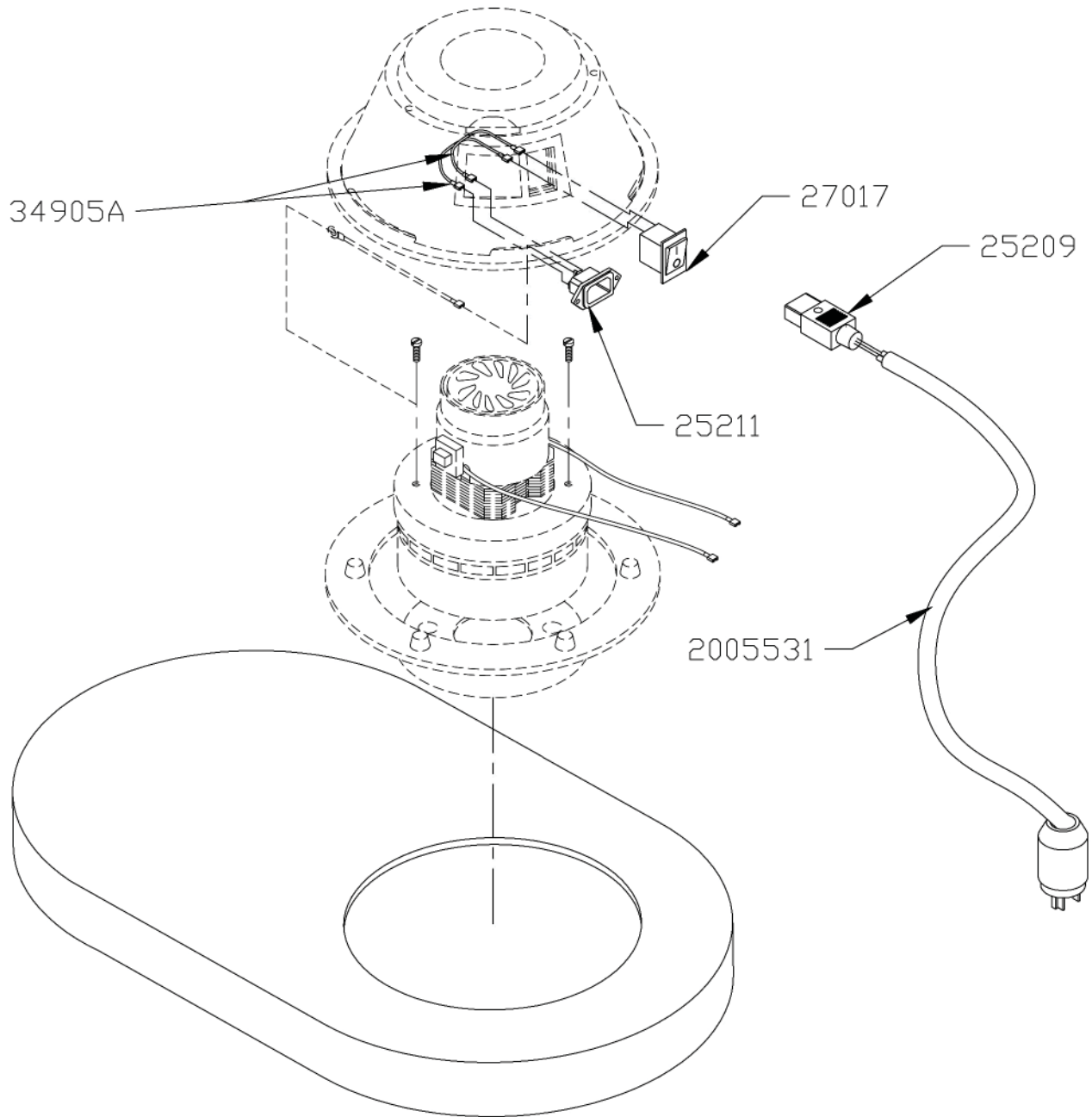
PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY		
1	27015	Housing Cover, Single Motor	1	11	26603	Knob for Motor Hold Down, M6	2
2	8004	Support Ring for Single Motor	1	12	27003	#8 x 2" Phil Pan Head, Zinc	6
3	27007	Separator Plate, WNS Motor Head	1	13	8021	Protection Scree, Motor Head	1
4	31711	Terminal, 16/14 Gauge, Female Pushon Blue Nylon	2	14	27000	Motor, 120V, 1200W	1
5	31011	Terminal, 16/14 Gauge, Pushon, Female, Non-Insulate	2	15	32987	Sheet Metal Screw, 4.2x16MM	2
6	2509811	Neoprene Sponge Gasket, 3/8" Thick, 5" OD, 2-1/4" ID	1	16	27012	#8x1/2" Phil Pan Head, Zinc	3
7	27001	Motor Head, Aluminum	1	17	27014	Motor Housing, Single	1
8	27004	Gasket for Motor Head	1	18	31503	Terminal, #10 Ring, 16/14 Gauge	1
9	34817A	M6 Blind PEM	4	19	34993	Ground Cable, 16 Gauge, Green	1
10	20020	Hold Down Bracket, for WS Motor	2	20	31711	Terminal, 16/14 Gauge, Female	1
				21	34817	M6x20 ULS Allen Head Screw	1
				22	34998	Ground Connection, For Bolt	2
				23	34876	M6 Lock Nut, Zinc	1

Parts List and Diagrams



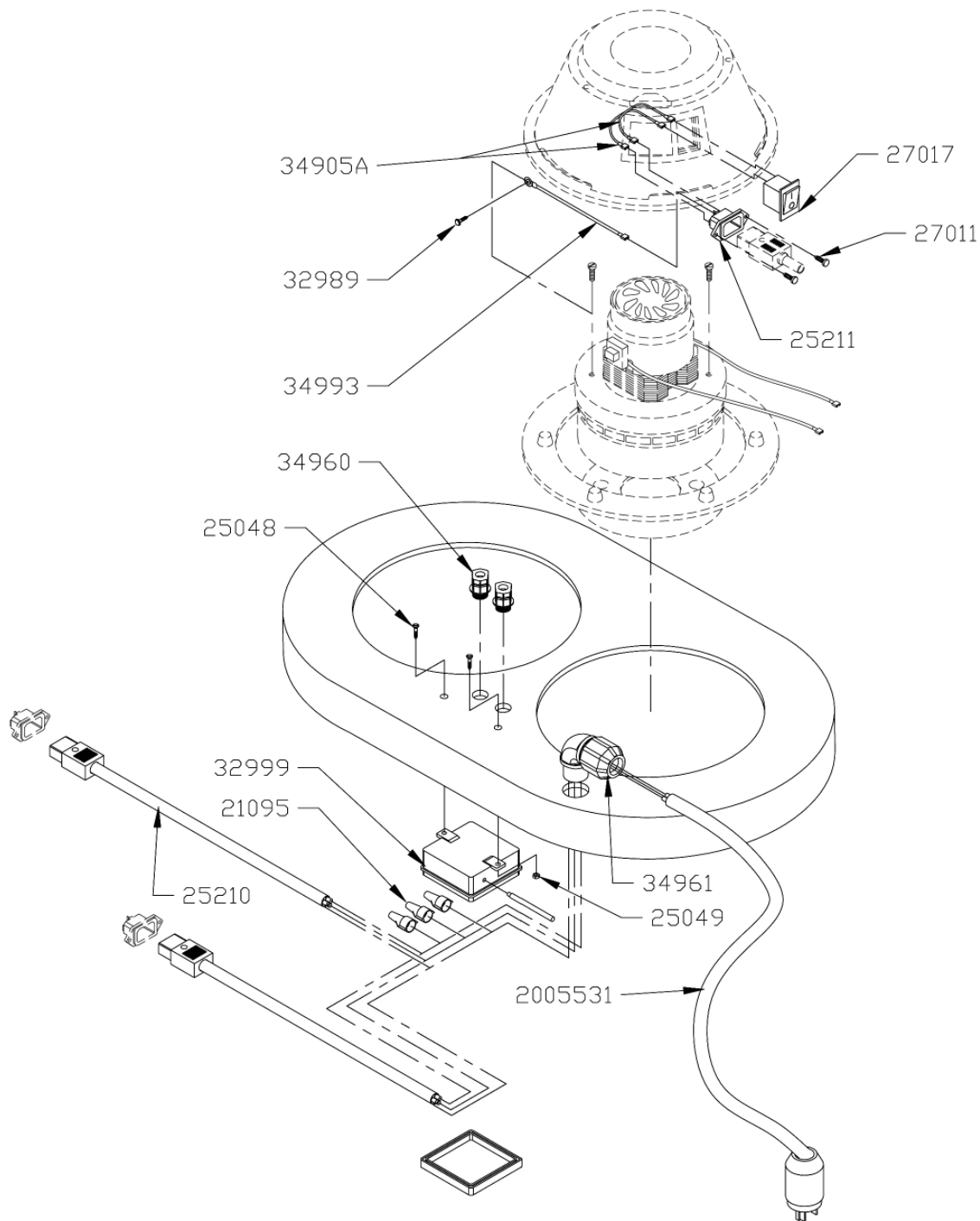
PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY	
1	27015	2	10	90223WNS	Motor Deck, Red, WNS, 2 Motor	1
2	8004	2	11	20020	Hold Down Bracket, For WS Motor	4
3	27007	2	12	26603	Knob for Motor Hold Down, M6	4
4	31711	4	13	27003	#8x2" Phil Pan Head, Zinc	12
5	31011	4	14	8021	Protection Screen, Motor Head	2
6	2509811	2	15	27002	Motor, 120V, 1000 Watt	2
7	27001	2	16	116549-13	Motor, 240V, 1200 Watt	2
8	27004	2	17	32987	Sheet Metal Screw, 4.2x16MM	4
9	34817A	6	18	27012	#8x1/2" Phil Pan Head, Zinc	6
			19	27014	Motor Housing, Single	2

Parts List and Diagrams



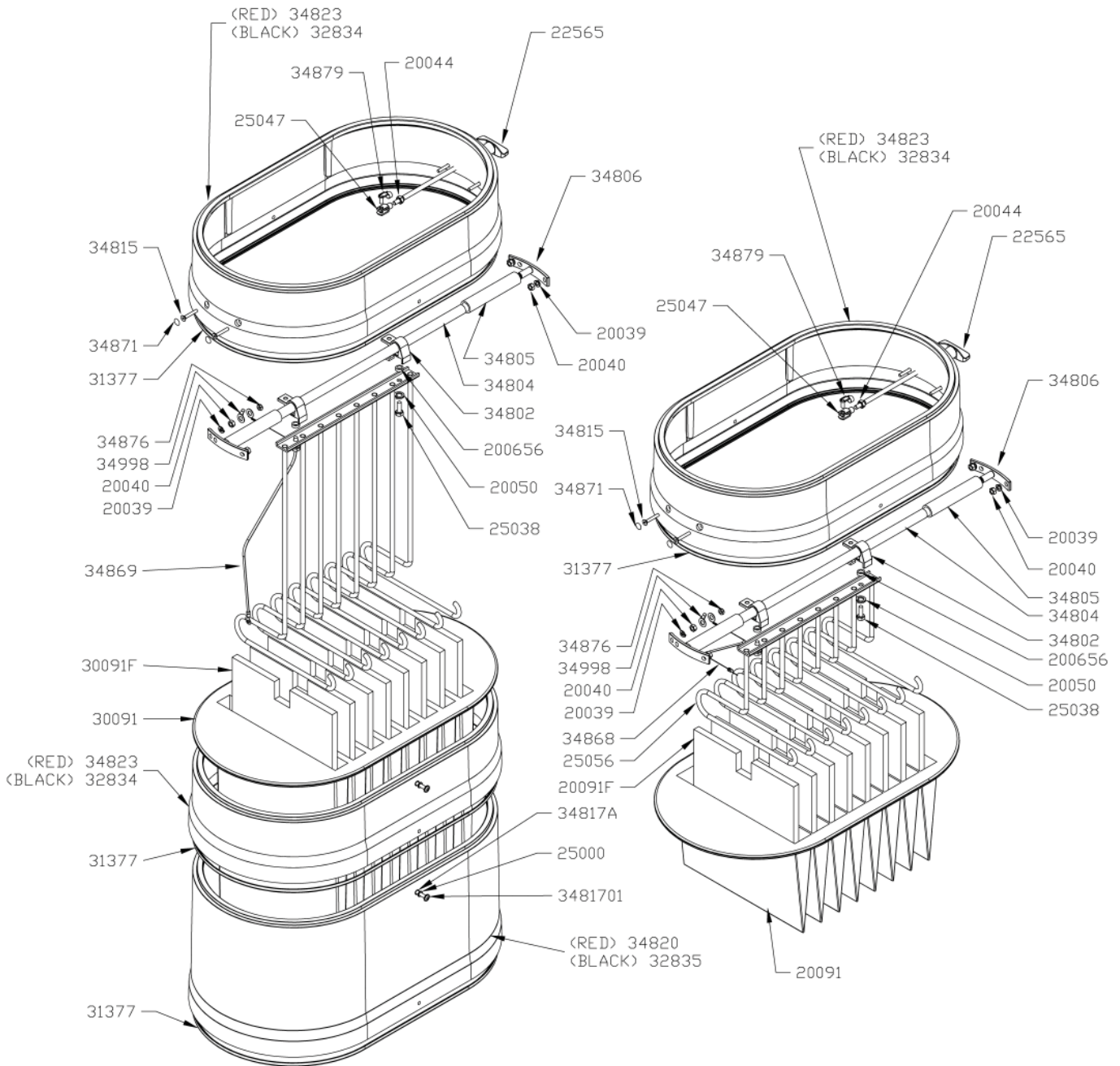
PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY	
1	27017	Switch, Toggle, WS, 1000/1200	1	4	2005531	Power Cord, 12/3 SJO w/Molded 110V Plug
2	25211	Male IEC Plug	1	5	25209	Female IEC Plug
3	34905A	Ground Wire From Plug to Motor	2			

Parts List and Diagrams



PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY		
1	27017	Switch, Toggle, WS 1000/1200	2	8	34961	Strain Relief, 90 Deg, 1/2" NPT	1
2	25211	Male IEC Plug	2	9	2005531	Power Cable	1
3	34905A	Ground Wire from Plug to Motor	4	10	25210	Female IEC Plug w/12" Wire	2
4	34993	Ground Cable, 16 Gauge, Green	2	11	21095	Wire Nut, Twisting	3
5	34960	PG 09 Cable Grip	2	12	32999	Junction Box	1
6	25048	#8-32x3/4 Phillips Flat Head	2	13	32989	#10-16x5/8 Hex Washer Tek, Zinc	2
7	25049	#8-32 Hex Nut	2				

Parts List and Diagrams



Parts List and Diagrams

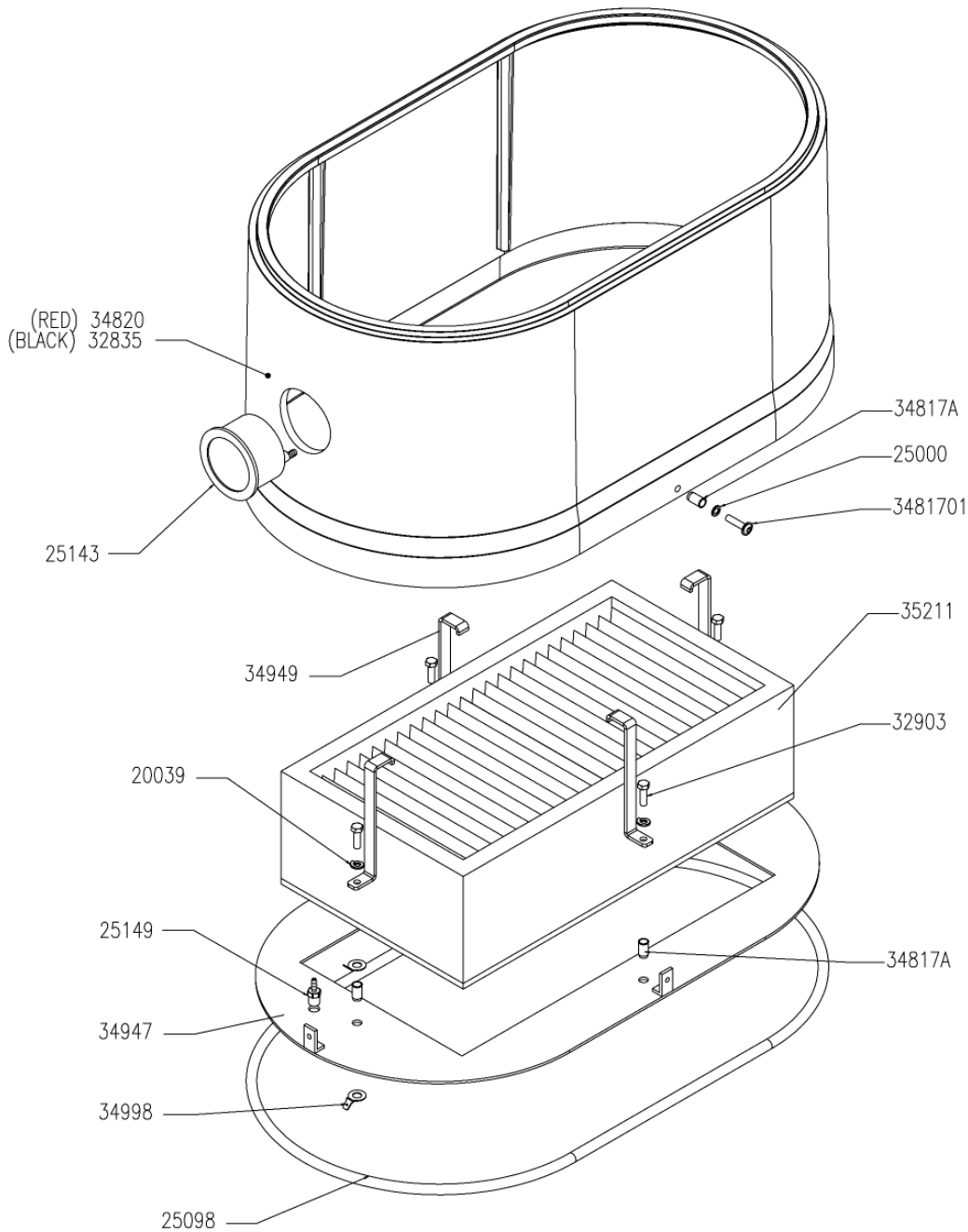
1.2 FILTER ASSEMBLY

PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY		
1	34823	Housing Spacer, Small, Red	1	14	20091	Filter, 13 SQ/FT, WS/D1	1
2	32834	Housing Spacer, Small, Black	1	15	20091F	Filter Insert, 1.2M2	8
3	20044	M8-8 Hex Nut, Zinc	1	16	25056	Filter Cage, 1.2	1
4	22565	Shaker Bar with Swivel Handle	1	17	34868	Ground, Deflector, 1.2 Filter	1
5	34806	Shaker Rod Mounting Support	2	18	34998	Ground Connection, for Bolt	2
6	20039	M6 Split Lock Washer, Zinc	4	19	34876	M6 Lock Nut, Zinc	1
7	20040	M6-8 Hex Nut, Zinc	4	20	31377	Gasket, Nitrile Sponge, for Housing	
8	34805	Clear Hose, 3/4 ID	2			Spacers, .25" x .150"	1
9	34804	Slide Bar	1	21	34871	Plastic Plug 4.5/13	4
10	34802	Slide Assembly, w/ Hook	2	22	34815	M6 x 30 Flat Socket Cap Screw	4
11	200656	Spacer, Filter Cage, D1, .170 THK, .540 OD, .340 ID	2	23	25047	Steel Yoke Ends, Din 71752 G6x12 M8 RT THRD	1
12	20050	M8 Split Lock Washer, Zinc	2	24	34879	Spring Clip, 6x12	1
13	25038	M8x20 Hex Cap, Zinc	2				

2.6 FILTER ASSEMBLY

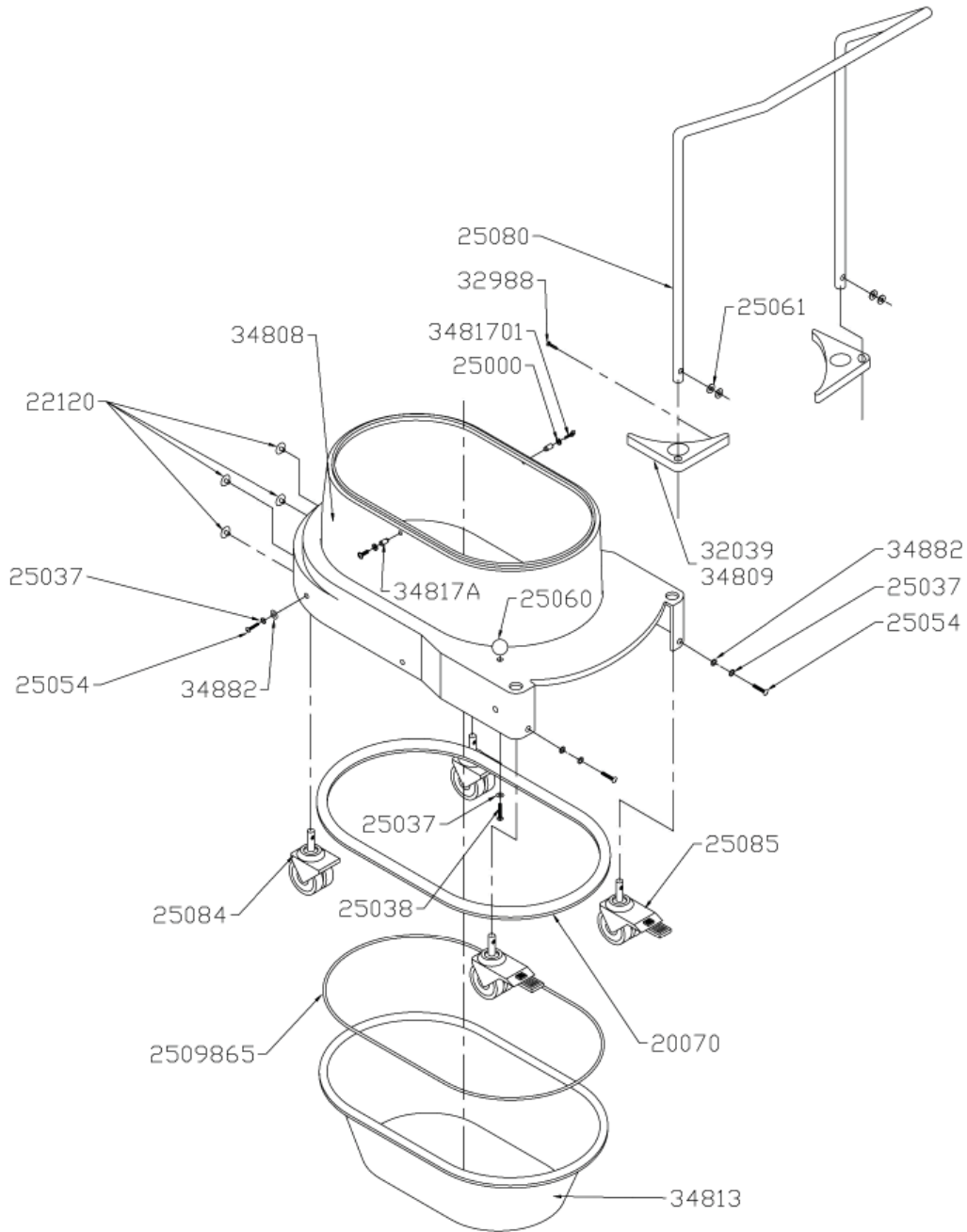
PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY		
1	34823	Housing Spacer, Small, Red	2	15	25038	M8 x 20 Hex Cap, Zinc	2
2	32834	Housing Spacer, Small, Black	2	16	34817A	M6 Blind PEM	4
3	25047	Steel Yoke Ends, Din 71752 G6x12 M8 RT THRD	1	17	25000	1/4 External Star Washer	4
4	34879	Spring Clip, 6x12	1	18	3481701	M6x25 Allen Head Screw	4
5	20044	M8-8 Hex Nut, Zinc	1	19	34820	Housing Spacer, Large, Red	1
6	22565	Shaker Bar with Swivel Handle	1	20	32835	Housing Spacer, Large, Black	1
7	34806	Shaker Rod Mounting Support	2	21	31377	Gasket, Nitrile Sponge, For Housing	
8	20039	M6 Split Lock Washer, Zinc	4			Spacers, .25" x .150"	3
9	20040	M6-8 Hex Nut, Zinc	4	22	30091	Filter, 28 SQ/FTm DS1	1
10	34805	Clear Hose, 3/4 ID	2	23	30091F	Filter Insert, 2.6M ²	8
11	34804	Slide Bar	1	24	34869	Ground, Deflector to 2.6 Filter	1
12	34802	Slide Assembly, w/ Hook	2	25	34998	Ground Connection, For Bolt	2
13	200656	Spacer, Filter Cage, D1, .170 THK, .540 OD, .340 ID	2	26	34876	M6 Lock Nut, Zinc	1
14	20050	M8 Split Lock Washer, Zinc	2	27	34871	Plastic Plug 4.5/13	4
				28	34815	M6 x 30 Flat Socket Cap Screw	4

Parts List and Diagrams



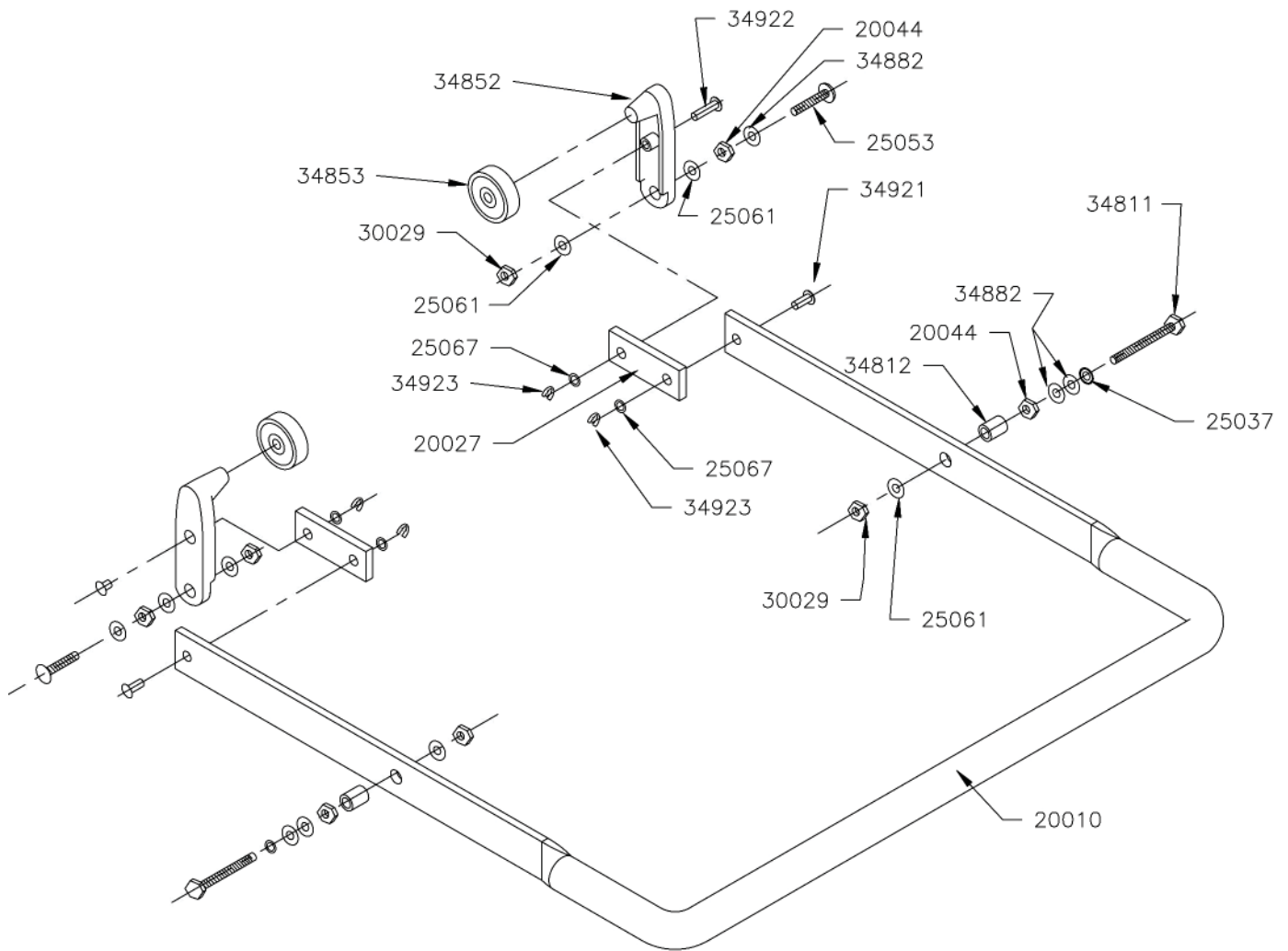
PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY		
1	34817A	M6 Blind PEM	6	8	34949	HEPA Hold Down Bracket, WS	4
2	25000	1/4" Star Washer, External	2	9	32835	Housing Spacer, Large, Black	1
3	3481701	M6x25 Allen Head Screw	2	10	34820	Housing Spacer, Large, Red	1
4	35211	HEPA Filter 40 SQ Foot, WS, DS1	1	11	25143	Minihelic, with Mounting Bracket	1
5	32903	M6x1.0x20 Hex Cap Screw, Zinc	4	12	25149	Hose Barb, 1/8x1/8, Straight, Brass	1
6	34947	HEPA Adapter Plate, DS1	1	13	34998	Ground Connection, For Bolt	2
7	20039	M6 Split Lock Washer	4				

Parts List and Diagrams



PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
1	25080	1	12	34813	1
2	32988	4	13	25038	2
3	3481701	2	14	25060	2
4	25000	2	15	34817A	2
5	32039	2	16	25084	2
6	34809	2	17	22120	4
7	34882	4	18	34808	1
8	25037	6	19	2509865	1
9	25054	4	20	25061	4
10	25085	2			
11	20070	1			
	Gasket, Dust Pan/Lower Housing, 20x15MM				

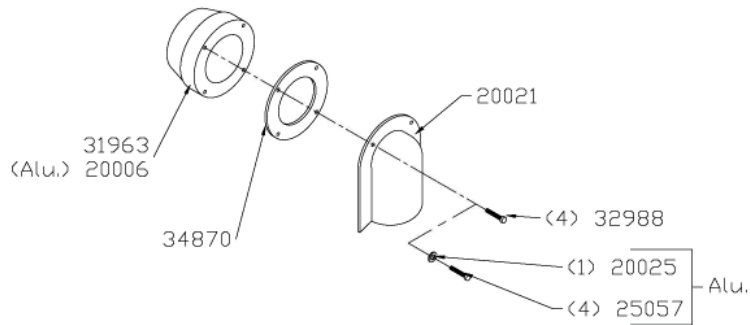
Parts List and Diagrams



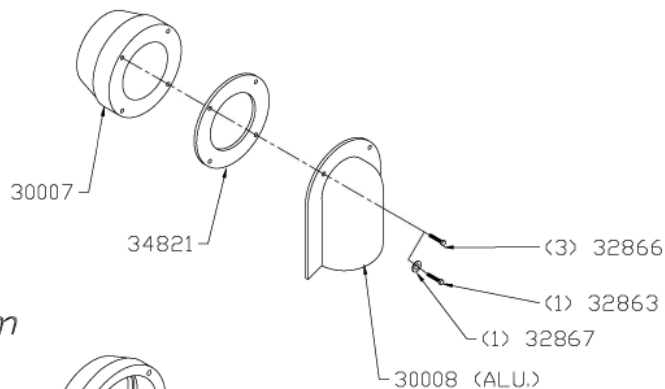
PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY		
1	20010	Foot Lever	1	9	34922	Pin, D=6X 19MM	2
2	25061	M8 Flat Washer, Zinc	6	10	20044	M8 Hex Nut -8	4
3	30029	M8 Lock Nut	4	11	34882	M8 Flat Washer	6
4	34923	C Spring Clip	4	12	25053	M8 x 35 Carriage Screw	2
5	25067	M6 Flat Washer	4	13	34921	Pin D6X15	2
6	20027	Flat Steel Pivot	2	14	34812	Spacer for Foot Lever	2
7	34853	Dust Pan Lever Bearing	2	15	25037	M8 Washer, External	2
8	34852	Dust Pan Tension Lever	2	16	34811	M8 Hex Bolt, X 55-8.8	2

Parts List and Diagrams

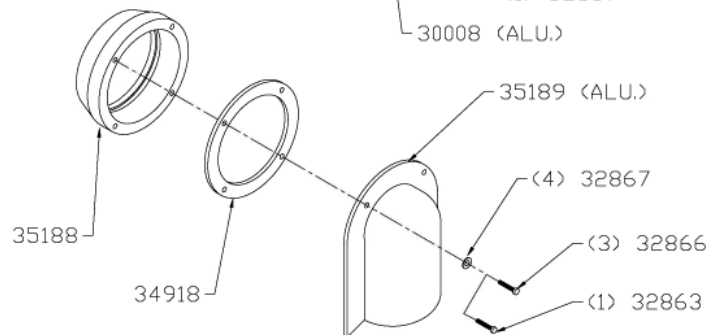
50mm



70mm



100mm



50 MM INLET

PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
1	31963 Inlet, 50MM, GFK Black Plastic	1	5	32988 #8 x 1 Phil Truss Head, Zinc	4
2	20006 Inlet, 50MM, Aluminum	1	6	20025 Washer, Star Locking M4	1
3	34870 Gasket 50MM Inlet	1	7	25057 M4X20 Socket Screw Cap	4
4	20021 Inlet Deflector, 50MM, Metal	1			

70 MM INLET

PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
1	30007 Inlet, 70MM, Aluminum	1	4	32866 M5-.8x30 Socket Cap, Allen Head	3
2	34821 Gasket, 70MM Inlet	1	5	32863 M5-.8x20 Socket Cap Screw	1
3	30008 Deflector, 70MM, Aluminum	1	6	32867 M5 EXT Tooth Lock Washer, Zinc	1

100 MM INLET

PART#	DESCRIPTION	QTY	PART#	DESCRIPTION	QTY
1	35188 Inlet, 100MM, Aluminum	1	4	32867 M5 EXT Tooth Lock Washer, Zinc	4
2	34918 Gasket, 100MM Inlet	1	5	M5-.8x30 Socket Cap, Allen Head	3
3	35189 Deflector, 100MM, Aluminum	1	6	M5-.8x20 Socket Cap, Screw	1

Guarantee

National Flooring Equipment, Inc. (National) warrants to the first consumer/purchaser that this National brand product (3402 Heavy-Duty Dust Collector) when shipped in its original container, will be free from defective workmanship and materials and agrees that it will, at its option, either repair the defect or replace the defective product or part thereof at no charge to the purchaser for parts or labor for the period(s) set forth below.

This warranty does not apply to any appearance items of the product, to the additional excluded items set forth below, or to any product, the exterior of which has been damaged or defaced, which has been subjected to misuse, abnormal service or handling, or which has been altered or modified in design or construction.

In order to enforce the rights under this limited warranty, the purchaser should follow the steps set forth below and provide proof of purchase to National.

The limited warranty described herein is in addition to whatever implied warranties may be granted to purchasers by law. All implied warranties including the warranties of merchantability and fitness for use are limited to the periods from the date of purchase as set forth below. Some states do not allow time limitations on an implied warranty, so the above limitation may not apply to you.

Neither the sales person of the seller, nor any other person, is authorized to make any other warranties other than those described herein, or to extend the duration of any warranties beyond the time period described herein on behalf of National.

The warranties described herein shall be the sole and exclusive warranties granted by National and shall be the sole and exclusive remedy available to the purchaser. Correction of defects in the manner and for the period of time described herein, shall constitute complete fulfillment of all liabilities and responsibilities of National to the purchaser with respect to the product and shall constitute full satisfaction of all claims, whether based on contract, negligence, strict liability or otherwise. In no event shall National be liable, or in any way responsible for any damage or defects in the product which were caused by repairs or attempted repairs performed by anyone other than National. Nor shall National be liable, or in any way responsible, for any incidental or consequential, economics or property damage. Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

WARRANTY PERIOD

The 3402 Heavy-Duty Dust Collector is guaranteed to be free of manufacturer defective workmanship and in quality of materials for a period of one year.

Items excluded from warranty coverage, unless found and reported defective immediately upon removal from the original shipping container and before being used by the original purchaser.

A freight damage claim must be filed with the carrier by the purchaser, the shipper cannot file the freight claim.

TO OBTAIN SERVICE CONTACT NATIONAL FLOORING EQUIPMENT, INC. TOLL FREE AT 800-245-0267 FOR A REPAIR AUTHORIZATION NUMBER. COD FREIGHT RETURNS WILL NOT BE ACCEPTED. FREIGHT COLLECT SHIPMENTS WILL NOT BE ACCEPTED. WARRANTY REPAIRS MUST BE ACCOMPANIED BY DATE OF PURCHASE RECEIPT AND A RETURN/REPAIR AUTHORIZATION NUMBER.

RETURN/REPAIR AUTHORIZATION NUMBER: _____

MACHINE SERIAL NUMBER: _____



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