



## Electronic Service Manuals

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# Clarke®

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# American Sanders

## CAV26

### Vacuum 26 Gallon



## Operator's Manual



### READ THIS BOOK

This book has important information for the use and safe operation of this machine. Failure to read this book prior to operating or attempting any service or maintenance procedure to your Clarke American Sanders machine could result in injury to you or to other personnel; damage to the machine or to other property could occur as well. You must have training in the operation of this machine before using it. If your operator(s) cannot read this manual, have it explained fully before attempting to operate this machine.

All directions given in this book are as seen from the operator's position at the rear of the machine.

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# IMPORTANT SAFETY INSTRUCTIONS

- |   |   |
|---|---|
|  <b>DANGER:</b>  | Failure to read and observe all <b>DANGER</b> statements could result in severe bodily injury or death. Read and observe all <b>DANGER</b> statements found in your Operator's Manual and on your machine.  |
|  <b>WARNING:</b> | Failure to read and observe all <b>WARNING</b> statements could result in injury to you or to other personnel; property damage could occur as well. Read and observe all <b>WARNING</b> statements found in your Operator's Manual and on your machine. |
|  <b>CAUTION:</b> | Failure to read and observe all <b>CAUTION</b> statements could result in damage to the machine or to other property. Read and observe all <b>CAUTION</b> statements found in your Operator's Manual and on your machine.                               |

## READ ALL INSTRUCTIONS BEFORE USE

 **WARNING:** To reduce the risk of fire, electric shock, or injury:

- Use only as described in this manual. Use only manufacturers recommended attachments.
- For indoor dry pick-up only. Do not expose to rain or weather.
- If machine is not working as it should, has been dropped, damaged, left outdoors, or dropped in water, return it to a service center.
- Turn off all controls before unplugging
- Do not handle plug or machine with wet hands.
- Do not use with damaged plug or cord.
- Do not unplug by pulling on cord. To unplug, grasp the plug not the cord.
- Do not pull or carry by cord, use cord as a handle, close a door on the cord, or pull cord around sharp edges or corners. Do not run machine over cord. Keep cord away from heated surfaces.
- Do not leave machine when plugged in. Unplug from outlet when not in use or before servicing.
- Do not put any objects into openings. Do not use with any openings blocked. Keep free of dust, lint, hair, and anything that may reduce airflow.
- Keep hair, loose clothing, fingers, and body parts away from openings and moving parts.
- Do not use to pick-up flammable or combustible liquids, such as gasoline or solvents. Do not use where they may be present.
- Do not use to pick-up hot, smoldering, or burning substances.
- Do not use where explosive vapors, such as gas, solvents, alcohol, fuels, or combustible materials such as grain, wood dust, are present in the air. Keep the work area well ventilated.
- Dust produced from sanding wood or varnish could self ignite causing injury or damage. If this material has been picked up, empty it immediately after use in a metal container.
- Do not use to pick-up health endangering dust.
- Do not use unless machine is fully assembled. Do not modify the machine. Read all instructional labels on the machine. Replace damaged labels.
- Do not allow to be used as a toy. Close attention is necessary when used around children.
- Use extra care when cleaning on stairs.
- Connect to properly grounded outlet. See "grounding Instructions".
- Do not use unless all filtering elements are present. Clean filtering elements frequently.

**SAVE THESE INSTRUCTIONS.**

## SPECIFICATIONS

Part Number	07160A
Motors	Three (3) independently operated
Power	2350 watts peak
Voltage	120V/60Hz
Amps	19A
Air Flow	290 CFM max
Water Lift	77 in.*
Noise Level	79 dBA
Dust Capacity	26 gallons
Wheels	Non-marking gray
Filtration	Two-stage (tank liner, main filter)
Hoses	2 x 25 ft. of 2 in. (50 mm) and 2 x 25 ft. of 1.5 in. (36 MM)
Vacuum Tools	Metal wand, floorbrush and assorted fittings
Power Cable	40 ft., 12-3 SJT cable
Dimensions (L x W x H)	31 1/2 x 26 x 62 in.
Weight	158 lbs. (71.8 kg)
Warranty	Two years

\*Water lift is a performance rating and is not an indicator that this vacuum is meant for wet applications. *This is a dry vacuum only.*

## INTRODUCTION AND INSTRUCTIONS

The CAV 26 comes fully assembled. It is specifically designed for dry pick-up of fine dust made from grindings of wood or gypsum. It is mounted on tough rubber wheels, two of which swivel in order to make the machine easy to handle. It also has brakes to safely stop the machine in place.

NOTE: When performance has declined noticeably, empty tank and clean the filters accordingly.



Figure 1



Figure 2

## INTRODUCTION AND INSTRUCTIONS, cont.

### Features

#### Figure 1, 1 - Control Panel

For explanation of controls, see "Controls" section this page.

#### Figure 1, 2 - Inlet

This inlet is for installation of vacuum hose and accessories.

#### Figure 1, 3 and Figure 2, 1 - Debris Canister

The debris canister should be emptied when the canister is full. To empty canister, lift debris canister lever (figure 2,2). Debris canister will lower until it rests with it's wheels on the floor. Grip the handle and remove the canister, then empty it's contents.

To fit the canister back in place, set it under the vacuum, making sure the balancing hose fitting (figure 2,3) remains visible from the outside. Then push lever (figure 2,2) downwards, allowing the canister to lift until it fits against filtering chamber.

#### Figure 1, 4 - Filter Cleaning Plunger

This plunger (figure 1, 4) is to used to clean the filters. When performance diminishes, press plunger down to release keeper. Raise plunger then thrust against spring. When finished, press plunger down and restore keeper. **Do not operate plunger with vacuum running.**

Wait a few minutes for the dust to settle, then empty .

#### Figure 2, 2 - Debris Canister Lever

Lift this lever so that debris canister can be removed and emptied. Make sure to lower the lever when you replace the debris canister.

#### Figure 2, 3 - Balancing Hose

Balances vacuum around polytank liner (fig 2,3), so it's not sucked into the filter.

### Controls

#### Figure 3, 2 - Vacuum Motor Switches

This model is fitted with 3 motors, so it has three vacuum motor switches on the control p anel. Toggle up the switches to start the vacuum motors.

#### Figure 3, 1 - Illuminated Mains Voltage Indicator

When on, this indicates that the vacuum is connected to the electrical supply.

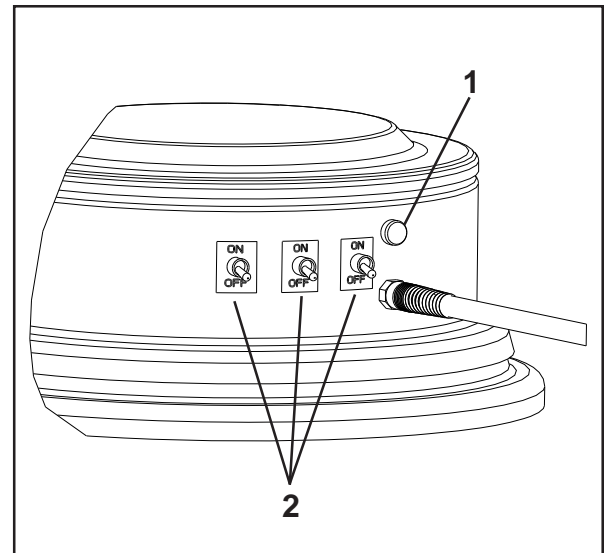


Figure 3

Figure 4

## OPERATING INSTRUCTIONS

To operate this machine follow these procedures:

1. Position the CAV 26 in a convenient location near a wall outlet and within reach of the working area. If the surface is not level, set the brakes on the casters.

**CAUTION:** Do not use an extension cord with the CAV 26 or you will experience a loss in performance. Should an extension cord be necessary, use one sized 12 AWG and no longer than 50' in length. An extension cord sized smaller than 12 AWG or greater than 50' in length will overheat and potentially cause a fire.

2. Connect the CAV 26 to a wall outlet matching one of the two shown in figure 4. No adaptor should be used with this appliance.

**WARNING:** This appliance must be grounded. Should an electrical malfunction occur, the grounding conductors provide a path to harmful current. Do not connect this appliance to any other wall outlet than one of those shown in figure 4. Consult an electrician if there is reason to doubt that the wall outlet is not wired correctly. Do not remove the grounding pin on the power cord. Do not use this appliance with a damaged power cord or plug.

3. The CAV 26 uses three individually activated vacuum motors that allow tailoring the delivery for the available electrical supply and application.

### *For Light Duty Applications:*

Activate one of the three vacuums. To activate a vacuum motor, push one of the three vacuum motor switches (see figure 5). To deactivate the vacuum motor, push the vacuum switch a second time.

### *For Heavy Duty Applications or Multiple Simultaneous Users:*

Activate two of the vacuum motors if you are connected to a 15A wall outlet. You may activate all three vacuum motors if you are connected to a 20A wall outlet.

**WARNING:** Do not activate all three vacuum motors if you are connected to a 15A wall outlet or you will overload the circuit. An overloaded circuit will overheat and potentially cause a fire. Always deactivate the vacuum motor(s) before disconnecting the power cord.

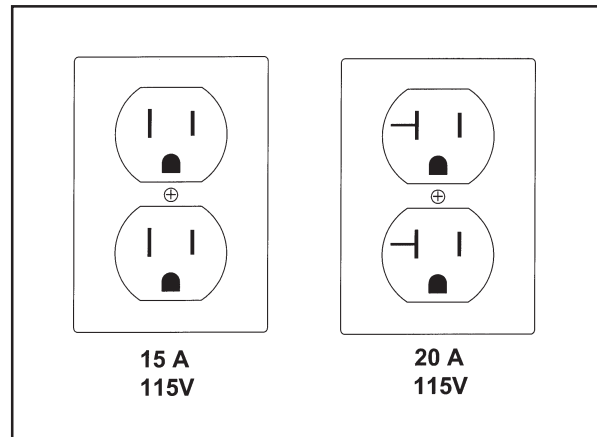


Figure 4

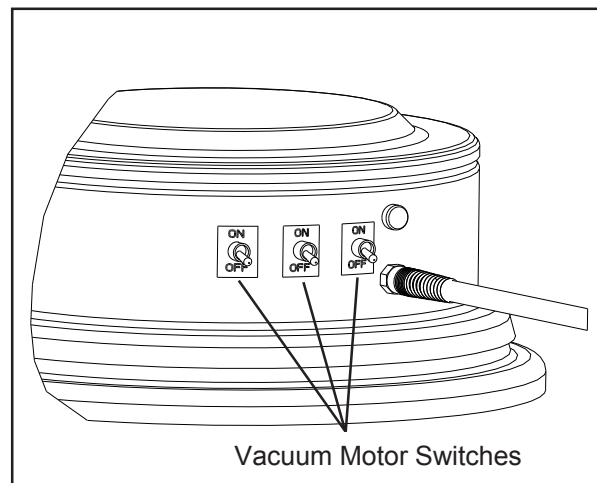


Figure 5

## OPERATING INSTRUCTIONS

4. Install a poly-liner (fig. 6, 1) in the debris canister (fig. 6, 2). To release the debris canister raise the lever (fig. 6, 3) as shown. The poly-liner provides quick convenient disposal.
5. When the debris canister becomes full deactivate all vacuum motors.
6. Allow time for the dust to settle, then operate the filter cleaning plunger (fig. 7) several times.
7. Remove the poly-liner and replace with a new liner.
8. Replace the debris canister. To fit the canister back in place, set it under the vacuum and push the lever downwards. This allows the canister to lift until it fits against the filtering chamber.



Figure 6



Figure 7

**TROUBLESHOOTING**

<b>Problem</b>	<b>Cause</b>	<b>Action</b>
<b>The vacuum fails to start</b>	1. No power.	1. Check whether power is reaching the socket.  Check whether the plug and cable are in good condition.  Ask for assistance from an authorized service technician.
<b>The rpm rate of the vacuum increases.</b>	1. Clogged primary filter. 2. Suction hose clogged.	1. Shake the filter. Replace it if this is not sufficient. 2. Check the suction hose / wand and clean it.
<b>Dust leaks from the machine.</b>	1. The filter is torn. 2. Inadequate filter.	1. Replace it with another with identical characteristics. 2. Replace it with another with suitable characteristics.
<b>Noisy vacuum motors</b>	1. Worn or broken carbon brushes.	1. Remove and replace the carbon brushes.
<b>Electrostatic current on the vacuum.</b>	1. Nonexistent or ineffective grounding.	1. Check all ground connections. Especially check the suction inlet fitting.  Lastly, the hose must be strictly antistatic.

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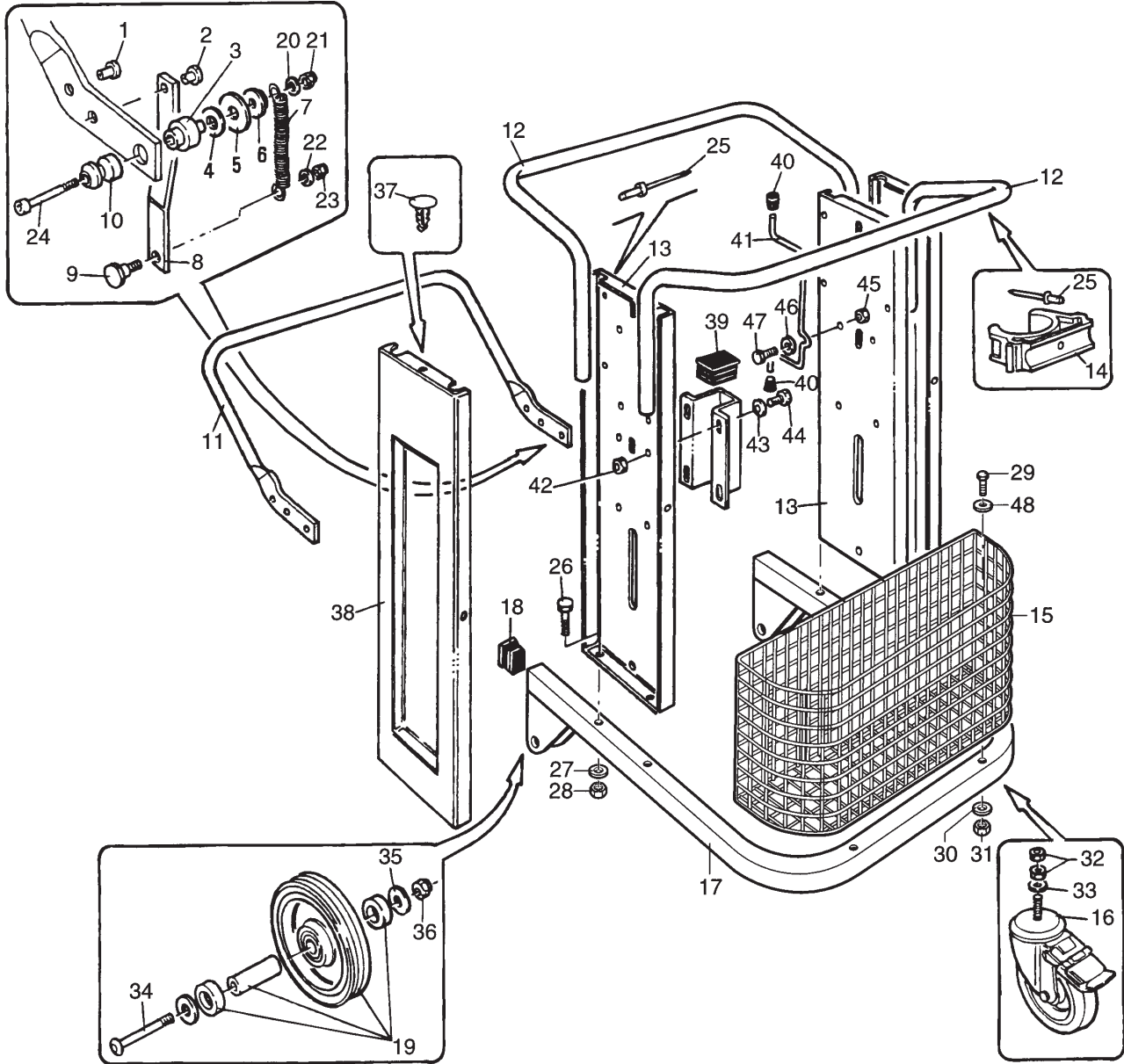
# **American Sanders**

**CAV 26**

## **Section II**

## **Parts and Service**

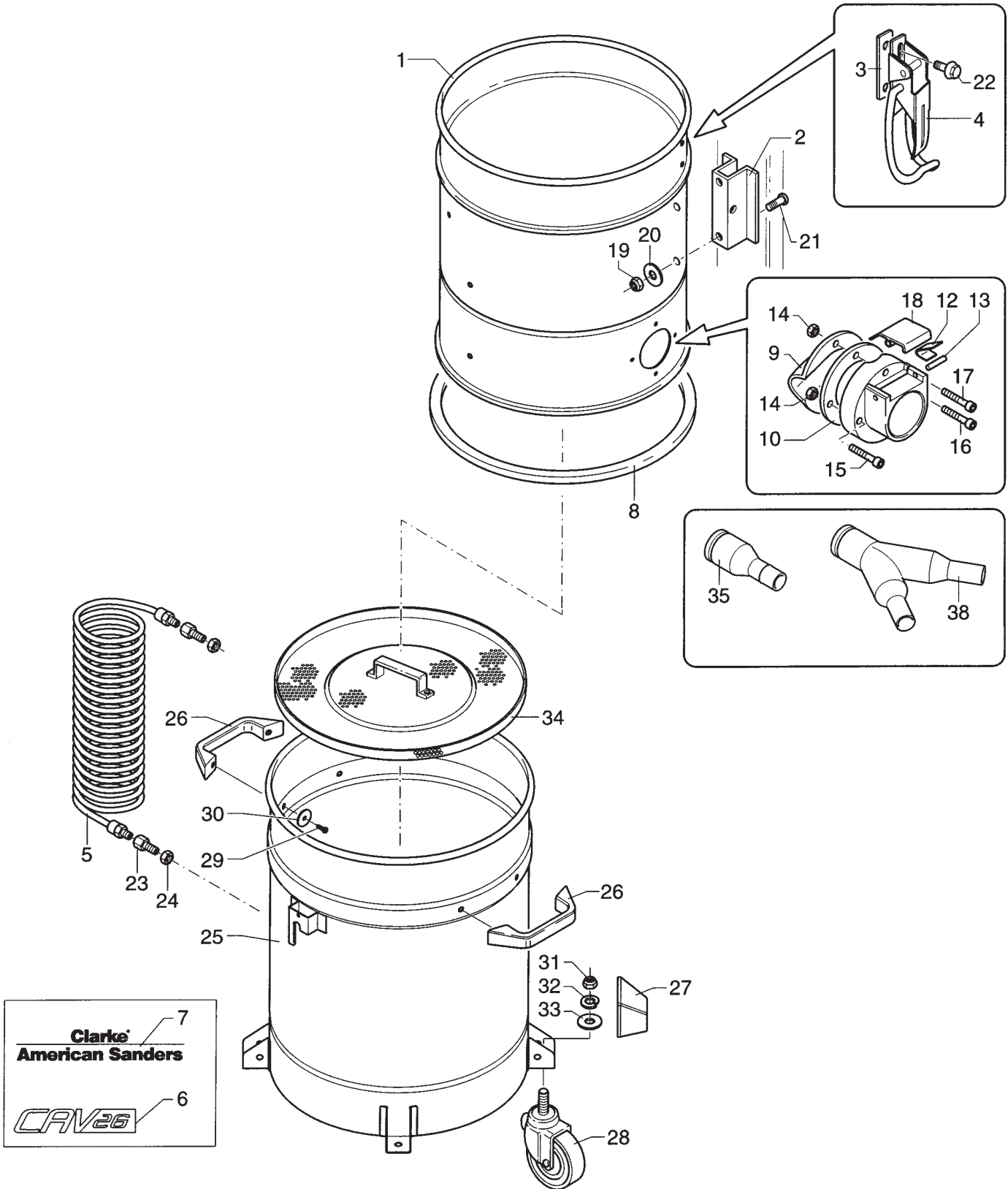
(71114A)



**Frame Assembly Parts List 5/06**

Ref.	Part No.	Description	Qty
1	8 14087	Pin	2
2	8 14084	Pin	2
3	8 14262	Pin	2
4	8 38033	Washer	2
5	8 38034	Washer	2
6	8 14266	Washer	2
7	8 14267	Spring	2
8	8 14256	Lever	2
9	8 14261	Pin	2
10	8 14259	Bushing	2
11	8 14258	Lever	1
12	8 18513	Handgrip	2
13	8 18506	Pillar	2
14	8 40392	Collar	1
15	8 16060	Basket	1
16	8 40582	Caster, Cart	2
17	8 36196	Cart	1
18	8 40035	Plug	2
19	8 40581	Wheel, Cart	2
20	229102	Washer, Ø 8	2
21	80312A	Nut, M8 Block	2
22	229102	Washer, Ø 8	2
23	80312A	Nut, M8 Block	2
24	58050A	Screw, M8 x 65 Soc.	2
25	83002A	Rivet, Ø 6,4 x 15	9
26	98456A	Screw, M8 x 50	4
27	229102	Washer, Ø 8	4
28	80163A	Nut, M8	4
29	80314A	Screw, M8 x 65	4
30	229102	Washer, Ø 8	4
31	80163A	Nut, M8	4
32	920936	Nut, M12	2
33	980648	Washer, Ø 12	2
34	80315A	Screw, M10 x 65	2
35	229044	Washer, Ø 10	2
36	80162A	Nut, M10	2
37	8 38038	Rivet	6
38	8 16380	Side-Piece	2
39	8 40396	Plug	2
40	8 40407	Push Rod	2
41	8 16177	Cable Support	1
42	80163A	Nut, M8	4
43	229102	Washer, Ø 8	6
44	964058	Screw, M8 x 16	6
45	80163A	Nut, M8	4
46	980205	Washer, Ø8 x 24	2
47	1803337	Screw, M8 x 25	2
48	229102	Washer, Ø 8	4

**Clarke®**  
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**CAV 26**  
 Container Unit Assembly Drawing 2/06



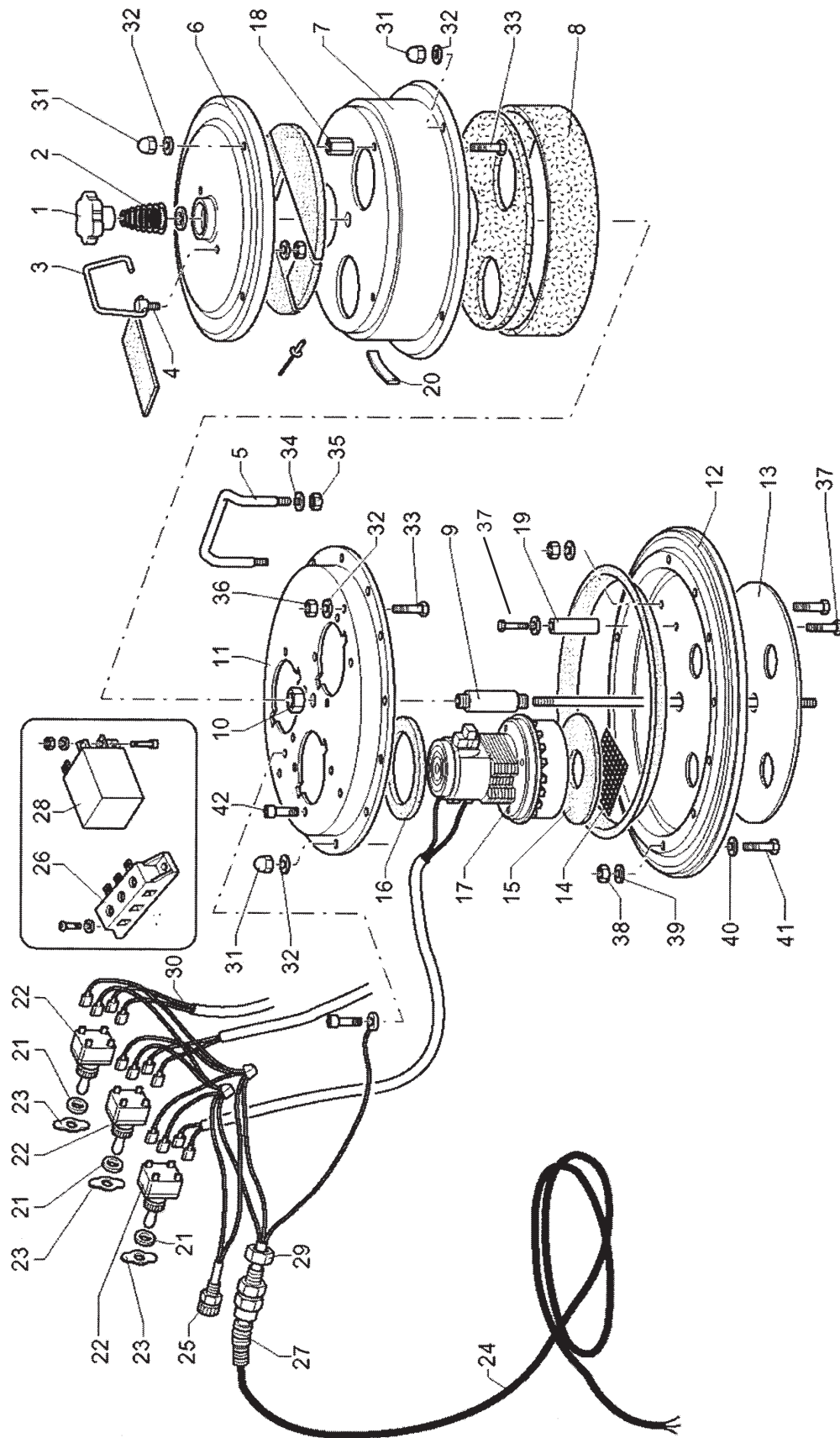


**Container Unit Assembly Parts List 3/06**

Ref.	Part No.	Description	Qty
1	Ref.	Container	1
2	Ref.	Bracket	2
3	Ref.	Plaque	2
4	8 36028	Latch	2
5	5 60133	Hose, Balancing	1
6	Ref.	Label	1
7	Ref.	Label	1
8	8 17007	Seal, Inlet	
9	8 12013	Deflector	1
10	8 17006	Seal, Container	1
11	Ref.	Filler	1
12	Ref.	Spring	2
13	Ref.	Pin, Ø 3 x 16	2
14	924004	Nut, M5	4
15	58413A	Screw, M5 x 20	1
16	58411A	Screw, M5 x 25	2
17	58414A	Screw, M5 x 30	1
18	Ref.	Push Button	1
19	80312A	Nut, M8 Block	4
20	424033	Washer, Ø8 x 32	4
21	964058	Screw, M8 x 16	4
22	80214A	Screw, M6 x 12	4
23	8 40881	Reducer, M6 x 8	2
24	8 40187	Ring Nut	2
25	830331CS	Debris Canister Asm (Includes 23-33)	1
26	8 40771	Handle	2
27	8 17021	Bumper	4
28	8 40001	Wheel	4
29	964058	Screw, M8 x 16	4
30	229102	Washer, Ø 8	4
31	920936	Nut, M12	4
32	87101A	Washer, Ø 12	4
33	980648	Washer, Ø 12	4
34	8 31221	Grid	1
35	722001	Inlet Fitting	1
38	7 22064	Inlet Splitter	1

Ref. Items 1 - 24 = Part No. 8 31687CS, Complete Container, Qty. 1

Ref. Items 11, 12, 13, 18 = Part No. 8 32178, Complete Inlet Asm., Qty. 1

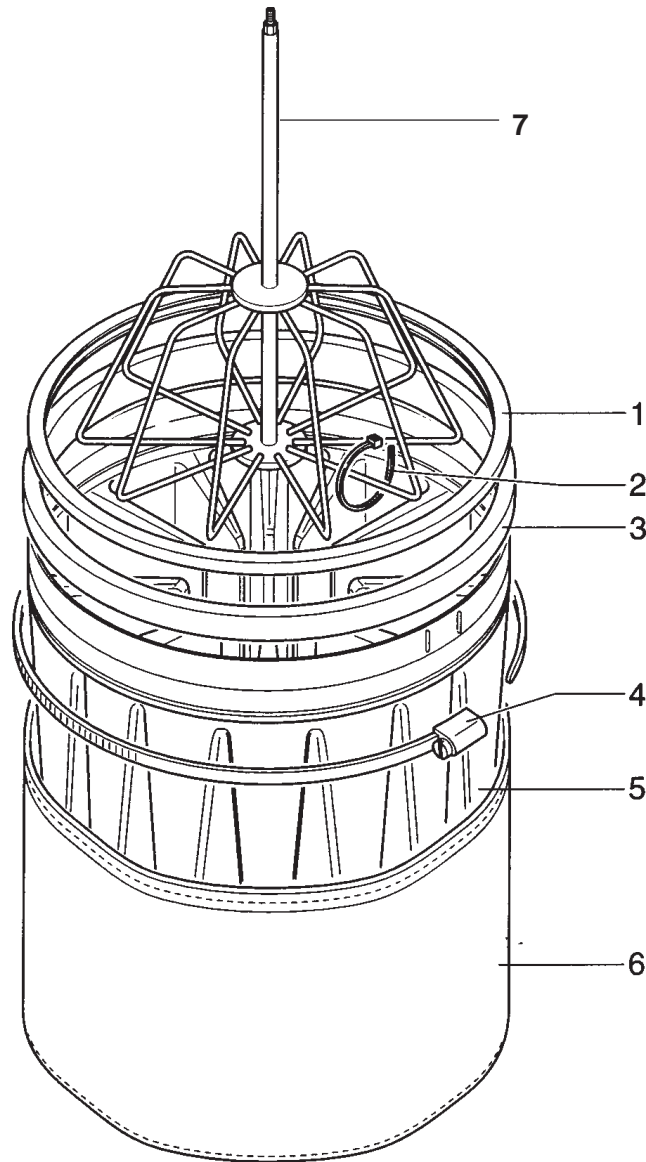


**Motorhead Assembly Parts List ♦ 7/08**

Ref.	Part No.	Description	Qty
1	840027	Knob	1
2	814079	Spring	1
3	818206	Hook	1
4	814061	Pin	2
5	818083	Handle	2
6	54775A	Cover	1
7	8160679005	Motor Cover	1
8	817229	Soundproofing Kit	1
9	814051	Bushing	1
10	814052	Nut	2
11	816009	Motor Locator	1
12	816004	Motor Platform	1
13	815032	Flange	1
14	813074	Screen	3
15	817002	Seal	3
16	817003	Seal	3
17	854006	Vacuum Motor	3
18	814030	Spacer	4
19	814032	Spacer	3
20	Ref.	Label	1
21	980407	Washer	3
22	839000	Switch	3
23	Ref.	Plate	3
24	8391160	Cable	1
25	839051	Voltage Indicator	1
26	839528	Connection Block	1
27	58013A	Strain Relief	1
28	839533	Anti-Disturber	1
29	170686	Ring Nut (use with 58013A)	1
30	839576	Cable Kit	1
31		Cap Nut, M5-.8	20
32	980603	Lockwasher	20
33		Screw, M5-.8x20 HHC	4
34	980646	Washer	4
35	924003	Nut, M6-1.0	4
36	80169A	Nut, M5-.8 Hex	4
37	964009	Screw, M6-1 x 10	8
38	80169A	Nut, M5	4
39	170879	Washer	12
40	980982	Washer	20
41	80249A	Screw, M5-.8x14 HHC	12
42		Screw	4
NI	51401A	Carbon Brush Set (Ametek)	Ref.

NOTE: ♦ indicates a change was made since the last publication of this manual.

Filter Group Assembly Drawing & Parts List ♦ 7/08

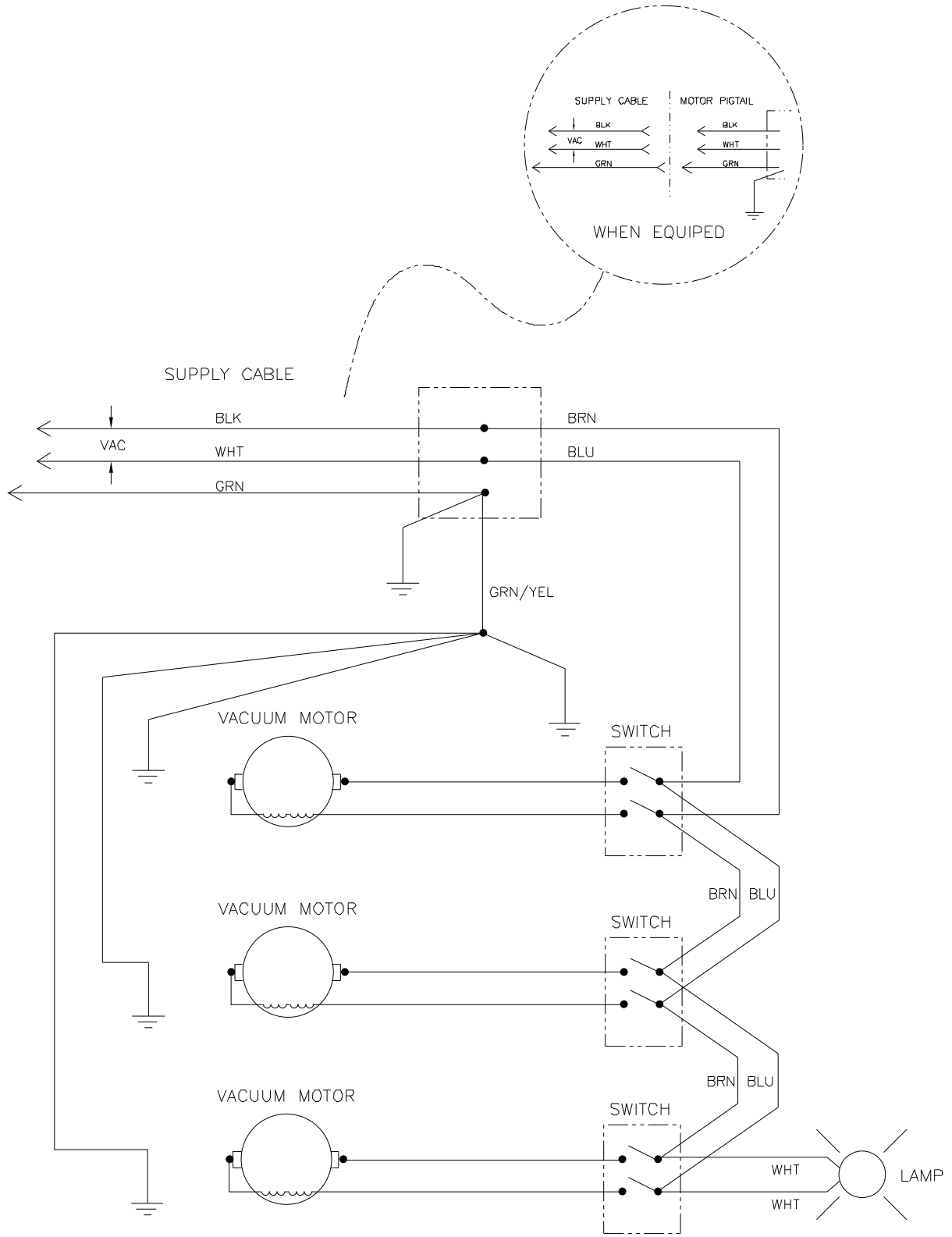


Ref.	Part No.	Description	Qty
NI	814081	Spring	1
1	817026	Seal	1
2	58901A	Tie, .19 x 8.80"	8
3	815003	Ring	1
4	818079	Tie	1
5	817714	Filter	1
6	817749	Filter Liner, Polyester	1
7	833093	Cage	1

NI = Not Illustrated

NOTE: ♦ indicates a change was made since the last publication of this manual.

**Clarke®**  
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**CAV 26**  
 Electrical Schematic ♦ 7/08







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