

Operator's Manuals

Vision 17B/BT

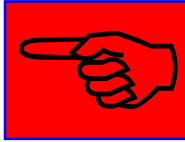
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Vision 17E 115V

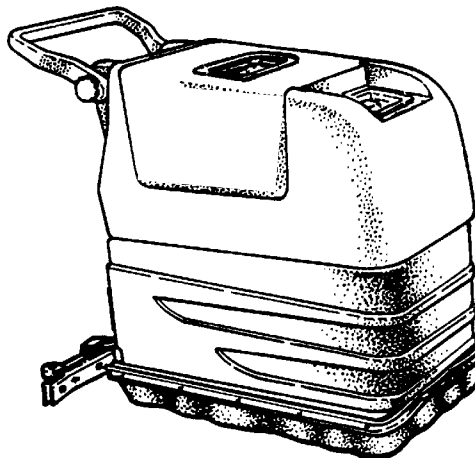
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Vision 17E 230V

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Operator's Manual



Vision 17B/BT

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 ALTO 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 English, have this manual explained fully before attempting to operate this machine.

Si Ud. o sus operadores no pueden leer el Inglés, se hagan explicar este manual completamente antes de tratar el manejo o servicio de esta máquina.

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

For new books write to: ALTO U.S. Inc., 2100 Highway 265, Springdale, Arkansas 72764.

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OPERATOR SAFETY INSTRUCTIONS



WARNING



AVERTISSEMENT



ADVERTENCIA



DANGER:

Failure to read and observe all **DANGER** statements could result in severe bodily injury or death. Read and observe all **DANGER** statements found in your Owner's Manual and on your machine.



WARNING:

Failure to read and observe all **WARNING** statements could result in injury to you or to other personnel; property damage could occur as well. Read and observe all **WARNING** statements found in your Owner's Manual and on your machine.



CAUTION:

Failure to read and observe all **CAUTION** statements could result in damage to the machine or to other property. Read and observe all **CAUTION** statements found in our Owner's Manual and on your machine.



DANGER:

Failure to read the Owner's Manual prior to operating or attempting any service or maintenance procedure to your Clarke Technology 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 English, have this manual explained fully before attempting to operate this machine.



DANGER:

Operating a machine that is not completely or fully assembled could result in injury or property damage. Do not operate this machine until it is completely assembled. Inspect the machine carefully before operation.



DANGER:

Machines can cause an explosion when operated near flammable materials and vapors. Do not use this machine with or near fuels, grain dust, solvents, thinners, or other flammable materials. This machine is not suitable for picking up hazardous dust.



DANGER:

Lead acid batteries generate gases which can cause an explosion. Keep sparks and flames away from batteries. Do not smoke around this machine. Charge the batteries only in an area with good ventilation. Make sure that the AC charger plug is unplugged from the wall receptacle before connecting or disconnecting the DC plug to or from the battery pack.



DANGER:

Waste Disposal Method: Dispose as hazardous waste. Observe all federal, state and local environmental regulations for acid or lead scrap. Send batteries to a battery recycling center for reclamation following applicable federal, state and local regulations.



DANGER:

Working with batteries can be dangerous! Always wear eye protection and protective clothing when working near batteries. Remove all jewelry. Do not put tools or other metal objects across the battery terminals, or the tops of the batteries.



DANGER:

Using a charger with a damaged power cord could result in an electrocution. Do not use the charger if the power cord is damaged.













WARNING:

Operating this machine from anywhere other than from the back of the machine could result in injury or damage. Operate this machine only from the rear.



WARNING:

This machine is heavy. Get assistance before attempting to transport or move it. Use two able persons to move the machine on a ramp or incline. Always move slowly. Do not turn the machine on a ramp. If operating a machine on a gradient over 2%, do not stop, turn, or park. Read the "Procedures For Transporting" in this manual before transporting.

-  **WARNING:** Machines can topple over if guided over the edges of stairs or loading docks and cause injury or damage. Stop and leave this machine only on a level surface. When you stop the machine, put all switches into their "OFF" position.
-  **WARNING:** Maintenance and repairs performed by unauthorized personnel could result in damage or injury. Maintenance and repairs must be performed by authorized Clarke Technology personnel only.
-  **WARNING:** Any alternations or modifications of this machine could result in damage to the machine or injury to the operator or other bystanders. Alterations or modifications not authorized by the manufacturer voids any and all warranties and liabilities.
-  **WARNING:** Electrical components of this machine can "short-out" if exposed to water or moisture. Keep the electrical components of the machine dry. Wipe the machine down after each use. For storage, keep the machine in a dry building.
-  **WARNING:** Operating a machine without observing all labels and instructional information could result in injury or damage. Read all machine labels before attempting to operate. Make sure all of the labels and instructional information are attached or fastened to the machine. Get replacement labels and decals from your Clarke Technology distributor.
-  **WARNING:** Wet floor surfaces can be slippery. Water solutions or cleaning materials used with this type of machine can leave wet areas on the floor surface. These areas can cause a dangerous condition for the operator or other persons. Always put "Caution" signs around/near the area you are cleaning.
-  **WARNING:** Improper discharge of waste water may damage the environment and be illegal. The United States Environmental Protection Agency has established certain regulations regarding discharge of waste water. Also, city and state regulations regarding this discharge may be in effect in your area. Understand and follow the regulations in your area. Be aware of the environmental hazards of chemicals that you dispose.
-  **CAUTION:** When cleaning, servicing or maintaining the machine, replacing parts or converting to another function, the power source should be switched off. Mains operated machines should be disconnected by removing the power plug. Battery operated machines should be disconnected by removing the key of the power switch, or any other effective means.
-  **CAUTION:** Use of this machine to move other objects or to climb on could result in injury or damage. Do not use this machine as a step or furniture. Do not ride on this machine.
-  **CAUTION:** Your machine warranty will be voided if anything other than genuine Clarke Technology parts are used on your machine. Always use Clarke Technology parts for replacement.

Introduction & Machine Specifications

The newly designed Vision 17 automatic scrubber increases labor efficiency while providing superior cleaning. This unit dispenses the solution, scrubs the floor and then recovers the soiled solution - ***all in one pass.***

The Vision 17 is available in four models. The four models are battery versions, one a standard battery and the other a battery version with traverse and each with parking brake as standard. The battery version comes complete with two 12V batteries, one battery cable assembly, one battery cable, one battery charger, a scrub brush or pad driver and one Operator's Manual.


The Vision 17B/BT can be adapted to clean any hard floor surface with a variety of floor cleaning accessories including a variety of bassine, steel, polypropylene, and nylon scrub brushes, pads and pad drivers. See the list of optional accessories on page 21 of this manual.

Model Code Number	Vision 17B 00380A 24 Volt	Vision 17B w/Brake 00380E 24 Volt	Vision 17BT 00390A 24V w/Traverse	Vision 17BT w/Brake 00390E 24V w/Traverse
Power Source	2-12V Batteries			
Sound Level (dba)	69			
Charging Unit	10A Charger			
Brush Drive Motor	3/4 hp / .56 kW			
Brush Speed	200 rpm			
Vacuum Motor	3/4 hp, 3 stage / .56 kW, 3 stage			
Solution Tank	8 gallon / 30.28 L			
Recovery Tank	9 gallon / 34.07 L			
Speed Forward	brush assist	brush assist	3 speed	3 speed
Vibration	< 2.5m/s ²			
Squeegee	24" self-adjusting swing / 60.96 cm self-adjusting swing			
Scrubbing Path	17" width / 43.18 cm. width			
Dimensions	36" x 19" x 33" / 91.44 cm x 48.26 cm x 83.82 cm			
Machine Weight	263 lbs. w/Battery / 119.3 kg w/Battery		278 lbs. w/Battery / 126.1 kg w/battery	
Warranty	1 year			

Note: Additional machine variables are available. See accessories page for codes and description.

PROCEDURES FOR TRANSPORTING

How to Put the Machine Into a Van or Truck

 **WARNING:** This machine is heavy. Get assistance before attempting to transport or move. Use two able persons to move the machine on a ramp or incline. Always move slowly. Do not turn the machine on a ramp. Do not stop and leave the machine on a ramp or incline.

To load the machine into a van or truck follow this procedure:

1. Remove the squeegee and the brush (see "How to Prepare Machine for Operation").
2. Obtain a loading ramp that is at least 8' long and secure enough to support the weight of the machine.
3. Make sure the ramp is clean and dry.
4. Put the ramp into position and secure.
5. Align the machine on a level surface in front of the ramp.
6. With the assistance of another person, guide the machine up the ramp slowly.
7. Securely fasten the machine to the vehicle.

How to Remove a Machine From a Van or Truck

To remove the machine from a van or truck, follow this procedure:

1. Make sure that there are no obstructions in the area.
2. Obtain an unloading ramp that is at least 8' long and strong enough to support the weight of the machine.
3. Make sure the ramp is clean and dry.
4. Put the ramp into position and secure.
5. Untie the machine.
6. With the aid of another person, carefully guide the machine out of the truck or van onto the unloading ramp slowly. Never stand below machine or ramp.
7. When guiding the machine on the unloading ramp, position yourself to maintain a slow speed.

MACHINE CONTROLS and FEATURES

Brush Switch. See Figure 1.

The brush switch is to the left of the vacuum switch on the control panel. To start the brush motor, press the top of the switch. To stop the brush motor, press the bottom of the switch.

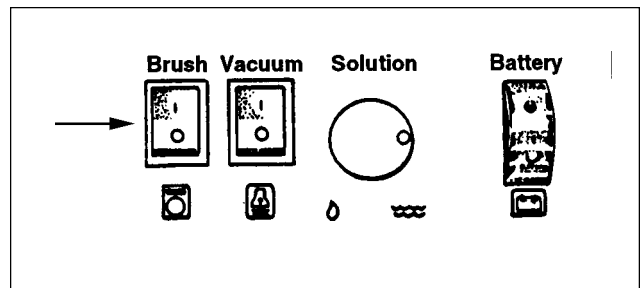


Figure 1

Vacuum Switch. See Figure 2.

The vacuum switch is to the left of the solution control knob. To start the vacuum motor, press the top of the switch. To stop the vacuum motor, press the bottom of the switch.

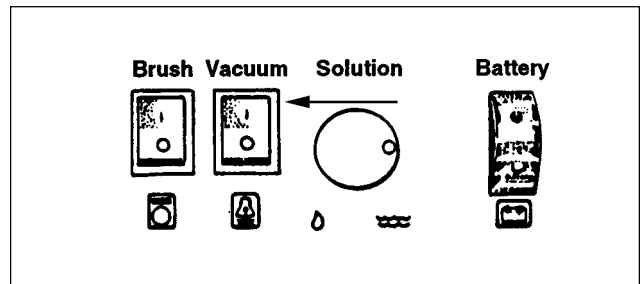


Figure 2

Solution Control Knob. See Figure 3.

The solution control knob is in the middle of the control panel. For more solution, turn the knob to the right. For less solution, turn the knob to the left.

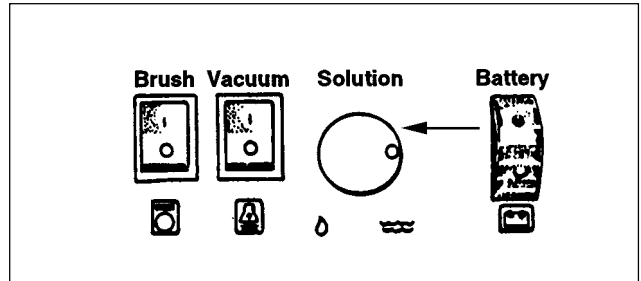


Figure 3

Circuit Breakers. See Figure 4.

There are two circuit breakers. One to protect the vacuum motor and one to protect the brush drive motor. The circuit breakers are located on the lower left side of the tank support. Push the circuit breakers to reset the vacuum drive motor or the brush drive motor. For the traverse model there is one additional circuit breaker for the traverse motor.

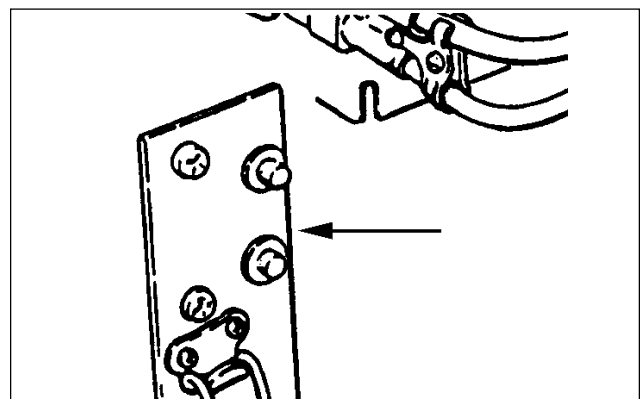


Figure 4

MACHINE CONTROLS and FEATURES (cont'd)

Voltmeter. See Figure 5.

This gauge indicates the amount of power in the batteries. If the reading is in the lower area of the meter, the battery voltage is low. See the section of this book called "Maintenance".

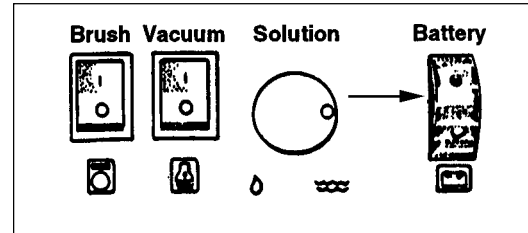


Figure 5

Brush Control Pedal. See Figure 6.

The brush control pedal is at the back of the machine in the lower right corner. Use your foot to operate the pedal. To lower the brush, push the pedal down and to the left, releasing it from the locked position. To raise the brush, push the pedal down and to the right engaging the lock.

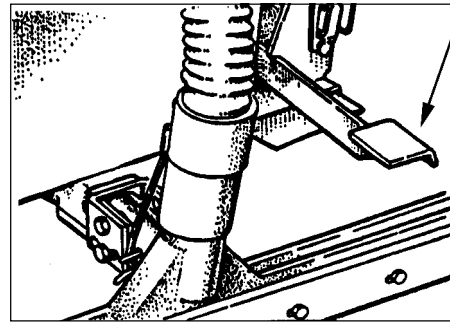


Figure 6

Brush Tilt Control.

The brush tilt control is on the left side by the motor. To access the motor, turn off the key and remove the squeegee cable, and undo the tank clamps. To adjust how the machine pulls, loosen the screw. Tilt the motor forward to decrease the brush-assist traverse. Tilt the motor back to increase the brush-assist traverse. After adjustment retighten the screw.

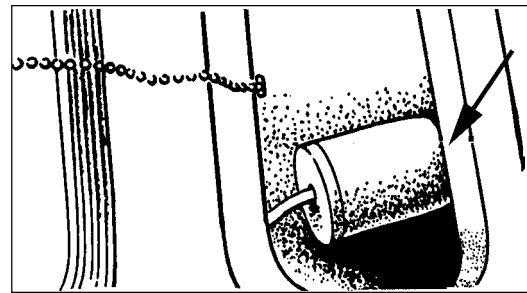


Figure 7

The Float Shut-Off. See Figure 7.

The float shut-off is in the back of the recovery tank. When the liquid raises the float, the float switch will automatically turn the vacuum motor off. To continue working you must drain the recovery tank.

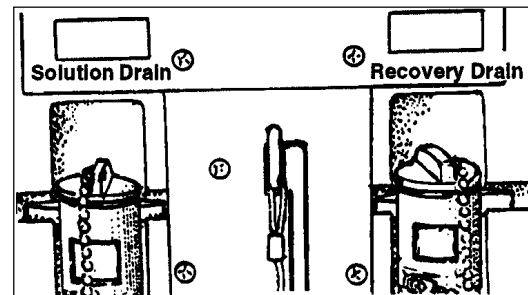


Figure 8

The Squeegee Handle. See Figure 8.

The squeegee handle is at the back of the machine in the middle. To lower the squeegee, pull the handle to the right and lower. To raise the squeegee, lift the handle up and push to the left.

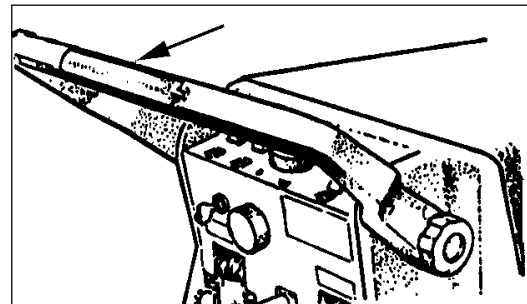


Figure 9

Traverse Switch. See Figure 9.

(For the Vision 17 battery model with traverse only)
The traverse switch is located on the handle. To activate the traverse, push the switch.

MACHINE CONTROLS and FEATURES (cont'd)

Traverse Speed Control. See Figure 10

The traverse speed is controlled by a variable speed knob. Turn the knob clockwise to increase speed.

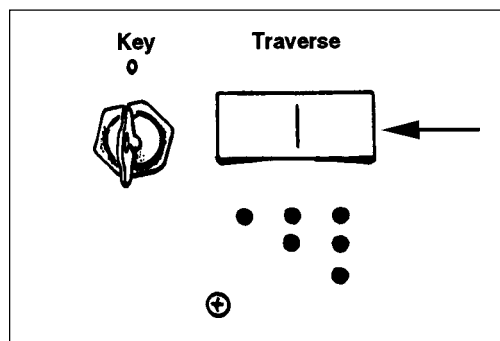


Figure 10

Brush Pressure Adjustment.

The brush pressure can be adjusted for normal cleaning or for stripping. Locate the knob on the rear of the brush motor. To access motor, turn off the key, remove the squeegee cable and undo tank clamps. Turn the knob clockwise to increase brush pressure (strip mode). Turn the knob counterclockwise to return to normal cleaning.

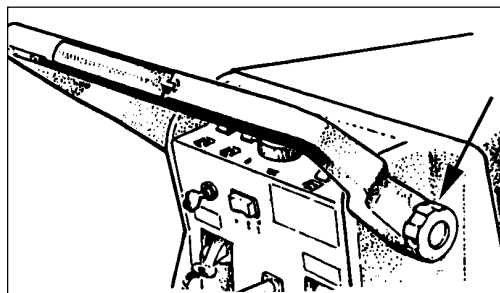


Figure 11

Machine Control Handle. See Figure 11

The machine control handle is located on the back side of the machine. The handle is adjustable for operator comfort and ease. The handle adjustment knobs are located at the base of the handle.

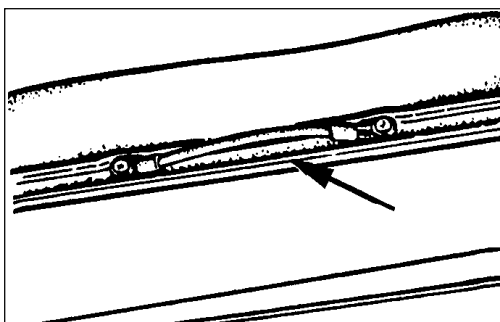


Figure 12

Machine Lift Handle. See Figure 12.

The machine lift handle is located on the front of the machine. Use this handle to lift the machine when changing the brush. See the section in this Owner's Manual "Installing or Removing a Brush or Pad Driver".

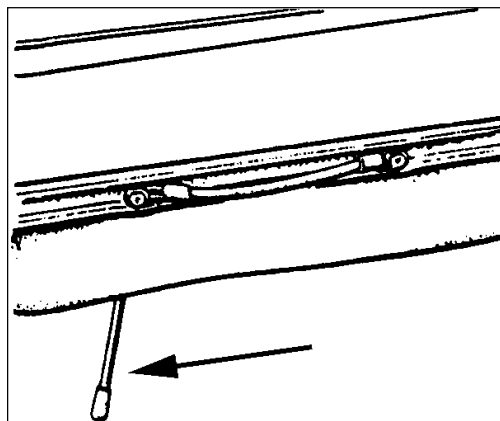


Figure 13

Machine Support Leg. See Figure 13.

The machine support leg is located in the front of the machine under the bumper skirt. Put the machine support leg down when installing or removing a brush or pad driver.

MACHINE CONTROLS and FEATURES (cont'd)

Key Switch. See Figure 14.

The battery traverse model has a key switch located on the back side of the control panel. The key switch must be turned to the on position (I) to activate the traverse. The key may be removed for security purposes from the off position (O).

The Parking Brake.

The brake prevents the movement of the machine. The brake pedal is at the back of the machine in the lower left corner. To activate the brake, push the pedal down. Lift the pedal to release the brake.

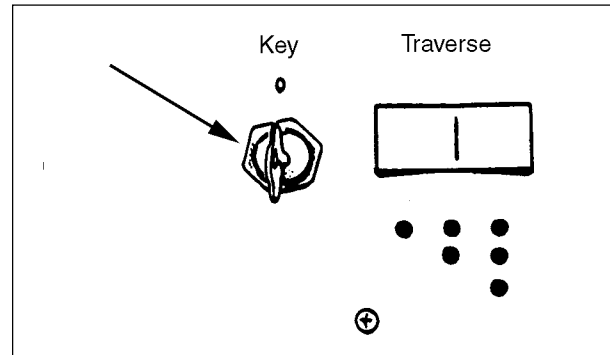


Figure 14

HOW TO PREPARE THE MACHINE FOR OPERATION

How to Install the Squeegee

To install the squeegee, follow this procedure:

1. Attach the squeegee cable to the squeegee lift arm (Figure 15) and squeegee bracket (Figure 16).
2. Raise the squeegee lift arm.
3. Place the squeegee onto the squeegee bracket.
4. Push the hair pin through the holes on the squeegee bracket.
5. Attach the squeegee hose to the hose connection on top of squeegee. See figure 17.

CAUTION: Leaving the squeegee "DOWN" when the machine is not in use can damage the squeegee blades. Always leave the squeegee in the "UP" position when not in use.

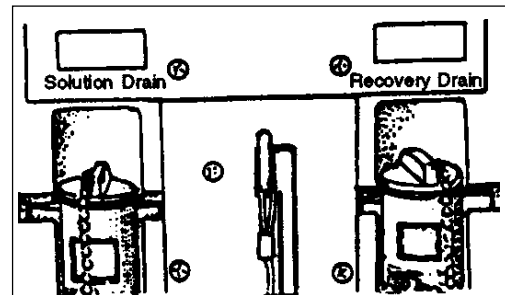


Figure 15

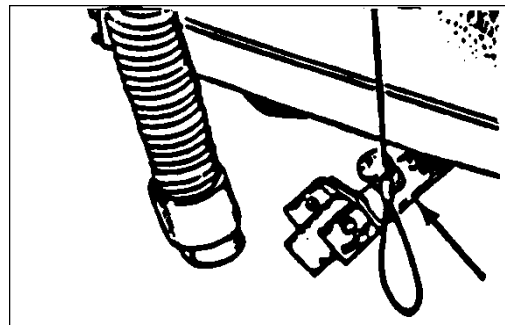


Figure 16

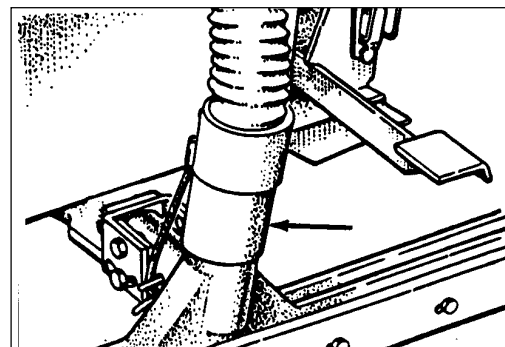


Figure 17

HOW TO PREPARE THE MACHINE FOR OPERATION

How to Install the Squeegee Connection

The proper method for assembling the squeegee connection is as follows::

1. Unscrew the nut completely.
2. Slide the nut and gasket onto the tube.
(Figure 1a)
3. Slide the elbow onto the tube and make sure the gasket is secured into the elbow.
(Figure 2a)
4. As you hold the elbow tight onto the tube, tighten the nut over the gasket and the elbow.
(Figure 3a)

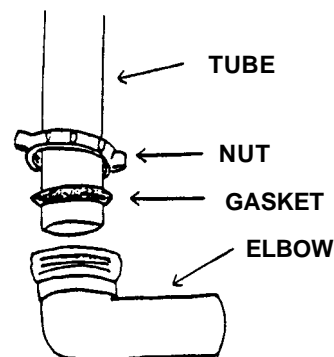


Figure 1a

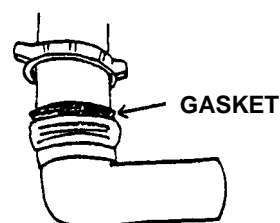


Figure 2a

How to Install or Remove a Brush or Pad Driver

To install or remove a brush or a pad driver, follow this procedure:

NOTE: The brush may spin off the machine if the brush switch is turned ON or OFF while the brush is in the raised position.

1. If machine is an electric model disconnect the power supply.
2. Put the squeegee down to the floor by pulling the squeegee handle to the right and down.
3. Remove the cotter pin from the squeegee bracket and remove the squeegee. See Figure 17.
4. Slide the squeegee bracket either right or left all the way under the machine skirt. See Figure 16.
5. While lifting the machine up with the machine lift handle (a), lower the support leg and position like a kickstand (b). See Figure 18
6. To install the brush or pad driver, align the lugs on the locking plate of the pad driver or brush with the adapter plate.
7. Turn the brush or pad driver clockwise to lock it in position.

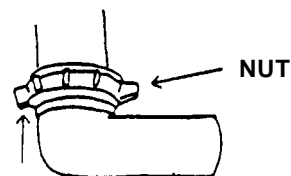


Figure 3a

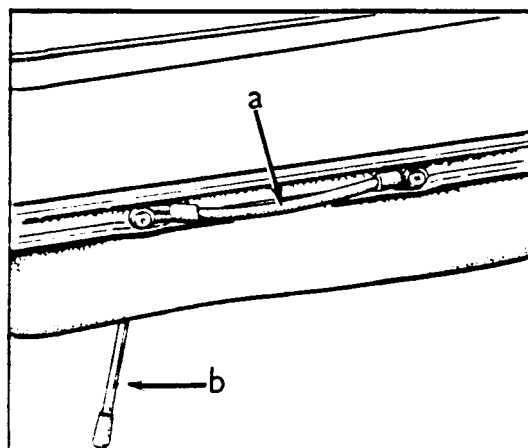


Figure 18

HOW TO PREPARE THE MACHINE FOR OPERATION (cont'd)

8. To remove a brush or pad driver, turn the pad driver or brush to the left and remove.
9. Lift up the machine with the lift handle and return the support leg to its normal position.

CAUTION: Leaving the brush motor switch in its "DOWN" position when the machine is not in use can damage the brush or pad driver. Always leave the brush motor in the "UP" position while not in use.

How to Install the Batteries

To install the batteries, follow this procedure:

NOTE: Batteries must be fully charged before operating. See section in this manual, "Charging the Batteries".

WARNING: Lifting batteries without help could result in an injury. Get help to lift the batteries. The batteries are heavy.

WARNING: Working with batteries can be dangerous. Always wear eye protection and protective clothing when working near batteries. **NO SMOKING.**

1. Empty both the recovery and solution tanks. (See - "End of Work Procedures").
2. Unlock the hold-down clamps located at the rear on either side of the machine. See figure 19.
3. Raise the battery compartment of the machine "up" by lifting up on the handle at the rear of the machine.
4. Install the batteries using the battery lift handles. See figure 20 for proper positioning of the batteries.
5. Close the battery compartment and re-lock the hold-down clamps.
6. Join the connector from the batteries to the connector attached to the tank support.

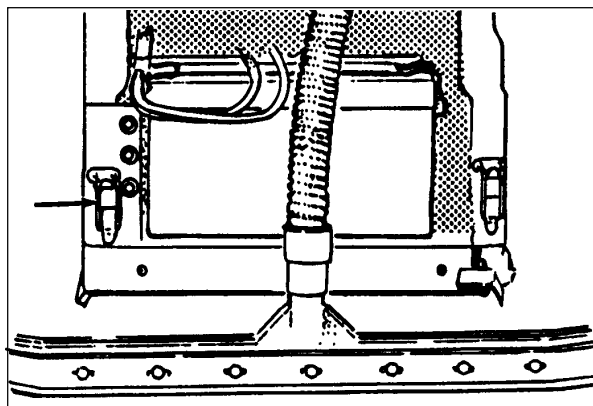


Figure 19

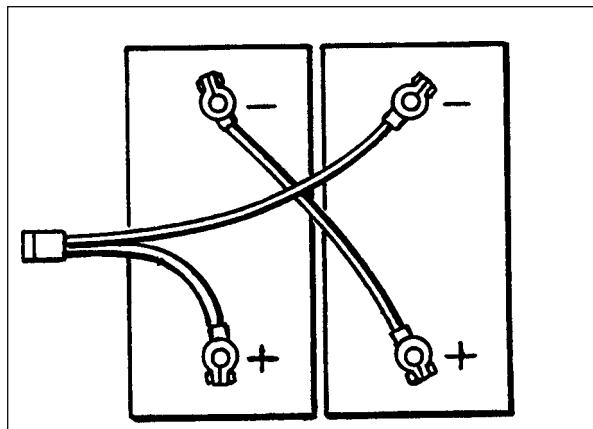


Figure 20

HOW TO OPERATE THE MACHINE

Filling the Solution Tank

To fill the solution tank, follow this procedure:

1. Lift the solution tank lid out of the opening. Allow the lid to hang to the front of the machine. See figure 21.
2. With a hose or bucket fill the solution tank with clean water to within one inch of the bottom of the opening.
3. Add a cleaning chemical to the water. For the correct amount, follow the manufacturer's directions shown on the chemical container.
4. Put the lid back onto the solution tank opening.

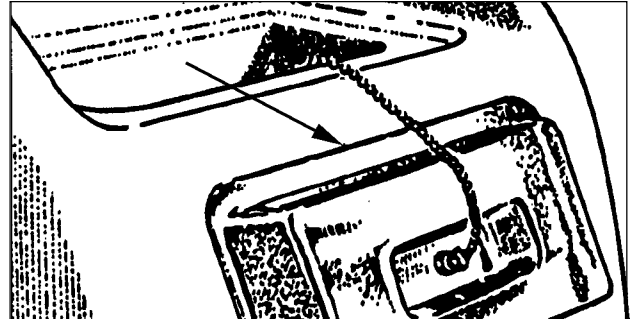


Figure 21

Operating the Machine

1. Put water and a cleaning chemical into the solution tank.
2. Lower the squeegee. To lower the squeegee, pull the squeegee handle to the right and lower.
3. Lower the brush. To lower the brush, step on the brush control lever (figure 22) and push down slightly, then move the lever to the left and allow it to come up.

NOTE: Keep the machine moving when the brush is rotating on the floor.

4. Press the top of the brush switch to activate the brush motor.
5. Press vacuum switch to activate vacuum motor.
6. Activate the flow of solution by turning the solution control knob to the right. To make sure you have an even flow of solution, turn the knob to the right as the amount of solution in the tank decreases.
7. Move the machine forward in a straight and steady direction. If machine is a traverse model, select a speed and then press on the traverse handle switch to activate the traverse.

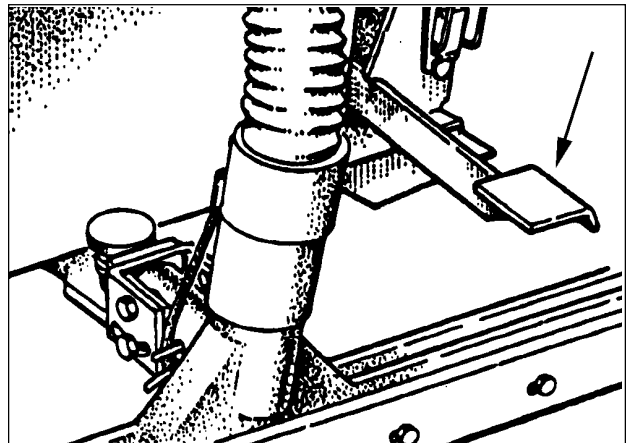


Figure 22

HOW TO OPERATE THE MACHINE (cont'd)

8. To turn the machine, push the rear of the machine to the side opposite the direction you want to turn. It is **NOT RECOMMENDED** that you move the machine backward during a cleaning operation.
9. When you make more passes across the floor, let the brush clean approximately 2 inches of the area already cleaned by the last pass.

NOTE: During most cleaning procedures, apply and remove the solution in one operation.

Shutting Down the Machine

To shut down the machine, follow this procedure:

1. Turn solution flow "Off" by turning the knob all the way to the left (counter clockwise).
2. Lift the squeegee up by lifting up on the handle and locking it into the "UP" position.
3. Press the bottom of the vacuum switch to turn the vacuum "Off".
4. Press the bottom of the brush switch to turn "off" the brush motor.
5. Raise the brush up by pushing down on the brush lift lever with your foot sliding the lever to the right.








NOTE: The brush may spin off the drive adapter if the brush switch is turned ON or OFF while the brush is in the raised position.

How to Clean a Very Dirty Floor

To clean a very dirty floor, follow this procedure:

1. Put water and cleaning chemical into the solution tank.
2. Activate the flow of solution by turning the solution control knob to the right and move the machine in a straight and steady direction. You are not removing the solution in this pass.
3. After the solution has set on the floor long enough to start cleaning, repeat the pass with the squeegee in the lowered position.
4. If the floor remains dirty, repeat the passes following the steps outlined in "Operating the Machine".

MAINTENANCE

-  **DANGER:** Maintenance and repairs performed by unauthorized personnel could result in damage or injury. Maintenance and repairs must be done by authorized Clarke Technology personnel only.
-  **DANGER:** Operating a machine that is not completely or fully assembled could result in injury or property damage. Do not operate this machine until it is completely assembled. Inspect the machine carefully before operation. Keep all fasteners tight.
-  **DANGER:** Wearing jewelry such as watches, rings, etc. while performing any battery maintenance can cause severe burns. Never wear jewelry while performing battery maintenance.
-  **WARNING:** Severe injury could occur to your hands if maintenance or repairs are performed on the chain or sprocket when the machine is on or plugged into the power supply. Always turn off power before attempting any service and/or maintenance.
-  **WARNING:** SEVERE bodily injury could occur if operator leans body under the tank support to perform maintenance. Always position the tank support all the way over and rest it on the floor before attempting any service and/or maintenance.
-  **WARNING:** Moving parts can cause injury to feet and hands. Keep feet and hands clear from under the machine.
-  **WARNING:** Attempting maintenance and or repairs to this machine before emptying the solution or recovery tank could result in machine or property damage.

MAINTENANCE (cont'd)

Procedures to be Performed Before Work is Begun

Keep the machine clean. It will need fewer repairs and have a longer life.

1. Unplug charger from the wall.
2. Disconnect the connector on the battery charger from the connector on the batteries. See figure 23.
3. Join the connector from the batteries to the connector on the tank support. See figure 24.
4. Make sure the recovery tank cover is in place.
5. Check the solution tank screen and clean if necessary. See figure 25.
6. Make sure the vacuum screen is clean and in position in the front of the recovery tank. See figure 26.
7. Make sure the solution and recovery drain hoses are in position on the back of the machine. See figure 27. Secure the hose drain plugs.
8. Make sure the bumper skirt is in position. The bumper skirt prevents solution from flowing from under the frame.
9. Make sure the brush is in position.
10. Make sure the vacuum hose is installed and on the squeegee. See figure 28 on page 17.

Procedures to be Performed at the End of Work

1. Disconnect machine from power source.
2. Drain and flush the tanks. To drain the recovery and solution tanks, follow this procedure:
 - a. Remove the drain hose from the fitting on the back of the machine.
 - b. Put the end of the hose over a drain or bucket.
 - c. Run clean water into the solution and recovery tanks to flush the tanks.
 - d. Put the end of both hoses over a drain or bucket.

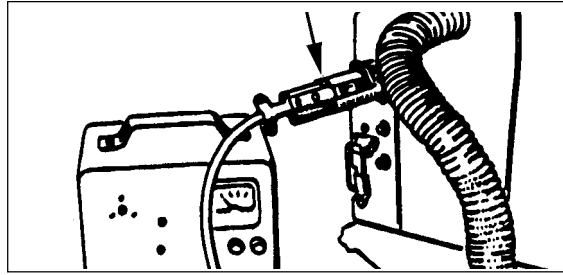


Figure 23

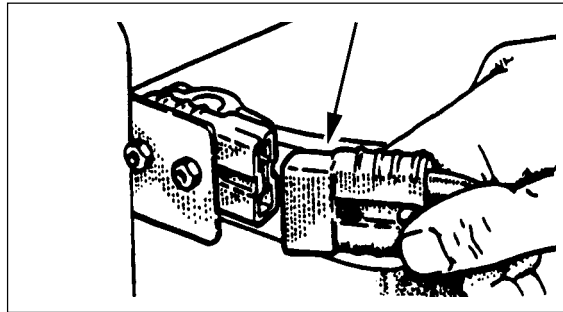


Figure 24

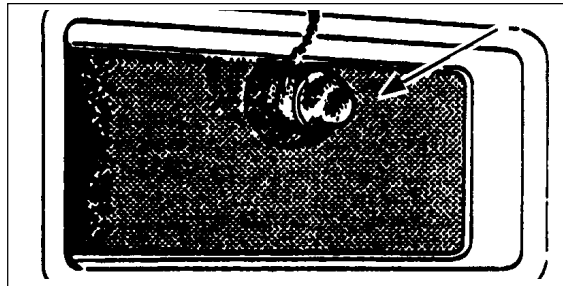


Figure 25

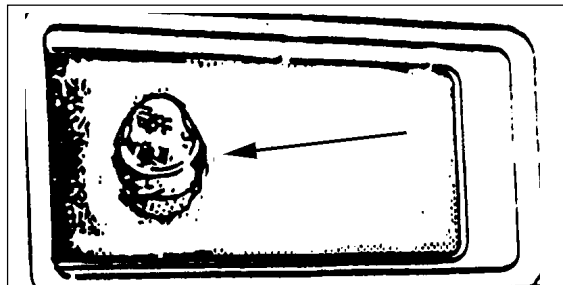


Figure 26

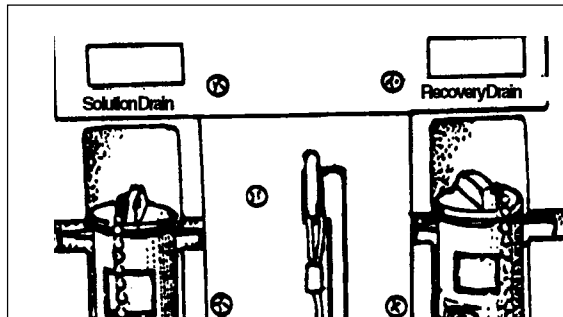


Figure 27

MAINTENANCE (cont'd)

3. Leave the tanks and the drain hoses open to dry in the air.
4. Check and clean the squeegee blade. Use a soft cloth to clean the squeegee blade. If the squeegee blade is damaged or worn, turn or replace the blade.
5. Check and clean the vacuum gaskets, the vac screen filter and the solution screen filter. Remove and clean with a vinegar-water solution or warm soapy water. Rinse the parts in clean water.



WARNING: Lead acid batteries generate gases which can cause an explosion. **NO SMOKING.** Always wear eye protection and protective clothing when working near batteries.

6. Check the batteries and add distilled water as needed. The plates must be covered before charging. After charging, check to be sure that the correct level is to within 1/4 of the bottom of the tube in each cell.
7. Charge the batteries. See the instructions in the section of this book called "How to Charge the Batteries".
8. Use a clean cloth and wipe the surface of the machine.
9. Remove the brush or pad driver. Rinse clean and allow to dry. Discard the pad if necessary.
10. Store the machine and accessories in a dry building.

NOTE: Grease axle assembly wheels once a week.

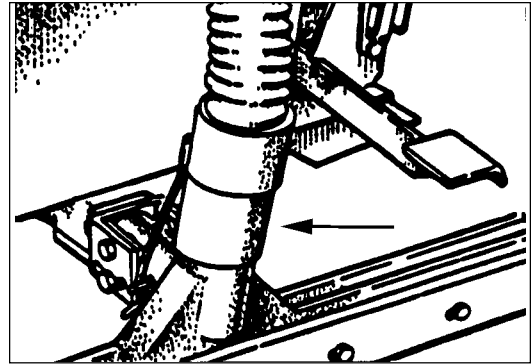


Figure 28

MAINTENANCE (cont'd)

Weekly Maintenance

Use a grease gun to lightly lubricate the drive wheels and casters. Access to the drive wheels is through the access hole in the skirt. Access to the casters is from the rear of the machine.

Battery Maintenance

The electrical power to operate the machine comes from the storage batteries. Storage batteries need preventative maintenance.

⚠ WARNING: Working with batteries can be dangerous. Always wear eye protection and protective clothing when working near batteries. **NO SMOKING!**

To maintain the batteries in good condition, follow these instructions:

1. Keep the electrolyte at the correct level. The correct level is between 1/4" below the bottom of the tube in each cell and above the tops of the plates. Check the level of the electrolyte each time you charge the batteries. See figure 29.

NOTE: Check the level of electrolyte prior to charging the batteries. Be sure the plates in each cell are covered with electrolyte. Do not top off the cells prior to charging the battery. Electrolyte expands during charging. As a result, the electrolyte could overflow from the cells. Always top off the cells with distilled water after charging.

⚠ CAUTION: Irreversible damage will occur to the batteries if the electrolyte level does not cover the plates. Keep the electrolyte at the correct level.

⚠ CAUTION: Machine damage and discharge across the tops of the batteries can occur if the batteries are filled above the bottom of the tube in each cell. Do not fill the batteries up to the bottom of the tube in each cell. Wipe any acid from the machine or the tops of the batteries. Never add acid to a battery after installation.

⚠ CAUTION: Tap water may contain contaminants that will damage batteries. Batteries must be refilled with distilled water only.

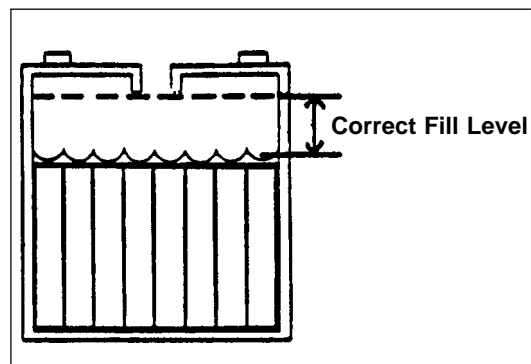


Figure 29

MAINTENANCE (cont'd)

2. Keep the tops of the batteries clean and dry. Keep the terminals and connectors clean. To clean the top of the batteries, use a damp cloth with a weak solution of ammonia or bicarbonate of soda solution. To clean the terminals and connectors, use a terminal and connector cleaning tool. Do not allow ammonia or bicarbonate of soda to get into batteries.
3. Keep the batteries charged.

How to Charge the Batteries

⚠ WARNING: Charging the batteries in an area without adequate ventilation could result in an explosion. To prevent an explosion, charge the batteries only in an area with good ventilation.

⚠ WARNING: Lead acid batteries generate gases which could explode. Keep sparks and flames away from batteries. **NO SMOKING.**

⚠ WARNING: Failure to disconnect the AC plug from the wall receptacle before connecting or disconnecting the DC connector on the charger could result in an explosion. Always disconnect the AC plug from the wall receptacle before connecting or disconnecting the DC connector on the charger.

To charge the batteries, follow this procedure:

1. Put the charger on a flat surface. Make sure the vents on the sides are at least two inches away from walls and other objects. Make sure there are no objects near the vents on the bottom of the charger.
2. Disconnect the battery pack connector from the control housing connector. See figure 30.
3. Connect the DC connector on the charger to the battery pack connector. See figure 31.
4. Connect the charger to a properly grounded single phase (3-wire) wall receptacle having the voltage, frequency, and ampere capacity specified on the nameplate of the charger.

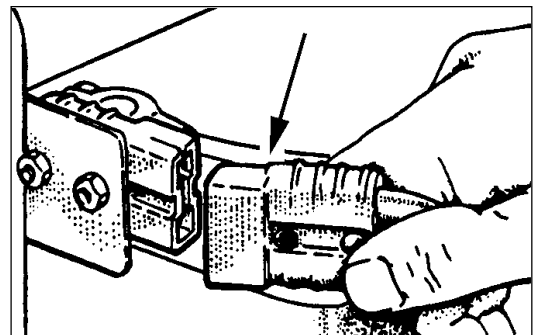


Figure 30

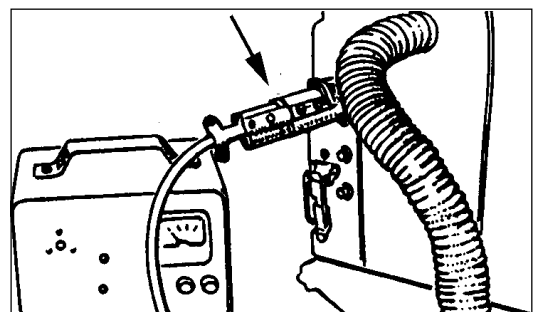


Figure 31

For more instruction on the use of the charger, read the instruction book supplied with the charger.

CLARKE TECHNOLOGY
Vision 17B
Machine Variables

Vision 17 BT										Vision 17B									
00394B Serial # ... to XE	00394A Serial # ... to XE	00393B Serial # ... to XE	00393A Serial # ... to XE	00392B	00392A	00391B	00391A	00390E		00384B Serial # ... to XE	00384A Serial # XE to ...	00383B Serial # ... to XE	00383A Serial # XE to ...	00382A	00381B	00381A	00380E	CODE NUMBER	
																	x	00380E Vision 17B with Brake	
										x	x	x	x	x	x	x		00380A Vision 17B Machine	
								x										00390E Vision 17BT with Brake	
x	x	x	x	x		x	x											00390A Vision 17BT Machine	
						x	x					x	x		x	x		51436B Poly Brush	
x	x	x	x	x			x			x	x			x	x			53126B Pad Driver	
						x		x								x		871376 12V 95 AH Wet Battery	
						x								x		x		871377 12V 95 AH Dry Battery	
	x		x								x		x					40703A Battery Recom. 80 AH	
x		x		x						x		x						40070A 12V Gel Battery	
					x		x								x	x		14661B Battery Cable Kit	
						x									x	x		41206A 16" Series Cable	
						x									x	x		41215A Power Battery Cable Post Style	
x	x	x	x	x						x	x	x	x					41216A Power Battery Cable Ring Style	
x	x	x	x	x						x	x	x	x					41217A Battery Series Cable Ring Style	
			x					x						x		x		40510A Charger 120V AC	
	x					x				x					x			40511A Charger 230V AC	
		x									x		x					40071A 100-125V Gell Charger	
x				x						x		x						40072A 230-250V Gell Charger	
x	x	x	x	x						x	x	x	x					170854 5/16 - 18 Hex Nut (4)	
x	x	x	x	x						x	x	x	x					85813A 5/16 - 18 x 1 Hex Screw (4)	
x	x	x	x	x						x	x	x	x					980652 5/16 Lock Washer (4)	

NOTE:

40703A Use Wet Style Charger only

40070A Use Gel Style Charger only

CLARKE TECHNOLOGY
Vision 17B
Machine Accessories 5/99

Accessories:

Part No.	Description
51436B	Brush, Polypropylene
53126B	Pad Driver
50527A	Big Mouth Base
56927A	Big Mouth Retainer
50477A	Clutch Plate for Pad/Brush
962819	Clutch Plate Screws
51437B	Nylon Scrub Brush .028 Dia. Bristles
51439B	Grit Scrub Brush Assembly
682408	Hose Connector - connects 1½" diameter hose to machine
674114	10' x 1½" red spiral lock deluxe hose
639804	1½" double curved aluminum wand
638828	Aluminum 14" squeegee pick up tool
638856	Aluminum combination scrubbing brush & squeegee pick-up tool
51469B	Nylon Scrub Brush .016 Dia. Bristles
51481A	Mal-Grit Lite Brush
10773A	Kit, Parking Brake
14661B	Standard Battery Cable Kit
18800A	Squeegee Asm.

PADS BY CASE

Color	Vision 17	Color	Vision 17
Yellow	979169	Green	976157
White	976052	Brown	976055
Red	976053	Black	976158
Blue	976054		

NOTES

[illegible]



Vision 17B/BT
Section II
Parts and Service Manual

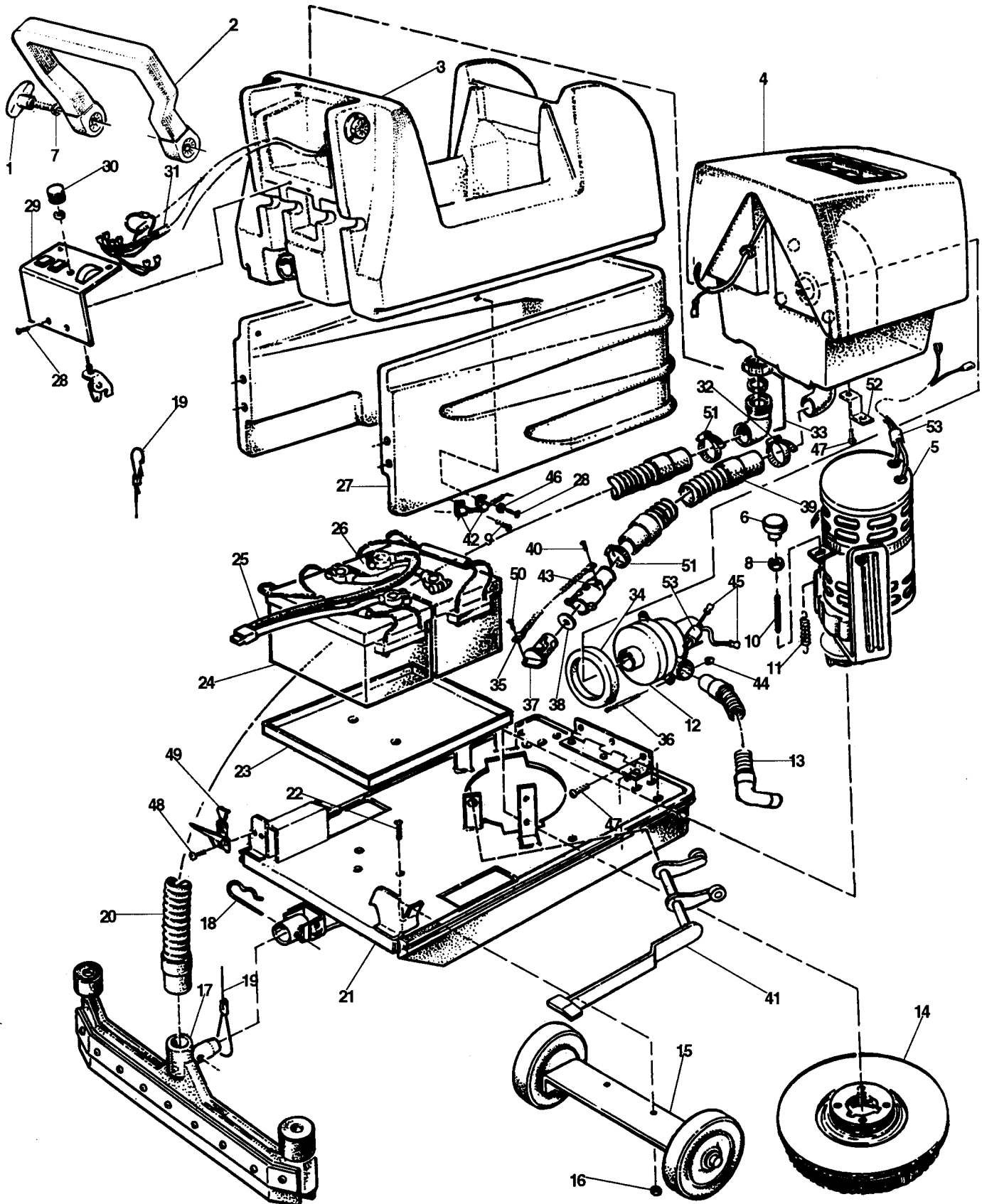
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HOW TOO CORRECT PROBLEMS IN THE MACHINE

PROBLEM	CAUSE	ACTION
There isn't any solution flow.	<p>The solution tank is empty.</p> <p>The solution knob is turned too far to the left.</p> <p>There is an obstruction in the hose or filter.</p> <p>The solution valve or linkage is damaged.</p>	<p>Fill the solution tank.</p> <p>Turn the solution knob to the right.</p> <p>Remove the obstruction from hose or filter.</p> <p>Repair or replace the valve or the linkage.</p>
The solution flow does not stop.	<p>The solution valve is open.</p> <p>The solution valve or linkage is damaged.</p> <p>The solution valve is dirty.</p> <p>There is a damaged seat and washer in the solution valve.</p> <p>The valve stem is dirty.</p>	<p>Close the solution valve.</p> <p>Repair or replace the valve or the linkage.</p> <p>Clean the solution valve.</p> <p>Replace the valve.</p> <p>Clean and lubricate the valve stem.</p>
The machine does not remove any water from the floor.	<p>The squeegee is up.</p> <p>The vacuum motor is not running.</p> <p>The vacuum motor switch is defective.</p> <p>The recovery tank is full.</p> <p>The vacuum shut-off float circuit is open.</p> <p>The vacuum filter screen is dirty.</p> <p>There is an obstruction in the vacuum tube.</p> <p>There is an obstruction or damage in the squeegee, vacuum hose or standpipe.</p> <p>The squeegee hose is disconnected.</p>	<p>Lower the squeegee.</p> <p>Put the switch in the "ON" position.</p> <p>Have an authorized Clarke Technology person make repairs.</p> <p>Drain the tank.</p> <p>Recovery tank is full. Empty the tank.</p> <p>Clean or replace the filter screen.</p> <p>Remove the obstruction.</p> <p>Remove the obstruction or repair the damage.</p> <p>Connect the hose.</p>
The machine does not remove all the water from the floor.	<p>The squeegee blades are damaged, worn, or incorrectly installed.</p> <p>There is an obstruction or damage in the squeegee, vacuum hose or standpipe.</p> <p>The filter screen is dirty.</p> <p>The gasket on the cover of the recovery tank are damaged.</p> <p>Defective vacuum motor.</p>	<p>Turn or replace the squeegee blade.</p> <p>Correctly install the squeegee blade.</p> <p>Remove the obstruction or repair the damage.</p> <p>Clean or replace the filter screen.</p> <p>Replace the gasket.</p> <p>Have an authorized Clarke Technology person make repairs.</p>
The batteries do not give the normal running time.	<p>The battery terminals are dirty or damaged.</p> <p>The electrolyte level is too low.</p> <p>The batteries are not fully charged.</p> <p>The charger is damaged.</p> <p>The battery is defective.</p>	<p>Clean the terminals and connectors.</p> <p>Replace the damaged cables. Charge the batteries.</p> <p>Add distilled water to each cell and change the batteries.</p> <p>Charge the batteries for a full 16 hours.</p> <p>Have an authorized person repair the charger.</p> <p>Replace the batteries.</p>
The cleaning is not even.	<p>The scrub brush or pad are worn.</p> <p>There is damage to the brush assembly casters or to the solution valve.</p> <p>The motor is not running.</p>	<p>Replace the scrub brush or pad.</p> <p>Have an authorized service person make the repairs.</p> <p>Repair the wiring, replace the switch, Service the motor, circuit breaker and the contractor.</p>

This image shows a full page of blank, lined paper. It features approximately 28 horizontal black lines spaced evenly across the page, typical of standard notebook paper. The lines are thin and extend from the left edge to the right edge. There are no margins, text, or other markings on the page.

CLARKE TECHNOLOGY
Vision 17B
Machine #00380B, 24V Battery, Machine Assembly - 3/00



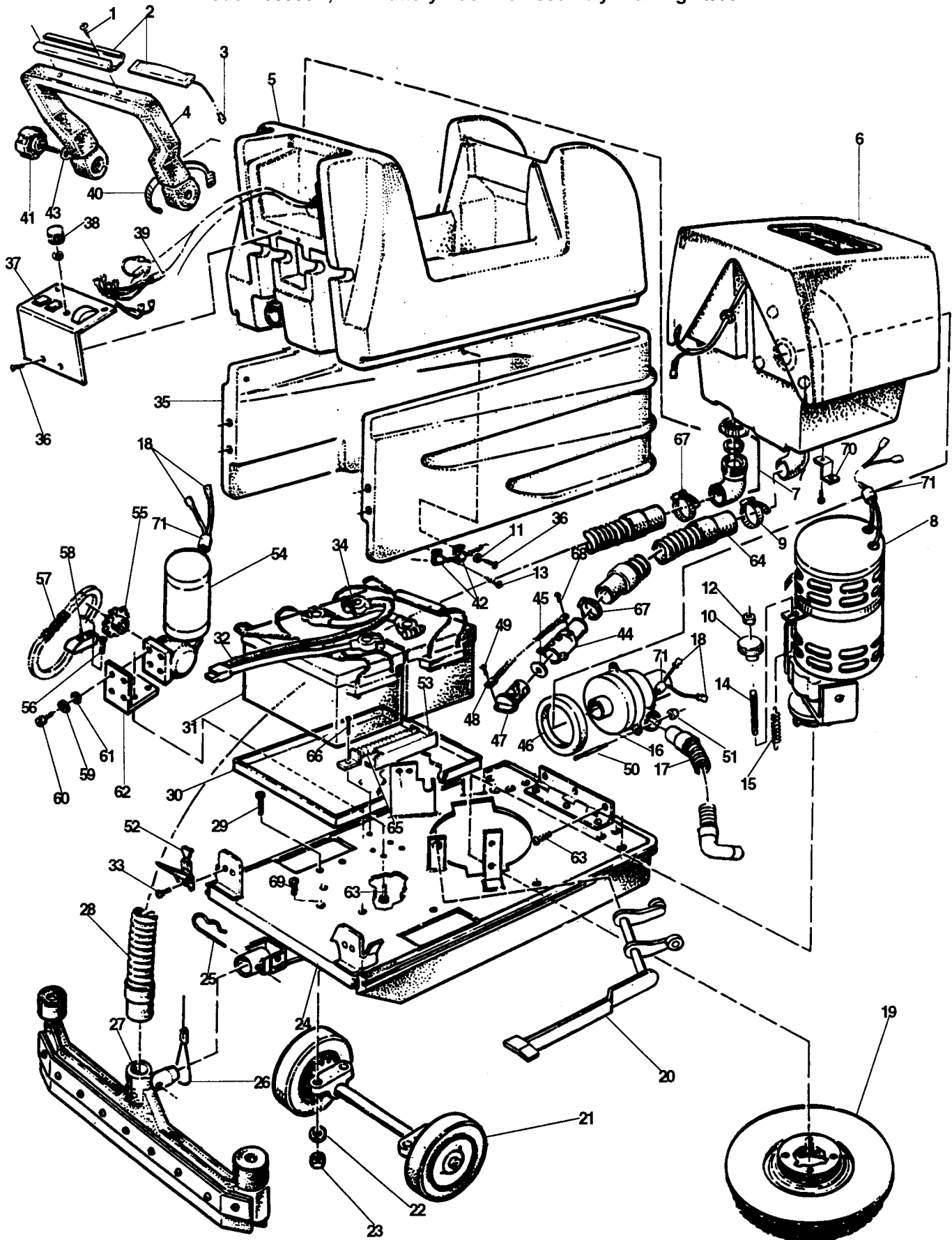
CLARKE TECHNOLOGY
Vision 17B-Battery Model 24V Battery
Machine Assembly Parts List - 3/00

Ref	Part No.	Description	Qty
1	55531A	Knob, Handle	2
2	34804A	Handle	1
3	Page 36	ASM Solution Tank	1
4	Page 37	ASM Recovery Tank	1
5	Page 32	ASM Brush Motor	1
6	65300A	Knob	1
7	980431	Washer ¼ - 7/8 S.S.	4
8	81111A	Nut 3/8 X 16	2
9	962981	Screw	1
10	68004A	Stud	1
11	818381	Spring	1
12	44917A	Motor, Vacuum	1
13	30448A	Hose, Exhaust Vacuum	1
14	Page 21	Brush or Pad Driver	1
15	Page 30	Asm. Non Traverse	1
16	920110	Nut 5/16 - 18 Elastic Stop	2
17	Page 37	Asm. Squeegee	1
18	66515A	Pin Locking	1
19	61664A	Cable, Squeegee	1
20	30407B	Hose, Squeegee	1
21	Page 33	Asm. Mainframe Weldment	1
22	84238A	Screw, 5/16-18 x 3/4	3
23	39004A	Battery, Tray	1
24	Page 20	Battery	2
25	Page 20	Cable, Battery	1
26	Page 20	Cable, Battery Series	1
27	Page 40	Asm. Support Tank	1
28	84237A	Screw 10-32 x ½ Pan Hd	6
29	Page 35	Asm. Control Pad	1
30	55502A	Knob-Solution Control	1
31	49682A	Harness, Control	Ref
32	752020	Clamp, Hose	1
33	53630A	Elbow, Recovery	1
34	643418	Gasket Vacuum Motor	1
35	52206A	Chain-Cover	1
36	58533A	Spacer, Vac Motor	3
37	833901	Handle, Drain Valve	1
38	833407	Gasket, Drain	1
39	30415A	Hose Recovery Drain	1
40	962943	Screw	1
41	Page 32	Asm. Lift Brush	1
42	832102	Clamp, Solution Cable	2
43	839401	Valve, Drain	1
44	81104A	Nut, ¼ - 20 Nylock	6
45	47905A	Terminal	2
46	87026A	Washer	2
47	85395A	Screw ¼ -20 x ½	7
48	85509A	Screw 6-32	4
49	755161	Latch	2
50	962987	Screw	1
51	832002	Clamp, Plastic	1
52	61224A	Bracket, Recovery	2
53	47202A	Suppressor, EMI	2
NI	699202	Wire Ties	6
NI	77049A	Label, Squeegee Lift	1
NI	77053A	Tag, Instruction	1
NI	77077A	Plate, Warning Head	1
NI	77233A	Label, C. E.	1

CLARKE TECHNOLOGY

Vision17 BT

Model #00390A, 24V Battery Machine Assembly Drawing - 3/00

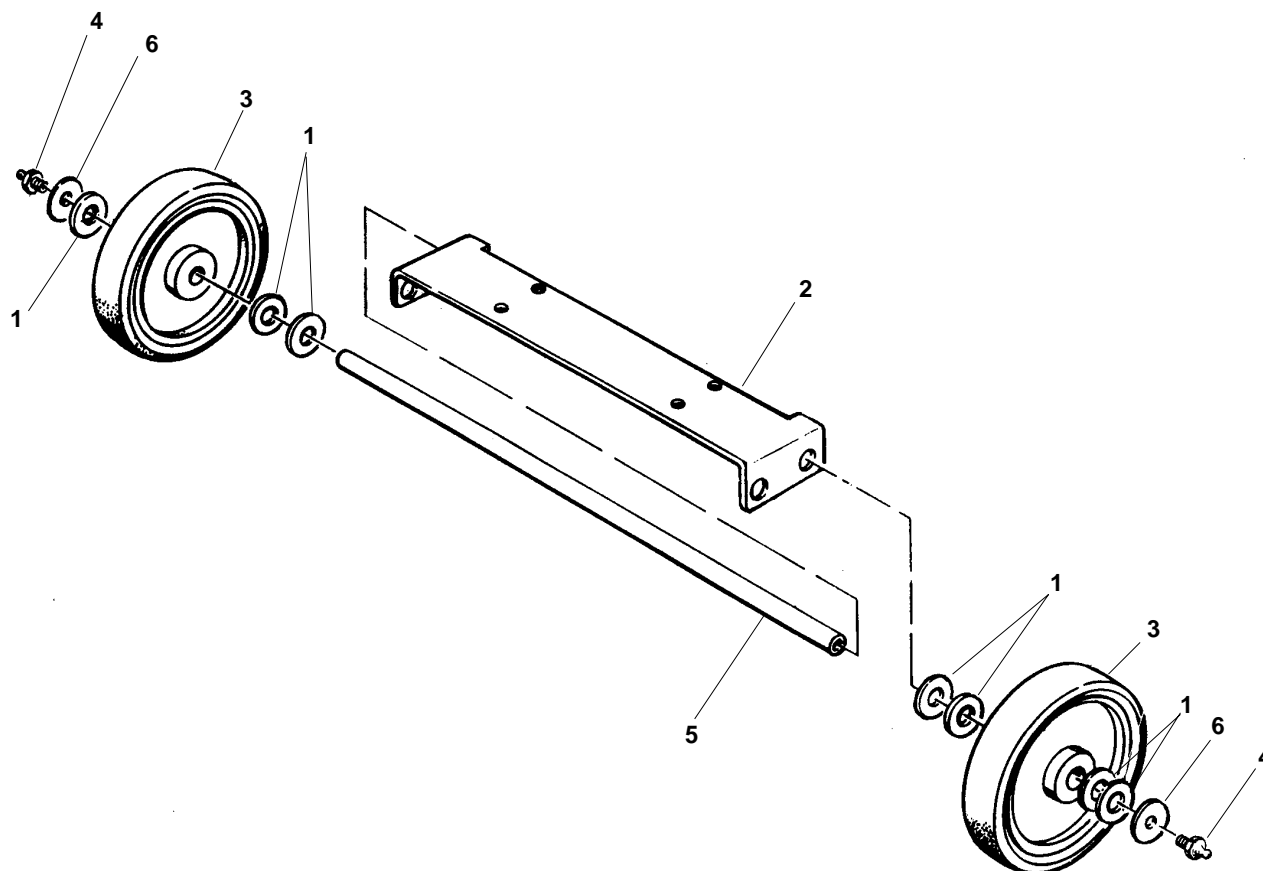


CLARKETECHNOLOGY
Vision 17 - BT Model 24V Battery
Machine Assembly Parts List - 3/00

Ref	Part No.	Description	Qty
1	962738	6-32 x 5/8 Screw	2
2	47377A	Switch, Traverse	1
3	47708A	Terminal	2
4	34806A	Handle, Control	1
5	Page 38	ASM, Solution Tank	1
6	Page 39	ASM, Recovery Tank	1
7	53630A	Elbow, Recovery	1
8	Page 34	ASM, Brush Motor	1
9	752020	Clamp Hose	1
10	65300A	Knob	1
11	87026A	Washer	1
12	81111A	Nut, 3/8 x 16	1
13	962981	Screw	1
14	68004A	Stud	1
15	818381	Spring	1
16	44917A	Motor, Vacuum	1
17	30448A	Hose, Exhaust Vacuum	1
18	47905A	Terminal	2
19	Page 21	Brush or Pad Driver	1
20	Page 32	Asm, Brush Lift	1
21	Page 31	ASM, Traverse Axle	1
22	87027A	Washer 5/16 S.S. Flat	4
23	920110	Nut 5/16 - 18 Elastic	4
24	Page 33	ASM, Main Frame	1
25	66515A	Pin, Locking	1
26	61664A	Cable, Squeegee	1
27	Page 37	ASM, Squeegee	1
28	30407B	Hose, Squeegee	1
29	84239A	Screw, 5/16 Flat	4
30	39004A	Battery, Tray	1
31	Page 20	Battery	2
32	Page 20	Cable, Battery	1
33	85509A	Screw 6-32	4
34	Page 20	Cable, Battery Series	1
35	Page 41	ASM, Tank Support	1
36	84237A	Screw 10 -32 x 1/2 Pan	6
37	Page 36	ASM, Control Panel	1
38	55502A	Knob, Solution Control	1
39	49682A	Harness Control	1

Ref	Part No.	Description	Qty
40	58901A	Tie, Wire	2
41	55531A	Knob, Handle	2
42	832102	Clamp, Solution Cable	2
43	980413	Washer	4
44	839401	Valve, Drain	1
45	833407	Gasket, Drain	1
46	643418	Gasket, Motor Vacuum	1
47	833901	Handle, Drain Valve	1
48	52206A	Chain, Cover	1
49	962987	Screw	1
50	58533A	Spacer, Motor Vac	
51	81104A	Nut, 1/4 -20 Nylock	6
52	755161	Latch	2
53	62644A	Cover, Resistor	1
54	45031C	Motor, Traverse	1
55	58707A	Sprocket	1
56	84233A	Screw	2
57	52208A	Chain #35	1
58	37014A	Pad, Chain Tension	1
59	980657	Washer 1/4 Lock	4
60	85391A	Screw 1/4 -20 x 5/8 S.S.	4
61	980646	Washer	4
62	61261A	Bracket, Traverse Motor	1
63	85395A	Screw 1/4 -20 x 1/2 S.S.	9
64	30415A	Hose, Drain	1
65	46506A	Resistor	1
66	85519A	Screw 1/4 - 20	2
67	832002	Clamp, Plastic	2
68	962943	Screw	1
69	84238A	Screw 5/16 - 18 x 3/4	1
70	61244A	Bracket, Recovery	2
71	47202A	Suppressor, EMI	3
NI	699202	Wire Tie	6
NI	77049A	Label, Squeegee Lift	1
NI	77053A	Tag, Instruction	1
NI	77076A	Plate, Warning (Hands)	1
NI	77077A	Plate, Warning (Head)	1
NI	77233A	Label, C. E.	1

CLARKETECHNOLOGY
Vision 17B
ASM, Non Traverse Axle
Drawing & Parts List 11/98
Form #10510A

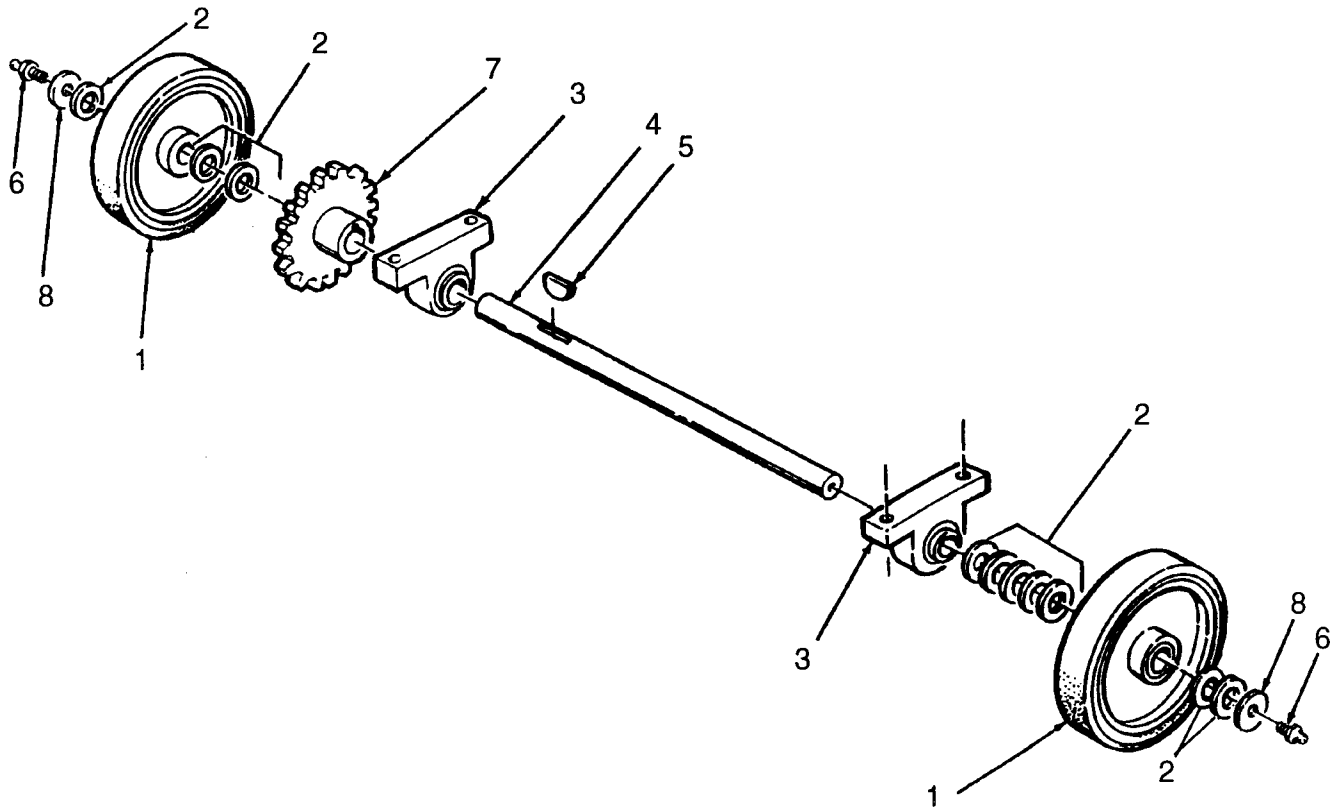


Ref	Part No.	Description	Qty	
1	87613A	Washer, Nylon 5/8	7*	Nominal
2	61247A	Bracket, Axle	1	
3	59936C	Wheel	2	
4	54014A	Fitting, Grease, 1/4"-20	2	
5	60196A	Shaft	1	
6	87039A	Washer, Fender 1/4" SS	2	

NOTE: Place washers as required to center the wheels
 (Number of washers may vary)

NOTE: Grease wheels once a week.

CLARKE TECHNOLOGY
Vision 17BT
ASM, Traverse Axle
Drawing & Parts List 11/98
Form#10512A



Repair Parts for 59935C Wheel:

Part No.	Description	Qty.
58154A	Seal	2
51187A	Roller Clutch Bearing	2

Repair Parts for 59935B Wheel:

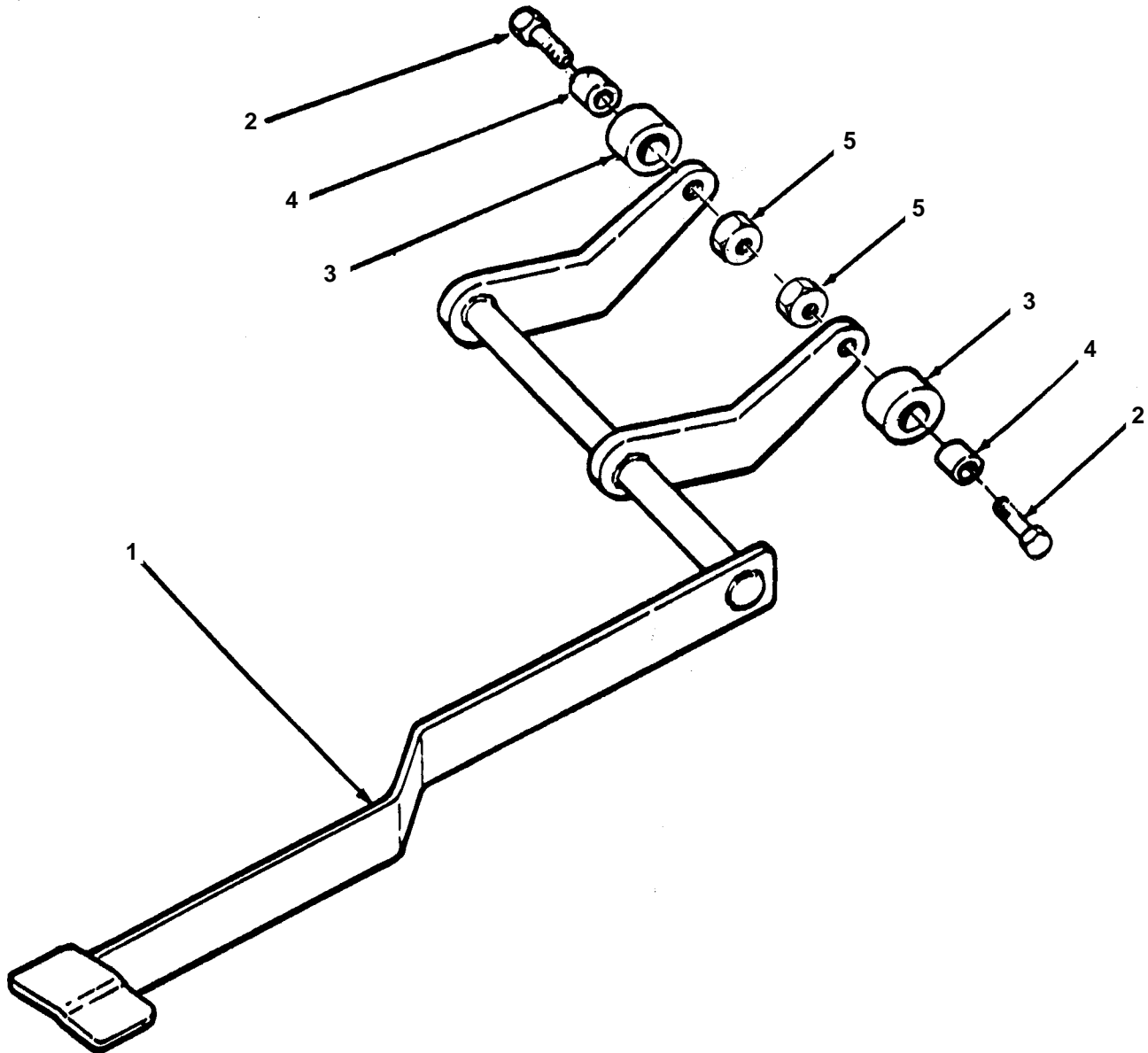
Part No.	Description	Qty.
58146A	Seal	2
51187A	Roller Clutch Bearing	2

Ref	Part No.	Description	Qty
1	59935C	Wheel, Traverse	2
*2	87613A	Washer, Nylon	10
3	51175A	Bearing, Pillow Block	2
4	60503A	Axle, Traverse	1
5	80504A	Key, 605 S & L	1
6	54014A	Fitting, Grease	2
7	58711A	Sprocket	1
8	87039A	Washer, Fender 1/4"	2

*NOTE: Place washers as required to center the wheels
 (Number of washers may vary)

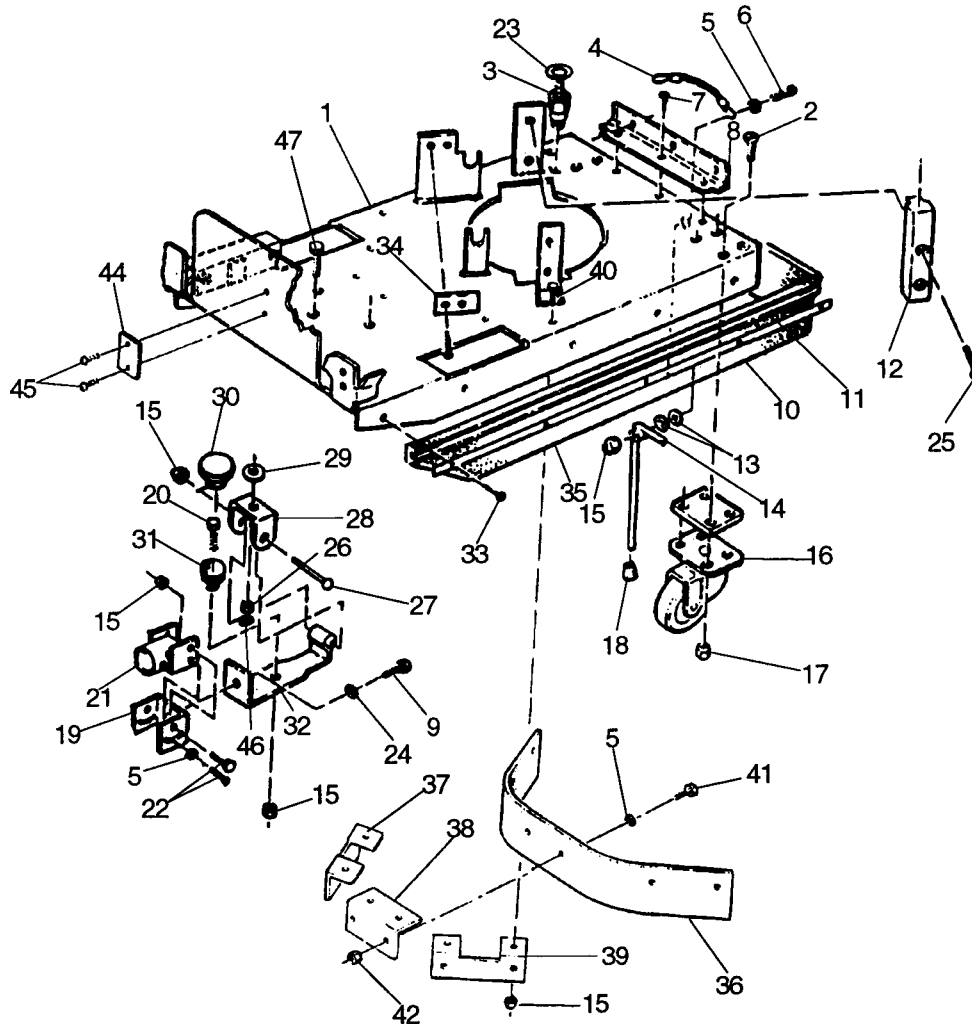
NOTE: Grease wheels once a week.

CLARKETECHNOLOGY
Vision 17B/BT
Brush Lift Drawing Assembly & Parts List 11/98
Form #16608A



Ref	Part No.	Description	Qty
1	65424A	Lift Brush, Weldment	1
2	85600A	Screw 1/4 - 20	2
3	51516A	Bushing	2
4	608210	Spacer, Handle, Bolt	2
5	920208	Nut, 1/4-20	2

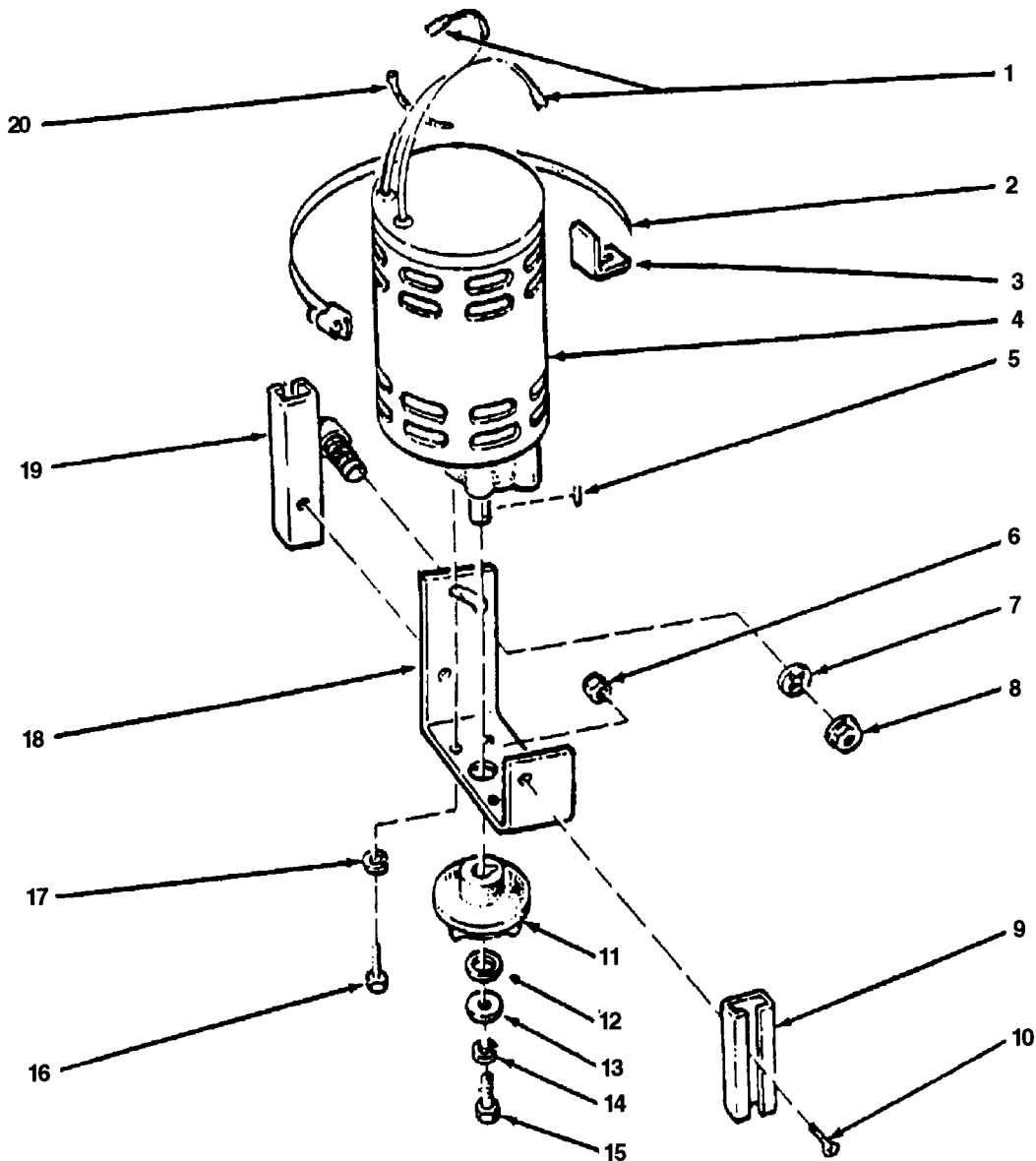
CLARKETECHNOLOGY
Vision 17B/BT
ASM, Main Frame Drawing & Parts List - 11/98
Form #16926B



Ref	Part No.	Description	Qty
1	60021A	Weldment, Main Frame	1
2	84239A	Screw $\frac{5}{16}$ -18 x 1 Flat Hd SS	6
3	53618A	Adapter $\frac{3}{8}$ X $\frac{3}{8}$	1
4	64456A	Handle	1
5	87026A	Washer, S.S. $\frac{1}{4}$ " Flat	15
6	85384A	Screw $\frac{1}{4}$ - 20 X $1\frac{1}{2}$	2
7	85395A	Screw $\frac{1}{4}$ - 20 X $\frac{1}{2}$	7
8	64505A	Hinge Tank	1
9	85822A	Screw $\frac{3}{8}$ -16 x $\frac{7}{8}$	1
10	31227A	Skirt, Main Frame	1
11	66960A	Retainer, Skirt	2
12	38009A	Guide, Plastic	3
13	980442	Wave Washer	2
14	68733B	Kick Stand	1
15	81104A	Nut $\frac{1}{4}$ - 20 Nylock	12
16	52117A	Caster, Swivel	2
17	920110	Nut, $\frac{5}{16}$ - 18 Elastic	6
18	52047A	Cap	1
19	69028A	Wldmt. Squeegee Swivel	1
20	85391A	Screw $\frac{1}{4}$ - 20	1
21	60698A	Squeegee, Bracket, Weldment	1
22	170915	Screw $\frac{1}{4}$ -20 x $\frac{3}{4}$	4
23	722021	Clamp, Hose	1
24	87614A	Washer $\frac{3}{8}$ Int., Ext.	2

Ref	Part No.	Description	Qty
25	84233A	Screw $\frac{1}{4}$ - 20 Flat	6
26	67867A	Nut, Squeegee Spacer	1
27	85396A	Screw	1
28	61252A	Bracket, Swing Squeegee	1
29	87027A	Washer	1
30	30517A	Bushing Squeegee	1
31	58612A	Spring, Squeegee	1
32	68730B	Bracket, Arm Weldment	1
33	85397A	Screw, 10-24 x $\frac{3}{8}$ SS	12
34	66939A	Retainer, Motor Pivot	1
35	66961A	Retainer Skirt	2
36	33504A	Center Flap	1
37	69470A	Bracket, Left Flap	1
38	69469A	Bracket, Center Flap	1
39	69468A	Bracket, Right Flap	1
40	962098	Screw, $\frac{1}{4}$ - 20 x $\frac{3}{4}$	6
41	962798	Screw, 10 - 24 x $\frac{3}{8}$ SS	11
42	81110A	Nut, 10 - 24 Hex	11
43	170854	Nut, $\frac{5}{16}$ - 18	1
44	77261A	Tag	1
45	85509A	Screw	2
46	81112A	Nut, $\frac{5}{16}$ - 18 ESNA	1
47	84229A	Screw, $\frac{5}{16}$ - 18 x .88	1
NI	See pg 42	Kit, Parking Brake STD on European Models	

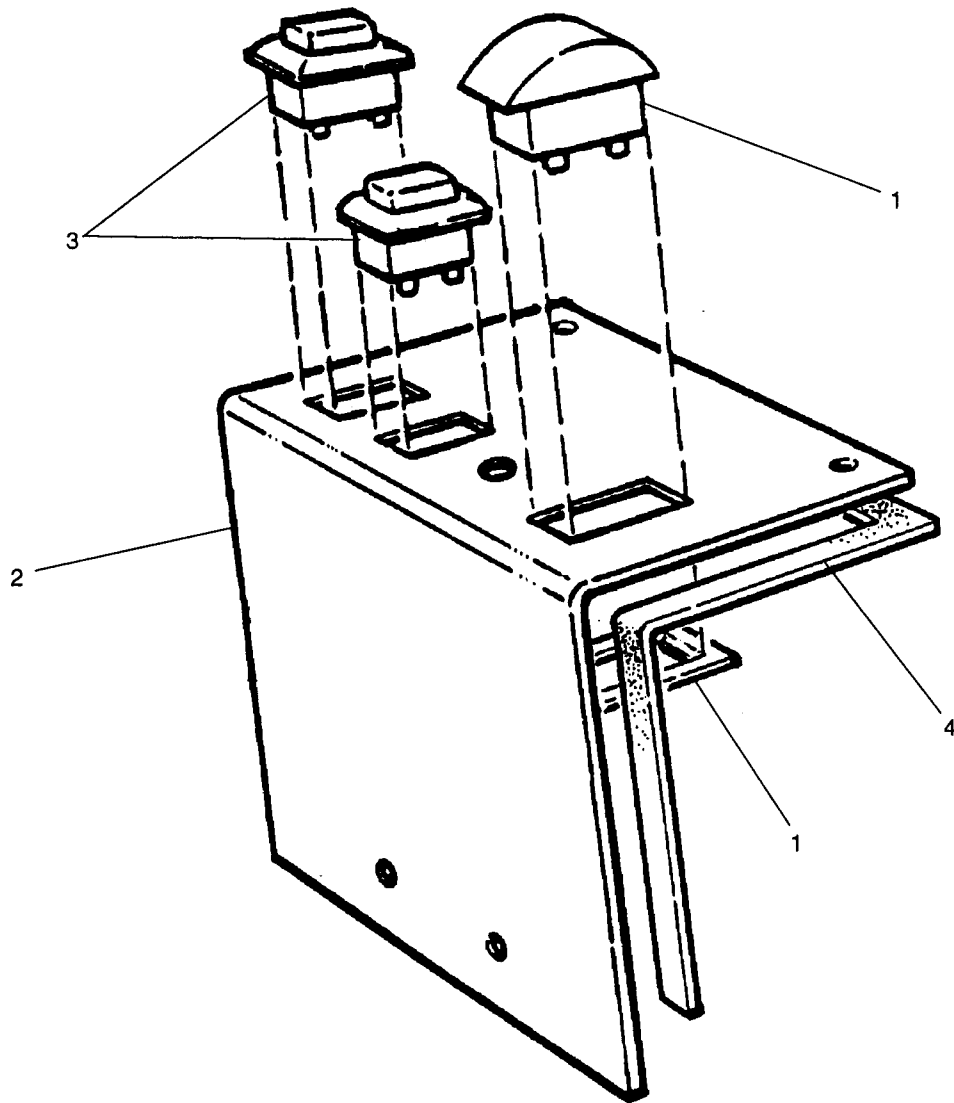
CLARKE TECHNOLOGY
Vision 17B/BT
Brush Motor Assembly
Drawing and Parts List 3/00
Form #17116A



Ref	Part No.	Description	Qty
1	47710A	Terminal, Brush Motor	2
2	762005	Clamp	1
3	60670B	Bracket	1
4	44809A	Gear Motor 24V DC	1
	Page 43	Motor Parts Breakdown	
5	Page 42	Gear Parts Breakdown	
	915102	Key (included with #4)	1
6	81104A	Nut, 1/4 - 20 Nylock	2
7	980662	Washer	1
8	67865A	Spacer, Tilt Handle	1
9	63600A	Guide RH	1

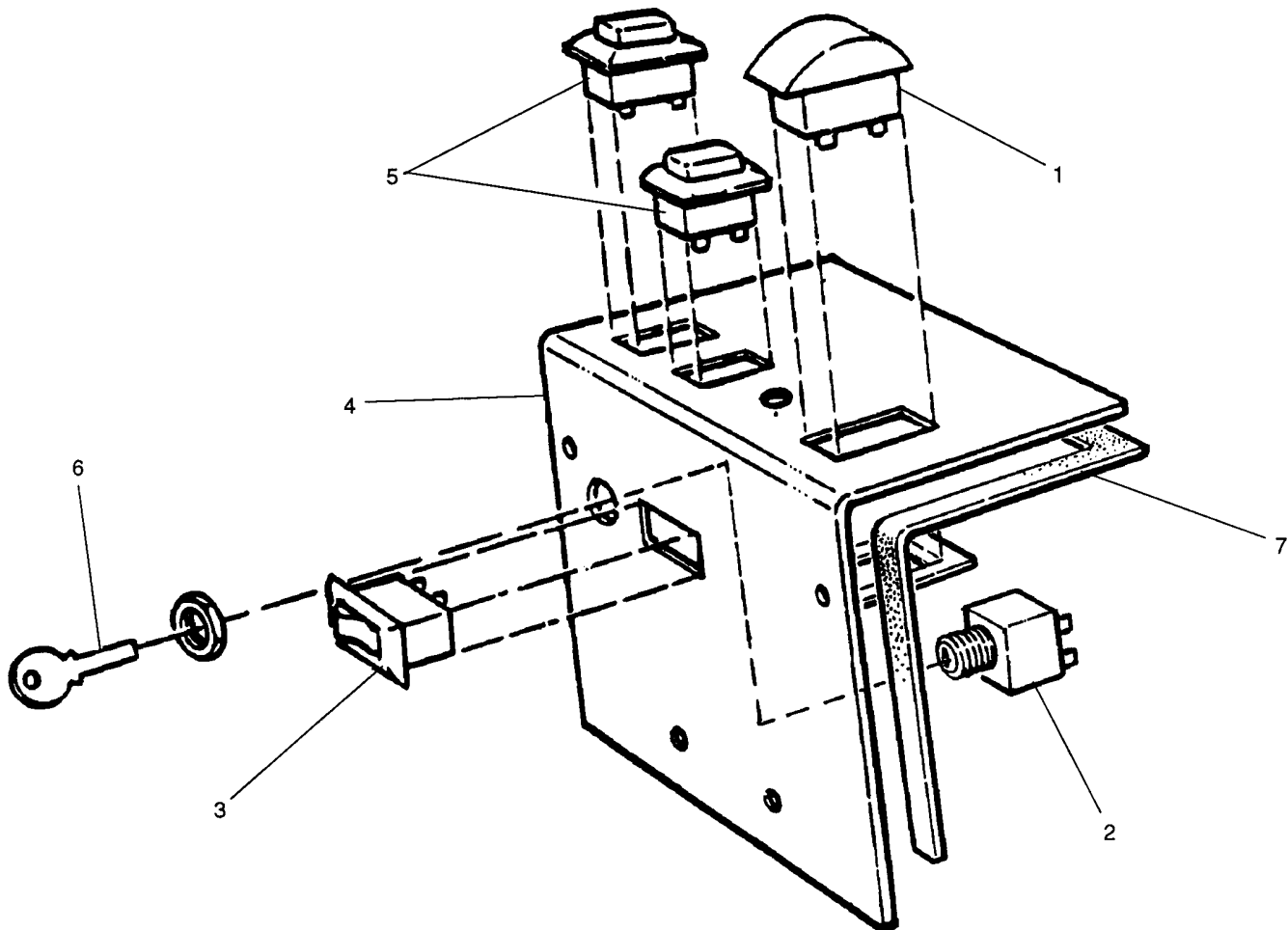
Ref	Part No.	Description	Qty
10	84242A	Screw 1/4 -20 x 5/8	2
11	20308A	Adapter Motor	1
12	980679	Spacer Washer	1
13	980210	Washer Impeller	1
14	980652	Washer, Lock 5/16	1
15	85727A	Screw, 5/16 Hex	1
16	85389A	Screw, 3/8 - 16 x 5/8 Pan	4
17	980638	Lockwasher 3/8	4
18	61238A	Bracket, Motor Lift	4
19	68761A	Guide, LH	1
20	58901A	Tie, Wire	2

CLARKE TECHNOLOGY
Vision17B
Panel Assembly Non-Traverse Model
Drawing & Parts List 11/98
Form # 17641A



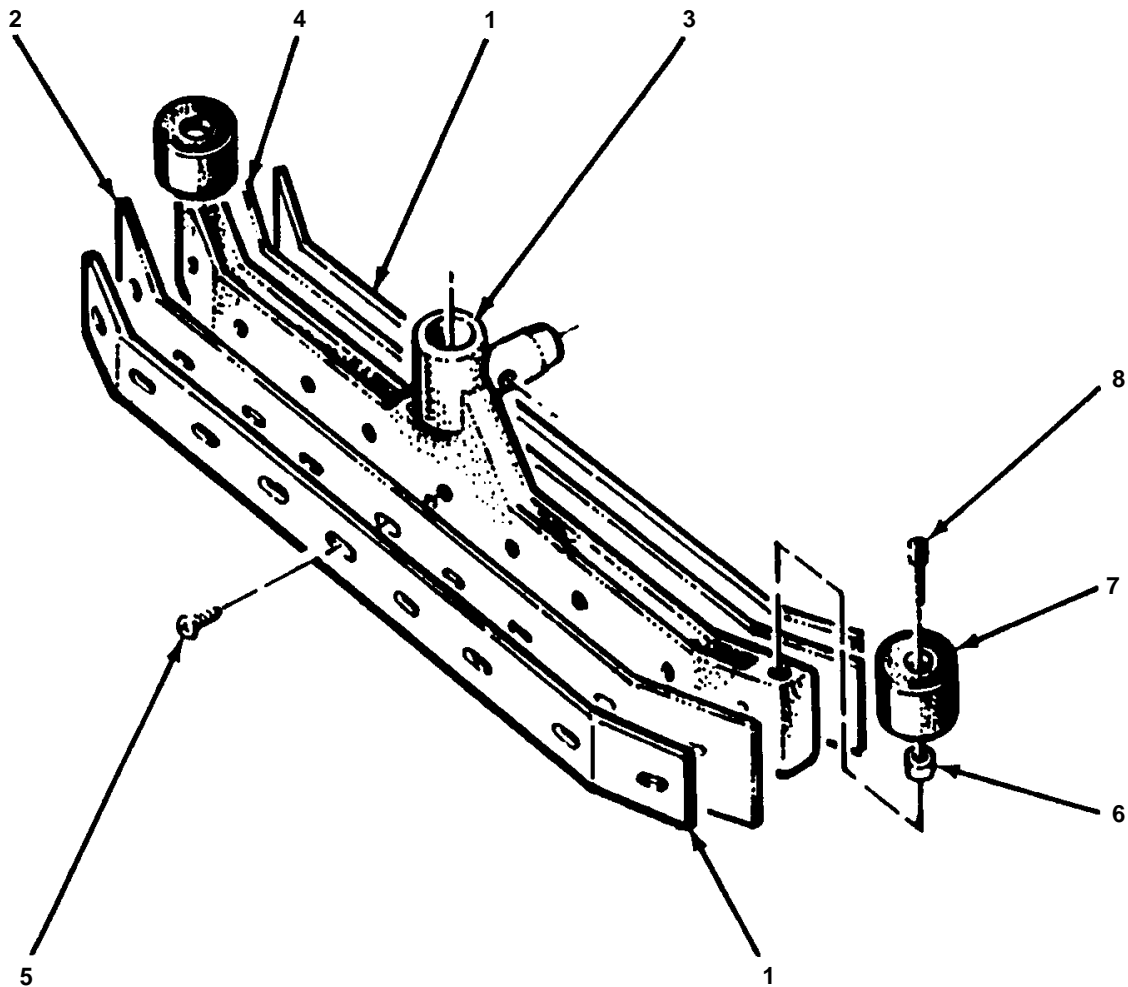
Ref	Part No.	Description	Qty
1	44405A	Meter, Battery	1
2	66179B	Panel, Control	1
3	47316B	Switch	2
4	54349A	Gasket	1

CLARKE TECHNOLOGY
Vision 17BT
Panel Assembly - Battery Traverse Model
Drawing and Parts List 11/98
Form #17640A



Ref	Part No.	Description	Qty
1	44405A	Meter, Battery	1
2	47380A	Switch, Key (Incl. 2 of item #6)	1
3	47304A	Switch, 3-Position	1
4	69806B	Panel, Control	1
5	47316B	Switch	2
6	55413A	Key	1
7	54349A	Gasket	1

CLARKE TECHNOLOGY
Vision 17B/BT
Squeegee Assembly Drawing & Parts List 11/98
Form #18809A

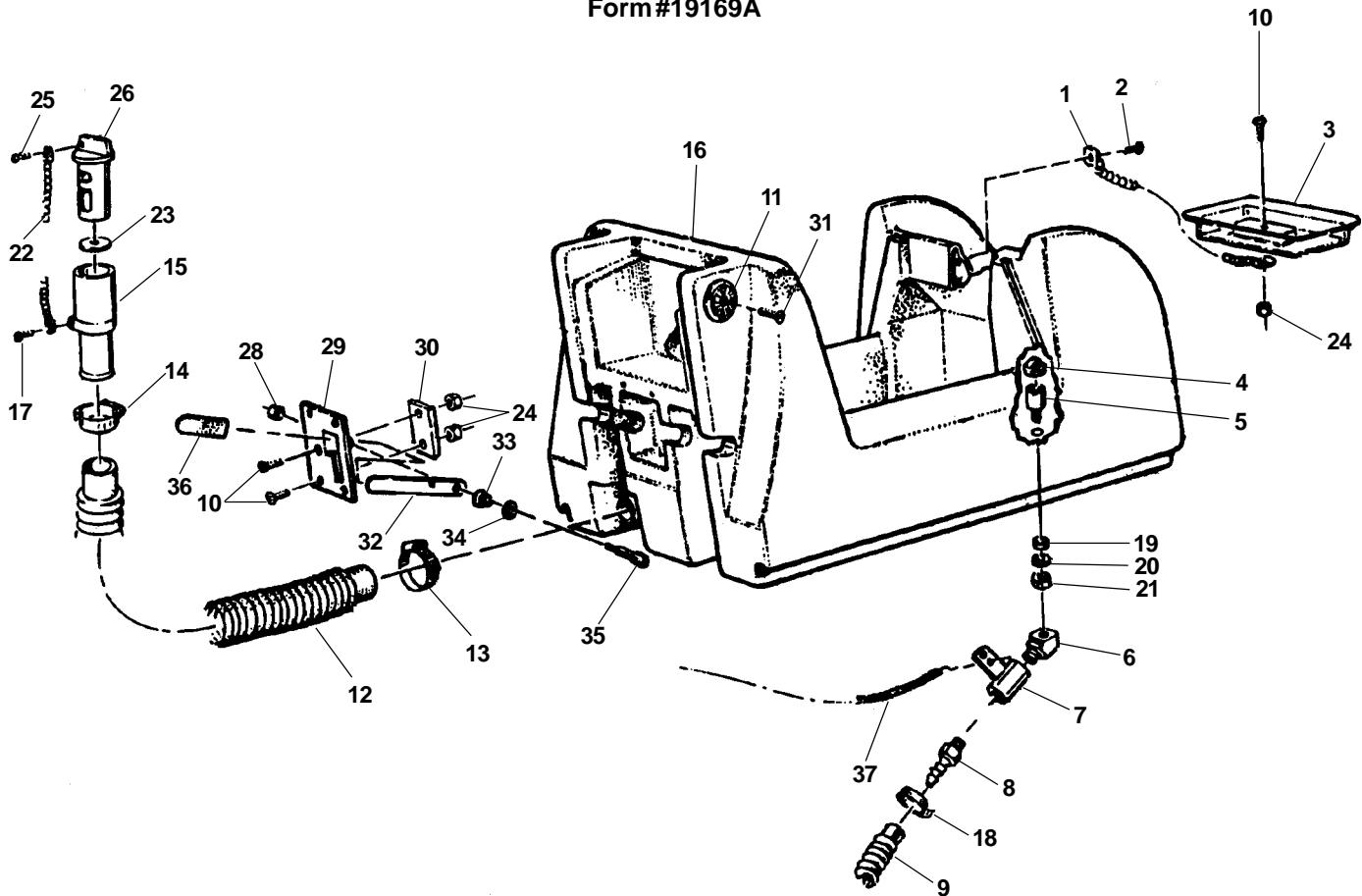


Ref	Part No.	Description	Qty
1	66921B	Retainer, Squeegee	2
2	30902A	Blade, Squeegee Rear	2
3	27703A	Squeegee, Casting	1
4	30903A	Blade, Squeegee Front	1
5	85398A	Screw 1/4 - 20 X 1/2	18
6	838201	Spacer, Wheel Guide	2
7	839702	Wheel, Brush Guide	2
8	962841	Screw, 5/16 - 18 x 1 1/4	2

Blades Available:

30918A	Blade, Sq., Front Nitrile/EPDM	1
30919A	Blade, Sq., Rear Nitrile/EPDM	1

CLARKE TECHNOLOGY
Vision 17B/BT
Solution Tank Assembly
Drawing & Parts List 6/01
Form #19169A

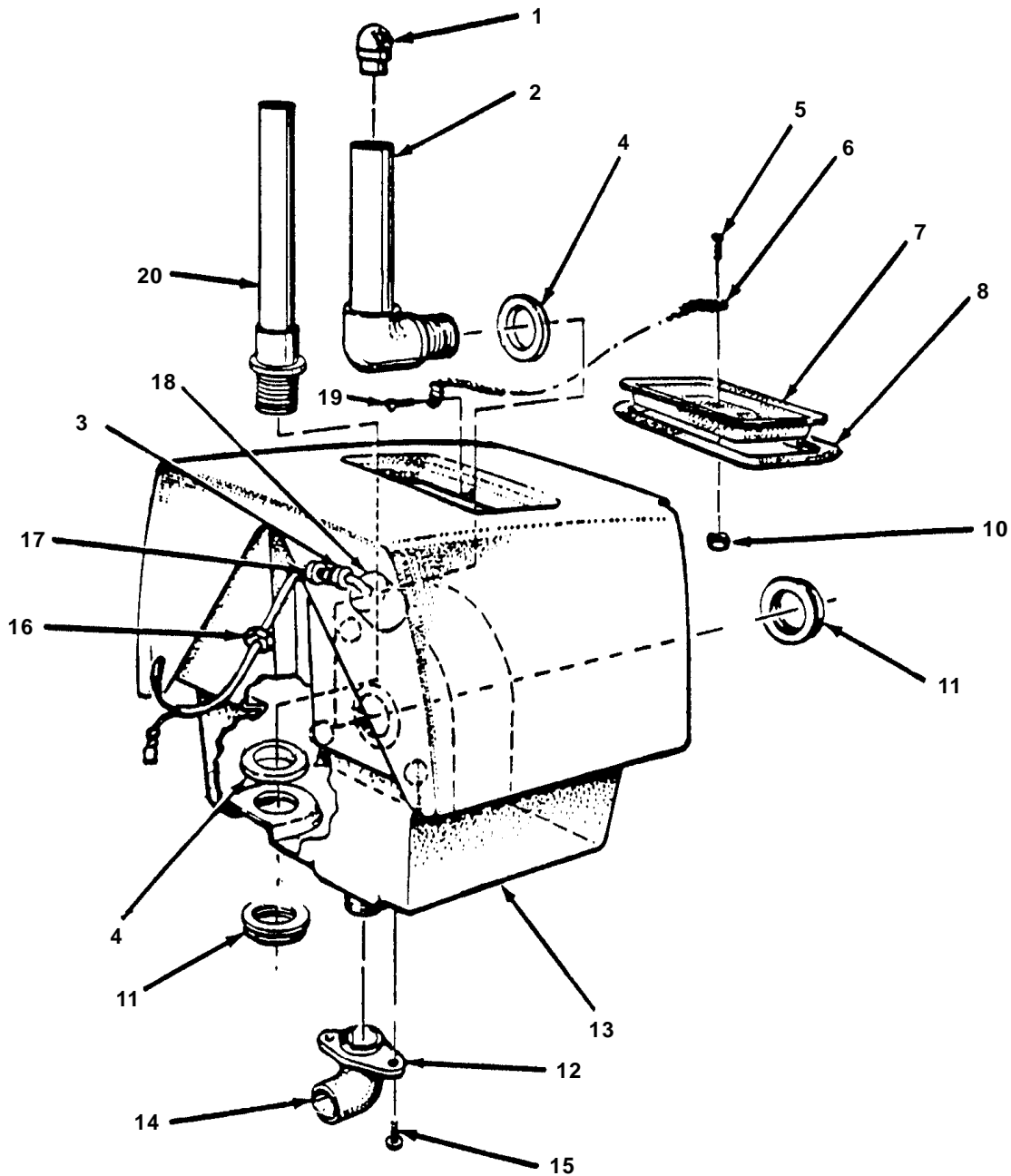


Ref	Part No.	Description	Qty
1	692409	Chain Cover	1
2	85519A	Screw 1/4 - 20 X 3/8	1
3	832322	Cover, Solution Tank	1
4	878535	Strainer, Solution Tank	1
5	60317A	Adapter, Filter	1
6	53614A	Elbow, Solution	1
7	849401	Valve, Solution	1
8	53618A	Adapter, 3/8 x 3/8	1
9	35138A	Hose, Solution	1
10	962798	Screw 10-24 X 1/2	1
11	36101A	Ratchet, Handle	2
12	30416A	Hose, Drain	1
13	752020	Clamp, Hose	1
14	832002	Clamp, Hose	1
15	839401	Drain	1
16	38964B	Tank, Solution	1
17	962943	Screw	1
18	722021	Clamp, Hose	1
19	833401	Gasket, Drain	1

Ref	Part No.	Description	Qty
20	980630	Washer	1
21	920264	Nut 3/4 - 16 Hex	1
22	52206A	Chain, Cover	1
23	833407	Gasket, Drain	1
24◆	81110A	Nut, 10-24	3
25	962987	Screw, 10-24 x 3/8	1
26	833901	Handle, Drain Valve	1
27	84237A	Screw, 10-32 x 1/2	2
28	81217A	Nut 1/4-20 Nylock	1
29	68762A	Plate, Squeegee Lift	1
30	68646A	Plate, Wear	1
31	84236A	Screw, 6-32	6
32	64476A	Handle, Squeegee Lift	1
33	53030A	Spring, Taper	1
34	980651	Washer	1
35	80031A	Bolt, Shoulder	1
36	52755A	Cover, Handle	1
37	52503A	Cable, Solution	1

NOTE: ◆ indicates a change has been made since the last publication of this manual.

CLARKETECHNOLOGY
Vision 17B/BT
Recovery Tank Assembly
Drawing & Parts List 6/01
Form#19170A

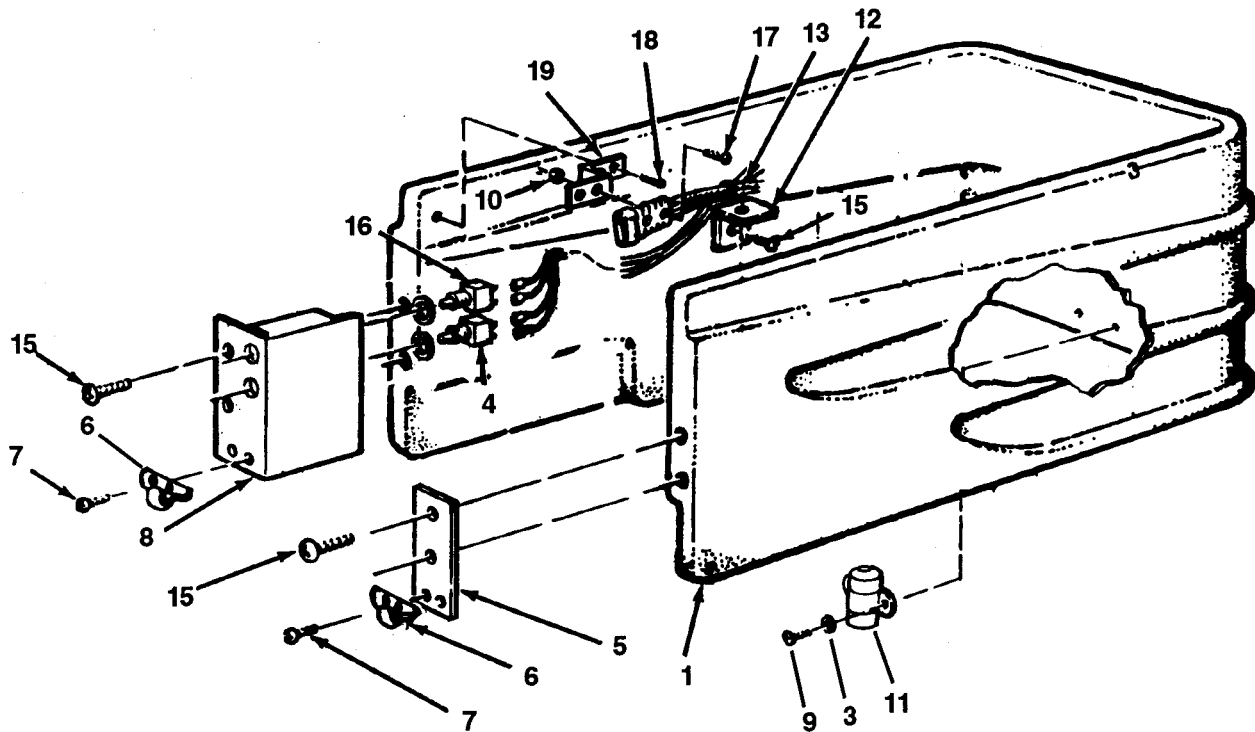


Ref	Part No.	Description	Qty
1	58012A	Strainer, Recovery Tank	1
2	59314A	Tube, Stand, Recovery	1
3	56459A	Strain Relief	1
4	837304	O'Ring Seal	2
5	962798	Screw, 10-24 x 1/2	1
6	692409	Chain, Cover	1
7	832322	Cover, Solution Tank	1
8	34256A	Gasket, Recovery Drain	1
10◆	81110A	Nut 10-24	1
11	920797	Nut, Drain Valve Lock	2
12	66933A	Elbow, Retainer	1

Ref	Part No.	Description	Qty
13	38966B	Tank, Recovery	1
14	53629A	Elbow, Recovery Drain	1
15	85395A	Screw, 1/4-20 x 1/2	2
16	82100A	Nut, 1/2 Conduit	1
17	87612A	Seal, Washer	1
18	14092A	Switch, Float Shut-Off	1
19	85519A	Screw, 1/4-20 x 3/8	1
20	39323A	Tube, Recovery	1
N	51828A	Strap, Hose	2

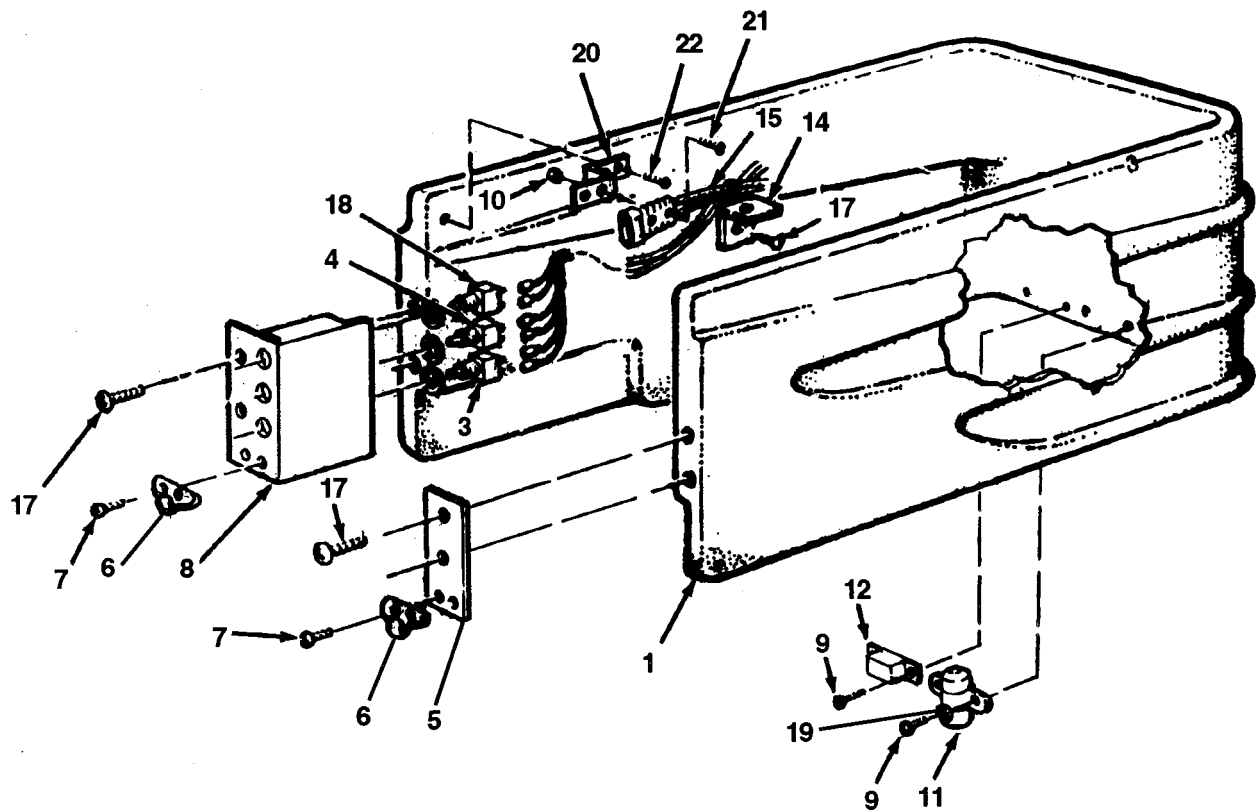
NOTE: ◆ indicates a change has been made since the last publication of this manual.

CLARKE TECHNOLOGY
Vision 17B
Support Tank Assembly
Drawing & Parts List 11/98
Form #18909B



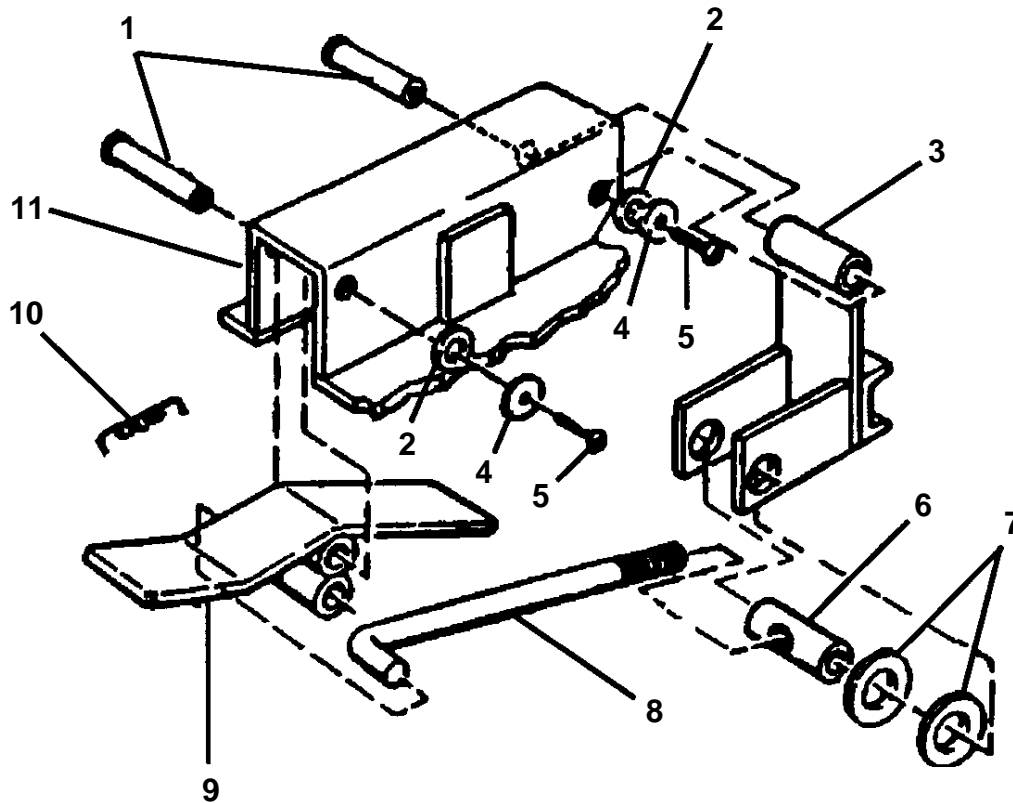
Ref	Part No.	Description	Qty
1	38952B	Support, Solution Tank	1
3	87026A	Washer, 1/4	4
4	41446A	Breaker, Circuit 30A	1
5	66689A	Plate, Clamp	1
6	608537	Strike, Clamp	2
7	85509A	Screw, 6 - 32 x 1/4	4
8	66688A	Plate, Circuit Breaker	1
9	85414A	Screw, 10-00 x 3/8	4
10	920056	Nut, 6 - 32 Elastic	2
11	878514	Solenoid, 24V	2
12	61244A	Bracket, Tank	5
13	49728A	Harness, Control	1
15	85395A	Screw, 1/4 - 20 x 1/2	9
16	41428A	Breaker, 35A	1
17	962212	Screw, 6-32 x 7/8	2
18	85387A	Screw, 1/4 - 20 x 3/4	1
19	61246A	Bracket, Battery Plug	1
NI	77050A	Label, Brush Lift	1

CLARKE TECHNOLOGY
Vision 17BT
Support Tank Assembly
Drawing & Parts List 11/98
Form #18915B



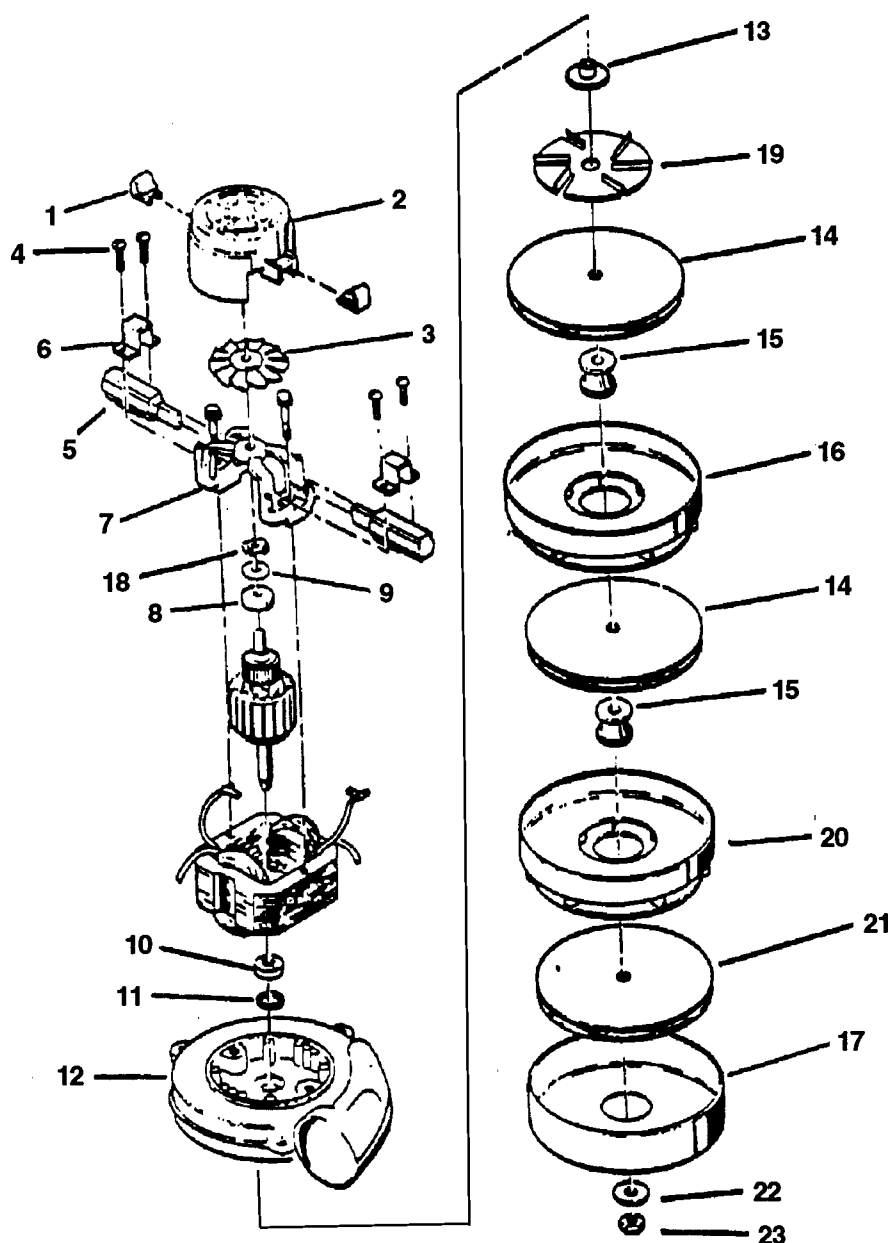
Ref	Part No.	Description	Qty
1	38952B	Support, Solution Tank	1
3	41438A	Breaker, Circuit 7A	1
4	41446A	Breaker, Circuit 30A	1
5	66689A	Plate, Clamp	1
6	608537	Strike, Clamp	2
7	85509A	Screw, 6 - 32 x 1/4	4
8	66688A	Plate, Circuit Breaker	1
9	85414A	Screw, 10-00 x 3/8	8
10	920056	Nut, 6 - 32 Elastic	2
11	878514	Solenoid, 24V	3
12	46312A	Relay, Time	1
14	61244A	Bracket, Tank	5
15	49730A	Harness, Control	1
17	85395A	Screw, 1/4 - 20 x 1/2	9
18	41428A	Breaker, 35A	1
19	87026A	Washer 1/4	6
20	61246A	Bracket, Battery Plug	1
21	962212	Screw, 6-32 x 7/8	2
22	85387A	Screw, 1/4 - 20 x 3/4	1
NI	77050A	Label, Brush Lift	1

CLARKE TECHNOLOGY
Vision 17BT
Brake Kit #10773A
Drawing & Parts List 5/98



Ref #	Part No.	Description	Qty
1	66536A	Pin, Brake	2
2	87027A	Washer	2
3	17519A	Brake, Pad Weldment	1
4	87036A	Washer, #10 S.S.	2
5	85397A	Screw, 10-24 x $\frac{3}{8}$ S.S.	2
6	67422A	Shaft, Brake	1
7	87613A	Washer, Nylon	2
8	67133A	Rod, Brake	1
9	10735A	Pedal, Brake	1
10	608340	Spring, Brake	1
11	Ref.	Machine Frame	ref.

CLARKETECHNOLOGY
Vision 17B/BT
Vacuum Motor
Drawing & Parts List 11/93
Form #44917A

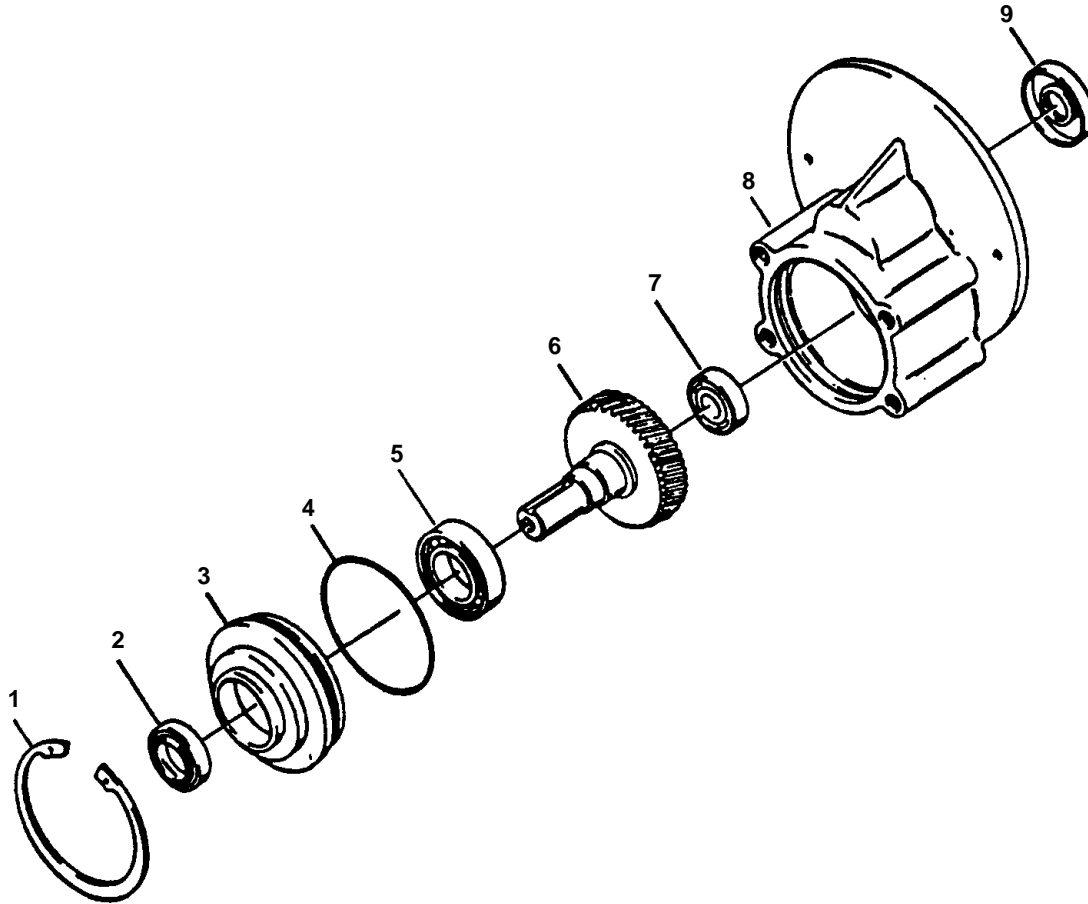


Ref #	Part No.	Description	Qty
1	51913A	Clip (Optional)	2
2	54809A	Housing - Vent	1
*3		Fan	1
4	85303A	Screw, 8 x 32 - 3/8 PN	4
5	40817A	Brush Mechanism	2
6	51914A	Clamp	2
7	50618A	Bracket, Commutator End	1
*8		Bearing	1
9	672714	Disc	1
*10		Bearing	1
11	59803A	Washer, Neoprene	1
*12		Bracket, Fan End	1
13	58500A	Spacer	1

Ref #	Part No.	Description	Qty
14	53914A	Fan, Rotating	2
15	658201	Spacer	2
*16		Fan, Stationary	1
*17		Shell, Fan	1
18	638313	Spring, Load	1
*19		Fan, Air Seal	1
*20		Fan, Stationary	1
*21		Fan, Rotating	1
*22		Washer	1
*23		Nut	1

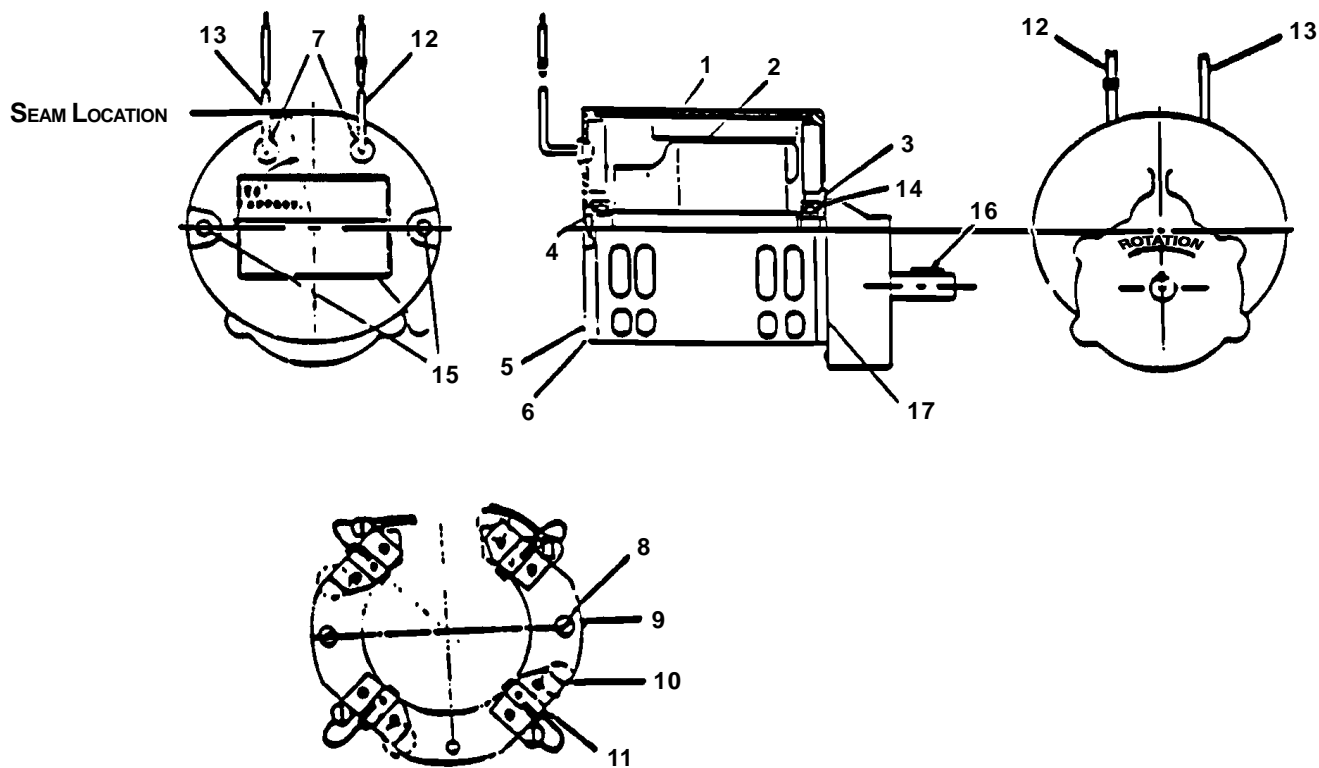
*NOTE: #'s 3, 8, 10, 12, 16, 17, 19, 20, 21, 22 & 23 are not available at this time.

CLARKETECHNOLOGY
Vision 17B/BT
Gear Box #54238A
Drawing & Parts List 6/94



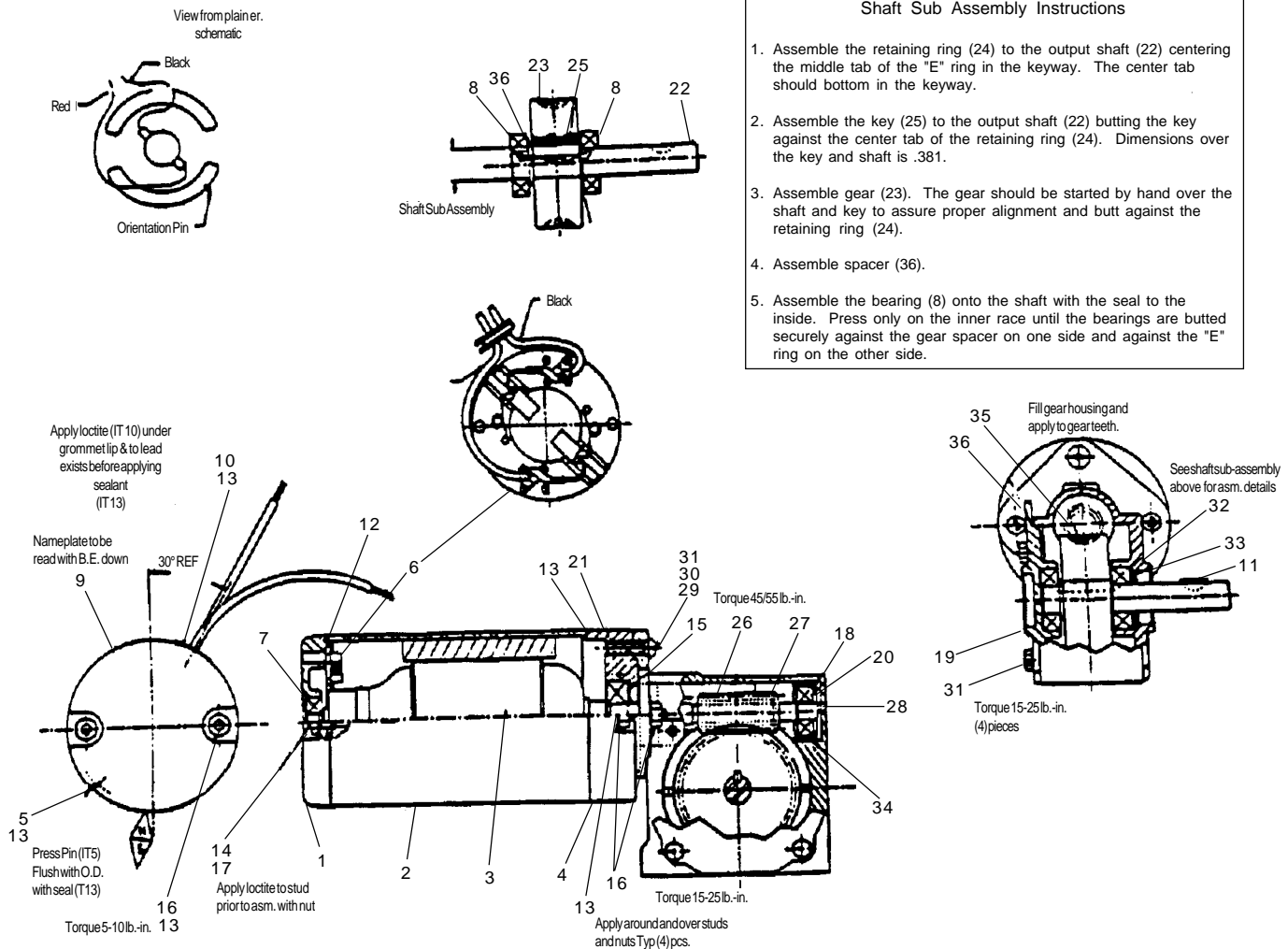
Ref	Part No.	Description	Qty
1	57846A	Ring, Snap	1
2	58143A	Seal, Oil, Small	1
3	52050A	Cap End	1
4	56668A	O - Ring	1
5	51176A	Bearing, Large	1
6	58316A	Shaft and Gear	1
7	902605	Bearing, Small	1
8	54883A	Housing	1
9	58144A	Seal, Oil Large	1
NI		Grease	1oz

CLARKE TECHNOLOGY
Vision 17B/BT
Brush Motor Drawing & Parts List 3/95
Form#10503A



Item	Part No.	Description	Qty
1	56478A	Stator Frame Assembly (w/Magnets & Clips)	1
2	50142A	Armature Assembly (w. B.E. & F.E. Bearings)	1
3	902654	Bearings B.E.	1
4	902550	Bearing F.E.	1
5	51840A	Commutator Bracket Assembly (w/Brush BRD Assembly Leads)	1
6	50520A	Commutator Bracket	1
7	56480A	Strain Relief	2
8	962546	Brush Board Screw	2
9	50517A	Brush Board Assembly (w/ Springs & Brushes)	1
10	448396	Brush Spring	4
11	40826A	Brush Assembly	4
12	55657A	Lead Assembly	1
13	55656A	Lead Assembly	1
14	59805A	Helical Washer	1
15	50515A	Thru Bolt	2
16	44809A	Shaft Key	1
17	54238A	B.E. Bracket Assembly (Gear Box)	1

CLARKE TECHNOLOGY
Vision 17BT
Traverse Motor Drawing & Parts List 2/96
Motor #45031A



Shaft Sub Assembly Instructions

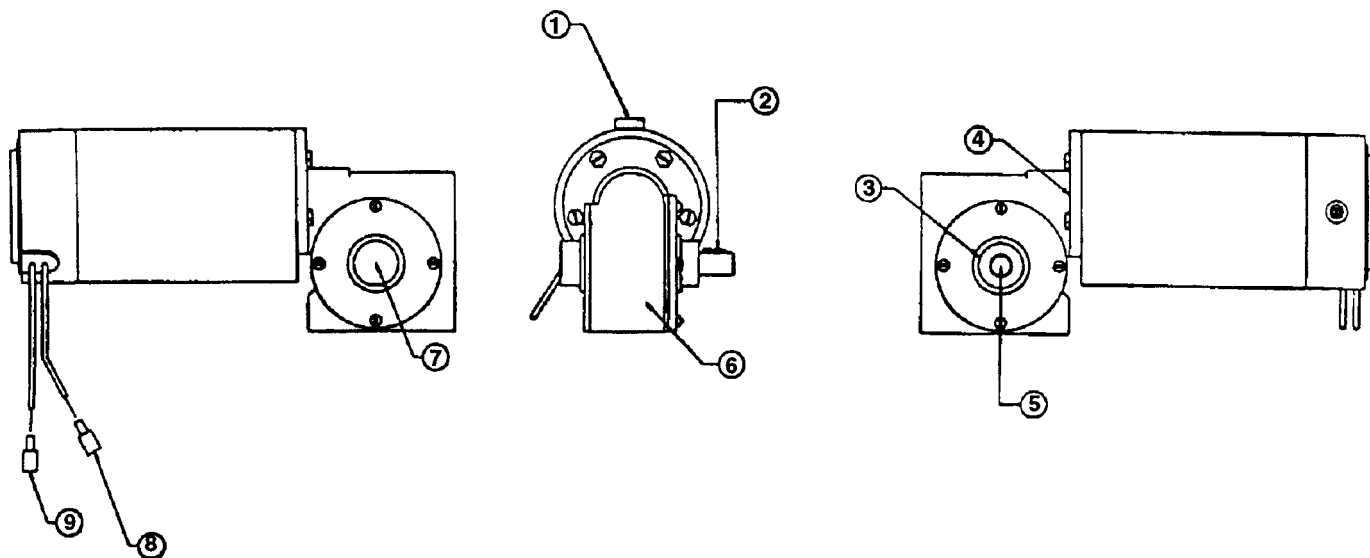
1. Assemble the retaining ring (24) to the output shaft (22) centering the middle tab of the "E" ring in the keyway. The center tab should bottom in the keyway.
2. Assemble the key (25) to the output shaft (22) butting the key against the center tab of the retaining ring (24). Dimensions over the key and shaft is .381.
3. Assemble gear (23). The gear should be started by hand over the shaft and key to assure proper alignment and butt against the retaining ring (24).
4. Assemble spacer (36).
5. Assemble the bearing (8) onto the shaft with the seal to the inside. Press only on the inner race until the bearings are butted securely against the gear spacer on one side and against the "E" ring on the other side.

Ref	Part No.	Description	Qty
1	*	Housing Brush End	1
2	*	Field Assembly	1
3	50147A	Armature Assembly	1
4	*	Housing, Plain End	1
5	*	Roll Pin	1
6	51861A	Lead/BR Card Assembly	1
7	902679	Ball Bearing	1
8	51181A	Ball Bearing	2
9	*	Printed Mylar Stock	1
10	*	Loctite 404	1
11	55412A	#404 Woodruff Key	1
12	56671A	O Ring	1
13	*	Sealant	1
14	*	Stud, 10-32 X 6.45	2
15	53319A	Load Spring	1
16	*	Nut, Keps 10-32	6
17	*	Loctite 404	1
18	*	Gear Housing	1

Ref	Part No.	Description	Qty
19	*	Gear Cap	1
20	51180A	Ball Bearing	1
21	51179A	Ball Bearing	1
22	58318A	Output Shaft	1
23	54414A	Worm Gear	1
24	*	Retaining Ring	1
25	*	Key 1/8 x 1/8	1
26	59869A	Worm	1
27	925597	Roll Pin	1
28	*	Retaining Ring	1
29	962892	Screw, 1/4 - 20	1
30	980614	Lock Washer 1/4"	1
31	*	Screw, 10-32 SEMS	4
32	58694A	Load Spring	1
33	59868A	Washer	1
34	57850A	Ring, Bearing Mounting	1
35	*	Grease, Nyooel 15#	1
36	*	Spacer	1

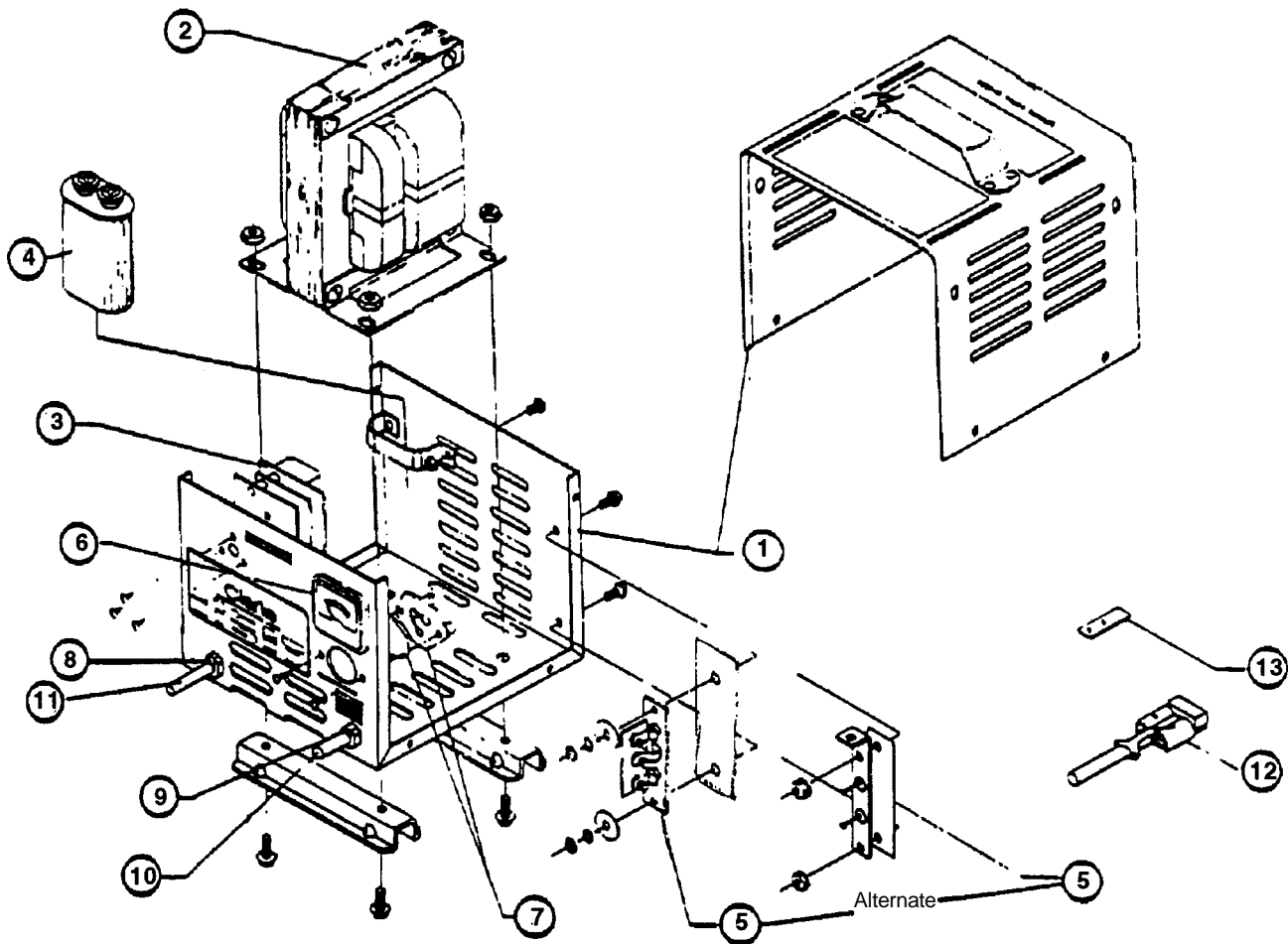
*Illustrated for assembly reference only.

CLARKE TECHNOLOGY
Vision 17BT
Traverse Motor 24V
Drawing & Parts List 2/96
Form #45031C



Ref	Part No.	Description	Qty
1	40831A	Carbon, Brush	2
2	55412A	Key	1
3	58152A	Shaft, Seal	1
4	54370A	Gasket, O'Ring	1
5	54416A	Gear Assembly	1
6	N/A	Gear Housing	N/A
7	52060A	Cap, Gear Head	1
8	47905A	Terminal, ¼ FIFQD	1
9	47905A	Terminal, ¼ FIFQD	1
10	NI	1.9 oz. Mobilith SCH 1500 Oil	

CLARKE TECHNOLOGY
Vision 17B/BT
Battery Charger Drawing & Parts List 11/93



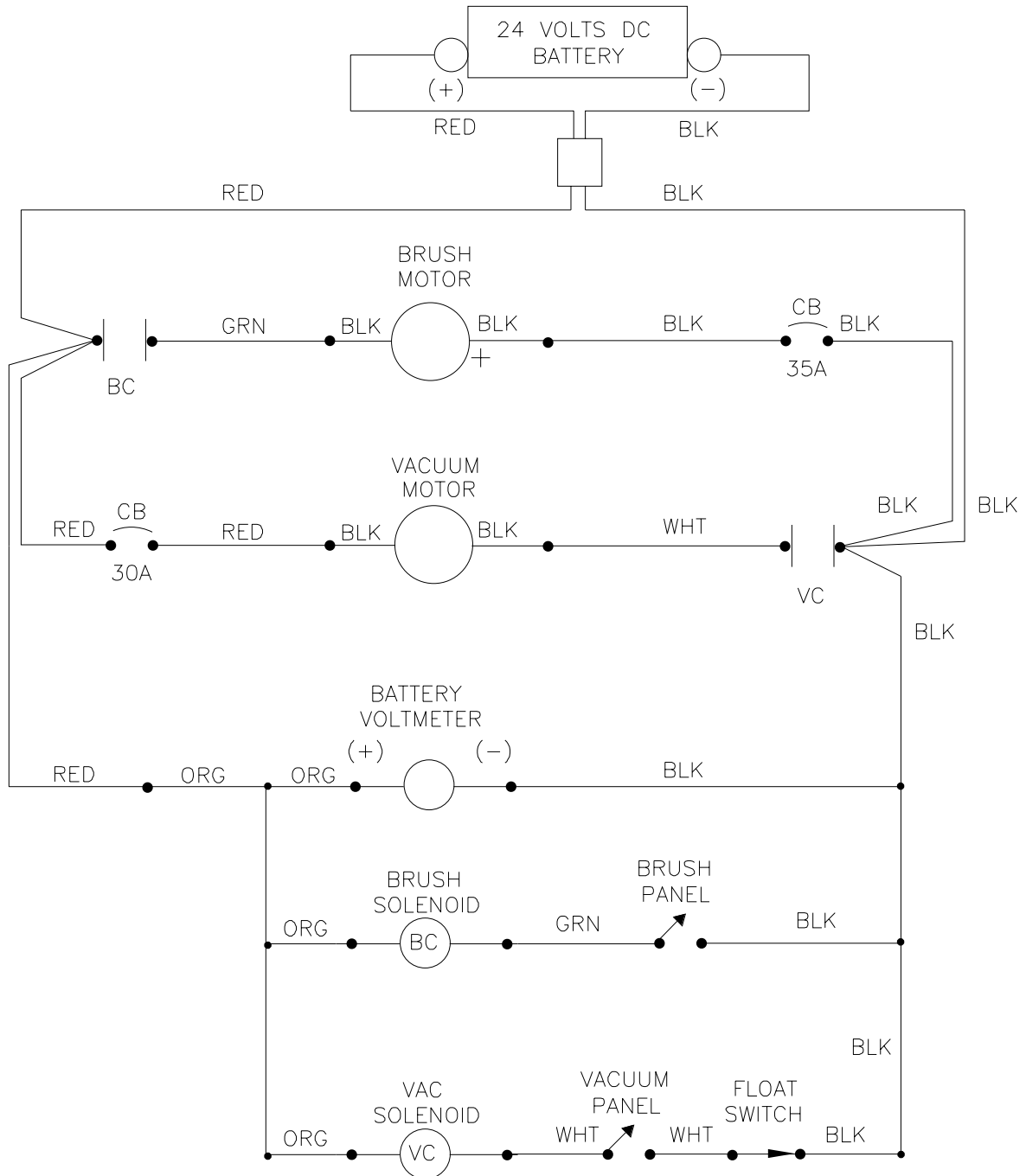
⚠ WARNING: All electrical repairs must be performed by qualified personnel only.

Charger #40510A: 24 Volt, 10 Amp D.C., 115 Volt A.C., 60 Hz

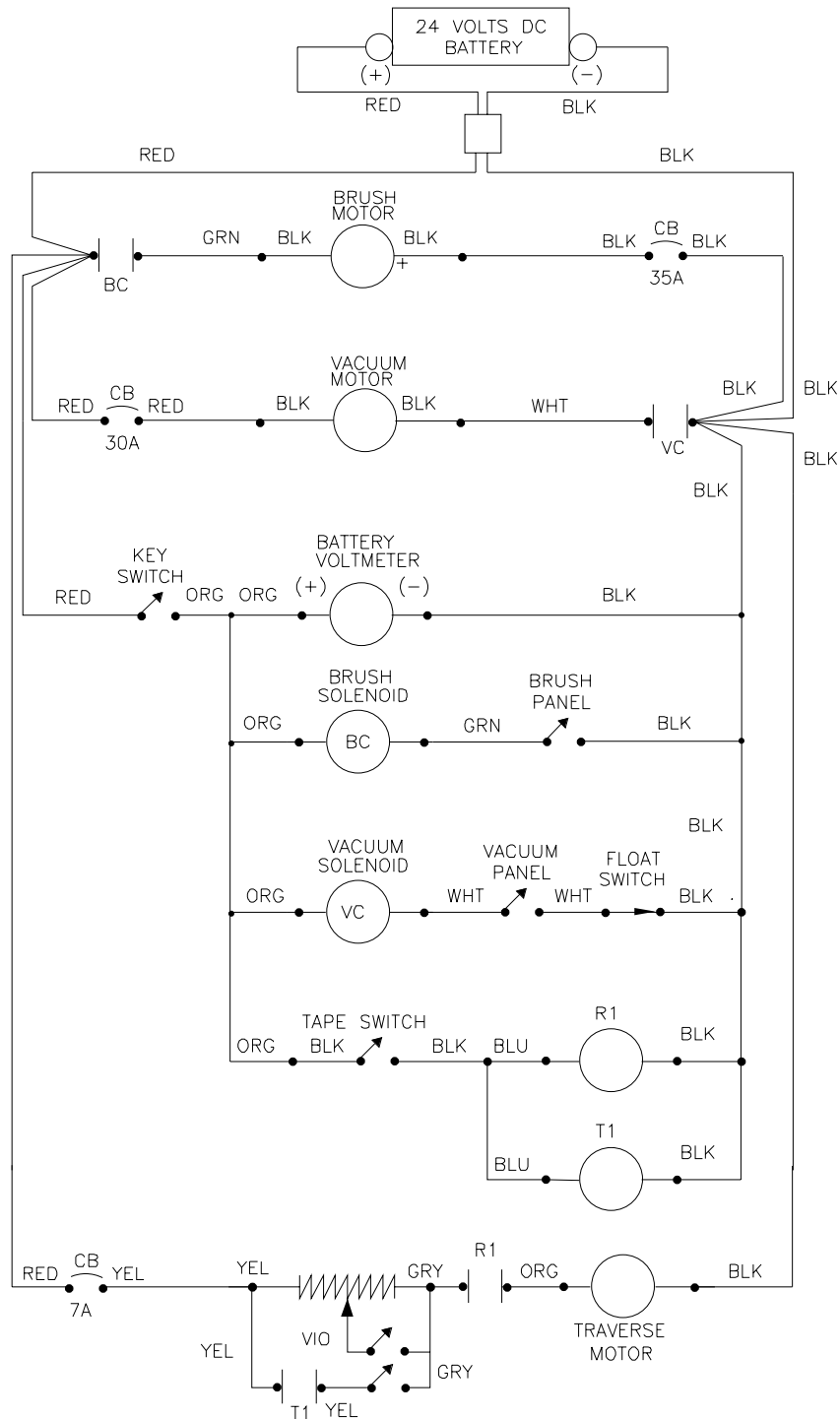
Charger #40511A: 24 Volt, 10 Amp D.C., 230 Volt A.C., 50 Hz

Ref	Description	Charger 40510A	Charger 40511A
1	Charger Case	41130A	41131A
2	Transformer	799225	799226
3	Electronic Controller Kit	47500A	48200A
4	Capacitor 660 V.A.C.	915511	915511
5	Heat Sink Assembly	43300A	43300A
6	Ammeter	40206A	40206A
7	Fuse Holder (2)	283360	283360
	Cartridge Fuse (2)	912216	912216
8	Strain Relief, A.C. Cord	837525	837525
9	Strain Relief, D.C. Cord	837525	837525
10	D.C. Cord Assembly	908981	908981
11	A.C. Cord Assembly	908982	908983
12	Housing	911470	911470
13	D.C. Plug Lock Key	795020	795020

CLARKE TECHNOLOGY
Vision 17B
Model #00380A - 24 V Electrical Schematic 8/98

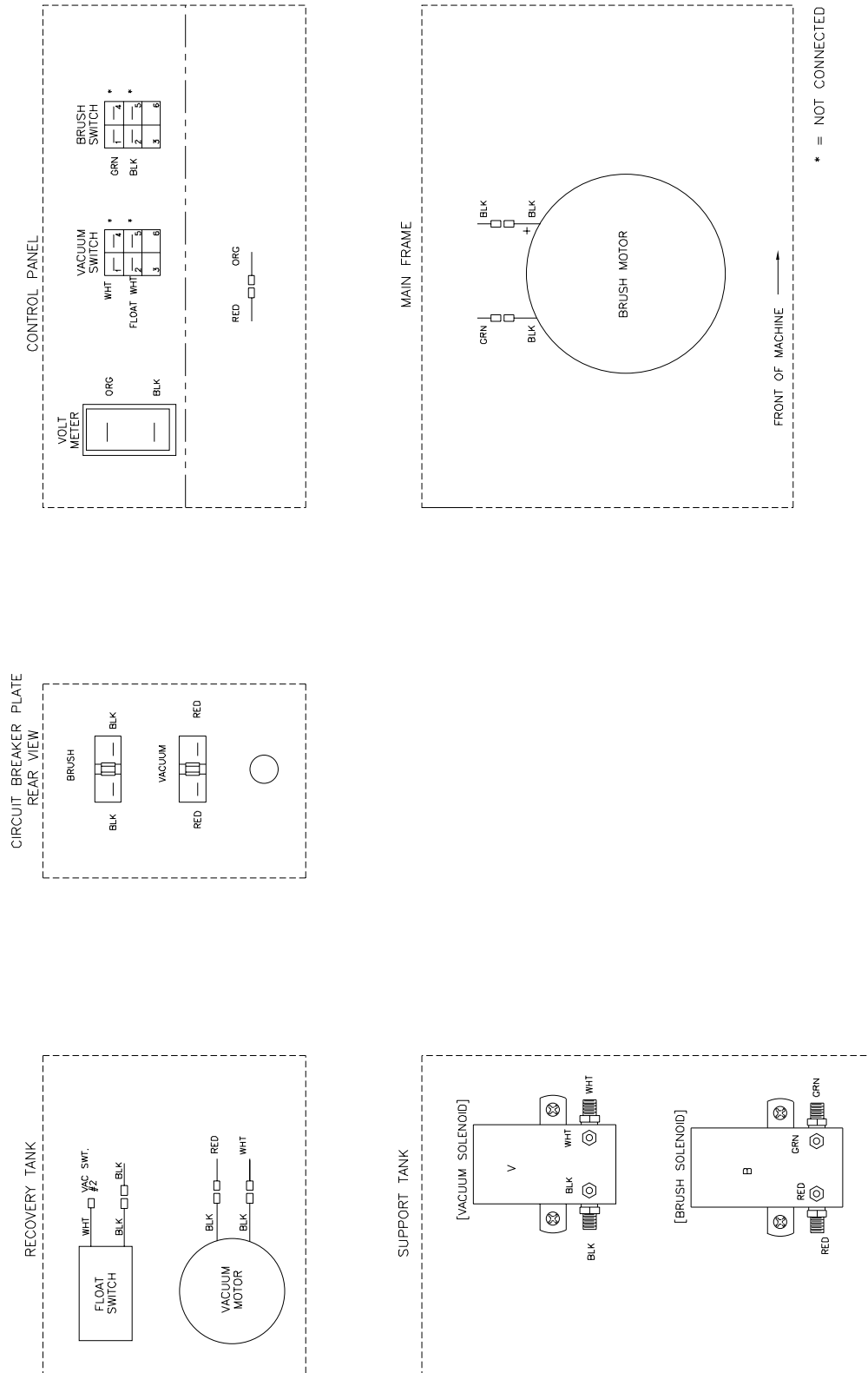


CLARKE TECHNOLOGY
Vision 17BT
Model #00390A - 24 V Electrical Schematic 8/98



3. R1 = TRAVERSE SOLENOID.
R1 SUPPLIES POWER TO TRAVERSE MOTOR WHEN TOUCH SWITCH IS ACTIVATED.
2. T1 = TRAVERSE HIGH DELAY TIMER.
T1 DELAYS HIGH SPEED FOR 1 TO 2 SECONDS AFTER TOUCH SWITCH IS ACTIVATED.
1. * = NOT CONNECTED

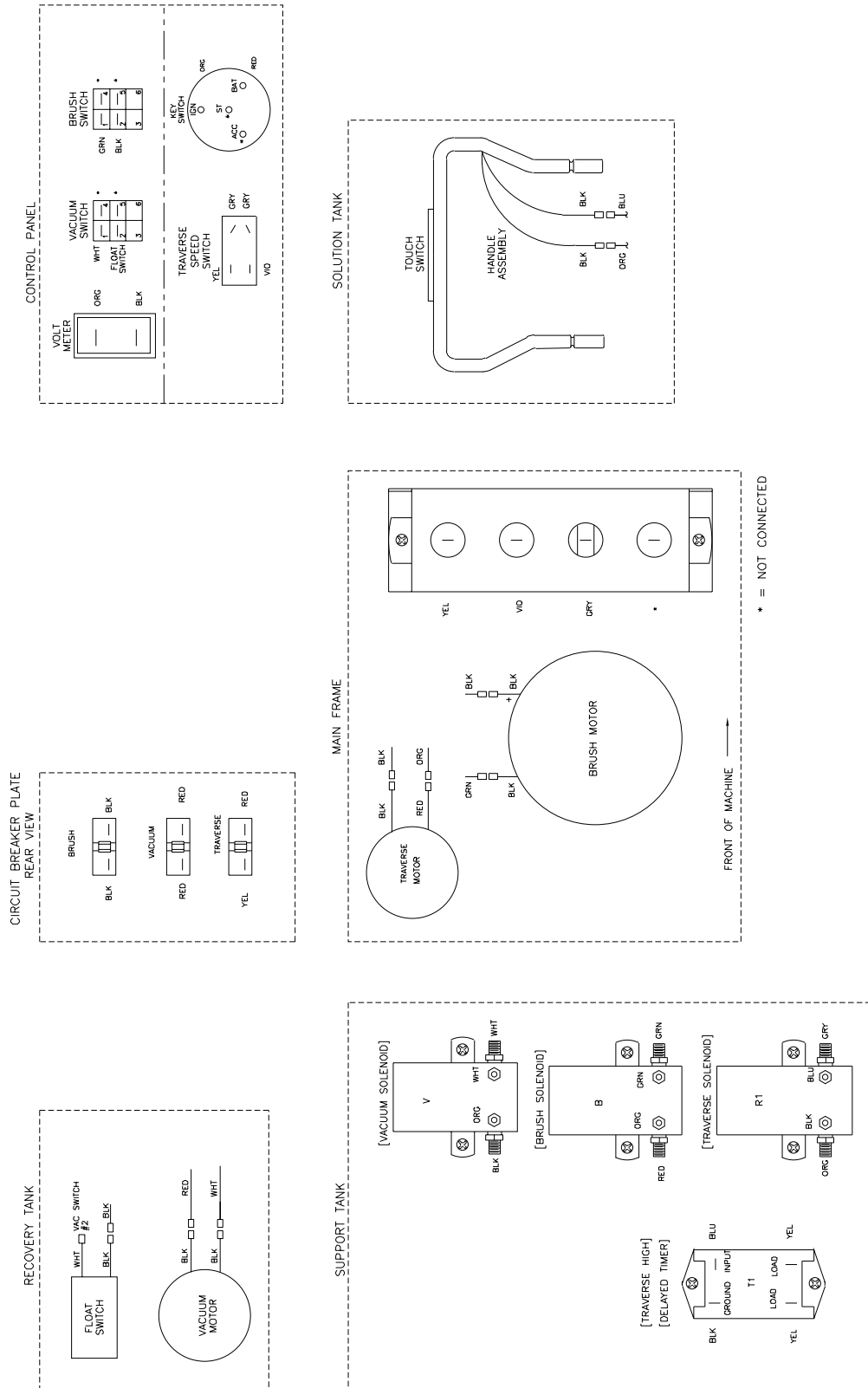
CLARKE TECHNOLOGY Vision 17B 24V Connection Diagram 6/01



CLARKE TECHNOLOGY

Vision 17BT

24V Connection Diagram 6/01



ALTO® PRODUCT SUPPORT BRANCHES

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Springdale, Arkansas 72764
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Technical Service - 1-800-356-7274

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1955 West 13th Ave.
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ALTO U.S. Inc., Houston, Texas 77040
7215 North Gessner Road

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(810) 544-6300

ALTO U.S. Inc., Marietta, Georgia 30062
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(770) 973-5225

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A.L. COOK TECHNOLOGY
Customer Service Headquarters and Factory
2100 Highway 265
Springdale, Arkansas 72764
(501) 750-1000

Technical Service
1-800-356-7274

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CLARKE TECHNOLOGY U.S. LIMITED WARRANTY

This Clarke Technology Industrial/Commercial Product is warranted to be free from defects in materials and workmanship under normal use and service for a period of one year from the date of purchase, when operated and maintained in accordance with Clarke Technology's Maintenance and Operations instructions.

This brush drive and traverse motors are warranted to be free from defects in materials and workmanship under normal use and service for one year from the date of purchase, provided the motors are inspected for carbon motor brush wear at six-month intervals by an authorized Clarke Technology repair station. Failure to comply with the six-month inspection requirement or failure to replace worn motor brushes identified during the inspection will void the one-year warranty on the motors. Cost of the six-month inspection and replacement of carbon motor brushes is the responsibility of the purchaser. In the event of a warranty claim on the motors, proof of inspection and any required motor brush replacement must be provided.

This warranty is extended only to the original purchaser for use of the product. It does not cover normal wear parts such as electrical cable, rubber parts, and motor brushes.

Clarke Technology's liability under this warranty is limited to repair of the product and/or replacement of parts and is given to purchaser in lieu of all other remedies, including INCIDENTAL AND CONSEQUENTIAL DAMAGES.

THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE SPECIFIED HEREIN. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION OF THE FACE HEREOF. NO WARRANTIES, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY, SHALL BE IMPLIED. A warranty registration card is provided with your Clarke Technology product. Return the card to assist Clarke Technology in providing the performance you expect from your new floor machine.

If a difficulty develops with the product, you should: a) Contact the nearest authorized Clarke Technology repair location or contact the Clarke Technology Service Operations Department, 2100 Highway 265, Springdale, Arkansas 72764, for the nearest authorized Clarke Technology repair location. Only these locations are authorized to make repairs to the product under this warranty. (b) Return the product to the nearest Clarke Technology repair location. Transportation charges to and from the repair location must be prepaid by the purchaser. Clarke Technology will repair the product and/or replace any defective parts with out charge within a reasonable time after receipt of the product.

ALTO U.S. Inc., 2100 Highway 265, Springdale, Arkansas 72764.

BATTERY WARRANTY

In addition to the items above (except as to the one-year period), any original equipment Clarke Technology Battery which becomes unserviceable under normal use within a period of ninety (90) days from date of sale to the original user will be repaired or replaced with one of equal specification at our option, F.O.B. any authorized Clarke Technology Sales or Service Branch, with no charge to the user, except transportation costs. After expiration of the above ninety (90) day period, any battery which fails under normal use will be adjusted to the original user with a new battery of equal specification on an eighteen (18) months pro rate basis from the date of purchase. Adjustment will be determined using the then current list price, plus transportation costs.

Warranty is rendered null and void if battery is not kept filled to the proper level with DISTILLED WATER.

CLARKE TECHNOLOGY: POLYDUR® AUTOMATIC SCRUBBER SOLUTION AND RECOVERY TANK FIVE-YEAR GUARANTEE

Your new Clarke Technology Vision Automatic Scrubber has polydur Solution and Recovery Tanks. Polydur is a rotationally molded, medium-density linear polyethylene that won't crack or dent, and withstands most corrosives and temperature extremes. Clarke Technology backs up your Polydur tanks with a five-year guarantee. If a tank breaks or leaks under normal use within five years of the date of purchase, it will be replaced free.

CLARKE TECHNOLOGY UNIBODY FRAME THREE-YEAR WARRANTY

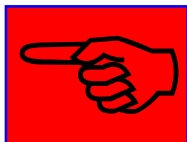
Clarke Technology warranties the frame for the new Vision automatic Scrubbers for a period of three years against defects in materials and workmanship under normal use and service.

**CLARKE TECHNOLOGY reserves the right to make changes or improvements to its machine
without notice.**

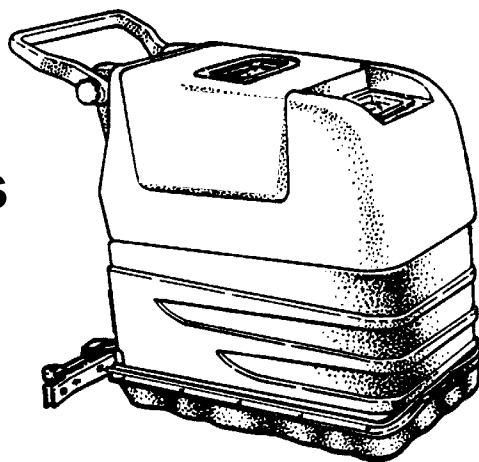
Always use genuine Clarke Technology Parts for repair.



**CLARKE TECHNOLOGY
2100 Highway 265
Springdale, Arkansas, 72764**



Operator's Manual



**Vision 17E
115V**

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 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 cannot read English, have this manual explained fully before attempting to operate this machine.

Si Ud. no pueden leer el Inglés, se hagan explicar este manual completamente antes de tratar el manejo o servicio de esta máquina.

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

For new books write to: ALTO U.S. Inc., 2100 Highway 265, Springdale, Arkansas 72764.

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OPERATOR SAFETY INSTRUCTIONS



WARNING



AVERTISSEMENT



ADVERTENCIA



DANGER:

Failure to read and observe all **DANGER** statements could result in severe bodily injury or death. Read and observe all **DANGER** statements found in your Owner's Manual and on your machine.



WARNING:

Failure to read and observe all **WARNING** statements could result in injury to you or to other personnel; property damage could occur as well. Read and observe all **WARNING** statements found in your Owner's Manual and on your machine.



CAUTION:

Failure to read and observe all **CAUTION** statements could result in damage to the machine or to other property. Read and observe all **CAUTION** statements found in our Owner's Manual and on your machine.



DANGER:

Failure to read the Owner's Manual prior to operating or attempting any service or maintenance procedure to your Clarke 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 you or your operator(s) cannot read English, have this manual explained fully before attempting to operate this machine.



DANGER:

Operating a machine that is not completely or fully assembled could result in injury or property damage. Do not operate this machine until it is completely assembled. Inspect the machine carefully before operation.



DANGER:

Machines can cause an explosion when operated near flammable materials and vapors. Do not use this machine with or near fuels, grain dust, solvents, thinners, or other flammable materials. This machine is not suitable for picking up hazardous dust.



DANGER:

Using a machine with a damaged power cord could result in an electrocution. Do not use the machine if the power cord is damaged. Do not use the electrical cord to move the machine.



DANGER:

Electrocution could occur if maintenance and repairs are performed on a unit that is not disconnected from the power source. Disconnect the power supply before attempting any maintenance or service.



DANGER:

Electrocution or fire could occur if the machine is used on a power circuit that repeatedly trips or is undersized. Have a licensed electrician check the fuse, circuit breaker or power supply, and/or contact your local Clarke distributor for assistance.













WARNING:

Operating this machine from anywhere other than from the back of the machine could result in injury or damage. Operate this machine only from the rear.



WARNING:

This machine is heavy. Get assistance before attempting to transport or move it. Use two able persons to move the machine on a ramp or incline. Always move slowly. Do not turn the machine on a ramp. If operating machine on a gradient over 2%, do not stop, turn, or park. Read the "Procedures For Transporting" in this manual before transporting.

-  **WARNING:** Machines can topple over if guided over the edges of stairs or loading docks and cause injury or damage. Stop and leave this machine only on a level surface. When you stop the machine, put all switches into their "OFF" position.
-  **WARNING:** Maintenance and repairs performed by unauthorized personnel could result in damage or injury. Maintenance and repairs must be performed by authorized Clarke personnel only.
-  **WARNING:** Any alterations or modifications of this machine could result in damage to the machine or injury to the operator or other bystanders. Alterations or modifications not authorized by the manufacturer voids any and all warranties and liabilities.
-  **WARNING:** Electrical components of this machine can "short-out" if exposed to water or moisture. Keep the electrical components of the machine dry. Wipe the machine down after each use. For storage, keep the machine in a dry building.
-  **WARNING:** Operating a machine without observing all labels and instructional information could result in injury or damage. Read all machine labels before attempting to operate. Make sure all of the labels and instructional information are attached or fastened to the machine. Get replacement labels and decals from your Clarke distributor.
-  **WARNING:** Wet floor surfaces can be slippery. Water solutions or cleaning materials used with this type of machine can leave wet areas on the floor surface. These areas can cause a dangerous condition for the operator or other persons. Always put "Caution" signs around/near the area you are cleaning.
-  **WARNING:** Improper discharge of waste water may damage the environment and be illegal. The United States Environmental Protection Agency has established certain regulations regarding discharge of waste water. Also, city and state regulations regarding this discharge may be in effect in your area. Understand and follow the regulations in your area. Be aware of the environmental hazards of chemicals that you dispose.
-  **CAUTION:** Use of this machine to move other objects or to climb on could result in injury or damage. Do not use this machine as a step or furniture. Do not ride on this machine.
-  **CAUTION:** Your machine warranty will be voided if anything other than genuine Clarke parts are used on your machine. Always use Clarke parts for replacement.
-  **CAUTION:** Using a extension cord with your machine will result in a voltage drop and loss of power. Use of an extension cord is not recommended.

Introduction & Machine Specifications

The Vision 17 automatic scrubber increases labor efficiency while providing superior cleaning. This unit dispenses the solution, scrubs the floor and then recovers the soiled solution - ***all in one pass.***

The Vision 17E can be adapted to clean any hard floor surface with a variety of floor cleaning accessories including a variety of bassine, steel, polypropylene, and nylon scrub brushes, pads and pad drivers. See the list of optional accessories on page 16 of this manual.

Model 00370A	Vision 17 50/60Hz 115V
Power Source	75' / 22.9 mm cord
Sound Level (dba)	75
Charging Unit	N/A
Brush Drive Motor	3/4 hp
Brush Speed	250 rpm
Vacuum Motor	3/4 hp, 2 stage
Solution Tank	8 gallon/30.28 L.
Recovery Tank	9 gallon/34.1 L.
Speed Forward	brush assist
Squeegee	24"/60.96 cm self-adjusting swing
Scrubbing Path	17"/43.2 cm width
Dimensions	36" x 19" x 33" 91.44 cm x 48.26 cm x 83.82 cm
Shipping Weight	188 lbs./ 85.28 kg.
Base Weight	148 lbs./ 67.13 kg.
Warranty	1 year

Note: Additional machine variables are available. See accessories page for codes and description.

120 VOLT, 50/60 CYCLE MACHINES GROUNDING INSTRUCTIONS

This product must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be inserted into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

⚠ WARNING: Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the product - if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

This product is for use on a nominal 120 volt circuit and has a grounding attachment plug that looks like the plug illustrated in Fig. 1. Make sure that the product is connected to an outlet having the same configuration as the plug. No adaptor should be used with this product.

For maximum protection against electric shock, use a circuit that is protected by a ground fault circuit interrupter. The green (or green and yellow) conductor in the cord is the ground wire. Never connect this wire to any terminal other than the ground terminal.

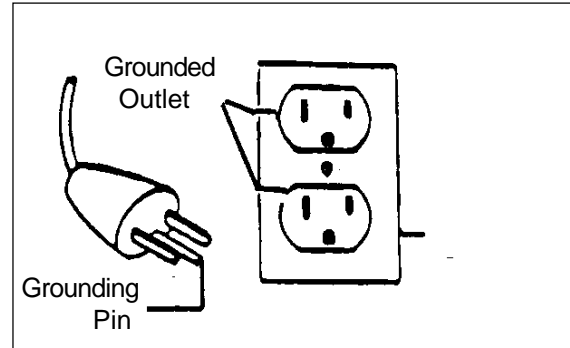


Figure 1

⚠ WARNING: To prevent possible electric shock, protect the machine from rain. Keep the machine in a dry building.

⚠ WARNING: To prevent possible electric shock, always use a 3-wire electrical system connected to the electrical ground. For maximum protection against electrical shock, use a circuit that is protected by a ground fault circuit interrupter. Consult your electrical contractor.

⚠ WARNING: Do not cut, remove or break the ground pin. If the outlet does not fit the plug, consult your electrical contractor.

⚠ WARNING: Have worn, cut, or damaged cords and plugs replaced by an authorized service person.


EXTENSION CORDS

Use only an approved extension cord with three conductors, a plug with three terminals, and a connector body with three holes. The machine has a power cord with wire size 14 AWG (AWG means American Wire Gauge).

⚠ WARNING: If you use an extension cord, use an extension cord with minimum wire size 14 AWG. Do not use an extension cord longer than 50 feet. Do not join two extension cords.

PROCEDURES FOR TRANSPORTING

How to Put the Machine Into a Van or Truck

 **WARNING:** This machine is heavy. Get assistance before attempting to transport or move. Use two able persons to move the machine or a ramp or incline. Always move slowly. Do not turn the machine on a ramp. Do not stop and leave the machine on a ramp or incline.

To load the machine into a van or truck follow this procedure:

1. Remove the squeegee and the brush (see "How to Prepare Machine for Operation").
2. Obtain a loading ramp that is at least 8' long and secure enough to support the weight of the machine.
3. Make sure the ramp is clean and dry.
4. Put the ramp into position and secure.
5. Align the machine on a level surface in front of the ramp.
6. With the assistance of another person, pull the machine up the ramp slowly.
7. Securely fasten the machine to the vehicle.

How to Remove a Machine From a Van or Truck

To remove the machine from a van or truck, follow this procedure:

1. Make sure that there are no obstructions in the area.
2. Obtain an unloading ramp that is at least 8' long and strong enough to support the weight of the machine.
3. Make sure the ramp is clean and dry.
4. Put the ramp into position and secure.
5. Untie the machine.
6. With the aid of another person, carefully guide the machine out of the truck or van onto the unloading ramp slowly.
7. When guiding the machine on the unloading ramp, position yourself to maintain a slow speed. Never stand below machine on ramp.

MACHINE CONTROLS and FEATURES

Brush Switch. See Figure 2.

The brush switch is to the left of the vacuum switch on the control panel. To start the brush motor, press the top of the switch. To stop the brush motor, press the bottom of the switch.

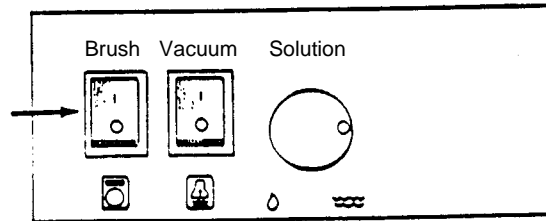


Figure #2

Vacuum Switch. See Figure 3.

The vacuum switch is to the left of the solution control knob. To start the vacuum motor, press the top of the switch. To stop the vacuum motor, press the bottom of the switch.

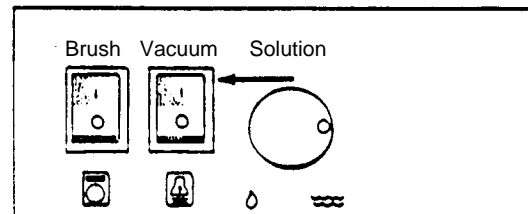


Figure #3

Solution Control Knob. See Figure 4.

The solution control knob is in the middle of the control panel. For more solution, turn the knob to the right. For less solution, turn the knob to the left.

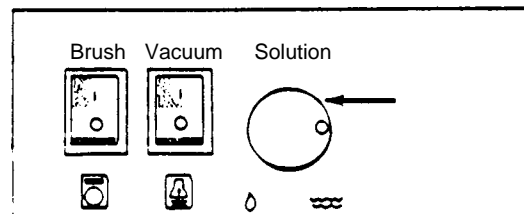


Figure #4

Circuit Breaker.

Electric Model

Brush Motor Circuit breaker only.
(located on control panel)

MACHINE CONTROLS and FEATURES (cont'd)

Brush Control Pedal. See Figure 5.

The brush control pedal is at the back of the machine in the lower right corner. Use your foot to operate the pedal. To lower the brush, push the pedal down and to the left, releasing it from the locked position. To raise the brush, push the pedal down and to the right engaging the lock.

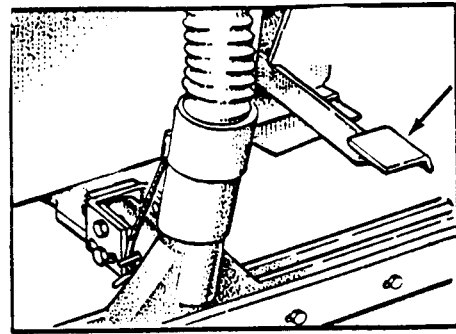


Figure #5

Brush Tilt Control.

The brush tilt control is on the left side by the motor. To access motor, turn off the key, remove the squeegee cable, and undo tank clamps. To adjust how the machine pulls, loosen the screw. Tilt the motor forward to decrease the brush-assist traverse. Tilt the motor back to increase the brush-assist traverse. After adjustment retighten the screw.

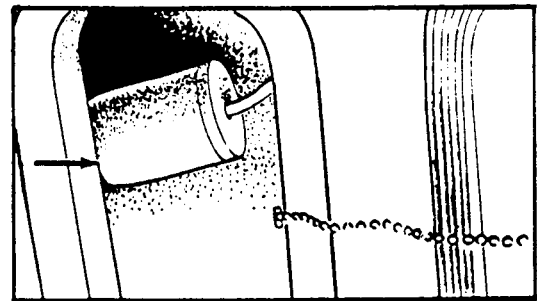


Figure #6

The Float Shut-Off. See Figure 6.

The float shut-off is in the back of the recovery tank. When the liquid raises the float, the float switch will automatically turn the vacuum motor off. To continue working you must drain the recovery tank.

The Squeegee Handle. See Figure 7.

The squeegee handle is at the back of the machine in the middle. To lower the squeegee, pull the handle to the right and lower. To raise the squeegee, lift the handle up and push to the left.

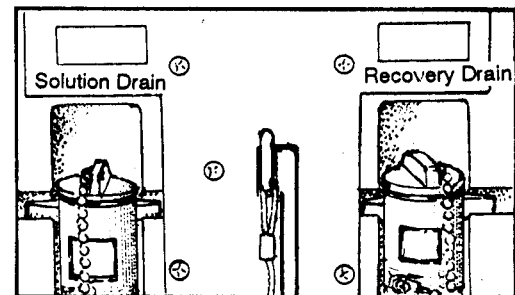


Figure #7

MACHINE CONTROLS and FEATURES (cont'd)

Machine Control Handle. See Figure 8.

The machine control handle (a) is located on the back side of the machine. The handle is adjustable for operator comfort and ease. The handle adjustment knobs are located at the base (b) of the handle.

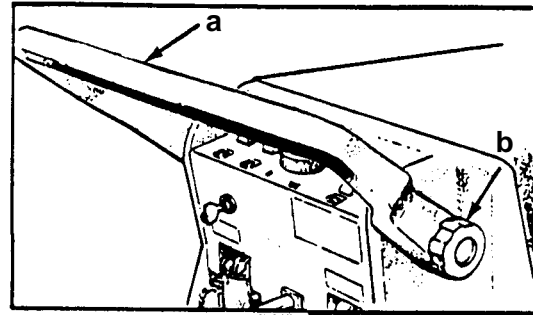


Figure #8

Machine Lift Handle. See Figure 9.

The machine lift handle is located on the front of the machine. Use this handle to lift the machine when changing the brush. See the section in this Owner's Manual "Installing or Removing a Brush or Pad Driver".

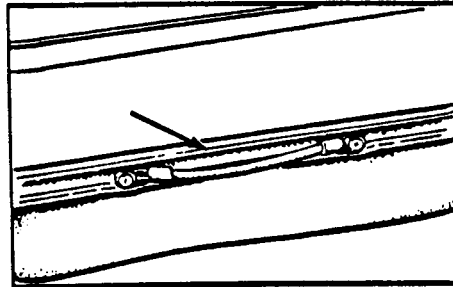


Figure #9

Machine Support Leg. See Figure 10.

The machine support leg is located in the front of the machine under the bumper skirt. Put the machine support leg down when installing or removing a brush or pad driver.

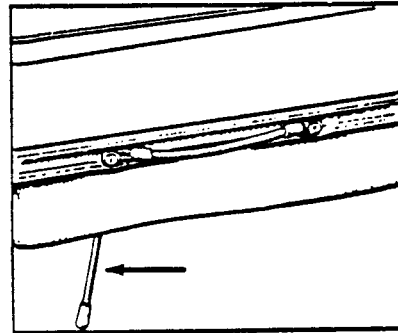


Figure #10

How to Install the Squeegee

To install the squeegee, follow this procedure:

1. Attach the squeegee cable to the squeegee lift arm (a) and squeegee bracket (b). See Figure #11.
2. Raise the squeegee lift arm.
3. Place the squeegee onto the squeegee bracket.
4. Push the hair pin through the holes on the squeegee bracket.
5. Attach the squeegee hose to the hose connection on top of squeegee. See figure #12.

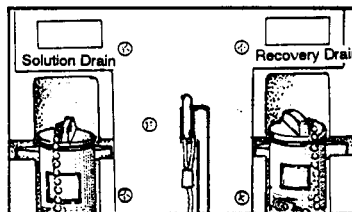


Figure #11a

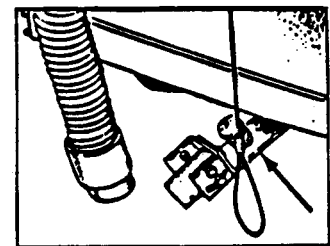


Figure #11b

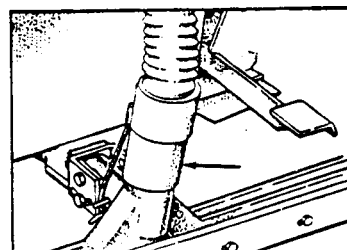


Figure #12

HOW TO PREPARE THE MACHINE FOR OPERATION

How to Install the Squeegee Connection

The proper method for assembling the squeegee connection is as follows::

1. Unscrew the nut completely.
2. Slide the nut and gasket onto the tube.
(Figure 1a)
3. Slide the elbow onto the tube and make sure the gasket is secured into the elbow.
(Figure 2a)
4. As you hold the elbow tight onto the tube, tighten the nut over the gasket and the elbow.
(Figure 3a)

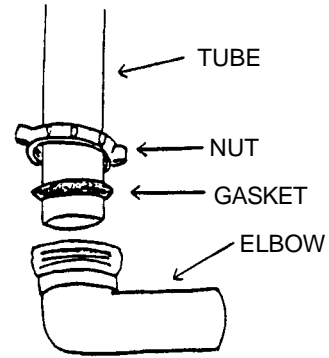


Figure 1a

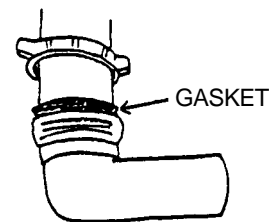


Figure 2a

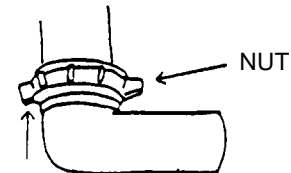


Figure 3a

How to Install or Remove a Brush or Pad Driver

To install or remove a brush or a pad driver, follow this procedure:

NOTE: The brush may spin off the machine if the brush switch is turned ON or OFF while the brush is in the raised position.

1. If machine is an electric model disconnect the power supply.
2. Put the squeegee down to the floor by pulling the squeegee handle to the right and down.
3. Remove the cotter pin from the squeegee bracket and remove the squeegee. See Figure #12.
4. Slide the squeegee bracket either right or left all the way under the machine skirt. See Figure #11.
5. While lifting the machine up with the machine lift handle (a), lower the support leg and position like a kickstand (b). See Figure 13

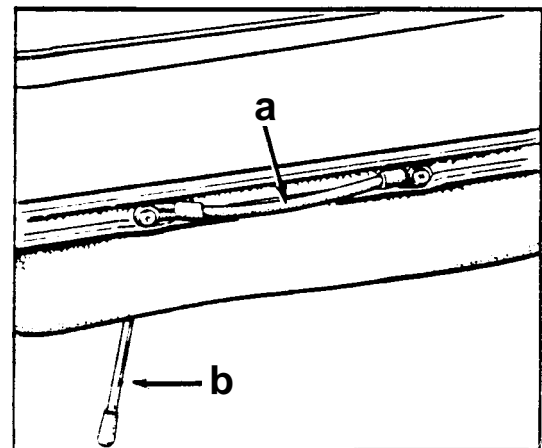


Figure 13

HOW TO PREPARE THE MACHINE FOR OPERATION (cont'd)

6. To install the brush or pad driver, align the lugs on the locking plate of the pad driver or brush with the adapter plate.
7. Turn the brush or pad driver clockwise to lock it into position.
8. To remove a brush or pad driver, turn the pad driver or brush to the left and remove.
9. Lift up the machine with the lift handle and return the support leg to its normal position.



CAUTION:

Leaving the brush motor switch in its "DOWN" position when the machine is not in use can damage the brush or pad driver. Always leave the brush motor in the "UP" position while not in use.

HOW TO OPERATE THE MACHINE

Filling the Solution Tank

To fill the solution tank, follow this procedure:

1. Lift the solution tank lid out of the opening. Allow the lid to hang to the front of the machine. See figure # 14.
2. With a hose or bucket fill the solution tank with clean water to within one inch of the bottom of the opening.
3. Add a cleaning chemical to the water. For the correct amount, follow the manufacturer's directions shown on the chemical container.
4. Put the lid back onto the solution tank opening.

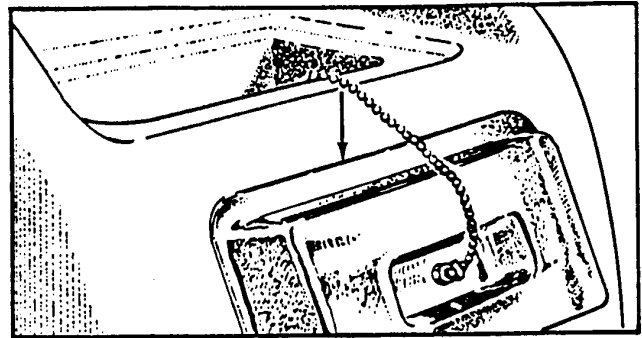


Figure #14

Operating the Machine

1. Put water and a cleaning chemical into the solution tank.
2. Lower the squeegee. To lower the squeegee, pull the squeegee handle to the right and lower.
3. Lower the brush. To lower the brush, step on the brush control lever (figure #15) and push down slightly, then move the lever to the left and allow it to come up.

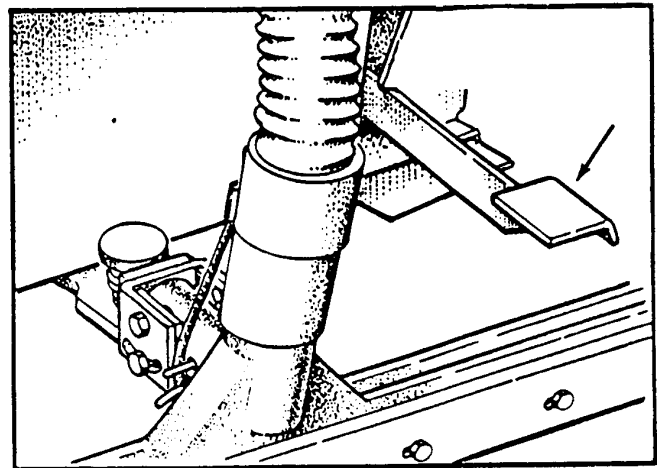


Figure #15

NOTE: Keep the machine moving when the brush is rotating on the floor.

4. Press the top of the brush switch to activate the brush motor.
5. Press vacuum switch to activate vacuum motor.
6. Activate the flow of solution by turning the solution control knob to the right. To make sure you have an even flow of solution, turn the knob to the right as the amount of solution in the tank decreases.
7. Move the machine forward in a straight and steady direction. If machine is a traverse model, select a speed and then press on the traverse handle switch to activate the traverse.

HOW TO OPERATE THE MACHINE (cont'd)

8. To turn the machine, push the rear of the machine to the side opposite the direction you want to turn. It is **NOT RECOMMENDED** that you move the machine backward during a cleaning operation.
9. When you make more passes across the floor, let the brush clean approximately 2 inches of the area already cleaned by the last pass.

NOTE: During most cleaning procedures, apply and remove the solution in one operation.

Shutting Down the Machine

To shut down the machine, follow this procedure:

1. Turn solution flow "Off" by turning the knob all the way to the left (counter clockwise).
2. Lift the squeegee up by lifting up on the handle and locking it into the "UP" position.
3. Press the bottom of the vacuum switch to turn the vacuum "Off".
4. Press the bottom of the brush switch to turn "off" the brush motor.
5. Raise the brush up by pushing down on the brush lift lever with your foot sliding the lever to the right.

NOTE: The brush may spin off the drive adapter if the brush switch is turned ON or OFF while the brush is in the raised position.

How to Clean a Very Dirty Floor

To clean a very dirty floor, follow this procedure:

1. Put water and cleaning chemical into the solution tank.
2. Activate the flow of solution by turning the solution control knob to the right and move the machine in a straight and steady direction. You are not removing the solution in this pass.
3. After the solution has set on the floor long enough to start cleaning, repeat the pass with the squeegee in the lowered position.
4. If the floor remains dirty, repeat the passes following the steps outlined in "Operating the Machine".

MAINTENANCE

- ⚠ DANGER:** Maintenance and repairs performed by unauthorized personnel could result in damage or injury. Maintenance and repairs must be done by authorized Clarke personnel only.
- ⚠ DANGER:** Operating a machine that is not completely or fully assembled could result in injury or property damage. Do not operate this machine until it is completely assembled. Inspect the machine carefully before operation. Keep all fasteners tight.
- ⚠ DANGER:** Electrocution could occur if maintenance and repairs are performed on a unit that is not properly disconnected from the power source. Always disconnect the power supply before attempting any maintenance or service.
- ⚠ WARNING:** Attempting maintenance and or repairs to this machine before emptying the solution or recovery tank could result in machine or property damage.

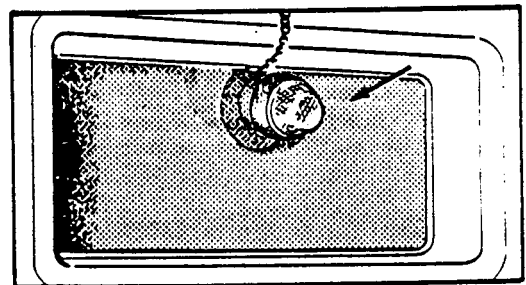


Figure #16

Procedures Before Work is Begun

Keep the machine clean. It will need fewer repairs and have a longer life.

1. Check power cord and plug for frayed or damaged wires or missing terminal or plug.
2. Make sure the recovery tank cover is in place.
3. Check the solution tank screen and clean if necessary. See Figure #16.
4. Make sure the vacuum screen is clean and in position in the front of the recovery tank. See Figure #17.
5. Make sure the solution and recovery drain hoses are in position on the back of the machine. See figure #18. Secure the hose drain plugs.

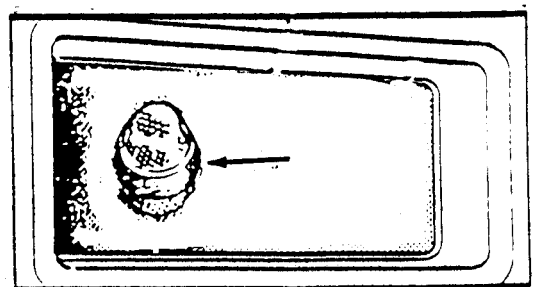


Figure #17

MAINTENANCE (cont'd)

6. Make sure the bumper skirt is in position. The bumper skirt prevents solution from flowing from under the frame.
7. Make sure the brush is in position.
8. Make sure the vacuum hose is installed and on the squeegee. See Figure #19.
9. Connect the power cord to the electrical outlet.

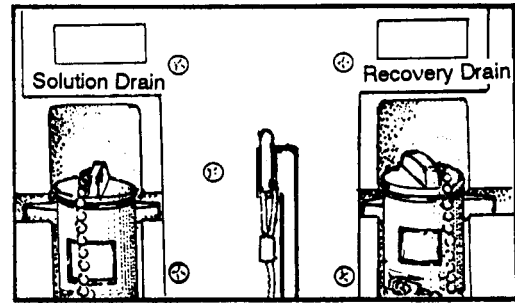


Figure #18

Procedures to be Performed at the End of Work

1. Disconnect from power.
2. Drain and flush the tanks. To drain the recovery and solution tanks, follow this procedure:
 1. Remove the drain hose from the fitting on the back of the machine.
 2. Put the end of the hose over a drain or bucket.
 3. Run clean water into the solution and recovery tanks to flush the tanks.
 4. Put the end of both hoses over a drain or bucket.
3. Leave the tanks and the drain hoses open to dry in the air.
4. Check and clean the squeegee blade. Use a soft cloth to clean the squeegee blade. If the squeegee blade is damaged or worn, turn or replace the blade.
5. Check and clean the vacuum gaskets, the vac screen filter and the solution screen filter. Remove and clean with a vinegar-water solution or warm soapy water. Rinse the parts in clean water.
6. Use a clean cloth and wipe the surface of the machine.
7. Remove the brush or pad driver. Rinse clean and allow to dry. Discard the pad if necessary.
8. Store the machine and accessories in a dry building.

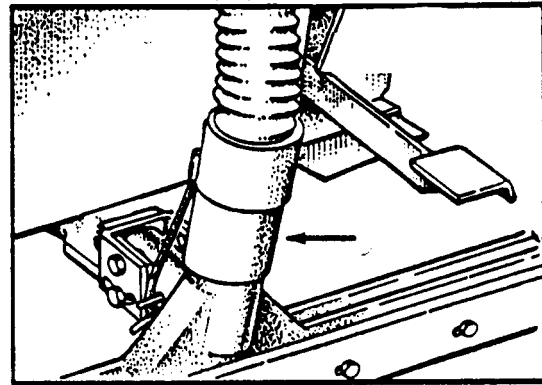


Figure #19

CLARKE TECHNOLOGY
Vision 17E 115V
Machine Variables 11/98

Electric - 115V	Variable Code		
	00371A	Breakdown:	
		00370A 51436B	Vision 17E Std. Base Machine 115V Brush, Polypropylene
	00372A	Breakdown:	
		00370A 53126B	Vision 17E Std. Base Machine 115V Pad Driver

Accessories:

Part No.	Description
51436B	Brush, Polypropylene
53126B	Pad Driver
50527A	Base
56927A	Retainer
50477A	Clutch Plate for Pad/Brush
962819	Clutch Plate Screws
51437B	Nylon Scrub Brush, .028 Dia. Bristles
51439B	Grit Scrub Brush Assembly
682408	Hose Connector - connects 1½" diameter hose to machine
674114	10' x 1½" red spiral lock deluxe hose
639804	1½" double curved aluminum wand
638828	Aluminum 14" squeegee pick up tool
680724	Replacement blades for 638828 (Req. 2 set)
638856	Aluminum combination scrubbing brush & squeegee pick-up tool
51469B	Nylon Scrub Brush, .016 Dia. Bristles
51481A	Mal-Grit Lite
10773K	Parking Brake Kit
18800Au	Squeegee Asm.

NOTE: u indicates a change has taken place since last publication of this manual

PADS BY CASE

Color	Vision 17	Color	Vision 17
Yellow	979169	Green	976157
White	976052	Brown	976055
Red	976053	Black	976158
Blue	976054		

NOTE

[illegible]



Vision 17E 115V

Section II Parts and Service Manual

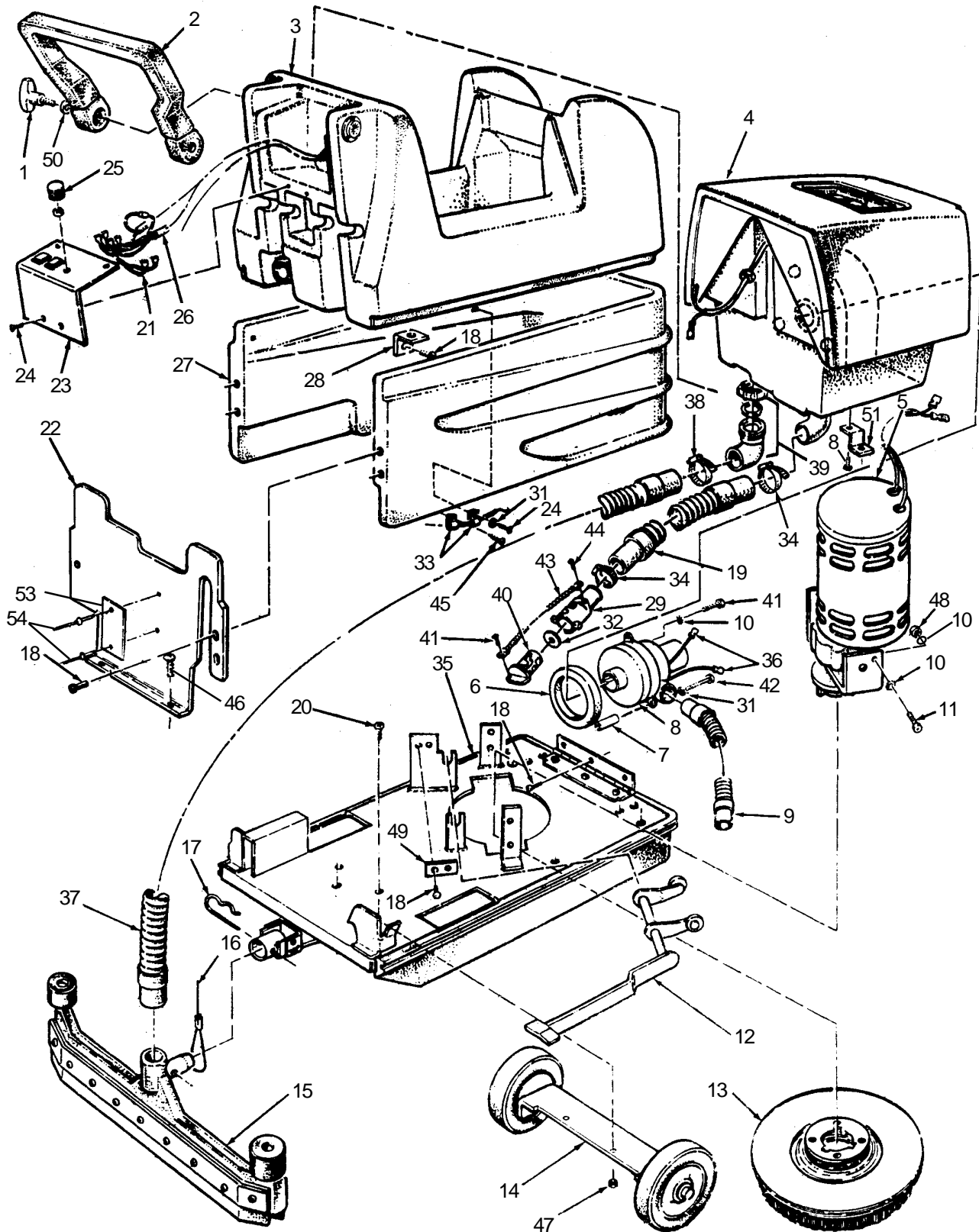
(78452B)

HOW TO CORRECT PROBLEMS IN THE MACHINE

PROBLEM	CAUSE	ACTION
There isn't any solution flow.	<p>The solution tank is empty.</p> <p>The solution knob is turned too far to the left.</p> <p>There is an obstruction in the hose or filter.</p> <p>The solution valve or linkage is damaged.</p>	<p>Fill the solution tank.</p> <p>Turn the solution knob to the right.</p> <p>Remove the obstruction from hose or filter.</p> <p>Repair or replace the valve or the linkage.</p>
The solution flow does not stop.	<p>The solution valve is open.</p> <p>The solution valve or linkage is damaged.</p> <p>The solution valve is dirty.</p> <p>There is a damaged seat and washer in the solution valve.</p> <p>The valve stem is dirty.</p>	<p>Close the solution valve.</p> <p>Repair or replace the valve or the linkage.</p> <p>Clean the solution valve.</p> <p>Replace the valve.</p> <p>Clean and lubricate the valve stem.</p>
The machine does not remove any water from the floor.	<p>The squeegee is up.</p> <p>The vacuum motor is not running.</p> <p>The vacuum motor switch is defective.</p> <p>The recovery tank is full.</p> <p>The vacuum shut-off float circuit is open.</p> <p>The vacuum filter screen is dirty.</p> <p>There is an obstruction in the vacuum tube.</p> <p>There is an obstruction or damage in the squeegee, vacuum hose or standpipe.</p> <p>The squeegee hose is disconnected.</p>	<p>Lower the squeegee.</p> <p>Put the switch in the "ON" position.</p> <p>Have an authorized Clarke person make repairs.</p> <p>Drain the tank.</p> <p>Recovery tank is full. Empty the tank.</p> <p>Clean or replace the filter screen.</p> <p>Remove the obstruction.</p> <p>Remove the obstruction or repair the damage.</p> <p>Connect the hose.</p>
The machine does not remove all the water from the floor.	<p>The squeegee blades are damaged, worn, or incorrectly installed.</p> <p>There is an obstruction or damage in the squeegee, vacuum hose or standpipe.</p> <p>The filter screen is dirty.</p> <p>The gasket on the cover of the recovery tank are damaged.</p> <p>Defective vacuum motor.</p>	<p>Turn or replace the squeegee blade.</p> <p>Correctly install the squeegee blade.</p> <p>Remove the obstruction or repair the damage.</p> <p>Clean or replace the filter screen.</p> <p>Replace the gasket.</p> <p>Have an authorized Clarke person make repairs.</p>
The cleaning is not even.	<p>The scrub brush or pad are worn.</p> <p>There is damage to the brush assembly casters or to the solution valve.</p> <p>The motor is not running.</p>	<p>Replace the scrub brush or pad.</p> <p>Have an authorized service person make the repairs.</p> <p>Repair the wiring, replace the switch, Service the motor, circuit breaker and the contractor.</p>

[illegible]

CLARKETECHNOLOGY
Vision17 E 115V
Model #00370A 115V Machine Assembly 2/01

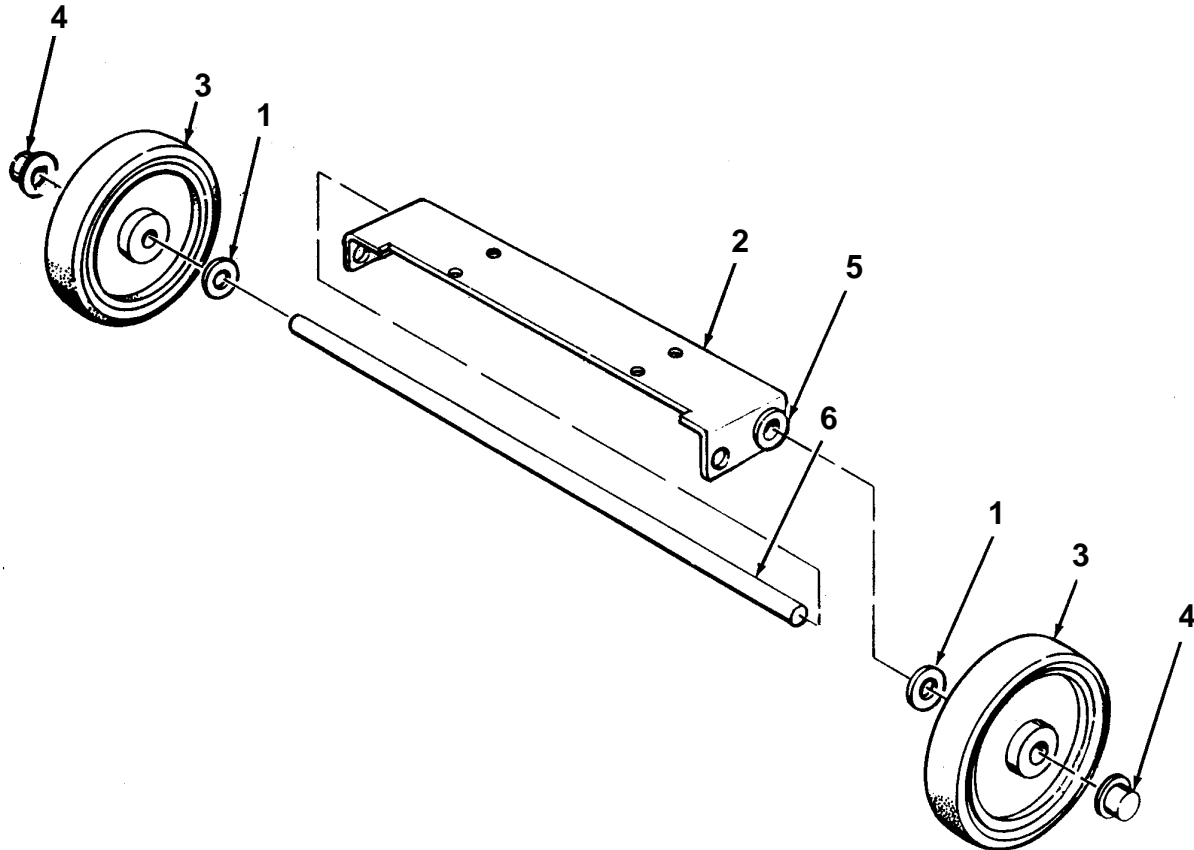


CLARKE TECHNOLOGY
Vision 17 E 115V
Models #00370A 115V Machine Assembly Parts List 2/01

Ref	Part No.	Description	Qty
1	55531A	Knob, Handle	2
2	34804A	Handle, Control	1
3	Page 29	ASM, Solution Tank	1
4	Page 30	ASM, Recovery Tank	1
5	Page 26	ASM Brush, 115V Motor	1
	Page 32	Gear Box Parts List	
	Page 33	Brush Motor Parts List	
6	643418	Gasket Vacuum Motor	1
7	58534A	Spacers	3
8	44906A	Motor, 115V Vacuum	1
	Page 31	Vacuum Motor Parts List	
9	30448A	Hose, Exhaust, Vacuum	1
10◆	980603	Washer, Shake Proof	3
11◆	962798	Screw 10-24 x ½	1
12	Page 23	ASM, Brush Lift	1
13	Page 15	Pad or Brush Driver	1
14	Page 22	ASM, Non Traverse Electric	1
15	Page 28	ASM, Squeegee	1
16	61664A	Cable, Squeegee	1
17	66515A	Pin, Locking	1
18	85395A	Screw, ¼ - 20 S.S..	8
19	30415A	Hose, Drain	1
20	84238A	Screw 5/16 Flat	2
21	49686A	Harness, Brush	1
22	37108A	Panel, Rear	1
23	Page 27	ASM, Panel Control 115V	1
24	84237A	Screw, 10 - 32 X ½ S.S.	4
25	55502A	Knob, Solution Control	1
26	49688A	Harness, Vacuum Motor	1
27	38952B	Support Tank	1
28	61244A	Bracket Tank	5
29	839401	Valve, Drain	1
31	87026A	Washer	7
32	833407	Gasket	1
33	832102	Clamp, Solution Cable	2
34	832002	Clamp, Plastic	2
35	Page 24/25	ASM, Main Frame	1
36	47905A	Terminal, Male	2
37	30407B	Hose, Squeegee	1
38	752020	Clamp, Hose	1
39	53630A	Elbow, Recovery	1
40	833901	Drain, Handle	1
41◆	962987	Screw, 10-24 x 3/8	2
42	962950	Screw ¼ - 20 x 3"	3
43	52206A	Chain	1
44	962943	Screw 8-18 x ½	1
45	962981	Screw, 10-00 x 5/8	1
46	962109	Screw 10-24	2
47	920110	Nut 5/16 -18 ESNA	2
48◆	920296	Nut 10-24	1
49	66939A	Retainer	Ref
50	980413	Washer	2
51	63040A	Bracket, Recovery	2
52	839204	Trim, Frame	1
53	77261A	Plate, Warning	1
54	83010A	Rivet	2
NI	58901A	Wire Tie	1
NI	699202	Wire Tie	2
NI	77049A	Label, Squeegee Lift	1
NI	77050A	Label, Brush Lift	1
NI	77053A	Tag, Hang Instruction	1
NI	77077A	Plate, Warning (Head)	1

NOTE: ◆ indicates a change has been made since the last publication of this manual.

CLARKETECHNOLOGY
Vision 17E 115V
ASM, Non Traverse
Drawing & Parts List 11/98 Form #10505A

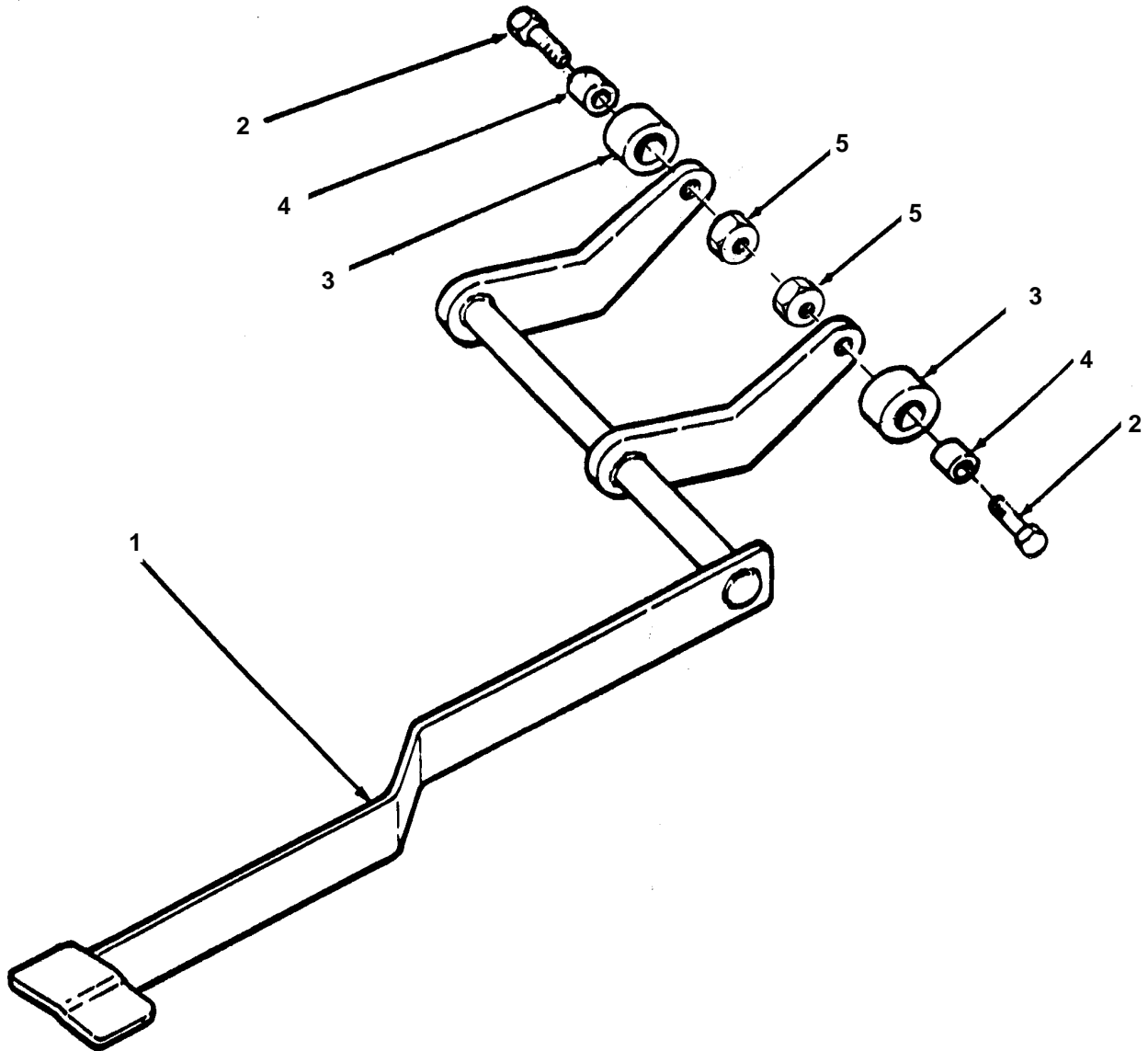


Ref	Part No.	Description	Qty
1	87607A	Washer, Nylon	2*
2	61247A	Bracket, axle	1
3	59934A	Wheel	2
4	920346	PAL Nut	2
5	601104	Bushing, Pivot	2
6	60149A	Shaft	1

Nominal

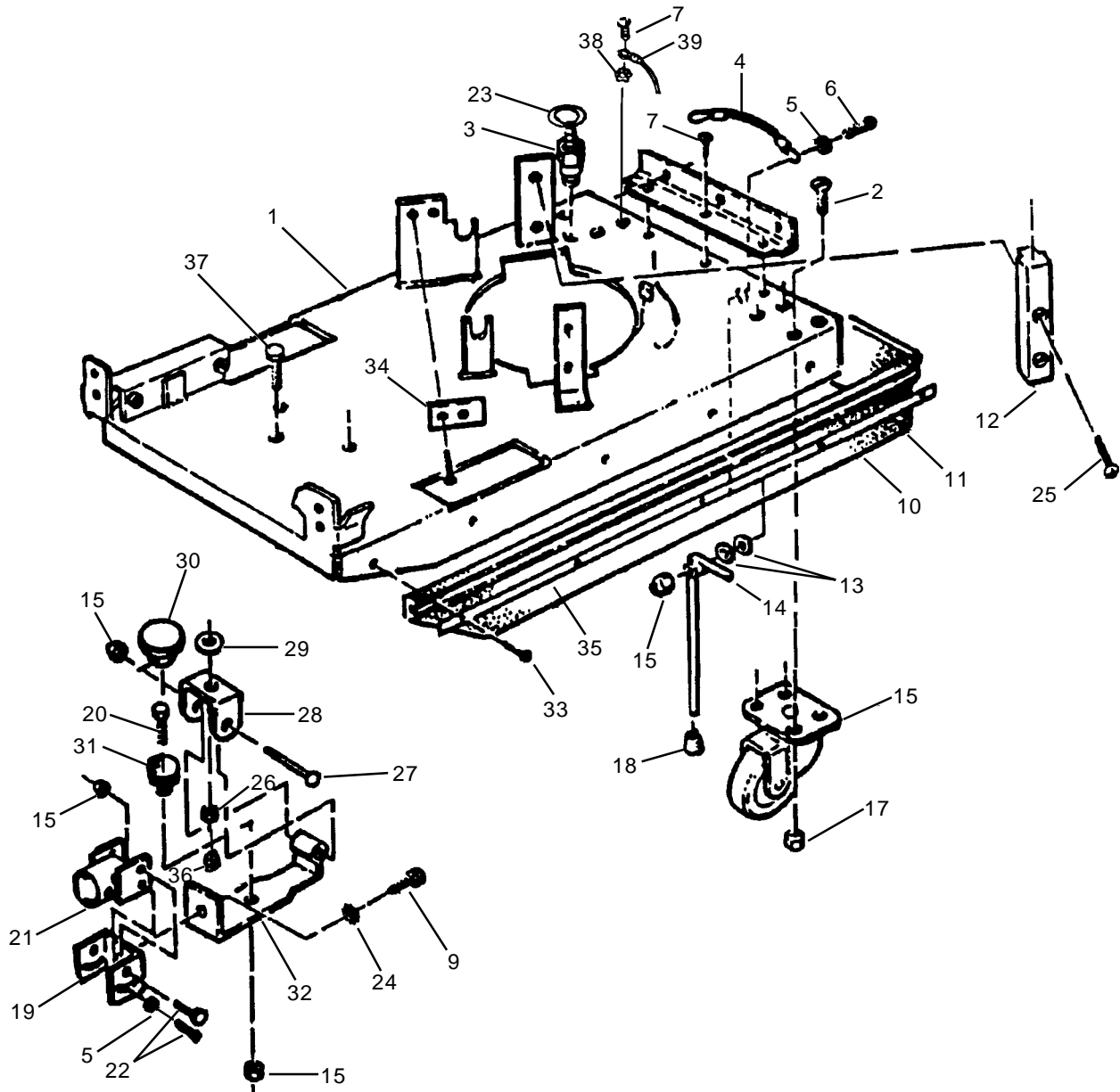
*NOTE: Place washers as required to center the wheels
 (Number of washers may vary)

CLARKE TECHNOLOGY
Vision 17E 115V
Brush Lift Drawing & Parts List 11/98
Form #16608A



Ref	Part No.	Description	Qty
1	65424A	Lift Brush, Weldment	1
2	85600A	Screw ¼ - 20	2
3	51516A	Bushing	2
4	608210	Spacer, Handle, Bolt	2
5	920208	Nut, ¼-20	2

CLARKETECHNOLOGY
Vision 17E 115V
ASM, Main Frame
Drawing 2/01
Form #16923A

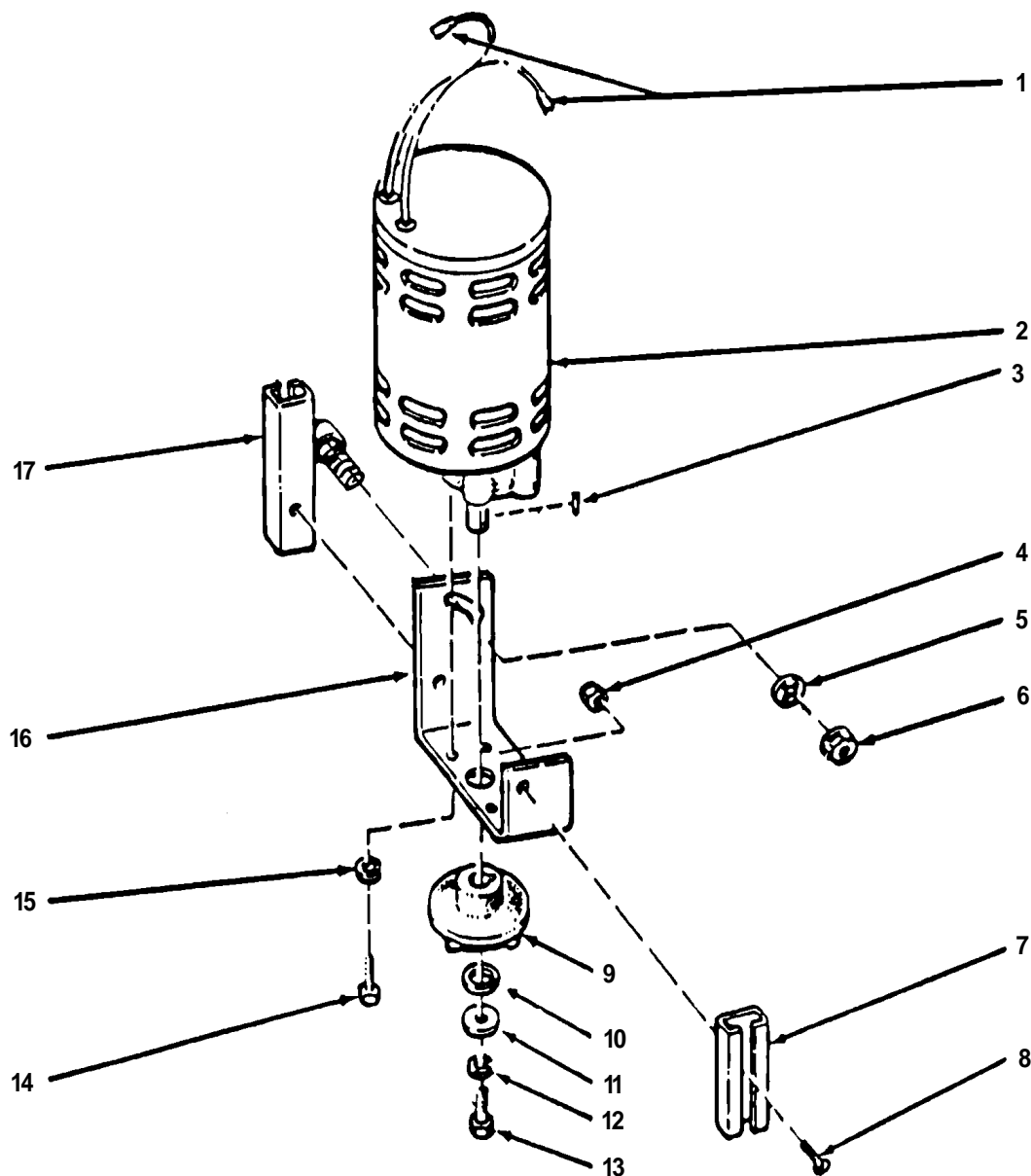


CLARKE TECHNOLOGY
Vision 17E 115V
ASM, Main Frame
Parts List 2/01
Form #16923A

Ref	Part No.	Description	Qty
1	63423B	Weldment, Main Frame	1
2	84238A	Screw $\frac{5}{16}$ -18 x $\frac{3}{4}$ Flat Hd SS	6
3	53618A	Adapter $\frac{3}{8}$ X $\frac{3}{8}$	1
4	64456A	Handle	1
5	87026A	Washer, S.S. $\frac{1}{4}$ " Flat	4
6	85384A	Screw $\frac{1}{4}$ - 20 X $1\frac{1}{2}$	2
7 ♦	85395A	Screw $\frac{1}{4}$ - 20 X $\frac{1}{2}$	6
8	64505A	Hinge Tank	1
9	85822A	Screw $\frac{3}{8}$ -16 x $\frac{7}{8}$	1
10	31227A	Shirt, Main Frame	1
11	66960A	Retainer, Skirt	3
12	38009A	Guide, Plastic	3
13	980442	Wave Washer	2
14	68733B	Kick Stand	1
15	81104A	Nut $\frac{1}{4}$ - 20 Nylock	6
16	52117A	Caster, Swivel	2
17	920110	Nut, $\frac{5}{16}$ - 18 Elastic	6
18	52047A	Cap	1
19	69028A	Squeegee Swival	1
20	85391A	Screw $\frac{1}{4}$ - 20	1
21	60698A	Squeegee, Bracket	1
22	170915	Screw $\frac{1}{4}$ -20 x $\frac{3}{4}$	4
23	722021	Clamp	1
24	87614A	Washer $\frac{3}{8}$ Int., Ext.	1
25	84233A	Screw $\frac{1}{4}$ - 20 Flat	6
26	67867A	Nut, Squeegee Spacer	1
27	85396A	Screw	1
28	61252A	Bracket, Swing Squeegee	1
29	87027A	Washer	2
30	30517A	Bushing Squeegee	1
31	58612A	Spring, Squeegee	1
32	68730B	Bracket, Arm Weldment	1
33	85397A	Screw 10 - 24 X $\frac{3}{8}$ SS	12
34	66939A	Retainer	1
35	66961A	Retainer Skirt	2
36	81112A	Nut, 5/16-18 ESNA	1
37 ♦	84229A	Screw, 5/16-18 x .88	1
38 ♦	980614	Washer, 1/4 Star	1
39 ♦	49068A	Wire, Ground	1

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

CLARKETECHNOLOGY
Vision 17E
115V Brush Motor Assembly
Drawing and Parts List 2/01
Form #17115A

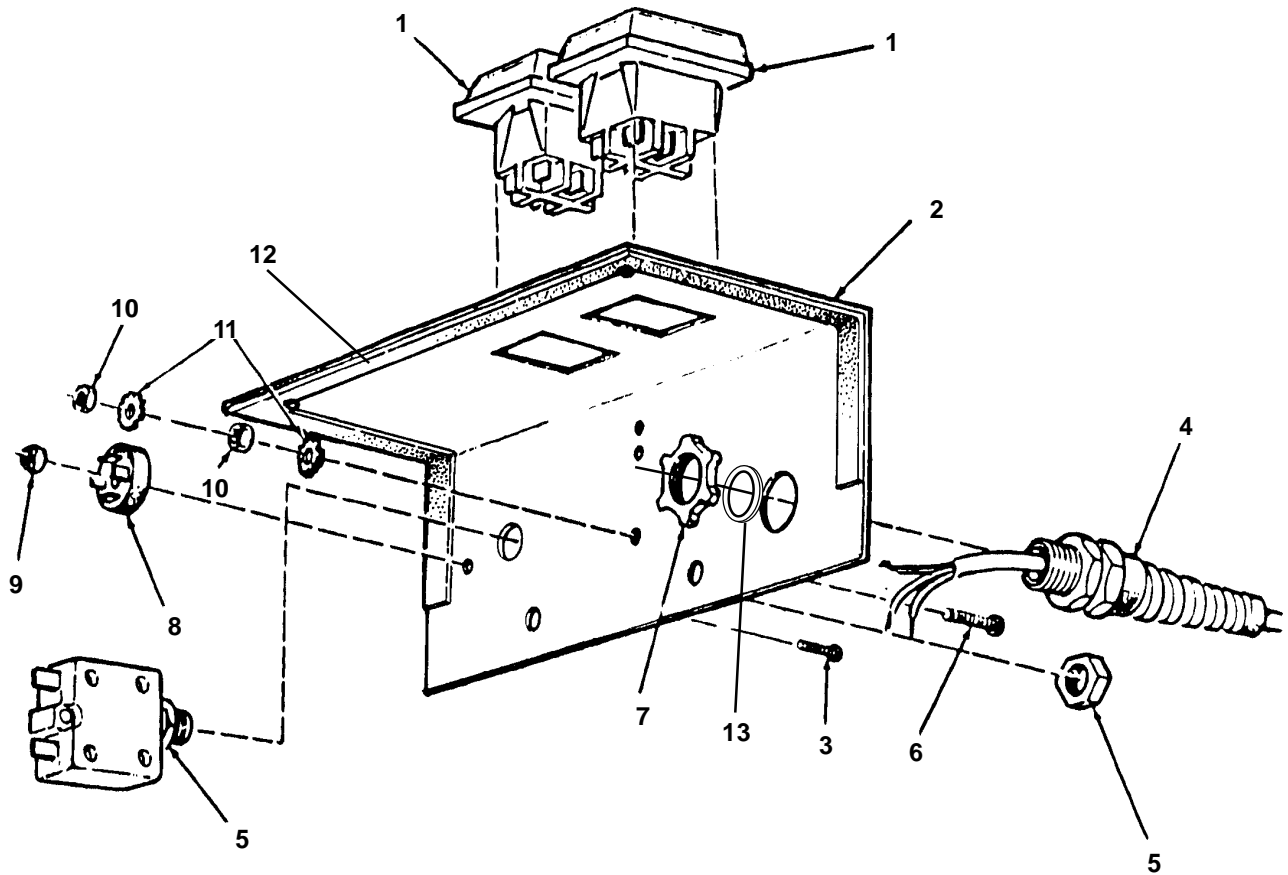


Ref	Part No.	Description	Qty
1	47710A	Terminal, Brush Motor	2
2	44713A	Gear Mtr. 200 RPM 115V	1
3	80501A	Key (with #4)	1
4	81104A	Nut 1/4 - 20 Nylock	2
5	980662	Washer	1
6	67865A	Spacer Tilt handle	
7	63600A	Guide RH	1
8	84242A	Screw 1/4 - 20 X 5/8	2
9	20308A	Adapter Motor	1

Ref	Part No.	Description	Qty
10	980679	Spacer Washer	1
11	980210	Washer Impeller	1
12	980652	Washer, Lock 5/16	1
13	85811A	Screw 5/16 Hex	1
14◆	85727A	Screw 3/8 - 16 X 1 Hex Head	4
15	980638	Lockwasher 3/8	4
16	61238A	Bracket Motor Lift	1
17	68761A	Guide LH	1

NOTE: ◆ indicates a change has been made since the last publication of this manual.

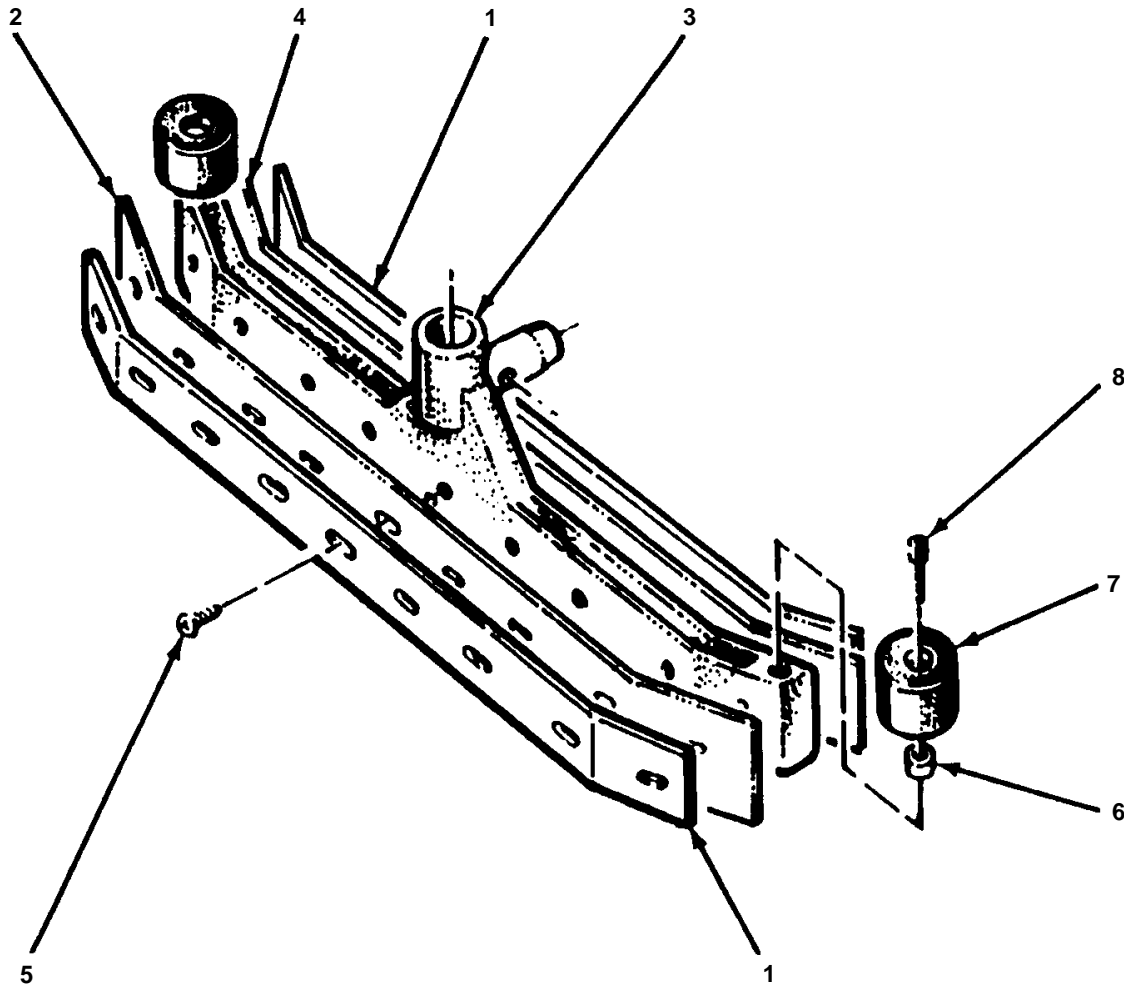
CLARKE TECHNOLOGY
Vision 17E - 115V
Panel Assembly
Drawing & Parts List 11/98
Form #17644A



Ref	Part No.	Description	Qty
1	47316B	Switch, Rocker DPST	2
2	66177B	Panel, Control	1
3	962212	Screw, 6 X 32 X 7/8	1
4	42096A	Cord, Power Supply	1
5	41418A	Breaker, Circuit 10A	1
6	85383A	Screw, 10 - 32 X 5/4	1
7	82100A	Locknut, 1/2" Conduit	1
8	46106A	Rectifier, Bridge	1
9	920056	Nut, 6 - 32 Elastic	1
10	920224	Nut, 10 - 32 Hex	2
11	980603	Washer, Shakeproof	2
12	54349A	Gasket, Panel	1
13◆	170870	Washer	1
NI	699202	TIE, Wire	2
NI	49687A	Harness, Brush	1

NOTE: ◆ indicates a change has been made since the last publication of this manual.

CLARKETECHNOLOGY
Vision 17E 115V
Squeegee Assembly Drawing & Parts List 4/96
Form #18809A

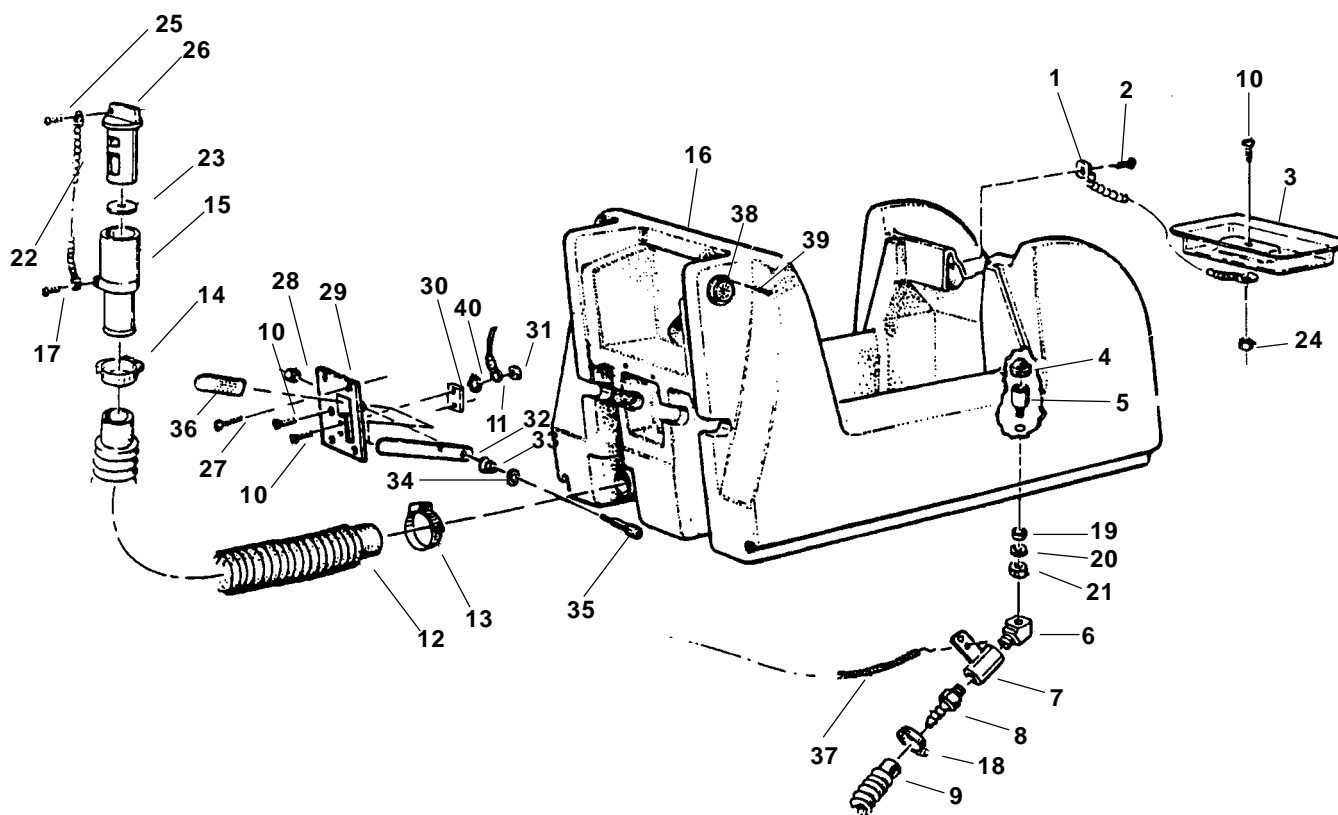


Ref	Part No.	Description	Qty
1	66921B	Retainer, Squeegee	2
2	30902A	Blade, Squeegee Rear	2
3	27703A	Squeegee, Casting	1
4	30903A	Blade, Squeegee Front	1
5	85398A	Screw $\frac{1}{4}$ - 20 X $\frac{1}{2}$	18
6	838201	Spacer, Wheel Guide	2
7	839702	Wheel, Brush Guide	2
8	962841	Screw, $\frac{5}{16}$ - 18 x $1\frac{1}{4}$	2

Blades Available:

30918A	Blade, Sq., Front Nitrile/EPDM	1
30919A	Blade, Sq., Rear Nitrile/EPDM	1

CLARKETECHNOLOGY
Vision 17E 115V
Solution Tank Assembly
Drawing & Parts List 2/01
Form #19169A

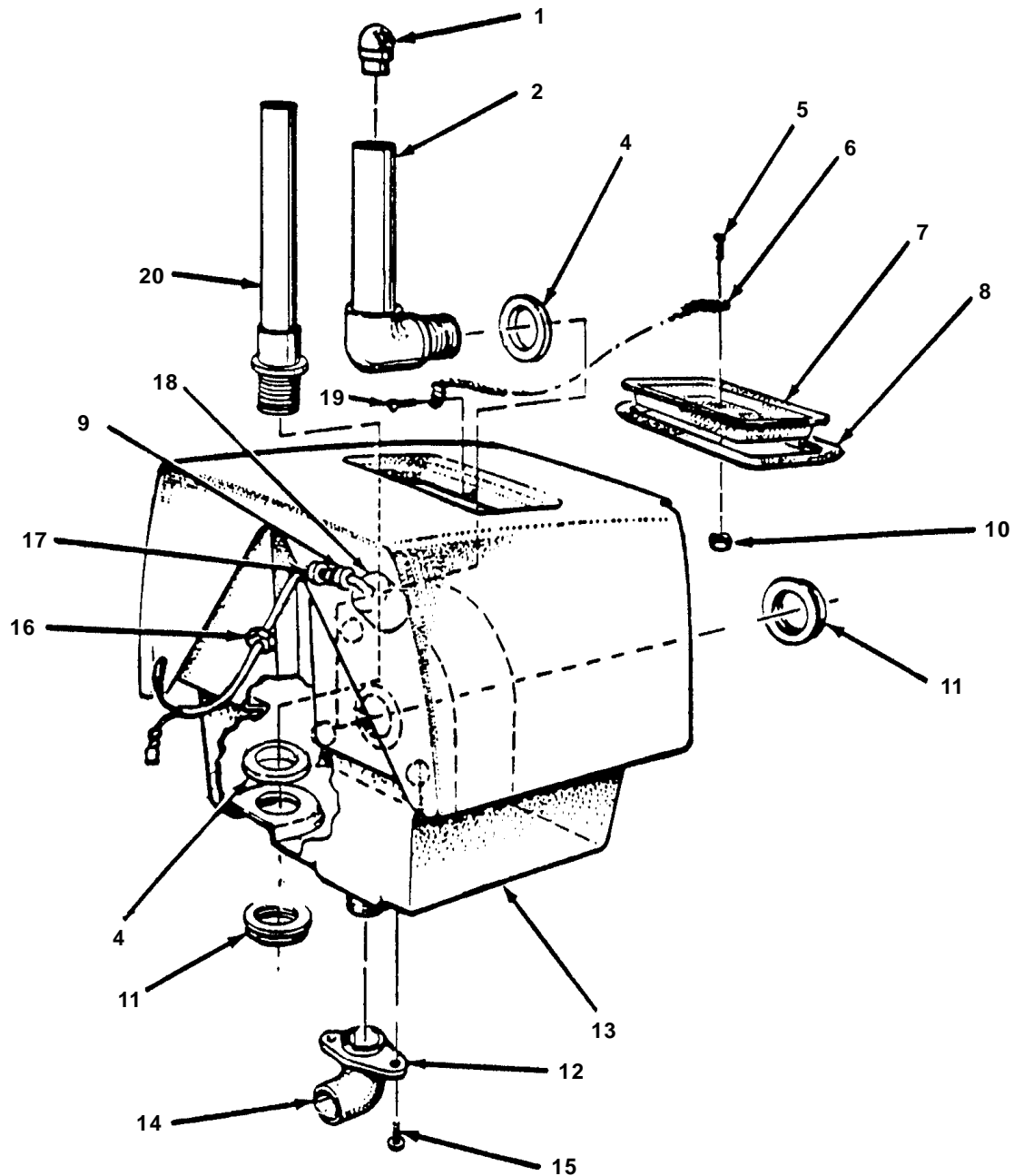


Ref	Part No.	Description	Qty
1	692409	Chain Cover	1
2	85519A	Screw 1/4 - 20 X 3/8	1
3	832322	Cover, Sol. Tank	1
4	878535	Strainer, Sol. Tank	1
5	60317A	Adapter, Filter	1
6	53614A	Elbow, Solution	1
7	849401	Valve, Solution	1
8	53618A	Adapter, 3/8 x 3/8	1
9	35138A	Hose, Solution	1
10	962798	Screw 10-24 X 1/2	1
11◆	49067A	Wire	1
12	30416A	Hose, Drain	1
13	752020	Clamp, Hose	1
14	832002	Clamp, Hose	1
15	839401	Drain	1
16	38964B	Tank, Solution	1
17	962943	Screw	1
18	722021	Clamp, Hose	1
19	833401	Gasket, Drain	1

NOTE:◆ indicates a change has been made since the last publication of this manual.

Ref	Part No.	Description	Qty
20	980630	Washer	1
21	920264	Nut 1/4 - 16 Hex	1
22	52206A	Chain, Cover	1
23	833407	Gasket, Drain	1
24◆	81110A	Nut, 10-24	1
25	962987	Screw, 10-24 x 3/8	1
26	833901	Handle, Drain Valve	1
27	84237A	Screw, 10-32 x 1/2	2
28	81217A	Nut 1/4-20	1
29	68762A	Plate, Squeegee Lift	1
30	68646A	Plate, Wear	1
31	81110A	Nut, 10-24 Nylock S.S.	2
32	64476A	Handle, Squeegee Lift	1
33	53030A	Spring, Taper	1
34	980651	Washer	1
35	80031A	Bolt, Shoulder	1
36	52755A	Cover, Handle	1
37	52503A	Cable, Solution	1
38	36101A	Ratchet, Handle	2
39	84236A	Screw, 6-32	6
40◆	980603	Washer	1

CLARKETECHNOLOGY
Vision 17E 115V
Recovery Tank Assembly
Drawing & Parts List 2/01
Form #19170A

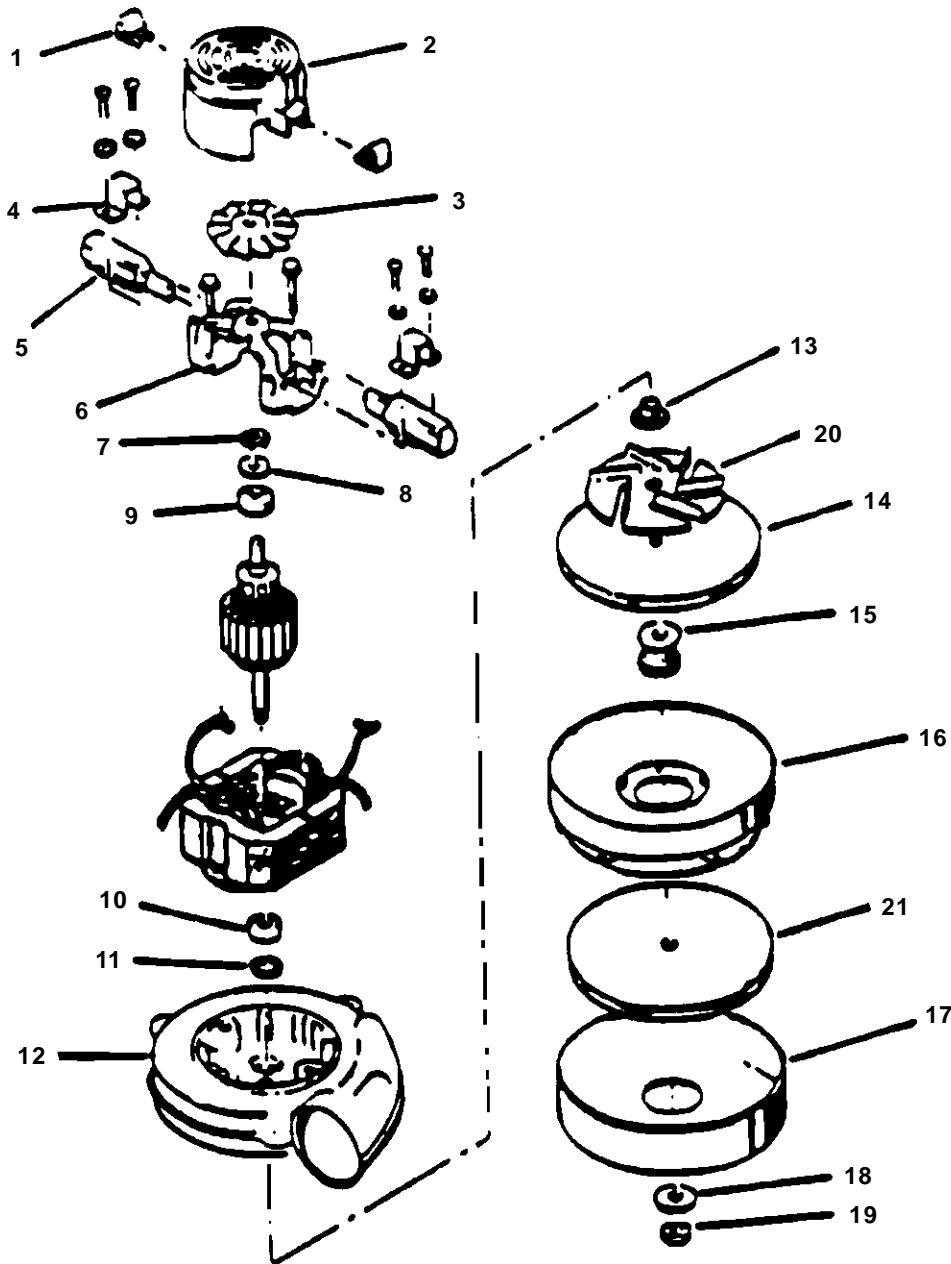


Ref	Part No.	Description	Qty
1	58012A	Strainer, Rec. Tank	1
2	59320A	Tube, Stand, Recovery	1
4	837304	O'Ring Seal	2
5	962798	Screw, 10-24 x 1/2	1
6	692409	Chain, Cover	1
7	832322	Cover, Solution Tank	1
8	34256A	Gasket, Rec. Drain	1
9◆	56459A	Strainer, Relief	1
10◆	81110A	Nut 10-24	1
11	920797	Nut, Drain Valve Lock	2

Ref	Part No.	Description	Qty
12	66933A	Elbow, Retainer	1
13	38966B	Tank, Recovery	1
14	53629A	Elbow, recovery Drain	1
15	85395A	Screw, 1/4-20 x 1/2	2
16	82100A	Nut, 1/2 Conduit	1
17	87612A	Seal, Washer	1
18	14092A	Switch, Float Shut-Off	1
19	85519A	Screw, 1/4-20 x 3/8	1
20	39323A	Tube, Recovery	1
N	51828A	Strap, Hose	2

NOTE: ◆ indicates a change has been made since the last publication of this manual.

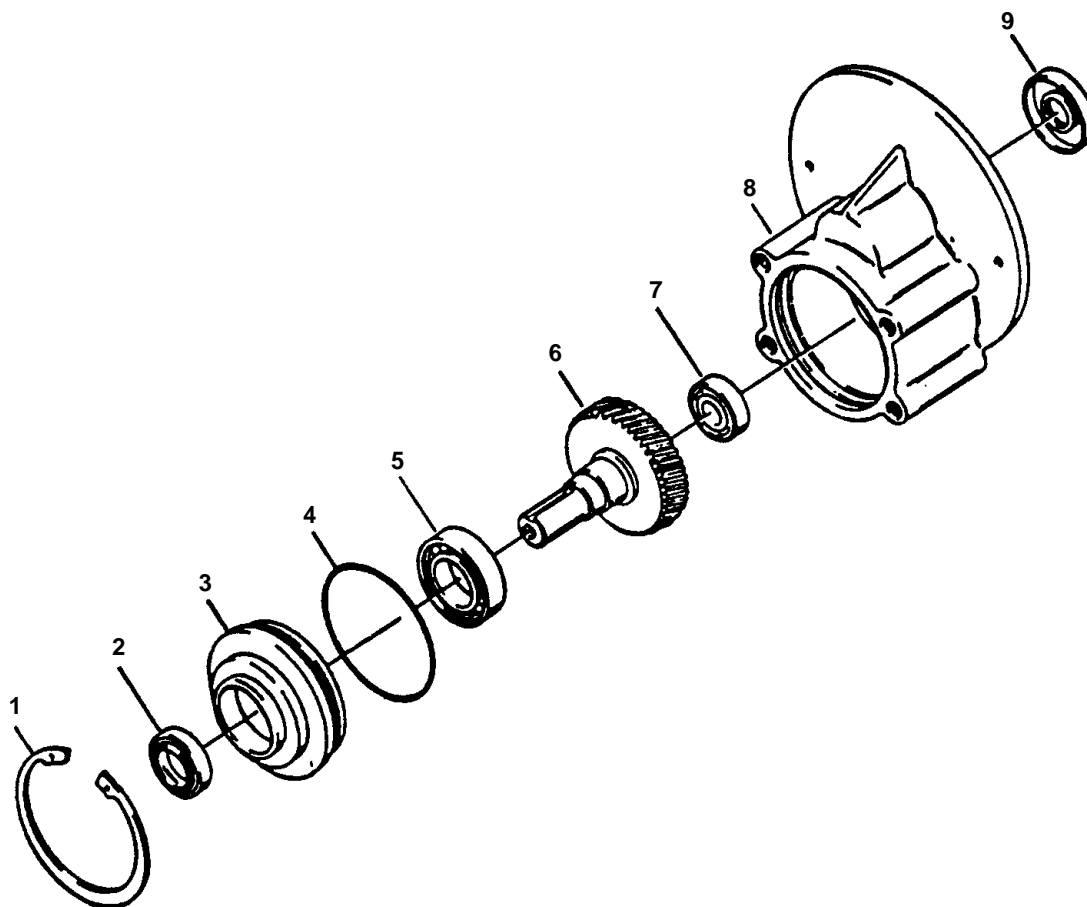
CLARKETECHNOLOGY
Vision 17E 115V
115V Vacuum Motor
Drawing & Parts List 11/93
#44906A



Ref #	Part No.	Description	Qty
1		Not Available	
2	54809A	Housing - Vent	1
3	53905A	Fan, Vent	2
4	51914A	Clamp	2
5	51419A	Carbon Brushes 115V	1
6	50618A	Commutator End Bracket	1
7	638313	Load Spring	1
8	53100A	Disc	1
9	902679	Ball Bearing	1
10	902648	Ball Bearing	1
11	59803A	Neoprene Washer	1

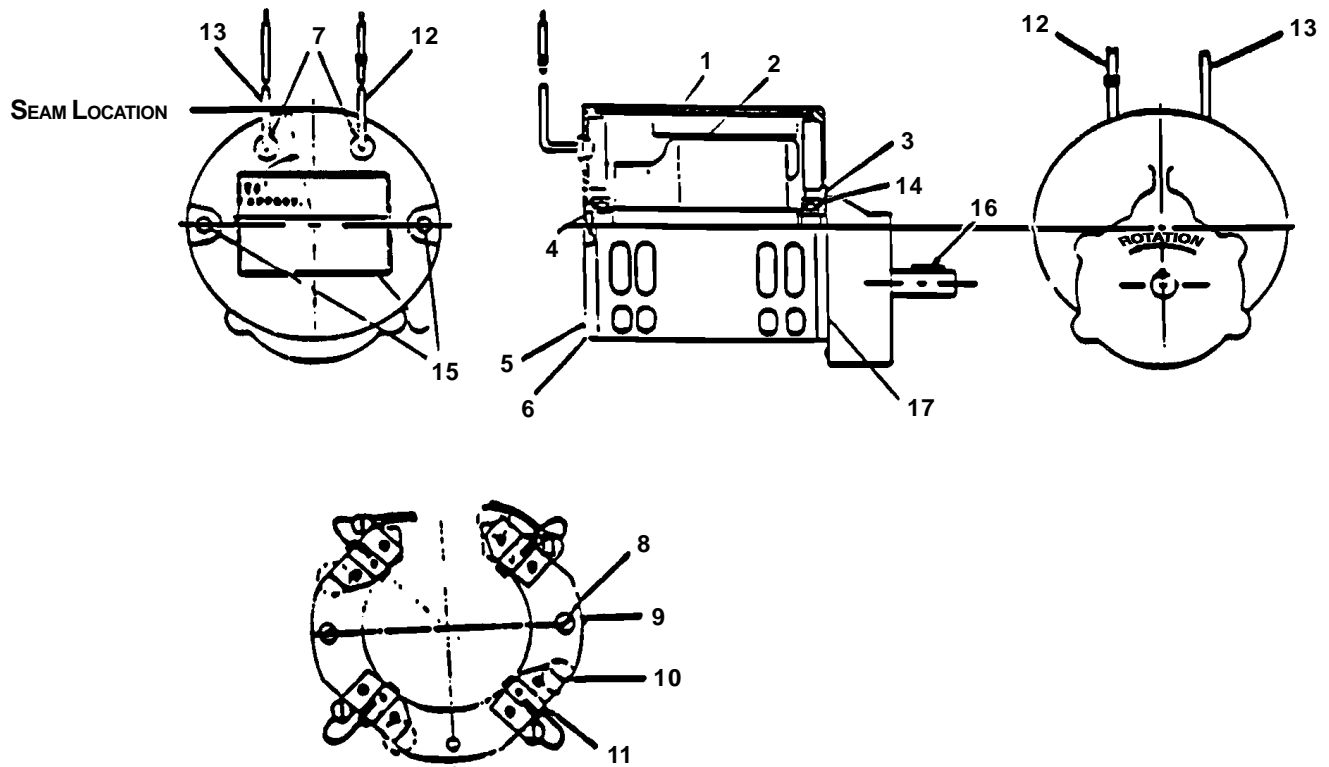
Ref #	Part No.	Description	Qty
12	50610A	Fan End Bracket	1
13	58501A	Spacer	1
14	53914A	Vacuum Fan	2
15	658201	Spacer	1
16	53908A	Stationary Fan	1
17	57904A	Fan Shell	1
18	980205	Washer	1
19	920329	Nut	1
20	53906A	Fan	1
21	53914A	Fan - Rotating	1

CLARKETECHNOLOGY
Vision 17 115V
ASM, Gear Box #54238A
Drawing & Parts List 11/93



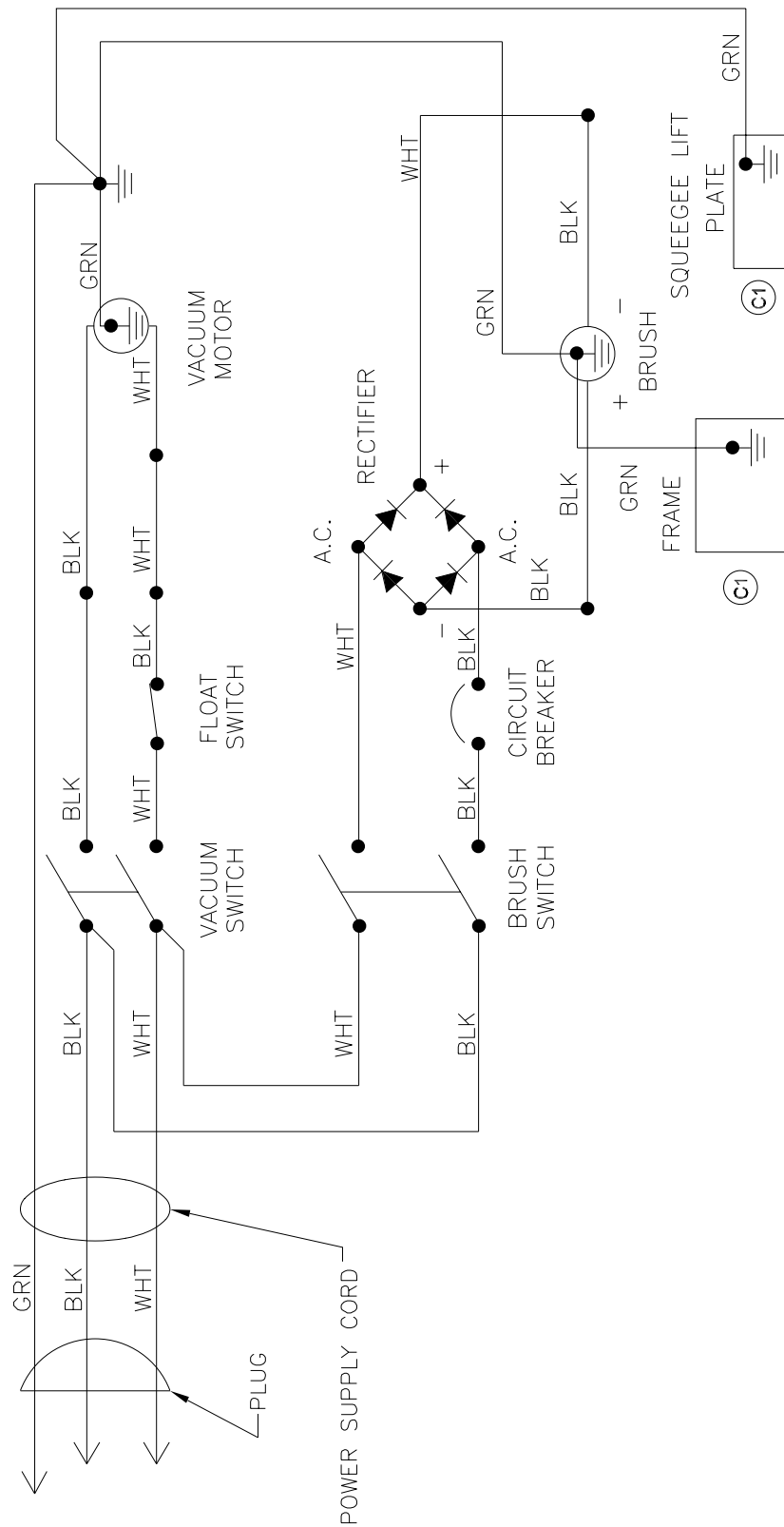
Ref	Part No.	Description	Qty
1	57846A	Ring, Snap	1
2	58143A	Seal, Oil, Small	1
3	52050A	Cap End	1
4	56668A	O - Ring	1
5	51176A	Bearing, Large	1
6	58316A	Shaft and Gear	1
7	902605	Bearing, Small	1
8	54883A	Housing	1
9	58144A	Seal, Oil Large	1
NI		Grease	1oz

CLARKE TECHNOLOGY
Vision 17E 115V
Brush Motor 44713A
Parts List 8/97

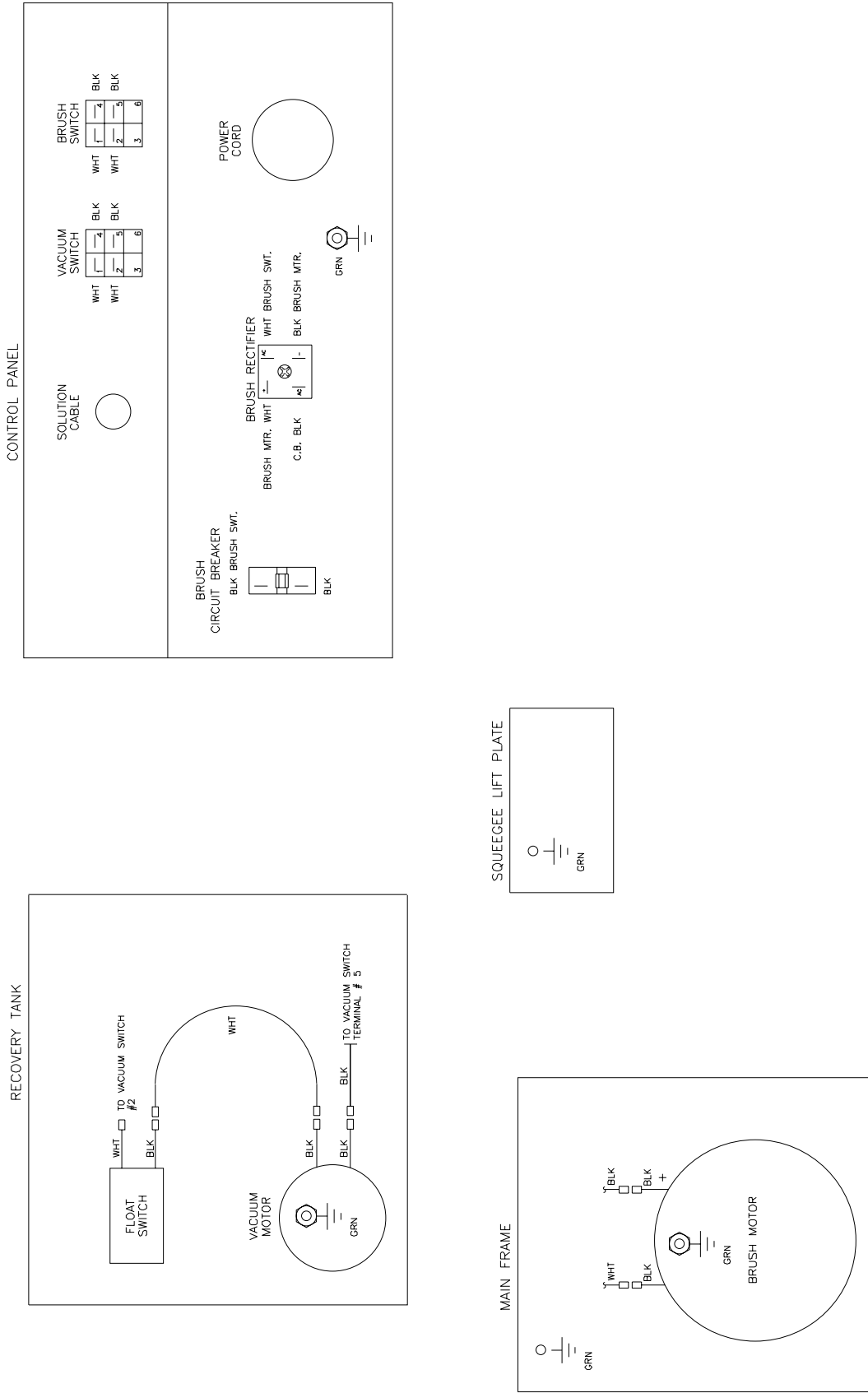


Item	Part No.	Description	Qty
1	56477A	Stator Frame Assembly (w/Magnets & Clips)	1
2	50141A	Armature Assembly (w. B.E. & F.E. Bearings)	1
3	902654	Bearings B.E.	1
4	902550	Bearing F.E.	1
5	51839A	Commutator Bracket Assembly (w/Brush BRD Assembly Leads)	1
6	50520A	Commutator Bracket	1
7	56480A	Strain Relief	2
8	962546	Brush Board Screw	2
9	50518A	Brush Board Assembly (w/ Springs & Brushes)	1
10	448396	Brush Spring	4
11	50516A	Brush	4
12	55654A	Lead Assembly	1
13	55655A	Lead Assembly	1
14	59805A	Helical Washer	1
15	50515A	Thru Bolt	2
16	80501A	Shaft Key	1
17	54238A	B.E. Bracket Assembly (Gear Box)	1

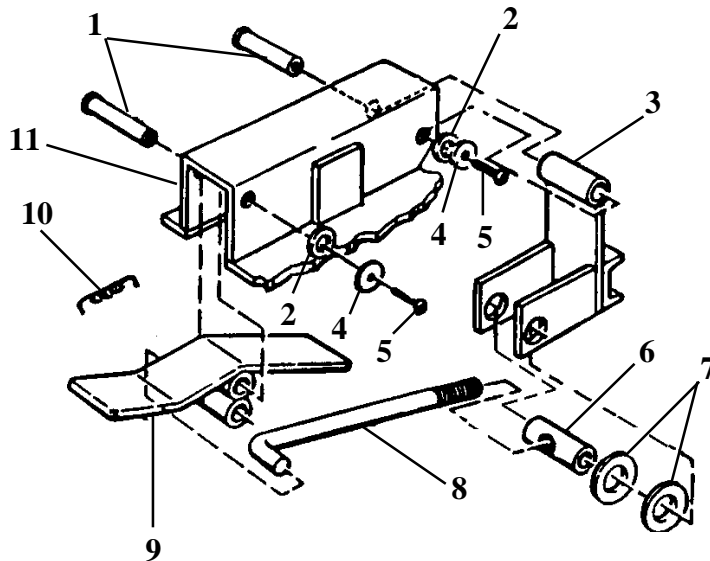
CLARKE TECHNOLOGY
Vision 17 E 115V
Model #00370A - 115V Electrical Schematic 2/01



CLARKETECHNOLOGY
Vision 17 E 115V
Model #00370A - 115V Connection Diagram 2/01



CLARKETECHNOLOGY
Vision 17E
Parking Brake Kit 10773A 6/98



Ref #	Part #	Description	Qty.
1	66536A	Pin, Brake	2
2	87027A	Washer	2
3	17519A	Brake, Pad Weldment	1
4	87036A	Washer, #10 S.S.	2
5	85397A	Screw, 10-24 x 3/8 S.S.	2
6	67422A	Shaft, Brake	1
7	87613A	Washer, Nylon	2
8	67133A	Rod, Brake	1
9	10735A	Pedal, Brake	1
10	608340	Spring, Brake	1
11	Ref.	Machine Frame	ref.

The brake control prevents the movement of the machine. The brake pedal is at the back of the machine in the lower left corner. To activate the brake, push the pedal down. Lift the pedal to release the brake.

ALTO® PRODUCT SUPPORT BRANCHES

U. S. A. Locations

HEAD OFFICE

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Springdale, Arkansas 72764
(501) 750-1000
Customer Service - 1-800-253-0367
Technical Service - 1-800-356-7274

ALTO U.S. Inc., Bowling Green, Ohio 43402
1100 Haskins

ALTO U.S. Inc., Clearwater, Florida 33765
1500 N. Belcher Road

SERVICE FACILITIES

ALTO U.S. Inc., Carlstadt, New Jersey 07072
150 Commerce Road
(201) 460-4774

ALTO U.S. Inc., Elk Grove, Illinois 60007
2280 Elmhurst Road
(847) 956-7900

ALTO U.S. Inc., Denver, Colorado 80204
1955 West 13th Ave.
(303) 623-4367

ALTO U.S. Inc., Houston, Texas 77040
7215 North Gessner Road

SALES AND SERVICE FACILITIES

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29815 John R.
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ALTO U.S. Inc., Marietta, Georgia 30062
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(770) 973-5225

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ALTO Norge A/S, Oslo (Norway)
Bjornrudveien 24
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CLARKE TECHNOLOGY U.S. LIMITED WARRANTY

This Clarke Industrial/Commercial Product is warranted to be free from defects in materials and workmanship under normal use and service for a period of one year from the date of purchase, when operated and maintained in accordance with Clarke's Maintenance and Operations instructions.

This brush drive and traverse motors are warranted to be free from defects in materials and workmanship under normal use and service for one year from the date of purchase, provided the motors are inspected for carbon motor brush wear at six-month intervals by an authorized Clarke repair station. Failure to comply with the six-month inspection requirement or failure to replace worn motor brushes identified during the inspection will void the one-year warranty on the motors. Cost of the six-month inspection and replacement of carbon motor brushes is the responsibility of the purchaser. In the event of a warranty claim on the motors, proof of inspection and any required motor brush replacement must be provided.

This warranty is extended only to the original purchaser for use of the product. It does not cover normal wear parts such as electrical cable, rubber parts, and motor brushes.

Clarke's liability under this warranty is limited to repair of the product and/or replacement of parts and is given to purchaser in lieu of all other remedies, including INCIDENTAL AND CONSEQUENTIAL DAMAGES.

THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE SPECIFIED HEREIN. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION OF THE FACE HEREOF. NO WARRANTIES, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY, SHALL BE IMPLIED. A warranty registration card is provided with your Clarke product. Return the card to assist Clarke in providing the performance you expect from your new floor machine.

If a difficulty develops with the product, you should: a) Contact the nearest authorized Clarke repair location or contact the Clarke Service Operations Department, 2100 Highway 265, Springdale, Arkansas 72764, for the nearest authorized Clarke repair location. Only these locations are authorized to make repairs to the product under this warranty. (b) Return the product to the nearest Clarke repair location. Transportation charges to and from the repair location must be prepaid by the purchaser. Clarke will repair the product and/or replace any defective parts with out charge within a reasonable time after receipt of the product.

ALTO U.S. Inc., 2100 Highway 265, Springdale, Arkansas 72764.

CLARKE TECHNOLOGY: POLYDUR® AUTOMATIC SCRUBBER SOLUTION AND RECOVERY TANK FIVE-YEAR GUARANTEE

Your new Clarke Vision Automatic Scrubber has polydur Solution and Recovery Tanks. Polydur is a rotationally molded, medium-density linear polyethylene that won't crack or dent, and withstands most corrosives and temperature extremes. Clarke backs up your Polydur tanks with a five-year guarantee. If a tank breaks or leaks under normal use within five years of the date of purchase, it will be replaced free.

CLARKE TECHNOLOGY UNIBODY FRAME THREE-YEAR WARRANTY

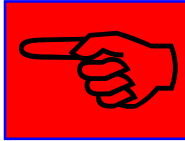
Clarke warrants the frame for the new Vision automatic Scrubbers for a period of three years against defects in materials and workmanship under normal use and service.

CLARKE TECHNOLOGY reserves the right to make changes or improvements to its machine without notice.

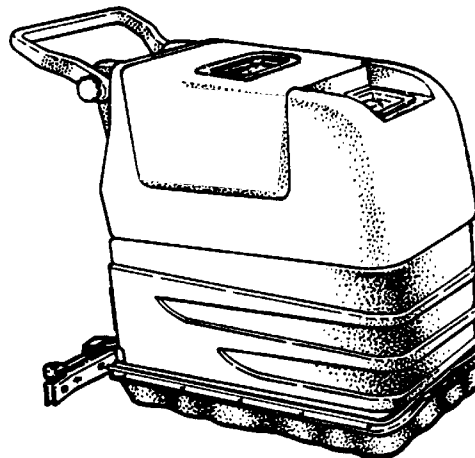
Always use genuine Clarke Parts for repair.



**CLARKE TECHNOLOGY
2100 Highway 265
Springdale, Arkansas, 72764**



Operator's Manual



**Vision 17E
230V**

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 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 English, have this manual explained fully before attempting to operate this machine.

Si Ud. o sus operadores no pueden leer el Inglés, se hagan explicar este manual completamente antes de tratar el manejo o servicio de esta máquina.

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

For new books write to: ALTO U.S. Inc., 2100 Highway 265, Springdale, Arkansas 72764.

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OPERATOR SAFETY INSTRUCTIONS



WARNING



AVERTISSEMENT



ADVERTENCIA



DANGER: Failure to read and observe all **DANGER** statements could result in severe bodily injury or death. Read and observe all **DANGER** statements found in your Owner's Manual and on your machine.



WARNING: Failure to read and observe all **WARNING** statements could result in injury to you or to other personnel; property damage could occur as well. Read and observe all **WARNING** statements found in your Owner's Manual and on your machine.



CAUTION: Failure to read and observe all **CAUTION** statements could result in damage to the machine or to other property. Read and observe all **CAUTION** statements found in our Owner's Manual and on your machine.



DANGER: Failure to read the Owner's Manual prior to operating or attempting any service or maintenance procedure to your Clarke 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 you or your operator(s) cannot read English, have this manual explained fully before attempting to operate this machine.



DANGER: Operating a machine that is not completely or fully assembled could result in injury or property damage. Do not operate this machine until it is completely assembled. Inspect the machine carefully before operation.



DANGER: Machines can cause an explosion when operated near flammable materials and vapors. Do not use this machine with or near fuels, grain dust, solvents, thinners, or other flammable materials. This machine is not suitable for picking up hazardous dust.



DANGER: Using a machine with a damaged power cord could result in an electrocution. Do not use the machine if the power cord is damaged. Do not use the electrical cord to move the machine.



DANGER: Electrocution could occur if maintenance and repairs are performed on a unit that is not disconnected from the power source. Disconnect the power supply before attempting any maintenance or service.













DANGER: Electrocution or fire could occur if the machine is used on a power circuit that repeatedly trips or is undersized. Have a licensed electrician check the fuse, circuit breaker or power supply, and/or contact your local Clarke distributor for assistance.



WARNING: Operating this machine from anywhere other than from the back of the machine could result in injury or damage. Operate this machine only from the rear.



WARNING: This machine is heavy. Get assistance before attempting to transport or move it. Use two able persons to move the machine on a ramp or incline. Always move slowly. Do not turn the machine on a ramp. If operating a machine on a gradient over 2%, do not stop, turn, or park. Read the "Procedures For Transporting" in this manual before transporting.

-  **WARNING:** Machines can topple over if guided over the edges of stairs or loading docks and cause injury or damage. Stop and leave this machine only on a level surface. When you stop the machine, put all switches into their "OFF" position.
-  **WARNING:** Maintenance and repairs performed by unauthorized personnel could result in damage or injury. Maintenance and repairs must be performed by authorized Clarke personnel only.
-  **WARNING:** Any alternations or modifications of this machine could result in damage to the machine or injury to the operator or other bystanders. Alterations or modifications not authorized by the manufacturer voids any and all warranties and liabilities.
-  **WARNING:** Electrical components of this machine can "short-out" if exposed to water or moisture. Keep the electrical components of the machine dry. Wipe the machine down after each use. For storage, keep the machine in a dry building.
-  **WARNING:** Operating a machine without observing all labels and instructional information could result in injury or damage. Read all machine labels before attempting to operate. Make sure all of the labels and instructional information are attached or fastened to the machine. Get replacement labels and decals from your Clarke distributor.
-  **WARNING:** Wet floor surfaces can be slippery. Water solutions or cleaning materials used with this type of machine can leave wet areas on the floor surface. These areas can cause a dangerous condition for the operator or other persons. Always put "Caution" signs around/near the area you are cleaning.
-  **WARNING:** Improper discharge of waste water may damage the environment and be illegal. The United States Environmental Protection Agency has established certain regulations regarding discharge of waste water. Also, city and state regulations regarding this discharge may be in effect in your area. Understand and follow the regulations in your area. Be aware of the environmental hazards of chemicals that you dispose.
-  **CAUTION:** Use of this machine to move other objects or to climb on could result in injury or damage. Do not use this machine as a step or furniture. Do not ride on this machine.
-  **CAUTION:** Your machine warranty will be voided if anything other than genuine Clarke parts are used on your machine. Always use Clarke parts for replacement.
-  **CAUTION:** Using an extension cord with your machine will result in a voltage drop and loss of power. Use of an extension cord is not recommended.

Introduction & Machine Specifications

The newly designed Vision 17 automatic scrubber increases labor efficiency while providing superior cleaning. This unit dispenses the solution, scrubs the floor and then recovers the soiled solution - ***all in one pass.***

The Vision 17 is available in four models to choose from, two of which are electrical - 115V and 230V. The other two models are battery versions, one a standard battery and the other a battery version with traverse. The electric version comes with a scrub brush or pad driver and an Owner's Manual. The battery version comes complete with two 12V batteries, one battery cable assembly, one battery cable, one battery charger, a scrub brush or pad driver and one Owner's Manual.

The Vision 17E can be adapted to clean any hard floor surface with a variety of floor cleaning accessories including a variety of bassine, steel, polypropylene, and nylon scrub brushes, pads and pad drivers. See the list of optional accessories on page 15 of this manual.

Model 50/60 Hz	Vision 17 00370B 50/60 Hz 230V	Vision 17 00370E (w/parking brake) 50/60 Hz 230V
Power Source	75'	22.9 cm Cord
Sound Level (dba)	75	
Charging Unit	N/A	
Brush Drive Motor	3/4 hp	
Brush Speed	250 rpm	
Vacuum Motor	3/4 hp, 2 stage	
Solution Tank	8 gallon	30.28 L.
Recovery Tank	9 gallon	34.1 L.
Speed Forward	brush assist	
Squeegee	24"	60.96 cm swing
Scrubbing Path	17" width	43.2 cm.
Dimensions	36" x 19" x 33"	91.44 cm x 48.26 cm x 88.32 cm
Shipping Weight	188 lbs.	85.28 kg
Warranty	1 year	

Note: Additional machine variables are available. See accessories page for codes and description.

Grounding Instructions - 230 Volt

230 VOLT MACHINES INSTRUCTIONS FOR CONNECTION TO THE POWER SUPPLY AND THE ELECTRICAL GROUND

CAUTION: To avoid damage to the machine operate only on AC frequency and electrical voltage shown on the nameplate. Make sure you have the correct frequency and voltage before connecting the power cord to an outlet.

This product must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be inserted into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

WARNING: Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the product - if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

This product is for use on a nominal 230 volt circuit and has a grounding attachment plug that looks like the plug illustrated in Fig. 1. Make sure that the product is connected to an outlet having the same configuration as the plug. No adaptor should be used with this product.

This machine must be connected to the electrical ground to protect the operator from electrical shock. The machine has a power cord with two main conductors and one earthing conductor. Connect the plug to the receptacle. The green and yellow conductor in the cord is the ground wire. Never connect this wire to any terminal other than the ground terminal.

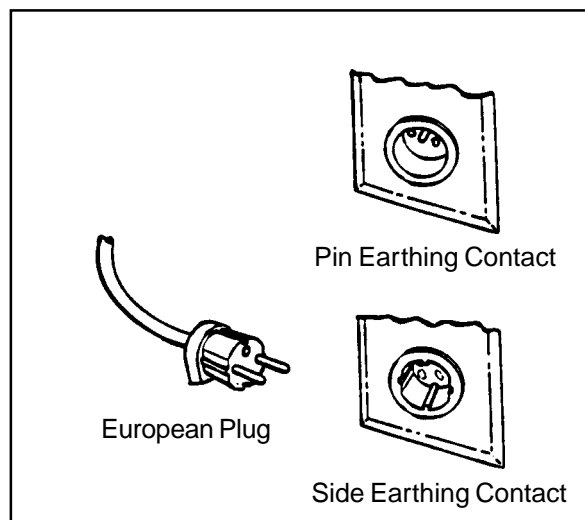


Figure 1

WARNING: To avoid electrical shock always use this machine with an AC three-conductor electrical system connected to the electrical ground. Replace any worn, cut or damaged cords. Replace any damaged plugs, receptacles, or connector bodies. Do not move the machine over an electrical cord. Always lift the cord over the machine.

EXTENSION CORDS


Use only an approved extension cord with two main conductors and one earthing conductor. The machine has a power cord with wire size 1.5mm².

WARNING: To avoid motor burnout, if you use an extension cord, use an extension cord with minimum wire size 1.5mm². Do not use an extension cord longer than 15 meters. Do not join two extension cords.

WARNING: To avoid electrical shock, do not cut, remove or break the ground terminal. Do not try to fit a three-terminal plug into a receptacle or connector body that does not fit the plug. If the receptacle or connector body does not fit the plug, see your authorized Clarke dealer to get an authorized person to make the connection.

PROCEDURES FOR TRANSPORTING

How to Put the Machine Into a Van or Truck

 **WARNING:** This machine is heavy. Get assistance before attempting to transport or move. Use two able persons to move the machine or a ramp or incline. Always move slowly. Do not turn the machine on a ramp. Do not stop and leave the machine on a ramp or incline.

To load the machine into a van or truck follow this procedure:

1. Remove the squeegee and the brush (see "How to Prepare Machine for Operation").
2. Obtain a loading ramp that is at least 8' long and secure enough to support the weight of the machine.
3. Make sure the ramp is clean and dry.
4. Put the ramp into position and secure.
5. Align the machine on a level surface in front of the ramp.
6. With the assistance of another person, pull the machine up the ramp slowly.
7. Securely fasten the machine to the vehicle.

How to Remove a Machine From a Van or Truck

To remove the machine from a van or truck, follow this procedure:

1. Make sure that there are no obstructions in the area.
2. Obtain an unloading ramp that is at least 8' long and strong enough to support the weight of the machine.
3. Make sure the ramp is clean and dry.
4. Put the ramp into position and secure.
5. Untie the machine.
6. With the aid of another person, carefully guide the machine out of the truck or van onto the unloading ramp slowly. Never stand below machine or ramp.
7. When guiding the machine on the unloading ramp, position yourself to maintain a slow speed.

MACHINE CONTROLS and FEATURES

Brush Switch. See Figure 2.

The brush switch is to the left of the vacuum switch on the control panel. To start the brush motor, press the top of the switch. To stop the brush motor, press the bottom of the switch.

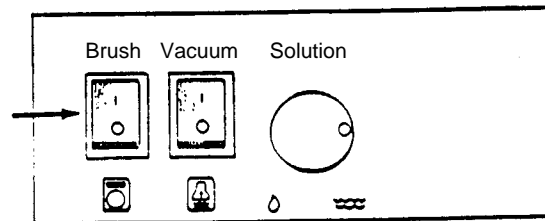


Figure #2

Vacuum Switch. See Figure 3.

The vacuum switch is to the left of the solution control knob. To start the vacuum motor, press the top of the switch. To stop the vacuum motor, press the bottom of the switch.

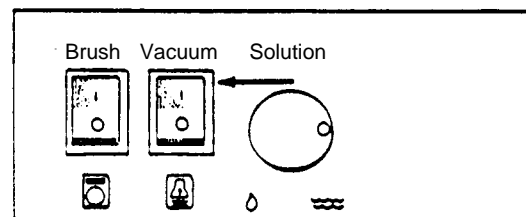


Figure #3

Solution Control Knob. See Figure 4.

The solution control knob is in the middle of the control panel. For more solution, turn the knob to the right. For less solution, turn the knob to the left.

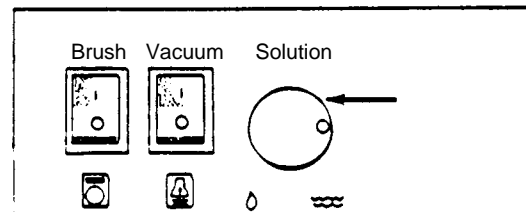


Figure #4

Circuit Breakers.

Electric Models

230V models have a vacuum motor fuse, and a brush motor circuit breaker located on the back of control panel.

MACHINE CONTROLS and FEATURES (cont'd)

Brush Control Pedal. See Figure 5.

The brush control pedal is at the back of the machine in the lower right corner. Use your foot to operate the pedal. To lower the brush, push the pedal down and to the left, releasing it from the locked position. To raise the brush, push the pedal down and to the right engaging the lock.

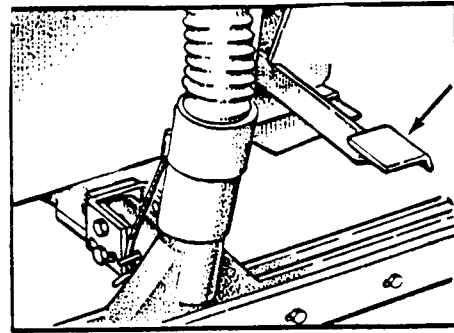


Figure #5

Brush Tilt Control.

The brush tilt control is on the left side by the motor. To access the motor, turn off the key and remove the squeegee cable, and undo the tank clamps. To adjust how the machine pulls, loosen the screw. Tilt the motor forward to decrease the brush-assist traverse. Tilt the motor back to increase the brush-assist traverse. After adjustment retighten the screw.

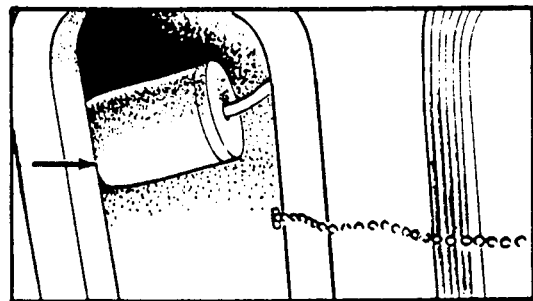


Figure #6

The Float Shut-Off. See Figure 6.

The float shut-off is in the back of the recovery tank. When the liquid raises the float, the float switch will automatically turn the vacuum motor off. To continue working you must drain the recovery tank.

The Squeegee Handle. See Figure 7.

The squeegee handle is at the back of the machine in the middle. To lower the squeegee, pull the handle to the right and lower. To raise the squeegee, lift the handle up and push to the left.

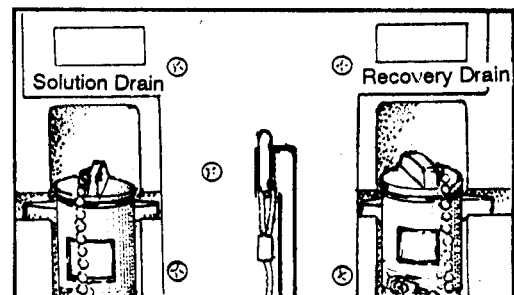


Figure #7

MACHINE CONTROLS and FEATURES (cont'd)

Machine Control Handle. See Figure 8

The machine control handle (a) is located on the back side of the machine. The handle is adjustable for operator comfort and ease. The handle adjustment knobs are located at the base (b) of the handle.

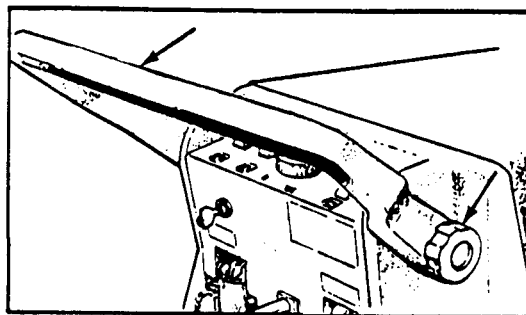


Figure #8

Machine Lift Handle. See Figure 9.

The machine lift handle is located on the front of the machine. Use this handle to lift the machine when changing the brush. See the section in this Owner's Manual "Installing or Removing a Brush or Pad Driver".

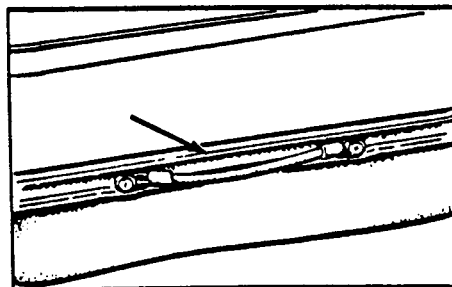


Figure #9

Machine Support Leg. See Figure 10.

The machine support leg is located in the front of the machine under the bumper skirt. Put the machine support leg down when installing or removing a brush or pad driver.

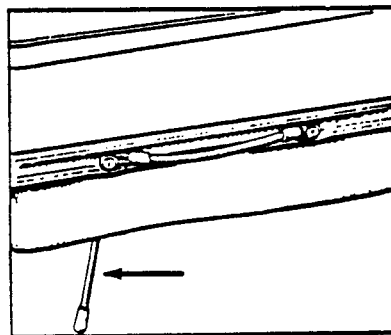


Figure #10

Parking Brake

The parking brake is standard on Model 00370E only. It is optional on all other models.

The brake prevents the movement of the machine. The brake pedal is at the back of the machine in the lower left hand corner. To activate the brake, push the pedal down. To release the brake lift the pedal up.

How to Install the Squeegee

To install the squeegee, follow this procedure:

1. Attach the squeegee cable to the squeegee lift arm (a) and squeegee bracket (b). See Figure #11.
2. Raise the squeegee lift arm.
3. Place the squeegee onto the squeegee bracket.
4. Push the hair pin through the holes on the squeegee bracket.
5. Attach the squeegee hose to the hose connection on top of squeegee. See figure #12.

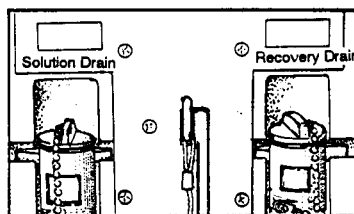


Figure #11a

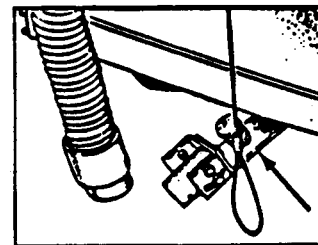


Figure #11b

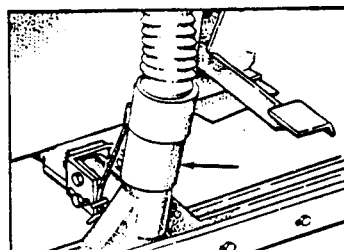


Figure #12

HOW TO PREPARE THE MACHINE FOR OPERATION

CAUTION: Leaving the squeegee "DOWN" when the machine is not in use can damage the squeegee blades. Always leave the squeegee in the "UP" position when not in

How to Install the Squeegee Connection

The proper method for assembling the squeegee connection is as follows::

1. Unscrew the nut completely.
2. Slide the nut and gasket onto the tube. (Figure 1a)
3. Slide the elbow onto the tube and make sure the gasket is secured into the elbow. (Figure 2a)
4. As you hold the elbow tight onto the tube, tighten the nut over the gasket and the elbow. (Figure 3a)

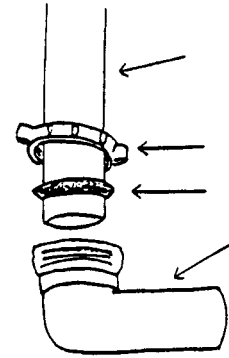


Figure 1a

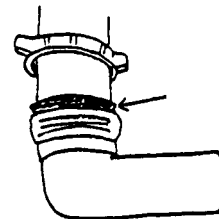


Figure 2a

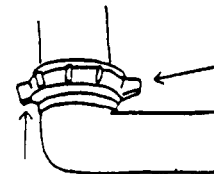


Figure 3a

How to Install or Remove a Brush or Pad Driver

To install or remove a brush or a pad driver, follow this procedure:

NOTE: The brush may spin off the machine if the brush switch is turned ON or OFF while the brush is in the raised position.

1. If machine is an electric model disconnect the power supply.
2. Put the squeegee down to the floor by pulling the squeegee handle to the right and down.
3. Remove the cotter pin from the squeegee bracket and remove the squeegee. See Figure #12.
4. Slide the squeegee bracket either right or left all the way under the machine skirt. See Figure #11.
5. While lifting the machine up with the machine lift handle (a), lower the support leg and position like a kickstand (b). See Figure 13

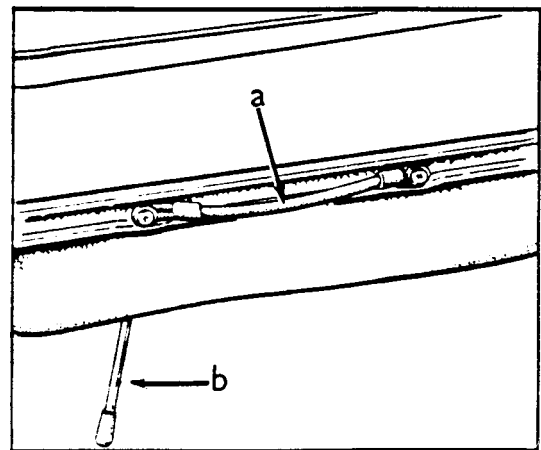


Figure 13

HOW TO PREPARE THE MACHINE FOR OPERATION (cont'd)

6. To install the brush or pad driver, align the lugs on the locking plate of the pad driver or brush with the adapter plate.
7. Turn the brush or pad driver clockwise to lock it into position.
8. To remove a brush or pad driver, turn the pad driver or brush to the left and remove.
9. Lift up the machine with the lift handle and return the support leg to its normal position.



CAUTION:

Leaving the brush motor switch in its "DOWN" position when the machine is not in use can damage the brush or pad driver. Always leave the brush motor in the "UP" position while not in use.

HOW TO OPERATE THE MACHINE

Filling the Solution Tank

To fill the solution tank, follow this procedure:

1. Lift the solution tank lid out of the opening. Allow the lid to hang to the front of the machine. See figure # 14.
2. With a hose or bucket fill the solution tank with clean water to within one inch of the bottom of the opening.
3. Add a cleaning chemical to the water. For the correct amount, follow the manufacturer's directions shown on the chemical container.
4. Put the lid back onto the solution tank opening.

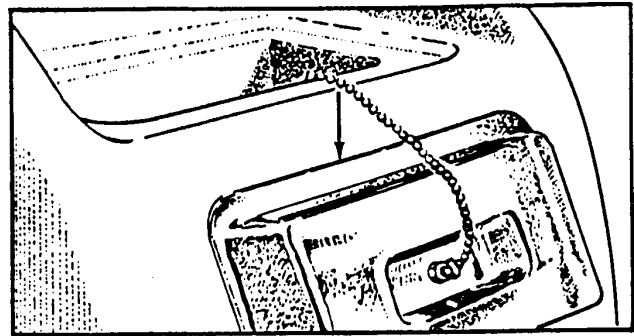


Figure #14

Operating the Machine

1. Put water and a cleaning chemical into the solution tank.
2. Lower the squeegee. To lower the squeegee, pull the squeegee handle to the right and lower.
3. Lower the brush. To lower the brush, step on the brush control lever (figure #15) and push down slightly, then move the lever to the left and allow it to come up.

NOTE: Keep the machine moving when the brush is rotating on the floor.

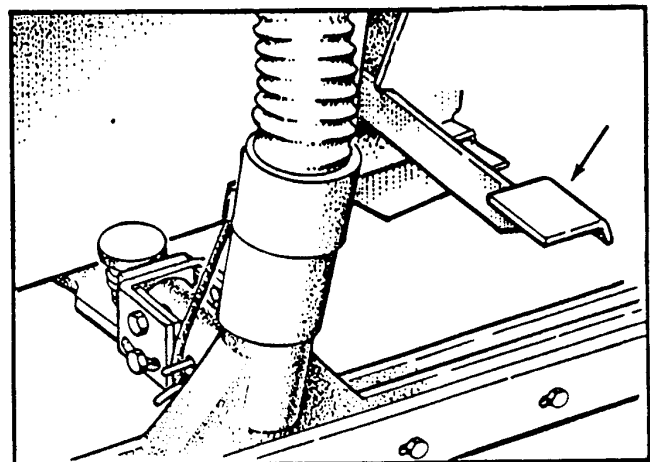


Figure #15

4. Press the top of the brush switch to activate the brush motor.
5. Press vacuum switch to activate vacuum motor.
6. Activate the flow of solution by turning the solution control knob to the right. To make sure you have an even flow of solution, turn the knob to the right as the amount of solution in the tank decreases.
7. Move the machine forward in a straight and steady direction. If machine is a traverse model, select a speed and then press on the traverse handle switch to activate the traverse.

HOW TO OPERATE THE MACHINE (cont'd)

8. To turn the machine, push the rear of the machine to the side opposite the direction you want to turn. It is **NOT RECOMMENDED** that you move the machine backward during a cleaning operation.
9. When you make more passes across the floor, let the brush clean approximately 2 inches of the area already cleaned by the last pass.

NOTE: During most cleaning procedures, apply and remove the solution in one operation.

Shutting Down the Machine

To shut down the machine, follow this procedure:

1. Turn solution flow "Off" by turning the knob all the way to the left (counter clockwise).
2. Lift the squeegee up by lifting up on the handle and locking it into the "UP" position.
3. Press the bottom of the vacuum switch to turn the vacuum "Off".
4. Press the bottom of the brush switch to turn "off" the brush motor.
5. Raise the brush up by pushing down on the brush lift lever with your foot sliding the lever to the right.

NOTE: The brush may spin off the drive adapter if the brush switch is turned ON or OFF while the brush is in the raised position.

How to Clean a Very Dirty Floor

To clean a very dirty floor, follow this procedure:

1. Put water and cleaning chemical into the solution tank.
2. Activate the flow of solution by turning the solution control knob to the right and move the machine in a straight and steady direction. You are not removing the solution in this pass.
3. After the solution has set on the floor long enough to start cleaning, repeat the pass with the squeegee in the lowered position.
4. If the floor remains dirty, repeat the passes following the steps outlined in "Operating the Machine".

MAINTENANCE

- ⚠ DANGER:** Maintenance and repairs performed by unauthorized personnel could result in damage or injury. Maintenance and repairs must be done by authorized Clarke personnel only.
- ⚠ DANGER:** Operating a machine that is not completely or fully assembled could result in injury or property damage. Do not operate this machine until it is completely assembled. Inspect the machine carefully before operation. Keep all fasteners tight.
- ⚠ DANGER:** Electrocution could occur if maintenance and repairs are performed on a unit that is not properly disconnected from the power source. Always disconnect the power supply before attempting any maintenance or service.
- ⚠ WARNING:** Attempting maintenance and or repairs to this machine before emptying the solution or recovery tank could result in machine or property damage.

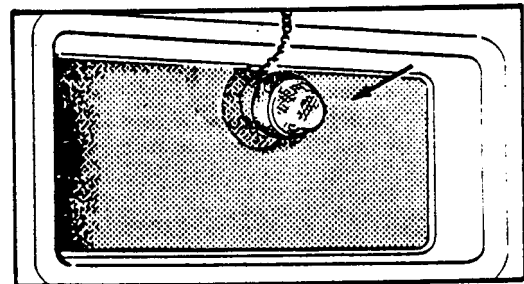


Figure #16

Procedures Before Work is Begun

Keep the machine clean. It will need fewer repairs and have a longer life.

1. Check the power cord for frayed or damaged wires.
2. Make sure the recovery tank cover is in place.
3. Check the solution tank screen and clean if necessary. See Figure #16.
4. Make sure the vacuum screen is clean and in position in the front of the recovery tank. See Figure #17.
5. Make sure the solution and recovery drain hoses are in position on the back of the machine. See figure #18. Secure the hose drain plugs.

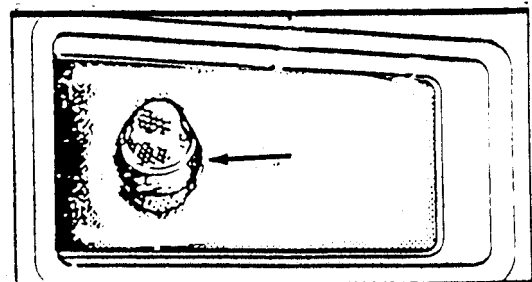


Figure #17

MAINTENANCE (cont'd)

6. Make sure the bumper skirt is in position. The bumper skirt prevents solution from flowing from under the frame.
7. Make sure the brush is in position.
8. Make sure the vacuum hose is installed and on the squeegee. See Figure #19.
9. Connect the machine power cord to the electrical outlet.

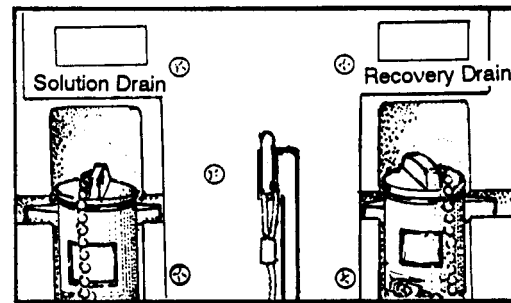


Figure #18

Procedures to be Performed at the End of Work

1. Disconnect machine from power source.
2. Drain and flush the tanks. To drain the recovery and solution tanks, follow this procedure:
 1. Remove the drain hose from the fitting on the back of the machine.
 2. Put the end of the hose over a drain or bucket.
 3. Run clean water into the solution and recovery tanks to flush the tanks.
 4. Put the end of both hoses over a drain or bucket.
3. Leave the tanks and the drain hoses open to dry in the air.
4. Check and clean the squeegee blade. Use a soft cloth to clean the squeegee blade. If the squeegee blade is damaged or worn, turn or replace the blade.
5. Check and clean the vacuum gaskets, the vac screen filter and the solution screen filter. Remove and clean with a vinegar-water solution or warm soapy water. Rinse the parts in clean water.
6. Use a clean cloth and wipe the surface of the machine.
7. Remove the brush or pad driver. Rinse clean and allow to dry. Discard the pad if necessary.
8. Store the machine and accessories in a dry building.

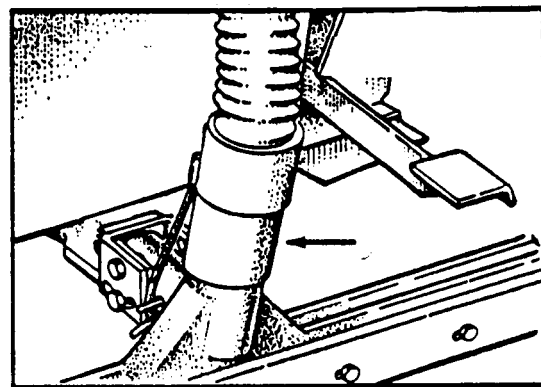


Figure #19

CLARKETECHNOLOGY
Vision 17E 203V
Machine Variables 11/98

Electric - 230V	Variable Code		
	00371B	Breakdown:	
		00370B	Vision 17E Std Base Machine 230V
		51436B	Brush, Polypropylene
	00372B	Breakdown:	
		00370B	Vision 17E Std Base Machine 230V
		53126B	Pad Driver
	00370E	Breakdown:	
		00370E	Vision 17E 230V Base with Parking Brake

Accessories:

Part No.	Description
51436B	Brush, Polypropylene
53126B	Pad Driver
50527A	Base, Pad Retainer
56927A	Retainer, Pad
50477A	Clutch Plate for Pad/Brush
962819	Clutch Plate Screws
51437B	Nylon Scrub Brush .028 Dia. Bristles
51439B	Grit Scrub Brush Assembly
682408	Hose Connector - connects 1½" diameter hose to machine
674114	10' x 1½" red spiral lock deluxe hose
639804	1½" double curved aluminum wand
638828	Aluminum 14" squeegee pick up tool
680724	Replacement Blades for 638828 (Req. 2 set)
638856	Aluminum combination scrubbing brush & squeegee pick-up tool
51469B	Nylon Scrub Brush .016 Dia. Bristles
51481A	Mal-Grit Lite Brush
10773K	Kit, Parking Brake
18800A□	Squeegee Asm.

NOTE: □ indicates a change has taken place since last publication of this manual.

PADS BY CASE

Color	Vision 17	Color	Vision 17
Yellow	979169	Green	976157
White	976052	Brown	976055
Red	976043	Black	976158
Blue	976054		

NOTES

[illegible]



Vision 17E 230V
Section II
Parts and Service Manual

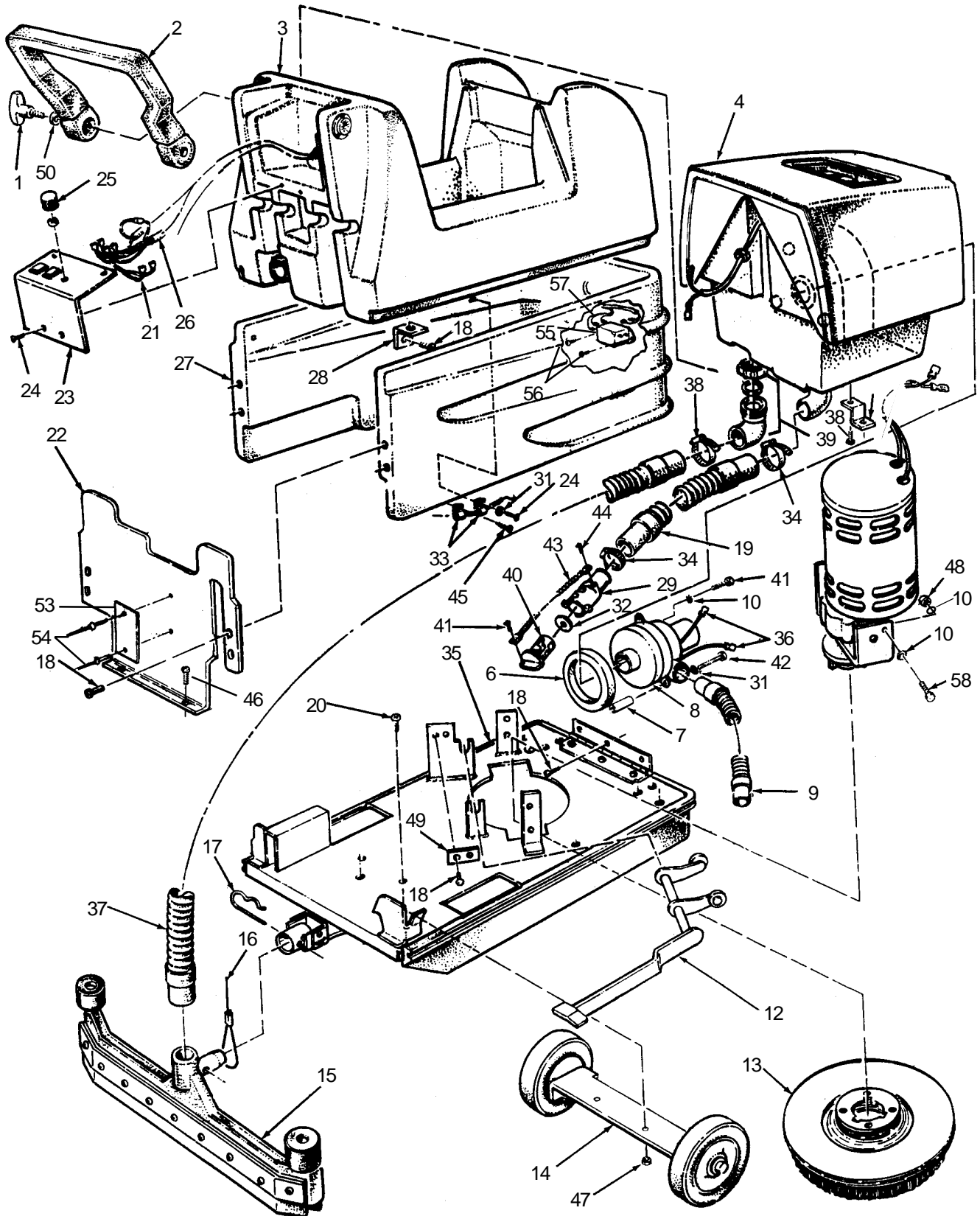
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HOW TOO CORRECT PROBLEMS IN THE MACHINE

PROBLEM	CAUSE	ACTION
There isn't any solution flow.	<p>The solution tank is empty.</p> <p>The solution knob is turned too far to the left.</p> <p>There is an obstruction in the hose or filter.</p> <p>The solution valve or linkage is damaged.</p>	<p>Fill the solution tank.</p> <p>Turn the solution knob to the right.</p> <p>Remove the obstruction from hose or filter.</p> <p>Repair or replace the valve or the linkage.</p>
The solution flow does not stop.	<p>The solution valve is open.</p> <p>The solution valve or linkage is damaged.</p> <p>The solution valve is dirty.</p> <p>There is a damaged seat and washer in the solution valve.</p> <p>The valve stem is dirty.</p>	<p>Close the solution valve.</p> <p>Repair or replace the valve or the linkage.</p> <p>Clean the solution valve.</p> <p>Replace the valve.</p> <p>Clean and lubricate the valve stem.</p>
The machine does not remove any water from the floor.	<p>The squeegee is up.</p> <p>The vacuum motor is not running.</p> <p>The vacuum motor switch is defective.</p> <p>The recovery tank is full.</p> <p>The vacuum shut-off float circuit is open.</p> <p>The vacuum filter screen is dirty.</p> <p>There is an obstruction in the vacuum tube.</p> <p>There is an obstruction or damage in the squeegee, vacuum hose or standpipe.</p> <p>The squeegee hose is disconnected.</p>	<p>Lower the squeegee.</p> <p>Put the switch in the "ON" position.</p> <p>Have an authorized Clarke person make repairs.</p> <p>Drain the tank.</p> <p>Recovery tank is full. Empty the tank.</p> <p>Clean or replace the filter screen.</p> <p>Remove the obstruction.</p> <p>Remove the obstruction or repair the damage.</p> <p>Connect the hose.</p>
The machine does not remove all the water from the floor.	<p>The squeegee blades are damaged, worn, or incorrectly installed.</p> <p>There is an obstruction or damage in the squeegee, vacuum hose or standpipe.</p> <p>The filter screen is dirty.</p> <p>The gasket on the cover of the recovery tank are damaged.</p> <p>Defective vacuum motor.</p>	<p>Turn or replace the squeegee blade.</p> <p>Correctly install the squeegee blade.</p> <p>Remove the obstruction or repair the damage.</p> <p>Clean or replace the filter screen.</p> <p>Replace the gasket.</p> <p>Have an authorized Clarke person make repairs.</p>
The cleaning is not even.	<p>The scrub brush or pad are worn.</p> <p>There is damage to the brush assembly casters or to the solution valve.</p> <p>The motor is not running.</p>	<p>Replace the scrub brush or pad.</p> <p>Have an authorized service person make the repairs.</p> <p>Repair the wiring, replace the switch, Service the motor, circuit breaker and the contractor.</p>

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CLARKE TECHNOLOGY
Vision17E (230V)
Machine Assembly 2/01

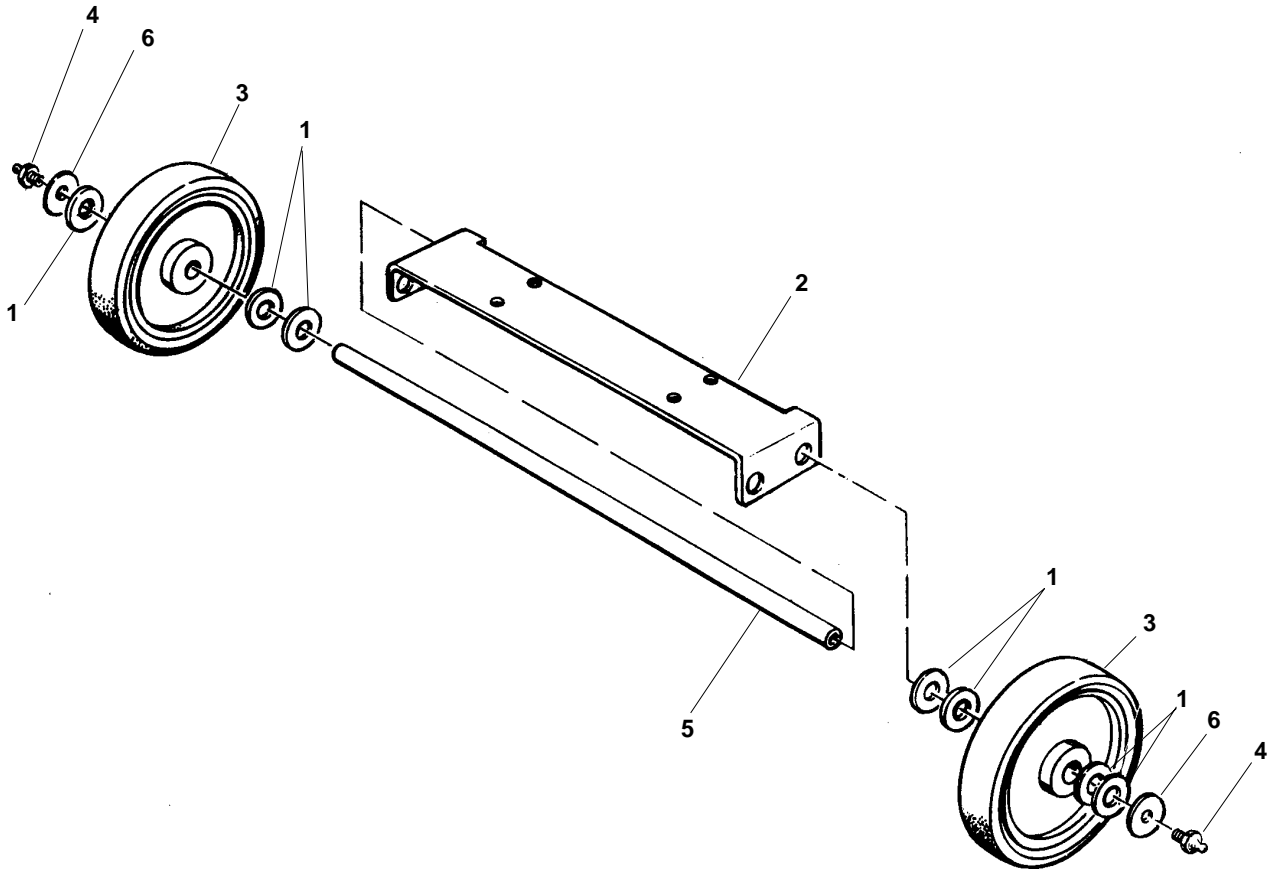


CLARKE TECHNOLOGY
Vision 17E 230V
Machine Assembly Parts List 2/01

Ref	Part No.	Description	Qty
1	55531A	Knob, Handle	2
2	34804A	Handle, Control	1
3	Page 29	ASM, Solution Tank	1
4	Page 30	ASM, Recovery Tank	1
5	Page 26	ASM Brush, 230V Motor	1
	Page 32	Gear Box Parts List	
	Page 33	Brush Motor Parts List	
6	643418	Gasket Vacuum Motor	1
7	58534A	Spacer	3
8	44907A	Motor, 230V Vacuum	1
	Page 31	Vacuum Motor Parts List	
9	30448A	Hose, Exhaust, Vacuum	1
10◆	980603	Washer, Shake Proof	3
12	Page 23	ASM, Brush Lift	1
13	Page 15	Pad or Brush Driver	1
14	Page 22	ASM, Non Traverse Electric	1
15	Page 28	ASM, Squeegee	1
16	61664A	Cable, Squeegee	1
17	66515A	Pin, Locking	1
18	85395A	Screw, 1/4 - 20 S.S..	8
19	30415A	Hose, Drain	1
20	84238A	Screw 5/16 Flat	2
21	49691B	Harness, Brush	1
22	37108A	Panel, Rear	1
23	Page 27	ASM, Panel Control 230V	1
24	84237A	Screw, 10 - 32 X 1/2 S.S.	4
25	55502A	Knob, Solution Control	1
26	49690B	Harness, Vacuum Motor	1
27	38952B	Support Tank	1
28	61244A	Bracket Tank	5
29	839401	Valve, Drain	1
31	87026A	Washer	7
32	833407	Gasket, Drain	1
33	832102	Clamp, Solution Cable	2
34	832002	Clamp, Plastic	2
35	Pg 24/25	ASM, Main Frame	1
36	47604A	Terminal ¼ FIMQDIS 14 GA	3
37	30407B	Hose, Squeegee	1
38	752020	Clamp, Hose	1
39	53630A	Elbow, Recovery	1
40	833901	Handle, Drain Valve	1
41◆	962987	Screw	2
42	962950	Screw 1/4 - 20 x 3"	3
43	52206A	Chain	1
44	962943	Screw 8-18 x ½	1
45	962981	Screw	2
46	962109	Screw 10-24	2
47	920110	Nut 5/16 -18 ESNA	2
48◆	920296	Nut 10-24	1
49◆	66939A	Retainer	Ref.
50	980413	Washer	1
51	63040A	Bracket, Recovery	2
53	77261A	Plate, Warning	1
54	83010A	Rivet	2
55	47201A	Supressor (00370E only)	1
56◆	85414A	Screw (00370E only)	2
57	49793A	Harness, Supressor (00370E only)	1
58◆	962768	Screw, 10-24 x ½	1
NI	77094A	Label Ground	2
NI	77078A	Label, Warning	4
NI	77046A	Label, TUV, GS	1
NI	77076A	Label, Warning (Hands)	1

NOTE: ◆ indicates a change has been made since the last publication of this manual.

CLARKETECHNOLOGY
Vision 17E (230V)
ASM, Non Traverse Axle
Drawing & Parts List Form #10510A 2/01



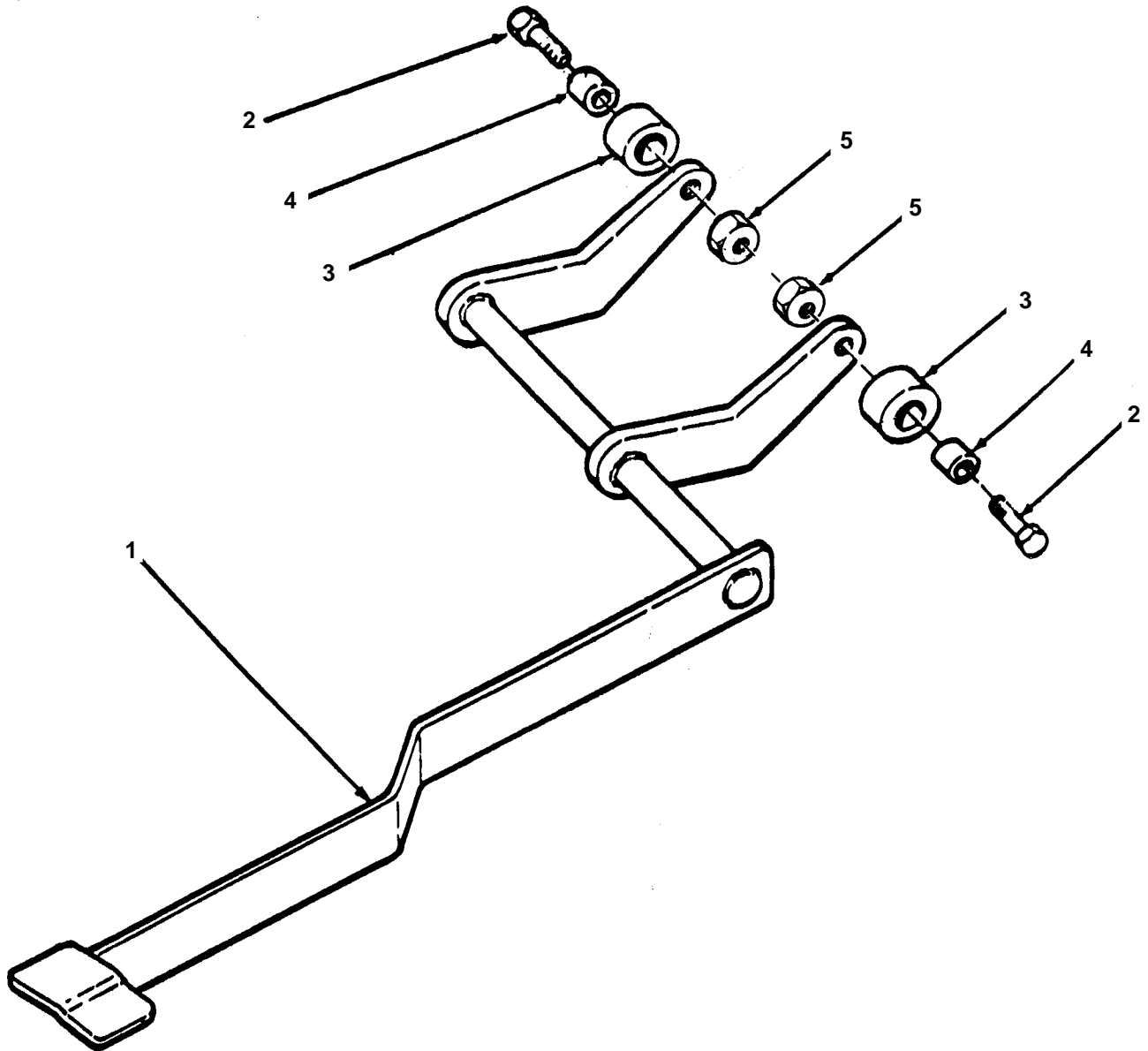
Ref	Part No.	Description	Qty	
1	87613A	Washer, Nylon 5/8	7*	Nominal
2	61247A	Bracket, axle	1	
3	59936C	Wheel	2	
4	54014A	Fitting, Grease, 1/4"-20	2	
5	60196A	Shaft	1	
6◆	87039A	Washer, Fender 1/4" SS	2	

NOTE: Place washers as required to center the wheels
 (Number of washers may vary)

NOTE: Grease wheels once a week.

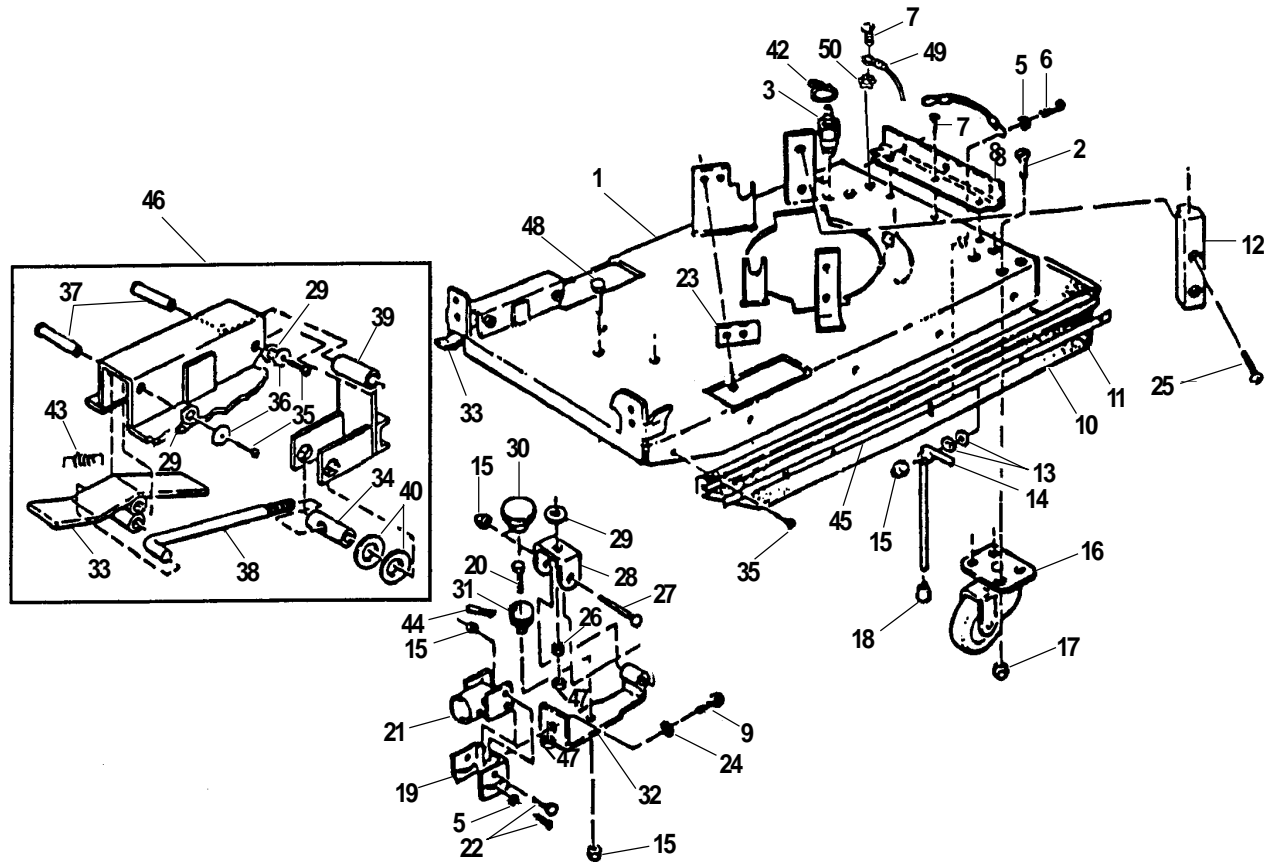
NOTE: ◆ indicates a change has been made since the last publication of this manual.

CLARKE TECHNOLOGY
Vision 17E (230V)
Brush Lift Drawing & Parts List 11/98
ASM
Form #16608A



Ref	Part No.	Description	Qty
1	65424A	Lift Brush, Weldment	1
2	85600A	Screw 1/4 - 20	2
3	51516A	Bushing	2
4	608210	Spacer, Handle, Bolt	2
5	920208	Nut, 1/4-20	2

CLARKETECHNOLOGY
Vision 17E (230V)
ASM, Main Frame
Drawing 2/01
Form #16923A



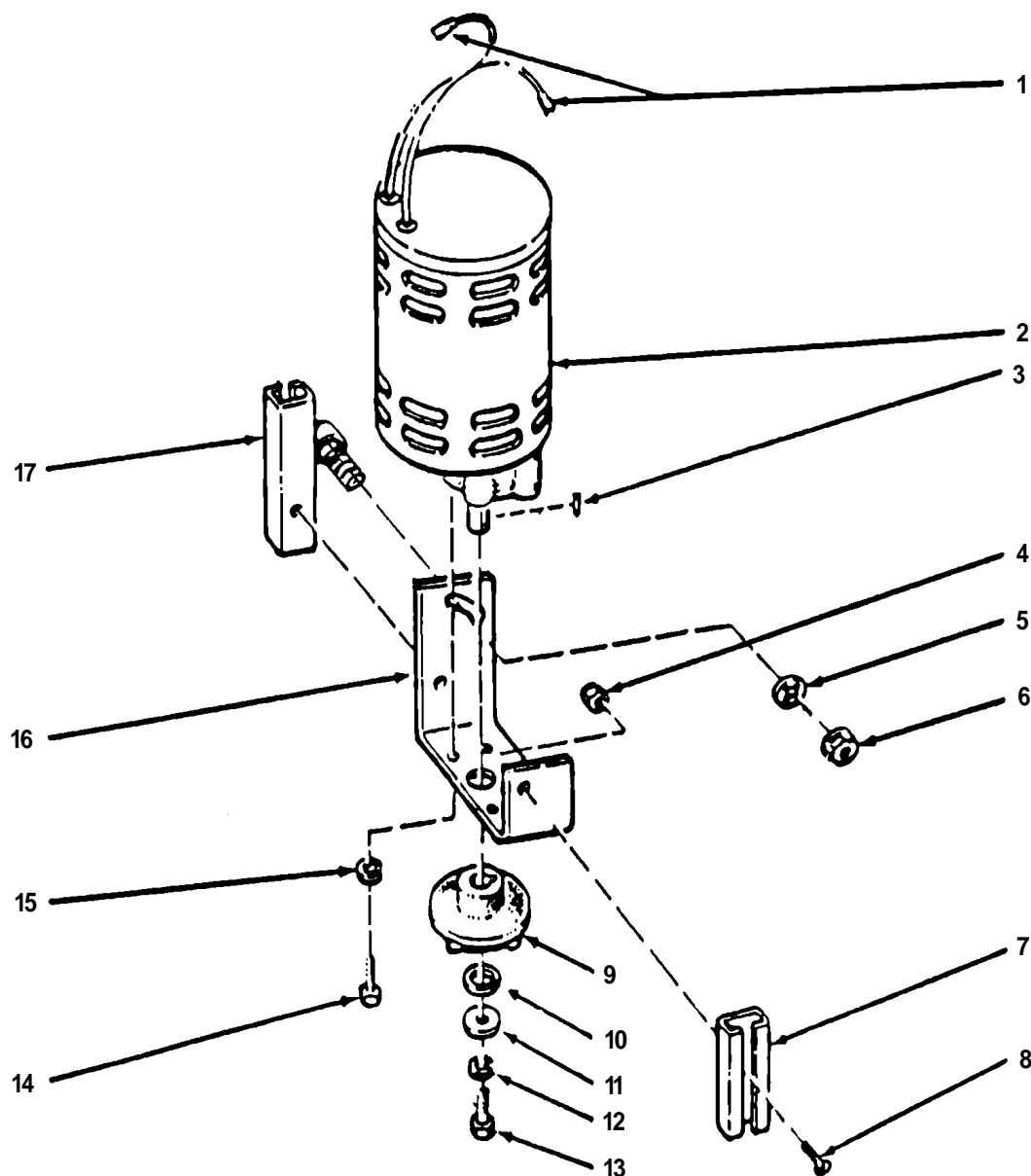
CLARKE TECHNOLOGY
Vision 17E (230V)
ASM, Main Frame
Parts List 2/01
Form #16923A

Ref	Part No.	Description	Qty
1	63423B	Weldment, Main Frame	1
2	84238A	Screw $\frac{5}{16}$ -18 x $\frac{3}{4}$ Flat Hd SS	6
3	53618A	Adapter $\frac{3}{8}$ X $\frac{3}{8}$	1
4	64456A	Handle	1
5	87026A	Washer, S.S. $\frac{1}{4}$ " Flat	4
6	85384A	Screw $\frac{1}{4}$ - 20 X $\frac{1}{2}$	2
7◆	85395A	Screw $\frac{1}{4}$ - 20 X $\frac{1}{2}$	6
8	64505A	Hinge Tank	1
9	85822A	Screw $\frac{3}{8}$ -16 x $\frac{7}{8}$	1
10	31227A	Shirt, Main Frame	1
11	66960A	Retainer, Skirt	2
12	38009A	Guide, Plastic	3
13	980442	Wave Washer	2
14	68733A	Kick Stand	1
15	81104A	Nut $\frac{1}{4}$ - 20 Nylock	6
16	52117A	Caster, Swivel	2
17	920110	Nut, $\frac{5}{16}$ - 18 Elastic	6
18	52047A	Cap	1
19	69028A	Wldmt. Squeegee Swival	1
20	85391A	Screw $\frac{1}{4}$ - 20	1
21	60698A	Squeegee, Bracket, Weldment	1
22	170915	Screw $\frac{1}{4}$ -20 x $\frac{3}{4}$	4
23	66939A	Retainer, Motor Pivot	1
24	87614A	Washer $\frac{3}{8}$ Int., Ext.	1
25	84233A	Screw $\frac{1}{4}$ - 20 Flat	6
26	67867A	Nut, Squeegee Spacer	1
27	85396A	Screw	1
28	61252A	Bracket, Swing Squeegee	1
29	87027A	Washer	3
30	30517A	Bushing Squeegee	1
31	58612A	Spring, Squeegee	1
32	68730B	Bracket, Arm Weldment	1
33	10735A	Weldment, Brake, Pedal*	1
34	67422A	Shaft Parking Brake*	1
35	85397A	Screw 10 - 24 X $\frac{3}{8}$ (00370B)*	13
	85397A	Screw 10 - 24 X $\frac{3}{8}$ (00370E)*	15
36	87036A	Washer #10 SS*	2
37	66536A	Pin, Pivot, Brake*	2
38	67133A	Rod, Adj. Brake*	1
39	17519A	Brake, Pad, Weldment*	1
40	87613A	Washer, Nylon*	2
42	722021	Clamp Hose	1
43	608340	Spring, Brake, Latch*	1
44	925597	Pin $\frac{3}{8}$ Dia. SS	1
45	66961A	Retainer Skirt	2
46	10773A	Kit, Parking Brake	Ref
47	81112A	Nut, $\frac{5}{16}$ -18 thin ESNA	1
48	84229A	Screw, $\frac{5}{16}$ -18 x .88	1
49◆	49068A	Wire, Ground	1
50◆	980614	Washer, $\frac{1}{4}$ Starlock	1

NOTE: *Item 29, 35, 36, 37, 38, 39, 40,43 included with Item #46, Parking Brake Kit 10773A. Standard on 00370E only)

NOTE: ◆Indicates a change has taken place since last publication of this manual.

CLARKE TECHNOLOGY
Vision 17E (230V)
Brush Motor Assembly
Drawing and Parts List 2/01
Form #17114A

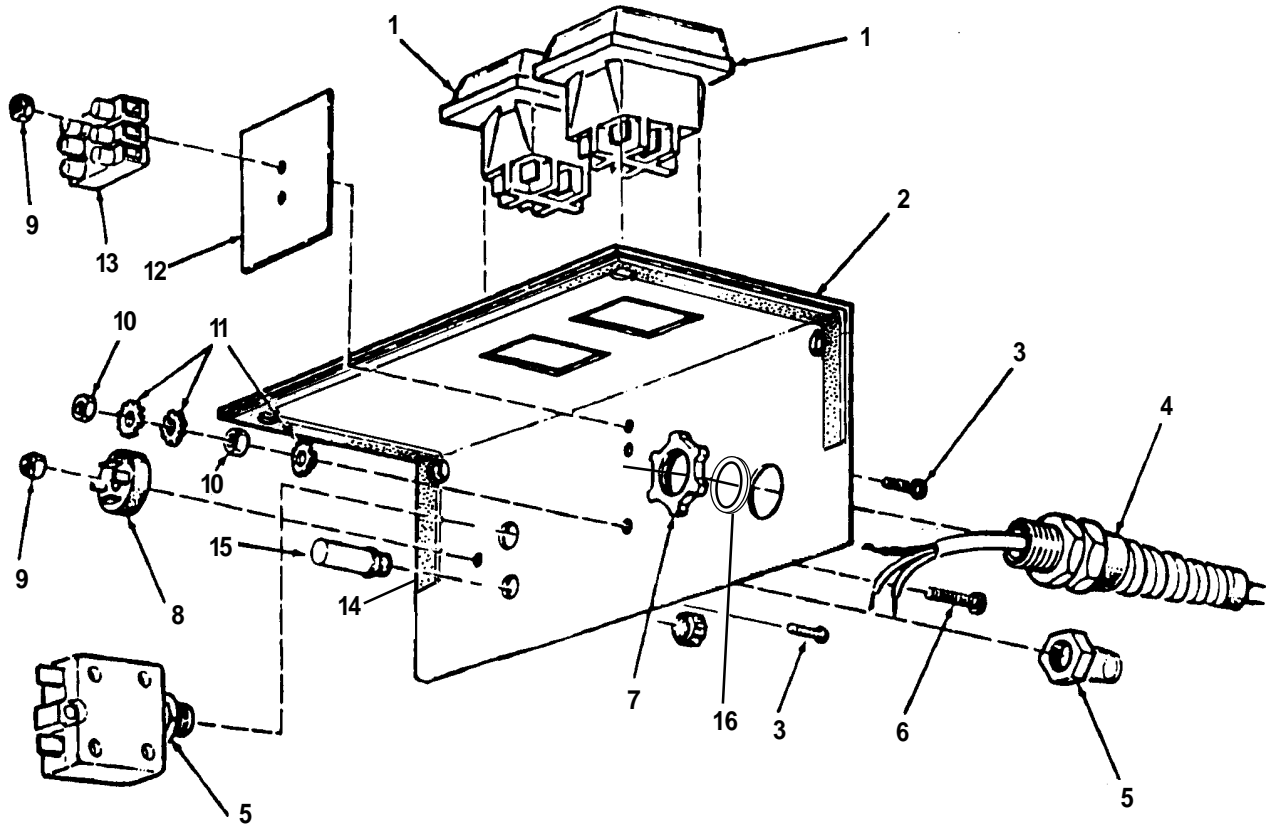


Ref	Part No.	Description	Qty
1	47604A	Terminal, Brush Motor	2
2	44711A	Gear Mtr 250 RPM 230V	1
3	80501A	Key (with #4)	1
4	81104A	Nut 1/4 - 20 Nylock	2
5	980662	Washer	1
6	67865A	Spacer Tilt handle	
7	63600A	Guide RH	1
8	84242A	Screw 1/4 - 20 X 5/8	2
9	20308A	Adapter Motor	1

Ref	Part No.	Description	Qty
10	980679	Spacer Washer	1
11	980210	Washer Impeller	1
12	980652	Washer, Lock 5/16	1
13	85811A	Screw 5/16 Hex	1
14	85727A	Screw 3/8 - 16 X 1 Hex Head	4
15	980638	Lockwasher 3/8	4
16	61238A	Bracket Motor Lift	1
17	68761A	Guide L.H.	1

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

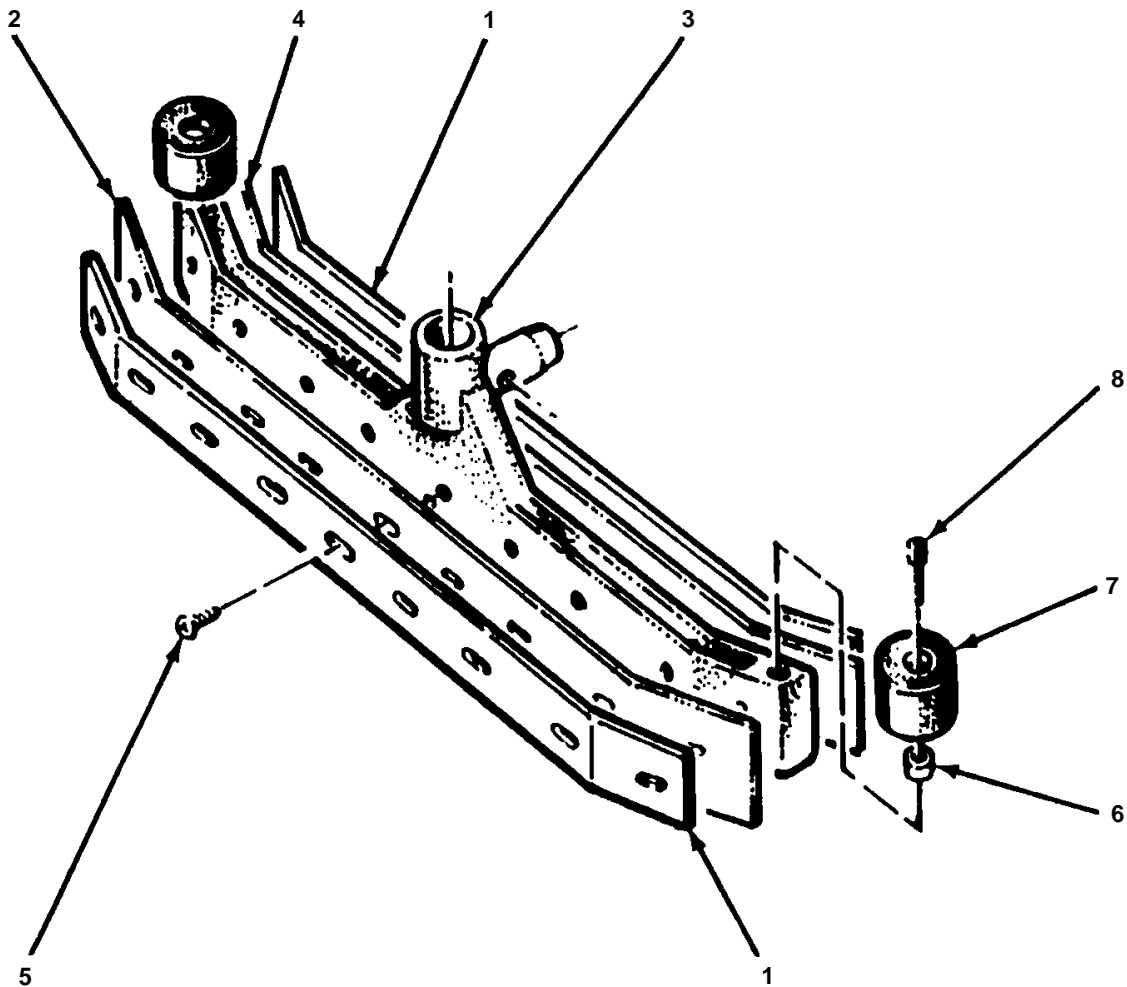
CLARKE TECHNOLOGY
Vision17E (230V)
Panel Assembly
Drawing & Parts List 2/01
Form # 17647A



Ref	Part No.	Description	Qty
1	47316B	Switch, Rocker DPST	2
2	66178B	Panel, Control	1
3	962212	Screw, 6 - 32 X 7/8	3
4	42086A	Cord, Power Supply	1
5	41437A	Circuit, Breaker 5 amps	1
6	85383A	Screw, 10 - 32 X 3/4	1
7	82100A	Locknut, 1/2 Conduit	1
8	46103A	Rectifier, Bridge	1
9	920056	Nut 6 - 32 Elastic	3
10	920224	Nut, 10 - 32 Hex	2
11	980603	Washer, Shakeproof #1103	2
12	43604A	Strip, Insulation	1
13	912059	Terminal, Block	1
14	54349A	Gasket	1
15	912201	Fuse Holder	1
16◆	170870	Washer	1
NI	42909A	Fuse	
NI	49689B	Harness, Wiring Power	1
NI	77094A	Label, Ground	1
NI	699202	Tie, Wire	2
NI	47808A	Terminal 1/4 FIFQDIC	2
NI	49064A	Wire Jumper	1

NOTE: ◆ indicates a change has been made since the last publication of this manual.

CLARKE TECHNOLOGY
Vision 17E (230V)
Squeegee Assembly Drawing & Parts List 11/98
Form 18809A

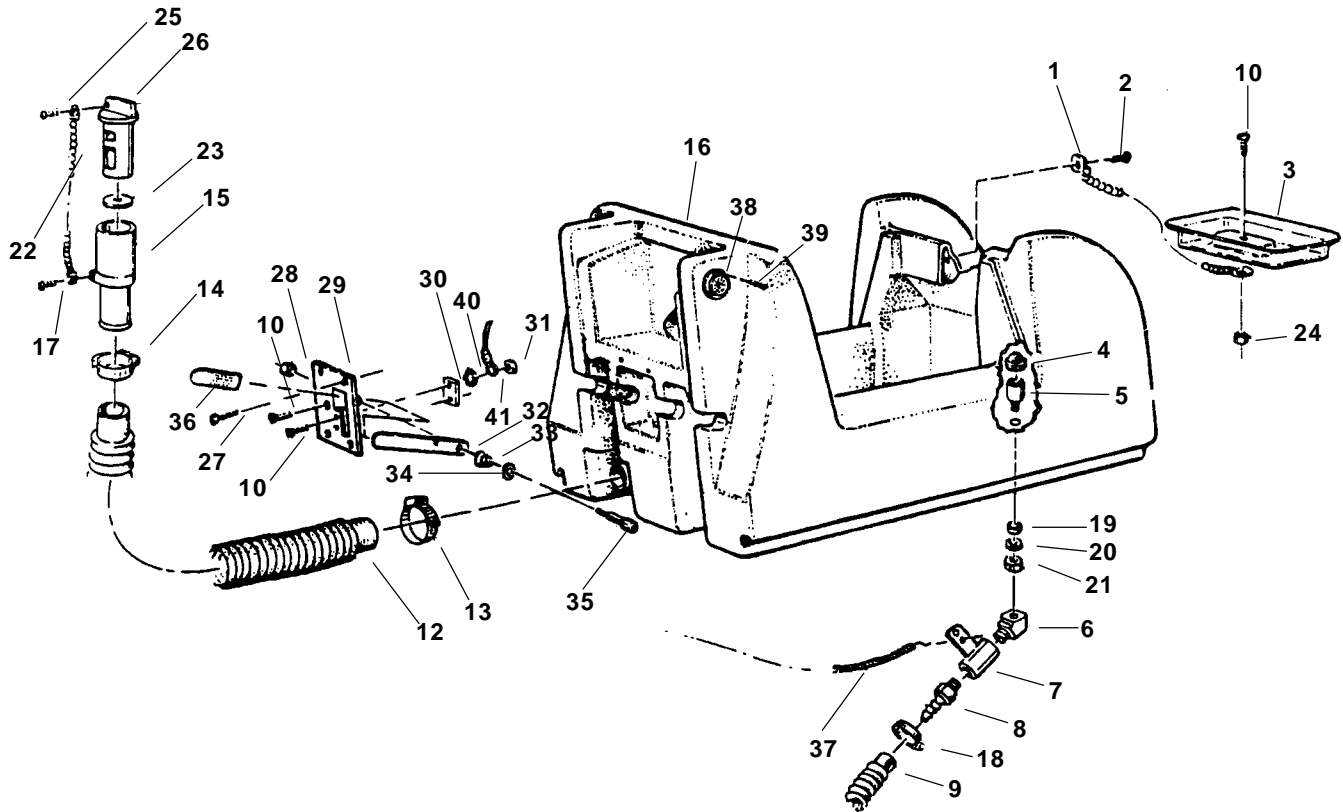


Ref	Part No.	Description	Qty
1	66921B	Retainer, Squeegee	2
2	30902A	Blade, Squeegee Rear	2
3	27703A	Squeegee, Casting	1
4	30903A	Blade, Squeegee Front	1
5	85398A	Screw $\frac{1}{4}$ - 20 X $\frac{1}{2}$	18
6	838201	Spacer, Wheel Guide	2
7	839702	Wheel, Brush Guide	2
8	962841	Screw, $\frac{5}{16}$ - 18 x $1\frac{1}{4}$	2

Blades Available:

30918A	Blade, Sq., Front Nitrile/EPDM	1
30919A	Blade, Sq., Rear Nitrile/EPDM	1

CLARKE TECHNOLOGY
Vision 17E (230V)
Solution Tank Assembly
Drawing & Parts List 2/01
Form #19169A

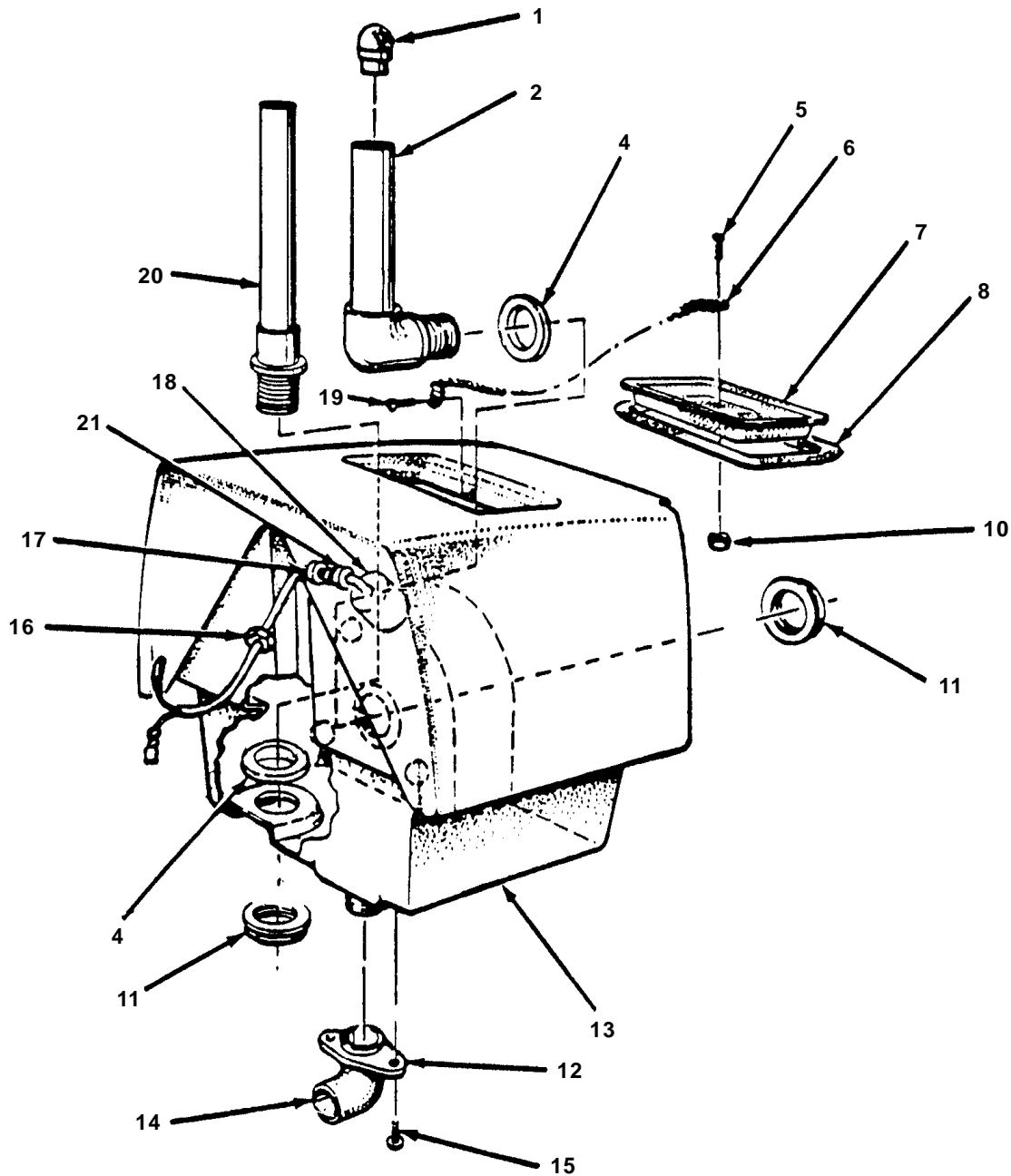


Ref	Part No.	Description	Qty
1	692409	Chain Cover	1
2	85519A	Screw ¼ - 20 X ¾	1
3	832322	Cover, Sol. Tank	1
4	878535	Strainer, Sol. Tank	1
5	60317A	Adapter, Filter	1
6	53614A	Elbow, Solution	1
7	849401	Valve, Solution	1
8	53618A	Adapter, ¾ x ¾	1
9	35138A	Hose, Solution	1
10	962798	Screw 10-24 X ½	1
12	30416A	Hose, Drain	1
13	752020	Clamp, Hose	1
14	832002	Clamp, Hose	1
15	839401	Drain	1
16	38964B	Tank, Solution	1
17	962943	Screw	1
18	722021	Clamp, Hose	1
19	833401	Gasket, Drain	1

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

Ref	Part No.	Description	Qty
20	980630	Washer	1
21	920264	Nut ¾ - 16 Hex	1
22	52206A	Chain, Cover	1
23	833407	Gasket, Drain	1
24♦	81110A	Nut, 10-24	1
25	962987	Screw, 10-24 x ¾	1
26	833901	Handle, Drain Valve	1
27	84237A	Screw, 10-32 x ½	2
28	81217A	Nut ¼-20 Nylock	1
29	68762A	Plate, Squeegee Lift	1
30	68646A	Plate, Wear	1
31	81110A	Nut, 10-24 Nylock S.S.	2
32	64476A	Handle, Squeegee Lift	1
33	53030A	Spring, Taper	1
34	980651	Washer	1
35	80031A	Bolt, Shoulder	1
36	52755A	Cover, Handle	1
37	52503A	Cable, Solution	1
38	36101A	Ratchet, Handle	2
39	84236A	Screw, 6-32	6
40♦	980603	Washer, Shakeproof	1
41♦	49067A	Wire, 18" Gauge	1

CLARKETECHNOLOGY
Vision 17E (230V)
Recovery Tank Assembly
Drawing & Parts List 2/01
Form#19170A

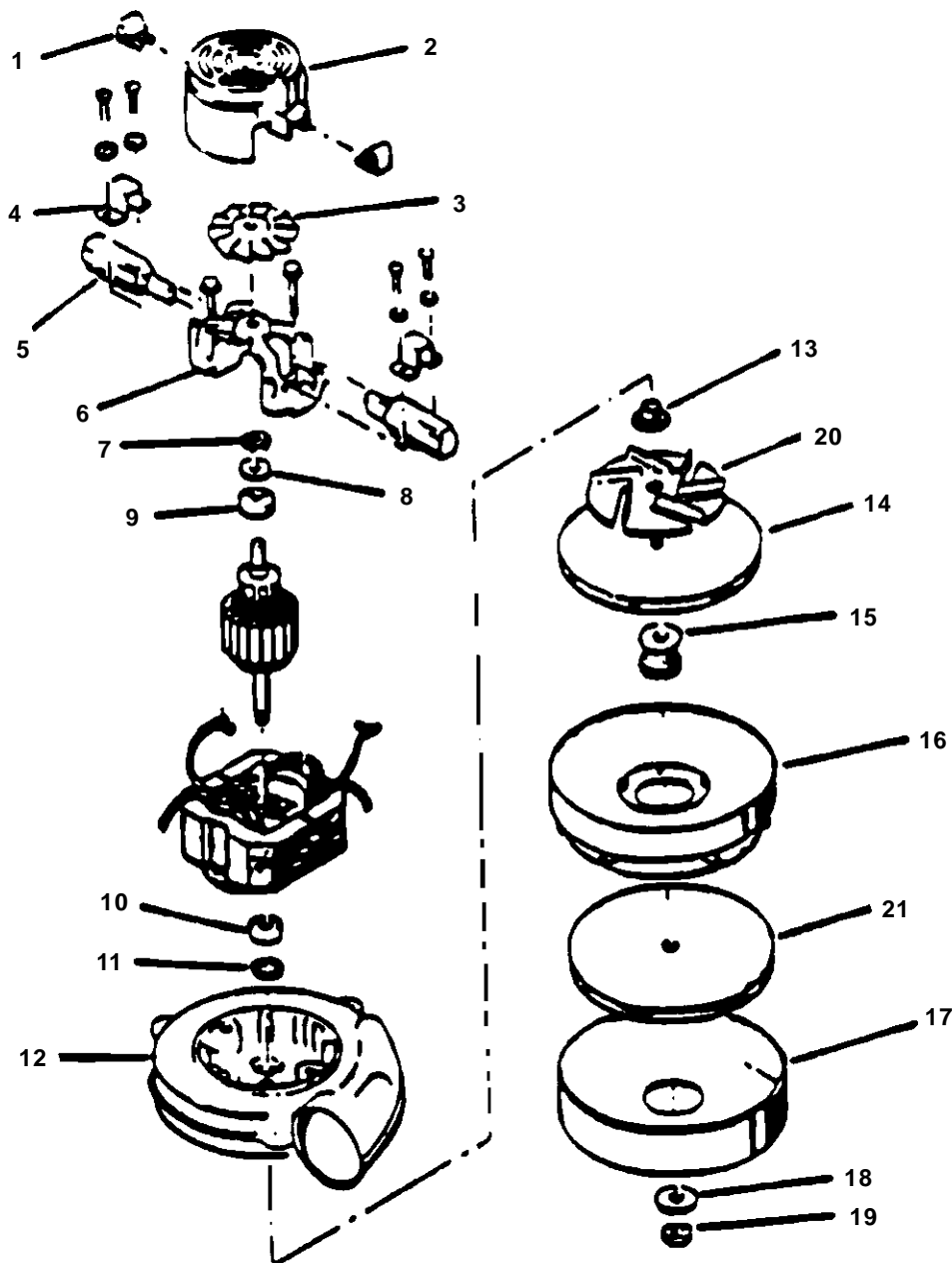


Ref	Part No.	Description	Qty
1	58012A	Strainer, Rec. Tank	1
2	59314A	Tube, Stand, Recovery	1
4	837304	O'Ring Seal	2
5	962798	Screw, 10-24 x 1/2	1
6	692409	Chain, Cover	1
7	832322	Cover, Solution Tank	1
8	34256A	Gasket, Rec. Drain	1
10◆	81110A	Nut 10-24	1
11	920797	Nut, Drain Valve Lock	2
12	66933A	Elbow, Retainer	1

Ref	Part No.	Description	Qty
13	38966B	Tank, Recovery	1
14	53629A	Elbow, recovery Drain	1
15	85395A	Screw, 1/4-20 x 1/2	2
16	82100A	Nut, 1/2 Conduit	1
17	87612A	Seal, Washer	1
18	14092A	Switch, Float Shut-Off	1
19	85519A	Screw, 1/4-20 x 3/8	1
20	39323A	Tube, Recovery	1
21	56459A	Strainer, Relief	1
N	51828A	Strap, Hose	2

NOTE: ◆ indicates a change has been made since the last publication of this manual.

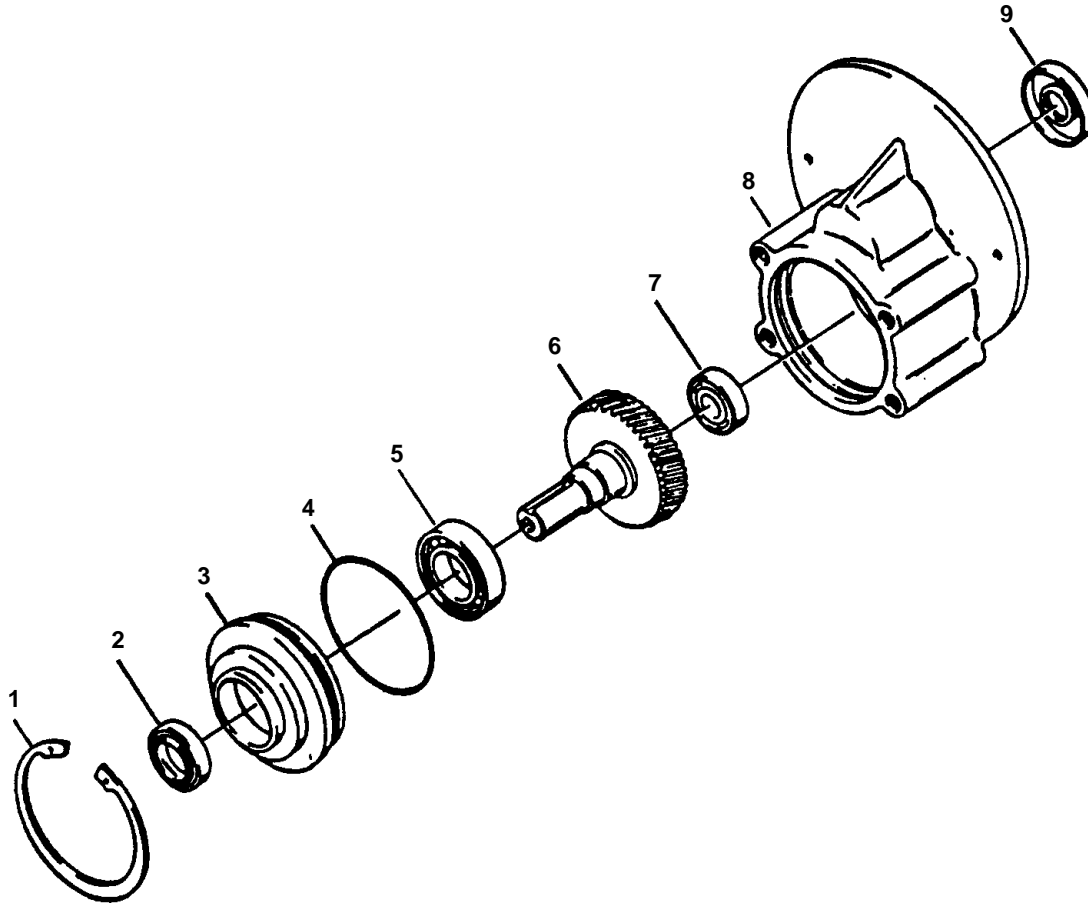
CLARKETECHNOLOGY
Vision 17E (230V)
Vacuum Motor
Drawing & Parts List 11/93
Form #44907A



Ref #	Part No.	Description	Qty
1		not available	
2	54809A	Housing - Vent	1
3	53905A	Fan	2
4	51914A	Clamp	2
5	51401A	Carbon Brushes 230V	2
6	50618A	Commutator End Bracket	1
7	638313	Load Spring	1
8	53100A	Disc	1
9	902679	Ball Bearing	1
10	902648	Ball Bearing	1
11	59803A	Neoprene Washer	1

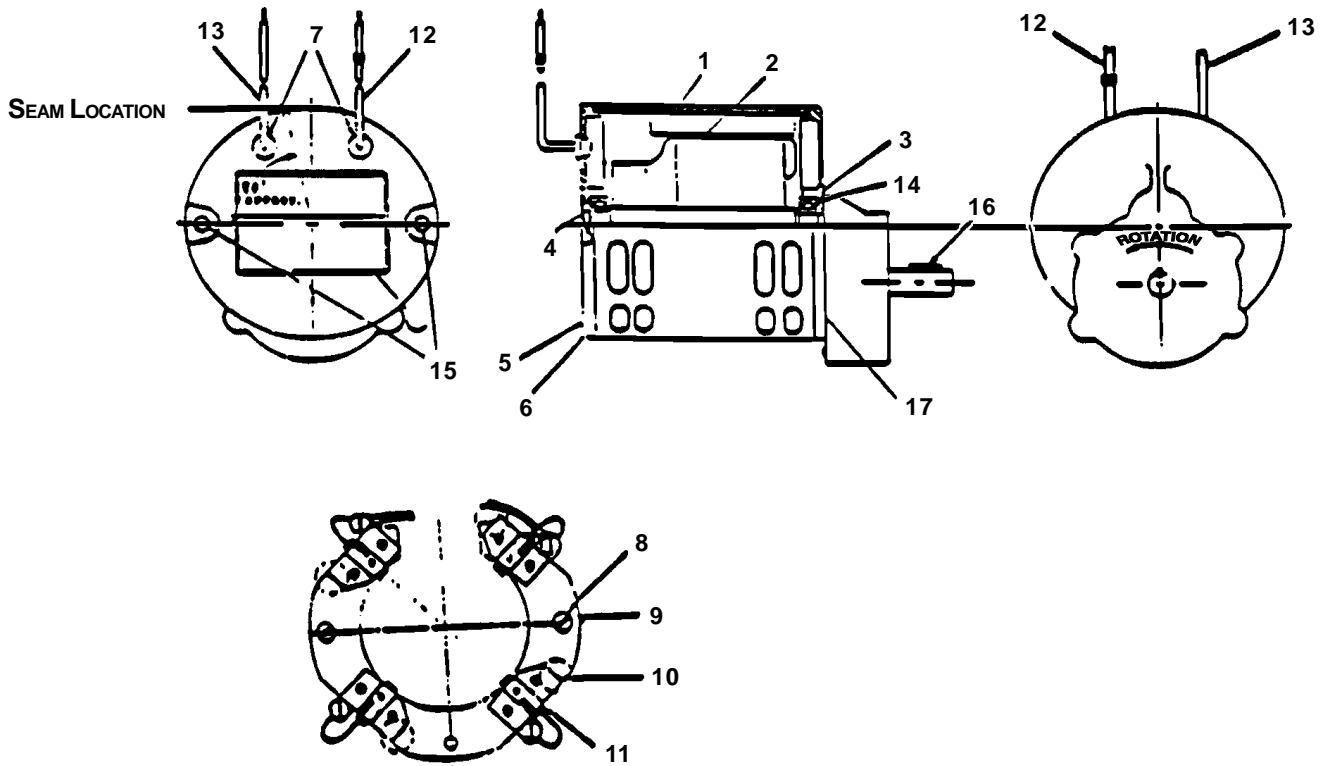
Ref #	Part No.	Description	Qty
12	50610A	Fan End Bracket	1
13	58501A	Spacer	1
14	53914A	Vacuum Fan	2
15	658201	Spacer	1
16	53908A	Stationary Fan	1
17	57904A	Fan Shell	1
18	980205	Washer	1
19	920329	Nut	1
20	53906A	Fan	1
21	53914A	Fan - Rotating	1

CLARKETECHNOLOGY
Vision 17E (230V)
ASM, Gear Box #54238A
Drawing & Parts List 11/93



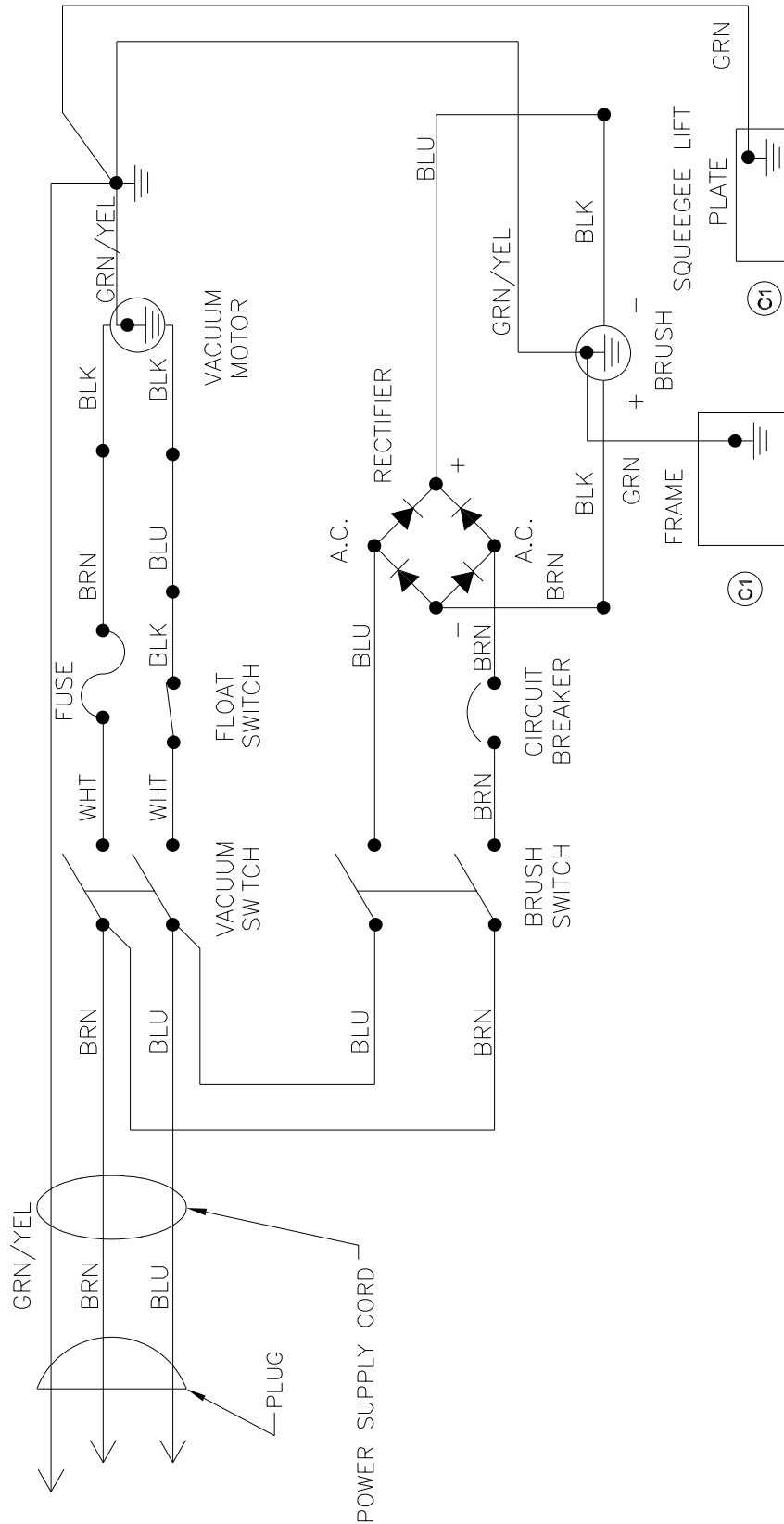
Ref	Part No.	Description	Qty
1	57846A	Ring, Snap	1
2	58143A	Seal, Oil, Small	1
3	52050A	Cap End	1
4	56668A	O - Ring	1
5	51176A	Bearing, Large	1
6	58316A	Shaft and Gear	1
7	902605	Bearing, Small	1
8	54883A	Housing	1
9	58144A	Seal, Oil Large	1
NI		Grease	1oz

CLARKE TECHNOLOGY
Vision 17E (230V)
Brush Motor 44711A
Parts List 8/97

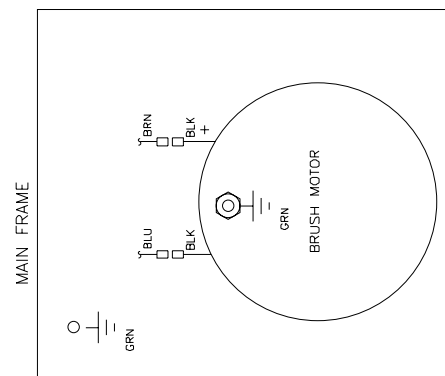
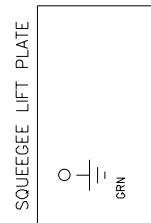
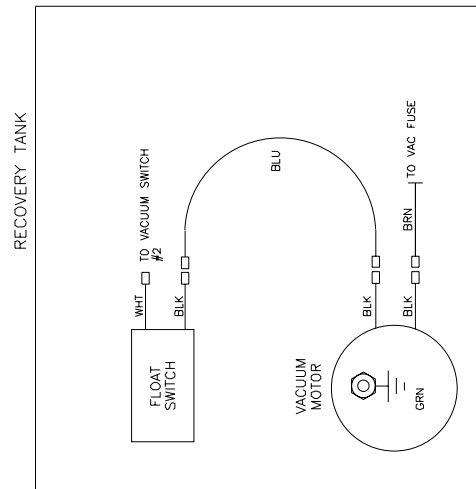
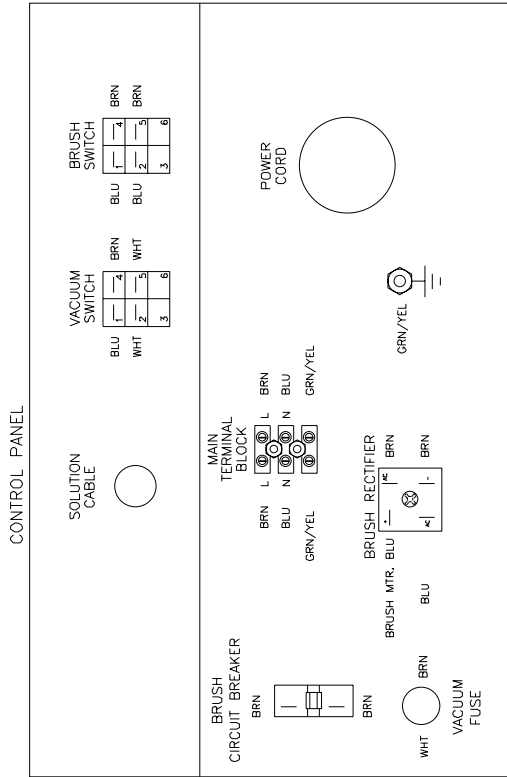


Item	Part No.	Description	Qty
1	56477A	Stator Frame Assembly (w/Magnets & Clips)	1
2	50140A	Armature Assembly (w. B.E. & F.E. Bearings)	1
3	902654	Bearings B.E.	1
4	902550	Bearing F.E.	1
5	51837A	Commutator Bracket Assembly (w/Brush BRD Assembly Leads)	1
6	50520A	Commutator Bracket	1
7	56480A	Strain Relief	2
8	962546	Brush Board Screw	2
9	50519A	Brush Board Assembly (w/ Springs & Brushes)	1
10	448396	Brush Spring	4
11	40819A	Brush Assembly	4
12	55654A	Lead Assembly	1
13	55655A	Lead Assembly	1
14	59805A	Helical Washer	1
15	50515A	Thru Bolt	2
16	80501A	Shaft Key	1
17	54238A	B.E. Bracket Assembly (Gear Box)	1

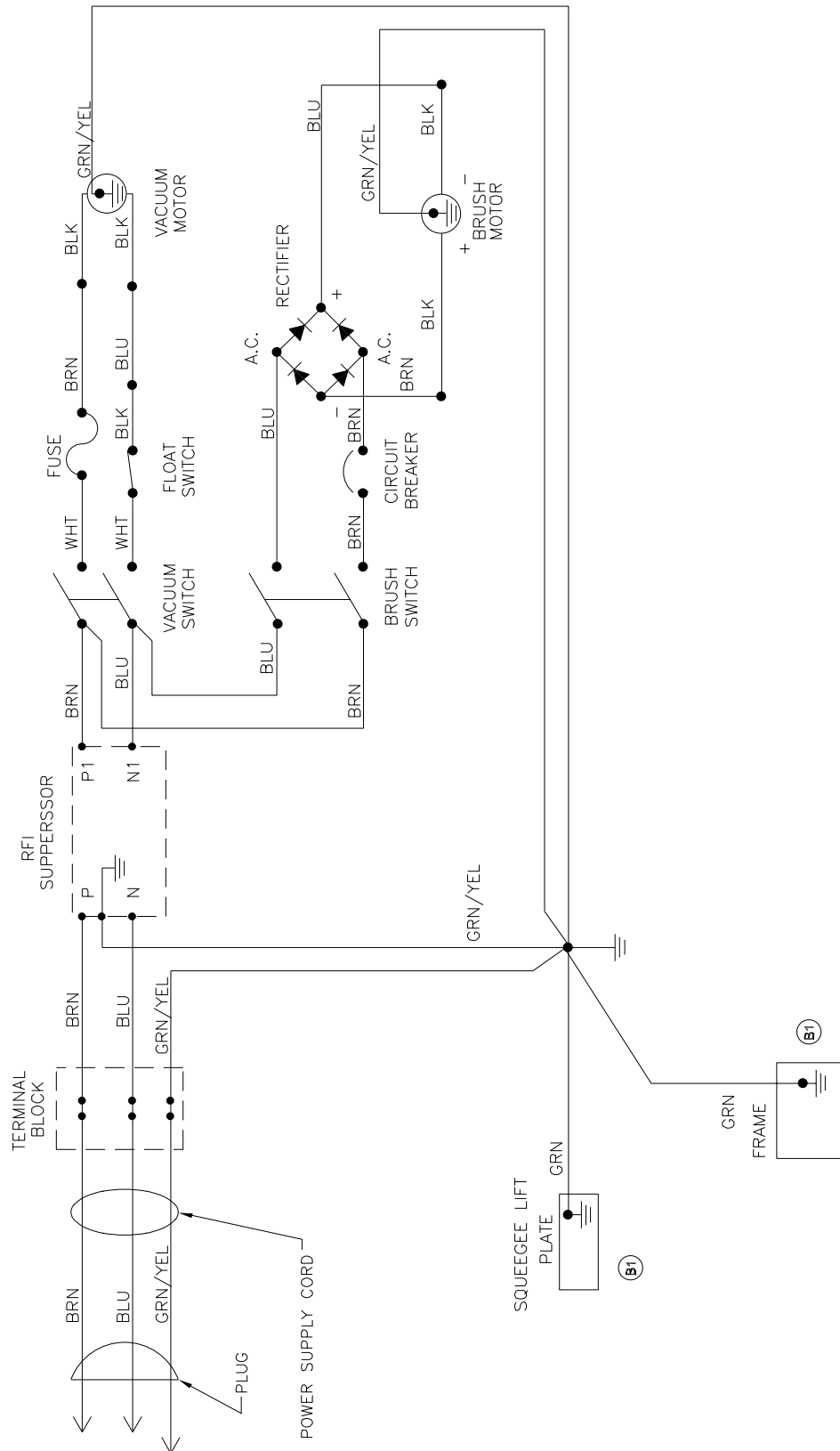
CLARKETECHNOLOGY
Vision 17E (230V)
Model #00370B - 230V Electrical Schematic 2/01



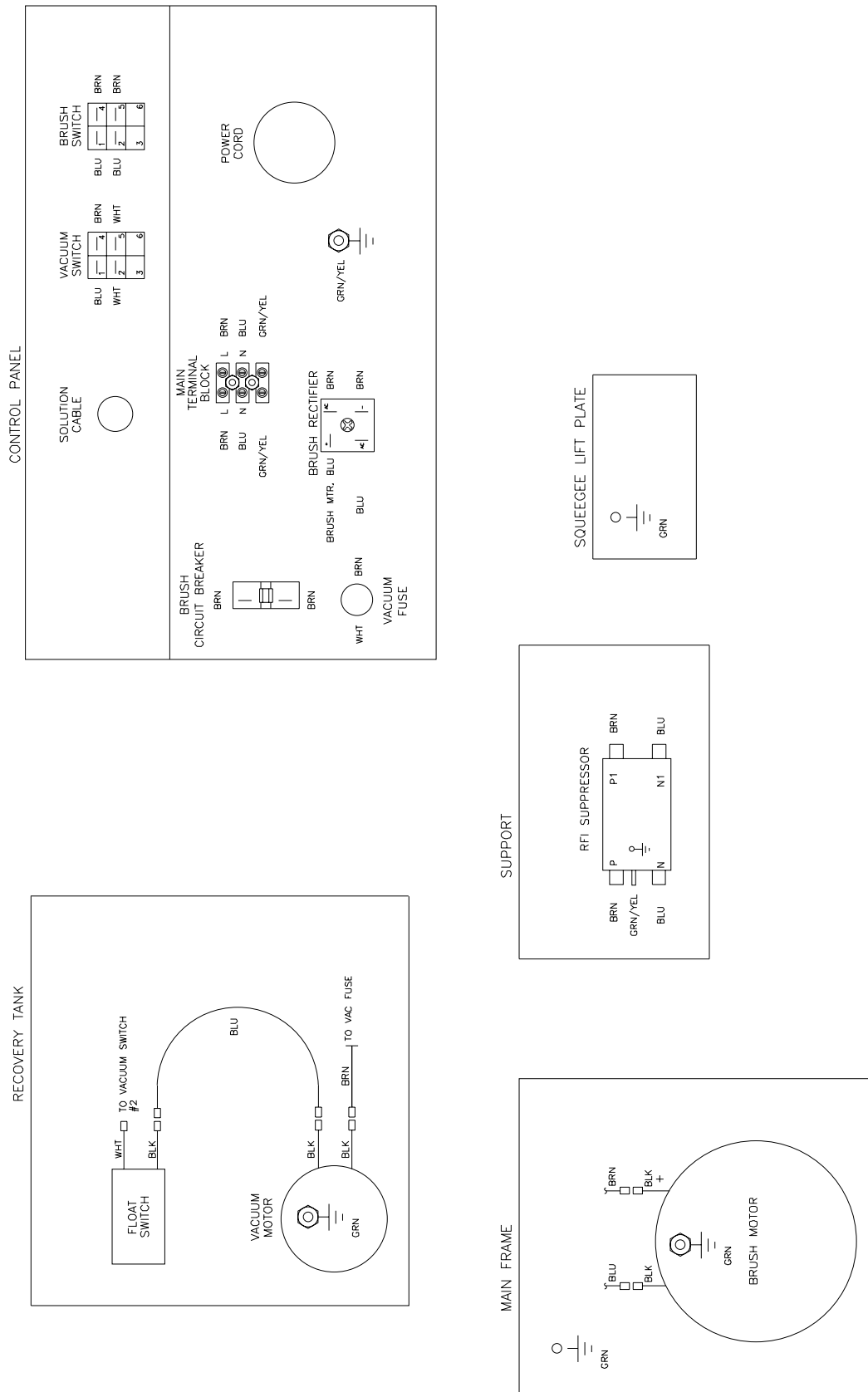
CLARKETECHNOLOGY
Vision 17E
Model #00370B - 230V Connection Diagram 2/01



CLARKETECHNOLOGY
Vision 17E (230V Europe)
Model #00370E - Electrical Schematic 2/01



CLARKETECHNOLOGY
Vision 17E (230V Europe)
Model #00370E - Connection Diagram 2/01



NOTE

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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Technical Service - 1-800-356-7274

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1100 Haskins

ALTO U.S. Inc., Clearwater, Florida 33765
1500 N. Belcher Road

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+47 2275 1770

CLARKE TECHNOLOGY U.S. LIMITED WARRANTY

This Clarke Industrial/Commercial Product is warranted to be free from defects in materials and workmanship under normal use and service for a period of one year from the date of purchase, when operated and maintained in accordance with Clarke's Maintenance and Operations instructions.

This brush drive and traverse motors are warranted to be free from defects in materials and workmanship under normal use and service for one year from the date of purchase, provided the motors are inspected for carbon motor brush wear at six-month intervals by an authorized Clarke repair station. Failure to comply with the six-month inspection requirement or failure to replace worn motor brushes identified during the inspection will void the one-year warranty on the motors. Cost of the six-month inspection and replacement of carbon motor brushes is the responsibility of the purchaser. In the event of a warranty claim on the motors, proof of inspection and any required motor brush replacement must be provided.

This warranty is extended only to the original purchaser for use of the product. It does not cover normal wear parts such as electrical cable, rubber parts, and motor brushes.

Clarke's liability under this warranty is limited to repair of the product and/or replacement of parts and is given to purchaser in lieu of all other remedies, including INCIDENTAL AND CONSEQUENTIAL DAMAGES.

THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE SPECIFIED HEREIN. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION OF THE FACE HEREOF. NO WARRANTIES, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY, SHALL BE IMPLIED. A warranty registration card is provided with your Clarke product. Return the card to assist Clarke in providing the performance you expect from your new floor machine.

If a difficulty develops with the product, you should: a) Contact the nearest authorized Clarke repair location or contact the Clarke Service Operations Department, 2100 Highway 265, Springdale, Arkansas 72764, for the nearest authorized Clarke repair location. Only these locations are authorized to make repairs to the product under this warranty. (b) Return the product to the nearest Clarke repair location. Transportation charges to and from the repair location must be prepaid by the purchaser. Clarke will repair the product and/or replace any defective parts with out charge within a reasonable time after receipt of the product.

ALTO U.S. Inc., 2100 Highway 265, Springdale, Arkansas 72764.

CLARKE TECHNOLOGY: POLYDUR® AUTOMATIC SCRUBBER SOLUTION AND RECOVERY TANK FIVE-YEAR GUARANTEE

Your new Clarke Vision Automatic Scrubber has polydur Solution and Recovery Tanks. Polydur is a rotationally molded, medium-density linear polyethylene that won't crack or dent, and withstands most corrosives and temperature extremes. Clarke backs up your Polydur tanks with a five-year guarantee. If a tank breaks or leaks under normal use within five years of the date of purchase, it will be replaced free.

CLARKE TECHNOLOGY UNIBODY FRAME THREE-YEAR WARRANTY

Clarke warrants the frame for the new Vision automatic Scrubbers for a period of three years against defects in materials and workmanship under normal use and service.

CLARKE TECHNOLOGY reserves the right to make changes or improvements to its machine without notice.

Always use genuine Clarke Parts for repair.



**CLARKE TECHNOLOGY
2100 Highway 265
Springdale, Arkansas, 72764**