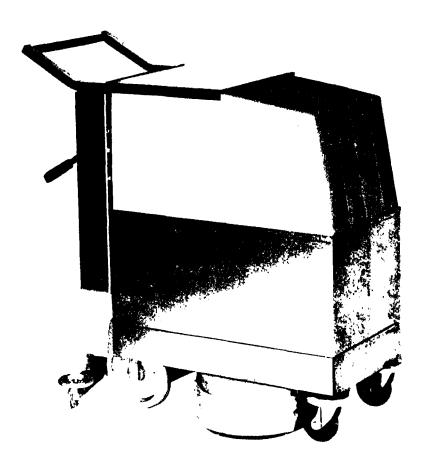


# Model KA-200E 20" AUTOMATIC SCRUBBERVAC



# OPERATING & MAINTENANCE INSTRUCTIONS

# ILLUSTRATED PARTS LIST

**MARCH 1982** 

Write the model and serial number of your unit in the space provided. Refer to the rating plate on unit.

Model #

Serial #

Retain this owner's guide for future reference.

## THE KENT COMPANY

P.O. Box 1665 2310 Industrial Parkway Elkhart, IN 46514 (219)293-8661

## INTRODUCTION

Your automatic has been especially engineered and manufactured to give the maximum in performance in a total scrubbing and polishing of large floor areas.

With careful maintenance, according to the instructions outlined in the following pages, a high standard of operation throughout its use will be insured.

CAREFULLY INSPECT ALL COMPONENTS TO INSURE THAT THERE IS NO CONCEALED FREIGHT DAMAGE. IF SUCH DAMAGE IS DISCOVERED, FILE A "CONCEALED DAMAGE REPORT" IMMEDIATELY WITH THE DELIVERING CARRIER.

The contents of this Manual are based on the latest product information available at the time of publication. The right is reserved to make changes at any time without notice, in price, color, materials, equipment, specifications and models.

For your con number here	venience, record machine model and seria
	MODEL
	SERIAL

#### **GENERAL INFORMATION**

BEFORE YOU PLUG IN YOUR FLOOR SCRUBBER, check the voltage rating plate located under the top lid cover to check if it agrees within 10% of the voltage available. (See "Rating Plate.") Connect only to a grounded (3-wire) electrical let. (See "Grounding Instructions.")

DO NOT OIL. The motor in your floor scrubber is permanently lubricated and sealed. Do not oil the motor at any time.

#### Safety Recommendations: Be Safe — Avoid Possible Hazards

To avoid hazardous conditions, do not use your machine in areas where flammable and/or explosive vapors or dust are present.

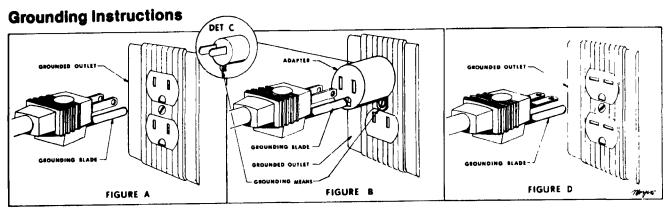
Always disconnect the floor scrubber from electrical outlet before servicing machine, such as changing brushes, pads, etc.

Use care to keep electrical supply cord from contacting the rotating brushes or drive blocks.

Your floor scrubbing machine is not a toy. Do no allow children or unauthorized personnel to play with unit. Do not leave machine connected to an electrical outlet or left unattended.

Connect only to a grounded (3-wire) electrical outlet.

Warning - To avoid electrical shock, use indoors only.



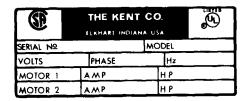
This floor finishing machine should be grounded while in use to protect the operator from electric shock. The machine is equipped with a 3 conductor cord and a 2 prong grounding type attchment plug cap to fit the proper grounding type receptacle. The green (or green & yellow) conductor in the cord is the grounding wire. Never connect this wire to other than the grounding blade.

FLOOR FINISHING MACHINES RATED LESS THAN 150 VOLTS – If the floor finishing machine is provided with an attachment plug cap as shown in Figure A, it is intended for use on a 120 Volt (nominal) circuit. If a properly grounded receptacle as shown in Figure A is not available, an adapter as shown in Det.C is available and should be installed as shown in Figure B if the outlet box that houses the receptacle is grounded. Be sure to fasten the grounding tab with the faceplate screw.

FLOOR FINISHING MACHINES RATED 150 - 250 VOLTS —— If the machine is provided with an attachment plug cap shown in Figure D, it is intended for use on a 240 Volt (nominal) circuit. No adapter is available for this cap.

#### SERVICE INFORMATION

To obtain consistent performance over the life of your automatic, read through these instructions and keep them handy for future reference. If you require service, contact the dealer from whom the machine was purchased, or the authorized Kent Service Agency. Always refer to your Kent Limited Warranty for complete service information.



The model, type, and serial number are indicated on the rating plate. For prompt and complete service information, always refer to these numbers when inquiring about service.

#### **FAMILIARIZATION & OPERATION**

#### **CONTROL PANEL & PLUG**

Standing at the rear of the machine, the controls from left to right are.

- 1. Solution flow control knob.
- 2. Red light indicates that electric power is "ON".
- 3. "ON-OFF" switch for vacuum motor.

#### SQUEEGEE OPERATION

On the rear panel, the right handle marked SQUEEGEE raises and lowers the squeegee. To raise the squeegee, push the handle down.

To operate the squeegee:

- 1. Push the vacuum switch "ON".
- 2. Pull the squeegee handle up to lower the squeegee. This KENT automatic is equipped with a squeegee which is capable of swinging three inches (3") to either side of the machine. This permits picking up of water on a turn because the squeegee will follow the pattern of the brushes. When up against a wall, the squeegee will ride tight to it until the machine pulls away. Should the squeegee encounter an obstruction, it will shift laterally until the obstruction has been passed.

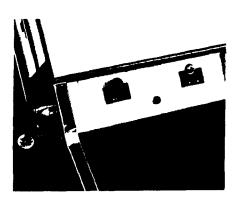
#### **BRUSH CONTROL**

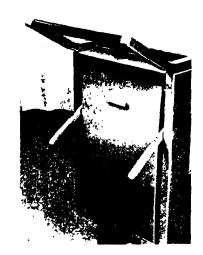
The left handle marked BRUSH raises and lowers the brush.

To raise the brushes, push the handle down.

To start and lower the brushes:

1. Pull the brush handle up for scrubbing operation.





#### INSTALLING BRUSHES -

The KENT automatic comes equipped with (2) 10-1/2" scrub brushes (Part # 20257) which mount to the brush drive as follows:

Each brush has 3 lugs located around a hole. (A)

Under the cast aluminum brush cover are two drive plates (B); each has 3 slotted holes to accept the brush lugs. In the center of each drive plate is a hub which will fit into the hole in the brush.

#### To Install Brushes:

- 1. Remove the squeegee assembly.
- 2. Drain solution from both tanks.
- 3. Pull brush handle up.
- 4. Pull squeegee handle up.
- 5. Tilt machine back until it rests on the rear wheels and handle.
- 6. Pilot the hole in the brush onto the hub.
- 7. Rotate the brush until the lugs fit into the drive plate slots.
- 8. Raise and rotate each brush with a sharp jerk toward the side of the machine. This will lock the lugs onto the drive plate.

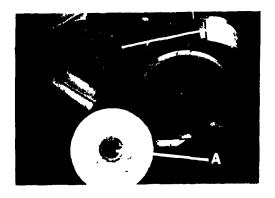
#### **SOLUTION TANKS -**

The fresh solution and recovery tanks are mounted side by side in front of the control panel. Both tanks are made of Linear Polyethylene. The left tank is for fresh solution and is marked "FILL HERE". The right tank is the recovery tank with built-in automatic float shut-off for vac motor protection. This tank can be quickly converted for dry use by inserting a cloth bag (Part # 47351) over the tank inlet tube inside the recovery tank. For dry use operation, replace wet squeegee with a dry felt squeegee (Part # 32453) and the brushes can be changed to polish # 20258 or pad holders # 20284.

#### FILLING THE FRESH SOLUTION TANK -

To fill the fresh solution tank, raise the machine lid and set back fresh solution tank access door. Pour solution into tank opening with care to avoid sloshing over entire tank and machine. Mix solution to be used according to the manufacturer's directions for the particular application and chemicals. Fill the solution tank with the desired amount of solution and re-install tank lid and close machine cover.





#### **VACUUM MOTOR -**

The vacuum motor is located in the rear of the machine, under the recovery tank and can be inspected by removing the access panel and then removing the vacuum motor filter cover. REMOVE AND CLEAN LINT FILTER DAILY.

#### MICROSTAT FILTER -

(Optional) Package of 12 Part # 46849

#### Installation:

- 1. Remove vac filter cover (A)
- 2. Place Microstat filter into the vacuum motor gasket, Fig. B Ref. 99. Carefully replace the vac filter cover.
- 3. Replace microstat filter every two weeks under heavy use.

#### **INSTRUCTIONS IN USE OF YOUR KENT AUTOMATIC**

#### **SEQUENCE OF SCRUBBING OPERATIONS —**

To apply solution to the floor, scrub and immediately recover the liquid and soil, the following sequence of operations is followed:

- 1. Attach the 75' electrical cable to the Machines power cord.
- 2. Plug the electrical cable into the nearest wall outlet.
- 3. Turn vacuum switch "ON"
- 4. Raise brush lever - brush drive motor automatically comes "ON".
- 5. Turn water knob to desired flow rate.
- 6. Lower squeege by raising the squeege lever.
- 7. Push the Machine for forward motion. DO NOT REVERSE MACHINE WITH SQUEEGE DOWN.







#### TURNS IN THE NORMAL SCRUBBING PATTERN -

In order to reduce an over abundance of solution during operation on sharp turns

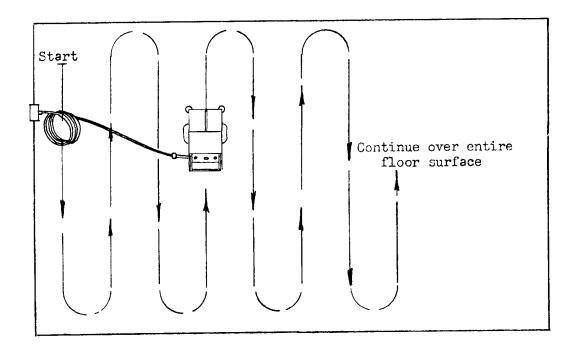
- (A) Turn water switch to "OFF" six (6) feet before the turn.
- (B) Return the water switch to "ON" in the middle of the turn.

KENT automatics can be easily controlled and maneuvered with one hand leaving the other hand free to manipulate the water flow. THIS FEATURE PLUS THE KENT SWING SQUEEGEE WILL REDUCE CLEAN UP TIME FOLLOWING THE SCRUBBING OPERATION.

This machine is equipped with an automatic shut-off device which will cease the operation of the pick-up tube when the recovery tank is full. You will note this condition when you no longer pick up water with the squeegee. When this condition occurs, the squeegee and brushes should be raised from the floor with the vac motor shut off and the machine driven to a suitable area for dumping of dirty water.

#### SEQUENCE OF SCRUBBING OPERATIONS -

Following is a chart which can be used as a proposed sequence of scrubbing for a particular area. One very important factor is to operate machine moving away from cord and outlet.



Place cord as shown after first pass.

#### TO DUMP SOLUTION:

- 1. Raise machine lid and set back the dirty solution tank access door.
- 2. Remove the access panel on the rear of the machine and pull out the dump hose.
- 3. Point dump hose into drain and away from you. Solution will dump very fast.



# PLEASE READ AND FOLLOW THE DAILY, WEEKLY, AND MONTHLY MAINTENANCE SCHEDULE LOCATED ON THE UNDERSIDE OF THE LID OVER THE SOLUTION AND RECOVERY TANKS.

#### MACHINE CARE -

At the end of the day's operation, the machine should be completely cleaned and prepared for the next shift's operations. Careful maintenance will insure effective performance throughout a long period of service.

- 1. Open the access to the recovery tank and completely rinse with clean water. Drain the tank by using the dump hose.
- 2. Clean the fresh water tank using the same procedure as in Number 1 above. Drain this tank by turning the water knob to "ON" after disconnecting hose leading to brushes.
- 3. Do not store the machine with the brushes in down position because of the possible set in the brushes and possible discoloration of the floor due to moisture in the brushes.
- 4. Remove the brushes from the machine; clean and dry them as necessary and wipe down exterior of the machine.

#### **MAINTENANCE INSTRUCTIONS -**

A sound Preventive Maintenance Program will insure long, reliable and effective performance from your machine. We would strongly suggest that responsibility for the machine be assigned to a reliable individual in your organization.

#### DAILY:

- 1. Clean and flush fresh and recovery solution tanks.
- 2. Clean lint filter on vac fan.
- 3. Wipe squeegee blades and machine wheels clean.
- 4. Wipe clean all interior and exterior surfaces.

#### WEEKLY:

- 1. Lubricate all linkage and hinge parts.
- 2. Check pick-up tube for any obstructions. Fig. B, Ref. 24.
- 3. Lubricate castor bearings and axle.
- 4. Replace Microstat filter (where applicable).

#### MONTHLY:

- 1. Lubricate all linkage or hinge pivot parts.
- 2. Check all belts for tension and wear. To adjust motor drive belt, loosen two (2) motor bolts (Fig. A, Ref. 42) slide motor forward and retighten bolts. To adjust brush drive belt, loosen idler adjustment arm bolt (Fig. A, Ref. 34) move idler pulley out and retighten bolt.
- 3. Adjust squeege if necessary turn spring locknut (Fig. B, Ref. 47) clockwise until desired pressure is attained. Do not adjust beyond necessary travel to raise squeege.
- 4. Check alignment of belts.
- 5. Check pick-up tube for any obstructions. Fig. B, Ref. 24.
- 6. Check all gaskets. Fig. B, Ref. 99. Fig. C, Ref, 11, 18 & 20.
- 7. Check all wiring connections for cleanliness.
- 8. Lubricate castor bearings and axle.
- 9. Replace Microstat filter (where applicable).

#### SIX MONTHS:

- I. Same as Monthly plus:
- 2. Inspect vacuum motor carbon brushes, replace if worn to 3/8" length or less.

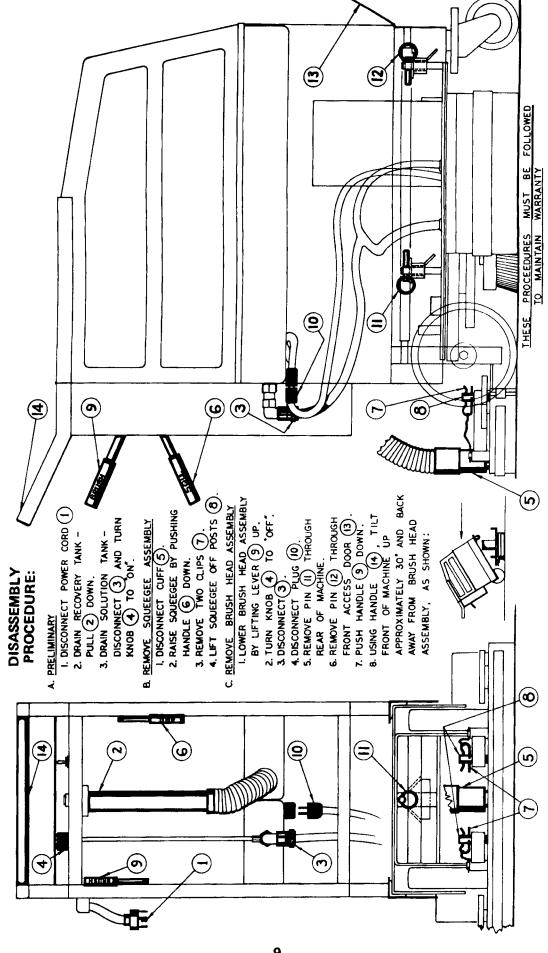
Your 20" Electric has been designed to be a lightweight machine so that it can be transported to various levels either as a two-man or a one-man operation.

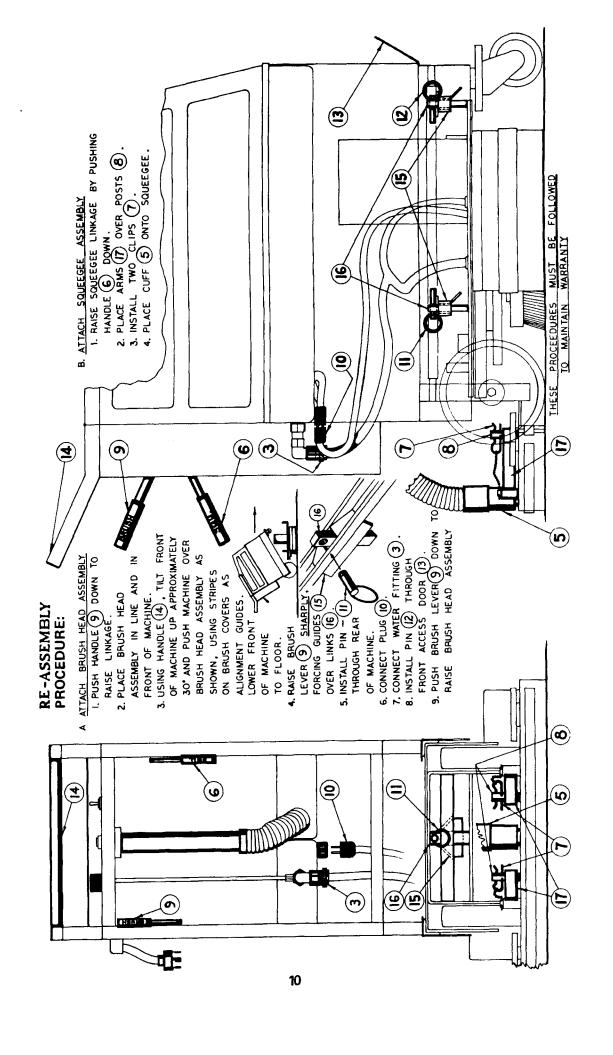
To transport the machine in the fastest manner will require two men. To do this job, it is necessary that the recovery and clean water tanks are completely drained and that the squeegee is removed from the machine. With the squeegee removed, one man can lift the machine by the front carrying handle accessible thru the lower front access door. The machine can then be transported by these two men, one carrying the front and the other lifting on the push handle. When going upstairs, the man in front of the machine should go first. When transporting down the steps, the man in front should go first once again. When the machine is in the area to be cleaned, reassemble the squeegee and it is once again ready for operation.

Your 20" Electric has been designed to separate into four (4) easily removable lightweight components when it becomes necessary for one man to transport the machine to other levels. The 20" Electric separates into a Machine Body Assembly and Power Cord Assembly; each component assembly weighing 105 lbs., 75 lbs., 6 lbs. and 8 lbs. respectively.

Following is a Disassembly Procedure and Re-Assembly Procedure that must be followed to meet machine warranty.

CAUTION: Remove squeegee before tilting machine beyond 30°.





# **Lubrication Chart**

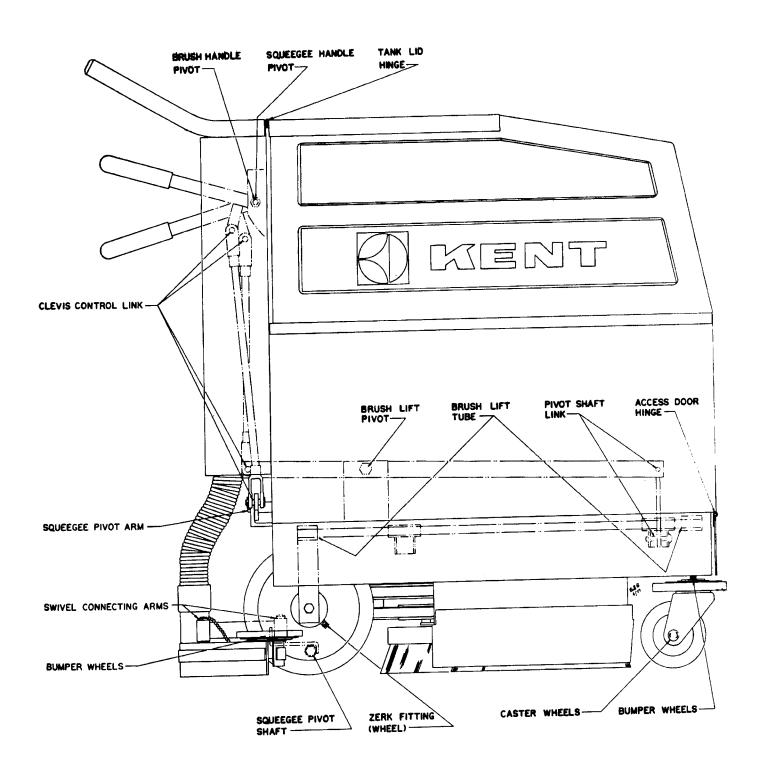
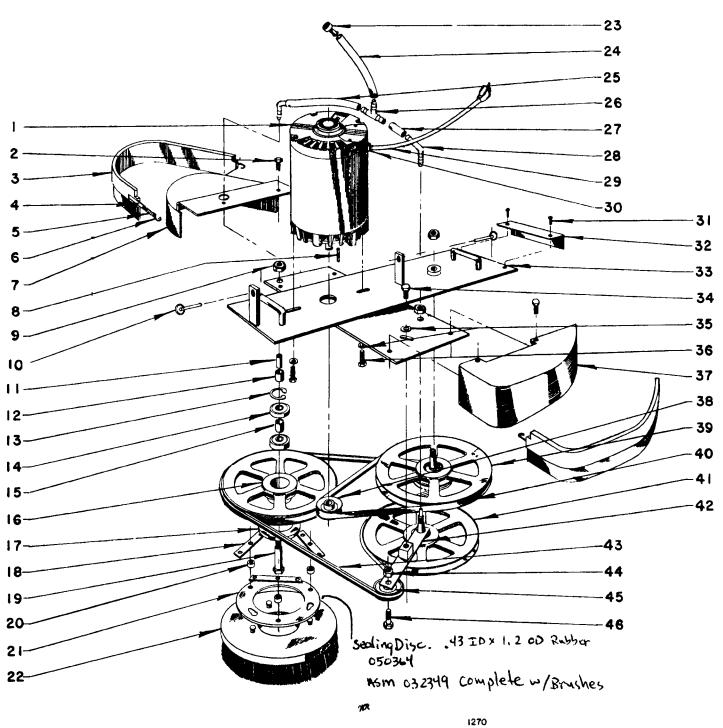
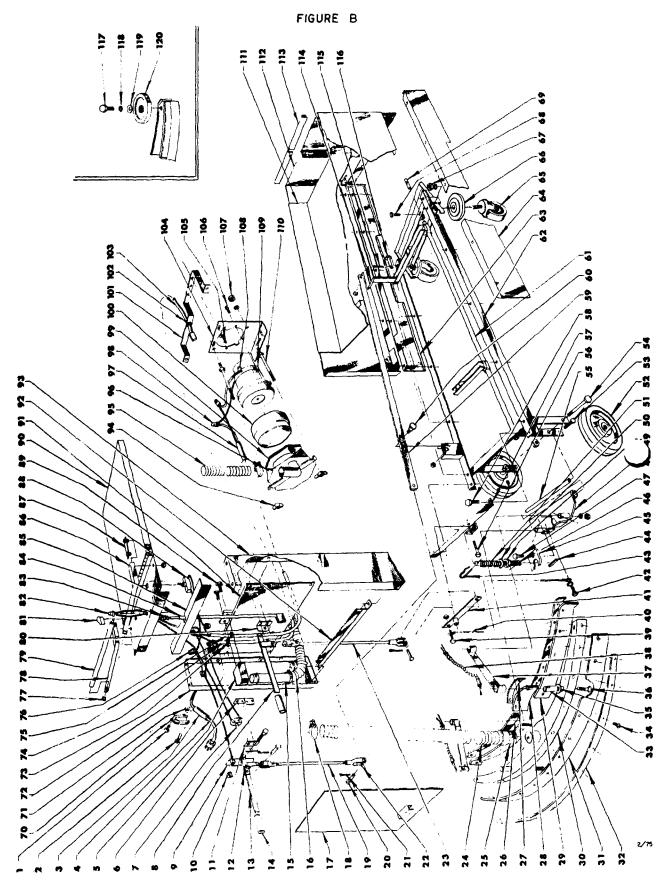




FIGURE A





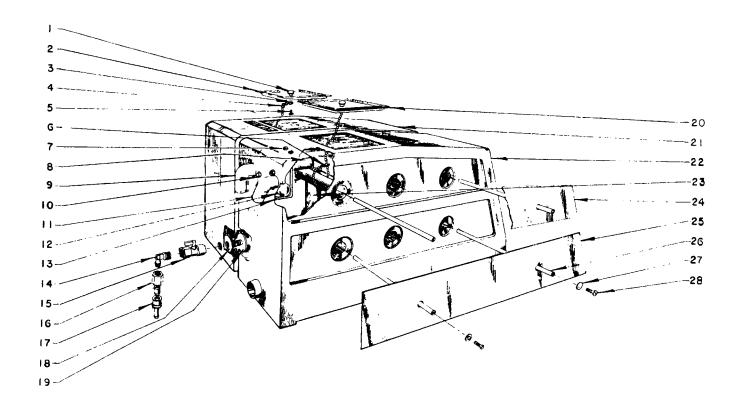


FIGURE A 20" ELECTRIC AUTOMATIC PARTS LIST				
REF. NO.	PART NO.	DESCRIPTION	NO. REQ	
1	23293	Motor - 115 Volt, 60 Cycle (Baldor)	1	
1	24072 24145	Motor - 230 Volt, 60 Cycle (Baldor)   Motor - 100 Volt, 50 Cycle (Franklin)	1	
1	23952	Motor - 230 Volt, 50 Cycle (Franklin)	î	
2	01346	Screw - 1/4-20 x 1/2 Hex Taptite	4	
3A	32350	Splash Guard Assembly	2	
3 4	47578 47579	Rubber - Splash Guard Insert	2 2	
5	46861	Spring	2	
6	46866	Clip	4	
7 8	47587 40407	Brush Cover - Right Side Key - 3/16 x 1-1/8 Square	1 1	
9	03367	Nut - 1/2-20 Flex Lock - Thin	3	
10	04357	Pin - Brush Head Assembly - Fastener	2	
10	47026 46952	Spacer (On Front Pin Only)	2	
12	48668	Water Tube Spacer - Upper	2	
13	48587	Snap Ring	3	
14 15	27188 48566	Bearing Spacer - Bearing	6	
16A	32669	Brush Sheave Ass'y Complete - Right (No's 16,	t	
	i	18, 20 & 21B)	1	
16 17	48575 46764	Sheave - Brush Drive Brush Support	2 2	
18	49631	Strap - Brush Float	6	
19	48565	Shaft - Brush Drive	3	
20	46425	Spacer - 7/16 OD x 1/4 ID x 1/4 LG	6	
21A	32231	Ring Assembly - Right Brush Drive Ring Assembly - Left Brush Drive	1	
21B 22	32232 20257	Brush - Bassine - Scrubbing	2	
22	20258	Brush - Mixed - Polishing - (Optional)	2	
22	20270	Brush - Nylon (Optional)	2	
22	20296	Brush - Ken-Grit (Optional) Driving Pad Assembly - Kent (Optional)	2 2	
22 22	20284 49277	Flange - In 20284 (Not Shown)	2	
22	49238	Nut - In 20284 (Not Shown)	2	
22	49239	Clamping Plate (Black Plastic) - In 20284 (Not Shown)	2	
22	20268	Driving Pad Assembly - 3M (Optional)	2	
22	15653	Stripping Pad - Black (Optional)	2	
22	15654	Scrubbing Pad - Green (Optional) Buffing Pad - Brown (Optional)	2 2	
22 23A	15655 32374	Water Feed Hose Ass'y. (Includes No's 23	1 -	
23	48020	thru 28) Quick Disconnect Socket	1	
	<del> </del>	Tubing - Vinyl 21" Long	1	
24 25	47672 47670	Tubing - Vinyl 21 Long Tubing - Vinyl 9" Long	ı	
26	46944	Tee	1	
27 28	47671 46946	Tubing - Vinyl 2" Long Elbow	1 2	
29	25185	Power Cord Assembly - Motor	1	
30	48027	Strain Relief	1	
31	01332	Screw 10-24 x 3/8 Pan Head - Thread Cutting Sheave Guard	1	
32 33	48070 32673	Brush Plate Assembly	î	
34	03262	Screw - 3/8-16 x 1 Hex Head	1	
35	05483	Washer - 3/8 ID	4	
36 37	03264 47593	Screw - 3/8-16 x 1-1/4 Hex Head Brush Cover - Left	1	
38	46792	Motor - Sheave	ī	
39	48655	Step Sheave Assembly	1	
40	47514	Belt - Motor Drive	1	
41A	32670	Brush/Sheave Ass'y - Left (No's 16, 18, 20 & 21A)	1	
42	32352	Idler Adjustment Arm Assembly	ī	
43	47589	Belt - Brush Drive	1	
44 45	03294 27175	Nut - 3/8-16 Hex Idler Sheave	1	
46	03265	Screw - 3/8-16 x 1-1/2	ī	
FIGURE	В			
	1 01295	Screw - 10-24 x 5/8 Rd. Hd	1	
1 2	01295	Screw - 10-24 x 1-1/2 Rd. Hd	2	
2	05297	Lockwasher - #10	3	
2 3	03279 49600	Nut - 10-24 Hex Cable Protector	1	
4A	25187	Power Cord Ass'y Pig Tail	1	
4A	25551	Extension Cord Ass'y. (Not Shown) 75' Cord	1	
4	25205	and Plug Power Cord - Pig Tail	1	
4	26501	Twist Lock Cap (For 25187)	1	
			1	
			1	
	I	1		

REF. NO.	PART NO.	DESCRIPTION	R
4	25527	Extension (ord - 75' (Not shown)	1
4	26502	Connector - Twist Lock (Not Shown) For 25551	1
5A	33267	Ass'y - ho e Support	1
5	50880	Body	1
5	71-5407	Washer (Nylon)	Γ,
5	71-9403	Insert (Aluminum)	Γ.
6	47620	Mounting Ilite - Switch	1
7	26412	Switch - Prush Motor	1
8	32358	Handle Ass' - Squeegee	1
9	47703	Brush Harale Mounting Angle	1
10	05479	Nut - 1/4-2) Flex Lock	2
11	47997	Brkt - handle Support	2
12	48013	Trigger - Brush Switch	1
13 14	32362 47611	Handle Ass'y - Brush Handle Grib	2
			┢
15 15	48039 70 <b>-</b> 9500	Tube - Drain Button Siring - Drain Tube (Not Shown)	1
16	48921	Flexable Bose - Tank Drain	li
16	44112	Hose Clamp - 1-1/2-2-1/2 (Not Shown - @ Tank)	li
17	50584	Access Door	ī
			+-
18	46688	Hose Clamp - 3/4-1-1/2	1
19 20	47702 04361	Threaded Connecting Rod - Brush	4
20	04361	Clevis Pin - 3/8 x l Cotter Pin	4
22	47697	Clevis Control Link	4
			╁
23 24	47712 47675	Threaded Connecting Rod - Squeegee Hose - Squeegee	1
25	70-6704	Cuff - Squeegee Hose	î
26A	32353	Squeegee Ass'y Complete (Includes No's 26	٦
·		thru 36 & 117 thru 120) - Wet	1
26	46838	Clamp - Squeegee Front	2
27	46839	Clamp - Squeegee Front Center	1
28A	38424	Squeegee Blude Set (Includes No's 28, 29 & 31	
28	47601	Rubber - Front Center	2
29	47599	Rubber - Front	Ľ
30	47600	Squeegee Body	1
31	47602	Rubber - Rear	1
32	46837	Clamp - Rear	1
33	47713	Shaft - Connecting Arm	2
34	02367	Screw - 10-24 x 5/8 Taptite	25
35	05219	Washer ~ 25/64 x 1 x 16 Ga	4
36	02323	Screw - 3/8-16 x 1-3/4 Fl Hd Socket	1
37	32355	Swivel Connecting Arm Ass'y	_
38	32583 02253	Chain & Pin Ass'y Screw - 1/4-20 x 3/4 Hex Hd	3
39			-
39 39	02278 05419	Lockwasher - 1/4 Med Sp Nut - 1/4-20 Hex	18 17
40	47604	Lift Cable	ľi
41	32443	Pivot Arm Ass'y	1
42	02243	Screw - 1/4-20 x 5/8 Hex Hd	17
42	02278	Lockwasher (See Ref No 39)	-
42	05419	Nut (See Ref No 39)	-
43	04352	Hairpin (Cotter)	1
44	05474	Roll Pin	1
45	48331	Retainer - Roll Pin	1
46	48333	Shaft - Spring	ı
47	02243	Screw - 1/4-20 x 5/8 Hex Hd (See Ref No 42)	-
47	02278	Lockwasher (See Ref No 42)	-
47	05419	Nut (See Ref No 42)	1
48	32567	Squeegee Pivot Flame Ass'y	1
49	03370	Locknut - 1/2-13 Hex	1
50	04238	Washer - 33/64 x 1 x 16 Ga	1
51	45734	Spring	1 2
52A 52	32450 47613	Rear Wheel Ass'y Wheel - Rear	2
			2
52 53	49599 02253	Spacer Shaft Screw - (See Ref No 39)	-
53	02278	Lockwasher (see Ref. No. 39)	-
54	05465	Screw - 5/16-18 x 2-3/4 Hex Hd (Axle)	2
54	04212	Lockwasher - 5/16	2
54	03349	Nut - 5/16-18 Hex	2
55	47603	Shaft - Pivot	1
56	05391	Screw - 3/8-16 x 1-3/8 Hex Hd	1
57	32566	Linkage Pivot Angle Ass'y	1
58	01346	Screw - 1/4-20 x 1/2 Hex Hd Taptite	11
59	47705	Brush Lifting Link	1
60	48856	Shoulder Bolt - 5/16-18 Thd	1
60	03349	Nut - 5/16-18 Hex	1
61	32363	Brush Lift Tube Ass'y	1
62	32364	Frame Ass'y	
		1	1

WHEN ORDERING PARTS - PLEASE FURNISH PART NUMBER, MODEL & SERIAL NUMBER

# 20" ELECTRIC AUTOMATIC PARTS LIST\_\_\_

EF, NO.	PART NO.	DESCRIPTION	NO. REQ.
63	47623	Bottom Skirt - Left	1
64	47640	Bottom Skirt - Right	1 2
65	96830	Caster Ass'y	2
66 67	47708 03296	Bumper - Caster Nut - 1/2-13 Hex	2
			1
67	04228	Lockwasher - 1/2 Screw - 1/4-20 x 1 Hex Hd	2 2
68	02256 48016	Front Linkage Pivot Shaft	ì
69 70	11-1134	Cover - Cable Protector	1 1
71	11-1073	Clamp - Cable Protector	1
72	47659	Collar - Left Side	1
73	47488	Clamp - Electrical Wires	1
74	25188	Cable Lead Ass'y #1	ì
75 76	25189 26400	Cable Lead Ass'y #2 Wire Nut (74B) For (4) Wires	2
			1
76	26464	Wire Nut (73B) For (2) Wires	2
77 78	47664 47654	Plug Button - Handle Handle Bar - Left	1
79	47665	Handle Bar - Cross Piece	1
80	47631	Angle - Squeegee Handle Mounting	1
81	46008	Knob - Water Control	1
82	26476	Indicator Light - (Red) 115V	1 1
82	26524	Indicator Light - (Red) 230V   Spring - Water Control Rod	1
83 84	47662 32373	Spring - Water Control Rod   Control Rod Ass'y - Water Valve	1
		<del></del>	+-,-
85	47663	Door Positioning Angle - Top	1
86	47653 32371	Handle Bar - Right Attaching Bar Ass'y - Handle	2
87 88	26510	Switch - Vac Fan	1,1
89	02237	Screw - 1/4-20 x 1/2 Hex Hd	11
90	32370	Control Panel & Lid Ass'y	1
90 90	48973	Label - Control Panel	1
91	32449	Stiffener Panel Ass'y	1
92	32372	Support Arm Ass'y - Bottom Collar Collar - Right Side	1
93	47658		+
94	03358	Wing Nut - 10-24	1
95	47674	Hose - Vac Fan to Vac Tank Plate Ass'y - Front (Includes Ref No 99)	ì
96 97	32360 25189	Cable Lead Ass'y #2 (See Ref No 75)	-
98	26464	Wire Nut - 73B (For 2 Wires)	2
99	47618	Gasket (Included with Ref. No 96)	1
100	46817	Filter Ass'y	1
101	47622	Bracket - Vac Fan Support	1
102	46183	Strain Relief (Cable Lead Ass'y - #1 (See Ref No. 74)	1 -
103	25188		+-
104 105	47619 01332	Mounting Panel Screw - 10-24 x 3/8 Taptite	2
105	05407	Washer - #10	2
106	05487	Screw - 10-24 x 1/2 Taptite	3
107	03279	Nut - 10-24 Hex	
108	26650	Carbon Brush Ass'y - (Service Only) 115/230V	1
109	23867	Vac Fan Ass'y - 115V	1
109	23953 47366	Vac Fan Ass'y - 230V Studs - Mounting Plate	2
110 111	32377	Tank Tray Ass'y	1
		mid Stirt Ass'y	1
112	32368 48037	Mid Skirt Ass'y Trim Strip - Front	1
113 113	47679	Trim Strip - Tray	2
114	32384	End - Pivot Shaft Link Ass'y	1
114	47704	Retaining Ring	
115	05383	Cotter Pin - 3/32 x 1"	1 1
116	04365	Clevis Pin - 3/8 x 1-1/4	2
117	03243	Screw - 5/16-18 x 5/8 Hex Hd. Lockwasher - 5/16	2
118 119	04212	Washer - 5/8 x 5/16	2
	+		2
120	51191	Bumper Wheel	) [
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20" ELECTRIC AUTOMATIC PARTS LIST NO.				
F. NO.	PART NO.	DESCRIPTION	REQ.	
		For machines with the dry pick up system, the following changes should be made in the parts list when ordering service items		
	38362	Dry Kit Complete		
		Figure A		
22	20258	Brush Assembly - Mixed	2	
	32453	Figure B  Dry Squeegee Complete includes the following parts		
26 27	46838 46839	Clamp - Squeegee Front Clamp - Squeegee Front Center	2	
28	47072	Felt - Front Center Felt - Front	1 2	
29 30	47071 47600	Squeegee Body	1	
31	47070	Felt - Rear	1	
32 33	46837 47713	Clamp - Rear Shaft - Squeegee Connecting Arm	2	
34 35	05489 05219	Screw - 10-24 x 7/8 Taptite Washer - 25/64 x 1 x 16 Ga	25	
36	02323	Screw - 3/8-16 x 1-3/4 Flat Head	2	
37 38	32355 32583	Swivel Connecting Arm Assembly Chain & Pin Assembly	2 2	
117 118	03243 04212	Screw - 5/16-18 x 5/8 Hex Head Lockwasher - 5/16	2 2	
119 120	04219 51191	Washer - 5/8 x 5/16 Bumper Wheel	2 2	
	4684B 47351	Additional paits required include Microstatic Filter (46849 - Pack of 12) Dust Bag (Cloth)	1 1	
FIGUR	E C			
1	48022	Knob - Tank Lid	2 2	
2 3	47683 48023	Lid - Tank End Connector - Ball Chain	4	
4 5	48025 01332	Ball Chain - 19' Long Screw - 10-24 x 3/8 Taptite	2 2	
6	48101	"S" Hook Nut - 10-24 Hex	2	
7 7	03279 04253	Lockwasher	2	
8 9	32447 32382	Tube Ass'y Elbow Mounting Plate Ass'y - Left	i	
10	01247	Screw - 6-32 x 7/8 Rd Hd	4 4	
10 10	03274	Washer - Brass Nut - 6-32 Hex	4	
11 11	33078 47693	Elbow Mounting Plate Ass'y - Right Gasket - Elbow Mounting Plate	2	
12	49388	Ball - Float Frame Ass'y - Float Cage	1 1	
	32981	Elbow - 1/2 to 3/8 Pipe	1	
13 14	06106		1	
	06106 46947 48021	Valve - Water Control Quick Disconnect Fitting - Plug	1	
14 15 16	46947 48021 48020	Valve - Water Control Quick Disconnect Fitting - Plug  Socket Fitting (See Fig A - Ref No 23)	1 -	
14 15 16 17 18 19	46947 48021 48020 46980 51234	Valve - Water Control Quick Disconnect Fitting - Plug  Socket Fitting (See Fig A - Ref No 23) Gasket - Screen Brass Fitting	- 2 1	
14 15 16 17 18	46947 48021 48020 46980	Valve - Water Control Quick Disconnect Fitting - Plug  Socket Fitting (See Fig A - Ref No 23) Gasket - Screen	- 2	
14 15 16 17 18 19 19 20	46947 48021 48020 46980 51234 48848 49254	Valve - Water Control Quick Disconnect Fitting - Plug  Socket Fitting (See Fig A - Ref No 23) Gasket - Screen Brass Fitting Line Strainer Gasket - Recovery Tank Lid  Solution Tank Ass'y Complete	2 1 1	
14 15 16 17 18 19 19 20 21A 21 22A	46947 48020 46980 51234 48848 49254 32378 47682 32380	Valve - Water Control Quick Disconnect Fitting - Plug  Socket Fitting (See Fig A - Ref No 23) Gasket - Screen Brass Fitting Line Strainer Gasket - Recovery Tank Lid  Solution Tank Ass'y Complete Solution Tank Ass'y Complete	1 2 1 1 1 1 1 1 1	
14 15 16 17 18 19 19 20 21A 21	46947 48021 48020 46980 51234 48848 49254 32378 47682	Valve - Water Control Quick Disconnect Fitting - Plug  Socket Fitting (See Fig A - Ref No 23) Gasket - Screen Brass Fitting Line Strainer Gasket - Recovery Tank Lid  Solution Tank Ass'y Complete Solution Tank	1 - 2 1 1 1 1	
14 15 16 17 18 19 20 21A 21 22A 22 23	46947 48020 46980 51234 48848 49254 32378 47682 32380 46920 50879 48033	Valve - Water Control Quick Disconnect Fitting - Plug  Socket Fitting (See Fig A - Ref No 23) Gasket - Screen Brass Fitting Line Strainer Gasket - Recovery Tank Lid  Solution Tank Ass'y Complete Solution Tank Recovery Tank Ass'y Complete Recovery Tank Baffle - Recovery Tank  Cover Panel Upper - Right Tank	1 2 1 1 1 1 1 1 1 1	
14 15 16 17 18 19 20 21A 21 22A 22 23	46947 48021 48020 46980 51234 48848 49254 32378 47682 32380 48920 50879	Valve - Water Control Quick Disconnect Fitting - Plug  Socket Fitting (See Fig A - Ref No 23) Gasket - Screen Brass Fitting Line Strainer Gasket - Recovery Tank Lid  Solution Tank Ass'y Complete Solution Tank Recovery Tank Ass'y Complete Recovery Tank Ass'y Complete Recovery Tank Baffle - Recovery Tank  Cover Panel Upper - Right Tank Label - Upper Right Cover Panel Upper - left Tank (Not Shown)	1 - 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
14 15 16 17 18 19 19 20 21A 21 22A 22 23 24 24 24	46947 48021 48020 46980 51234 48848 49254 32378 47682 32380 48920 50879 48033 48796 48034 48797	Valve - Water Control Quick Disconnect Fitting - Plug  Socket Fitting (See Fig A - Ref No 23) Gasket - Screen Brass Fitting Line Strainer Gasket - Recovery Tank Lid  Solution Tank Ass'y Complete Solution Tank Recovery Tank Ass'y Complete Recovery Tank Ass'y Complete Recovery Tank Baffle - Recovery Tank  Cover Panel Upper - Right Tank Label - Upper Right Cover Panel Upper - left Tank (Not Shown) Label - Upper left Cover Panel Lower - Right Lank	1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
14 15 16 17 18 19 20 21A 21 22A 22 23 24 24 24 24 25 25	46947 48021 48020 46980 51234 48848 49254 32378 47682 32380 48920 50879 48033 48796 48034 48797 48036 48794	Valve - Water Control Quick Disconnect Fitting - Plug  Socket Fitting (See Fig A - Ref No 23) Gasket - Screen Brass Fitting Line Strainer Gasket - Recovery Tank Lid  Solution Tank Ass'y Complete Solution Tank Recovery Tank Ass'y Complete Recovery Tank Ass'y Complete Recovery Tank Baffle - Recovery Tank  Cover Panel Upper - Right Tank Label - Upper Right Cover Panel Upper - left Tank (Not Shown) Label - Upper left Cover Panel lower - Right Iank Label - Kent - Lower Right	1 - 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
14 15 16 17 18 19 20 21A 21 22A 22 23 24 24 24 24 25 25 25 25	46947 48021 48020 46980 51234 48848 49254 32378 47682 32380 48920 50879 48033 48796 48034 48797 48036 48797 48036 48797 48036	Valve - Water Control Quick Disconnect Fitting - Plug  Socket Fitting (See Fig A - Ref No 23) Gasket - Screen Brass Fitting Line Strainer Gasket - Recovery Tank Lid  Solution Tank Ass'y Complete Solution Tank Recovery Tank Ass'y Complete Recovery Tank Ass'y Complete Recovery Tank Baffle - Recovery Tank  Cover Panel Upper - Right Tank Label - Upper Right Cover Panel Upper - left Tank (Not Shown) Label - Upper left Cover Panel Lower - Right Tank Label - Kent - Lower Right Cover - Panel Lower - left Tank (Not Shown) Label - Kent - Lower - left Tank (Not Shown)	1 - 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
14 15 16 17 18 19 20 21A 21 22A 22 23 24 24 24 24 25 25	46947 48020 46980 51234 48848 49254 32378 47682 32380 46920 50879 48033 48796 48034 48797 48036 48797 48036	Valve - Water Control Quick Disconnect Fitting - Plug  Socket Fitting (See Fig A - Ref No 23) Gasket - Screen Brass Fitting Line Strainer Gasket - Recovery Tank Lid  Solution Tank Ass'y Complete Solution Tank Recovery Tank Ass'y Complete Recovery Tank Baffle - Recovery Tank  Cover Panel Upper - Right Tank Label - Upper Right Cover Panel Upper - left Tank (Not Shown) Label - Upper left Cover Panel Lower - Right Label - Kent - Lower Right Cover - Panel Lower - Left Tank (Not Shown)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

#### TROUBLE SHOOTING CHECK LIST

#### A. BRUSH DRIVE MOTOR WILL NOT START

Possible Cause: 1. Power source (115V.) not connected

- 2. Brushes not lowered
- 3. Motor lead wire not connected
- 4. Motor overload switch tripped
- 5. Loose wire connection
- 6. Defective brush ON-OFF switch (26412)

How to Correct: 1. Plug in cord so indicator light is ON

- 2. Lower brushes
- 3. Attach wire to mounted plug

NOTE: Be sure AC cord is disconnected during the next three correction operations

- 4. Reset switch on motor
- 5. Check and fasten securely all wiring connections
- 6. Replace switch

#### B. VACUUM MOTOR WILL NOT OPERATE

Possible Cause: 1. Power source (115V.) not connected

- 2. Loose wire connection
- 3. Defective motor brushes
- 4. Defective toggle switch
- 5. Defective motor

How to Correct: 1. Plug in cord so indicator light is ON

NOTE: Be sure AC cord is disconnected during the next four correction operations

- 2. Check and fasten securely all wiring connections
- 3. Replace brushes
- 4. Replace switch
- 5. Replace motor

#### C. MACHINE STREAKING A CLEANED FLOOR

Possible Cause: 1. Foreign materials lodged under rear squeegee blade

- 2. Insufficient water flow
- 3. Pads loaded with wax
- 4. Worn squeegee blades
- 5. Worn brushes

How to Correct: 1. Raise squeegee and clean blade

- 2. Increase flow
- 3. Wash out or replace pads
- 4. Replace squeegee blades
- 5. Replace brushes

#### D. SOLUTION NOT BEING PROPERLY PICKED UP

Possible Cause: 1. Air leak around tank access door

- 2. Limited air flow thru lint filter
- 3. Air leaks around vac motor filter gaskets
- 4. Squeegee blades worn excessively
- 5. Squeegee out of adjustment
- 6. Clogged pick up hose on tank inlet elbow
- 7. Squeegee arms (Fig. B., Ref. No. 35) bent
- 8. Squeegee pivot frame assembly (Fig. B., Ref. No. 46) bent

How to Correct: 1 Examine access door gasket for damage or warpage and correct

- 2. "Clean vac fan filter daily"
- 3. Eliminate air leaks
- 4. Replace all squeegee blades
- 5. Adjust per instructions in Maintenance Section
- 6. Remove accumulation in tube or elbow by backwashing with hose
- 7. Replace arms
- 8. Replace squeegee pivot frame assembly

#### E. SOLUTION INADEQUATE FOR BRUSHES

Possible Cause: 1. Obstruction caught in quick disconnect valve (Fig. A., Ref. No. 23)

2. Clogged copper tubes (Fig. A., Ref. No. 11)

3. Clogged valve intake (in tank)

How to Correct: 1. Remove obstruction

- 2. Remove obstruction
- 3. Remove obstruction

F. Any questions that might arise, not covered by this manual, contact the nearest Kent Distributor or write directly to The Kent Company, Elkhart, Indiana 46514

# THE KENT LIMITED WARRANTY

Your Kent equipment which has been manufactured, tested and inspected in accordance with carefully specified engineering requirements, is warranted to be free from defects in material and workmanship. This warranty is, however, subject to the following qualifications, conditions, and limitations which are set forth to provide you and all users of the Kent equipment with information concerning the duration, extent, availability, and applicability of this Kent limited warranty, the procedure to be taken to obtain its performance, and other information concerning the Kent warranty policy.

#### The Kent Limited Warranty is extended to the original end user as follows:

Automatic scrubber vacs and battery operated burnishers 3 year parts replacement and 1 year service labor warranty (see instruction manual for battery guarantee). Battery chargers are guaranteed by charger manufacturer for a period of 1 year.

Replacement parts guaranteed for 90 days from date of installation against defects in material and workmanship.

The 10 year poly component replacement warranty with 1 year service labor extends for a period of ten (10) years from the date of the original purchase of the Kent equipment by the original purchaser. This warranty will not cover damage attributable to the following:

- (1) Improper, unreasonable or negligent use or abuse of the equipment.
- (2) Use of equipment with hot water or high temperature above 130 degrees Fahrenheit (54 degrees centigrade)
- (3) "Warpage", "Creepage", or "Distortion" of part so long as the same does not interfere with normal operation.
- (4) Abrasions or punctures of the equipment.

The start date of the warranty coverage shall be the purchase date of the original end user or six months from the date the machine was shipped from the factory, whichever comes first

#### PARTS OF KENT EQUIPMENT NOT COVERED BY WARRANTY

Certain parts of Kent equipment require replacement in the ordinary course of use due to normal wear by reason of their characteristics. These are normal wear items such as cords, gaskets, switches, bumpers, carbon brushes, handle grips, bags, hoses, bearings, etc

#### EXCEPTIONS AND EXCLUSIONS FROM WARRANTY

This equipment is required to be used on electric current as indicated on the data plate. Otherwise damage, defects, malfunctions or other failures of the equipment arising from use on electric current not as indicated are excepted and excluded from this warranty. Defects, malfunctions, failure or damage of the equipment caused by improper, unreasonable or negligent use or abuse while in the possession of the purchaser are likewise excluded from this warranty. If repair is done on your equipment by anyone other than those designated as authorized to perform such work without first having obtained factory instructions. The Kent Company, at its sole option, may determine that this warranty will not apply and that reimbursement for such repair will not be made because of the failure to comply with such factory specified instructions.

## PROCEDURE TO BE TAKEN TO OBTAIN PERFORMANCE OF WARRANTY REPAIR

To secure repair of the equipment or any warranted parts under this warranty, the following procedure should be taken. The inoperative equipment or warranted parts, together with satisfactory evidence of the purchase date, must be delivered, with shipping and delivery charges prepaid, to one of the following:

- (1) The dealer from whom purchased:
- (2) Any Kent distributor's service department in the United States;
- (3) Any Kent authorized service station in the United States.

If you are unable to locate any of the foregoing, you may write or otherwise communicate with The Kent Company for instructions before repair service is performed by anyone else. In such event, The Kent Company will provide either the location of a closely available Kent distributor service department or Kent authorized service station or other factory instructions Upon compliance with the above procedure, all warranted defects will be repaired, at no additional charge or costs to the customer, and the repaired product returned to the customer, with all shipping and delivery charges prepaid. In following the procedures above set forth, PLEASE MAKE CERTAIN to state the Kent model, type and serial number as shown on the dataplate of the equipment

#### REPLACEMENT

In the event of a defect, malfunction or failure of your Kent equipment or any warranted part to conform with this warranty, The Kent Company may, at its sole option and own expense, replace the equipment or any warranted part with another new identical or reasonably equivalent model or part in lieu of repairing the defect.

#### NO REFUND OF PURCHASE PRICE

The Kent Company will not, as a matter of its warranty policy, refund the customer's purchase price.

# WARRANTY REGISTRATION CARD FOR YOUR KENT EQUIPMENT AND REQUEST FOR INFORMATION

Your Kent Company distributor from whom you purchased your equipment is responsible for the registration of your warranty with the factory. We ask that you cooperate with your distributor in supplying the necessary information on the warranty card so that we may better serve you. Any information or questions you may have concerning your Kent equipment or this warranty may likewise be secured from the factory. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

> THE KENT COMPANY P.O. BOX 1665 ELKHART, INDIANA 46515