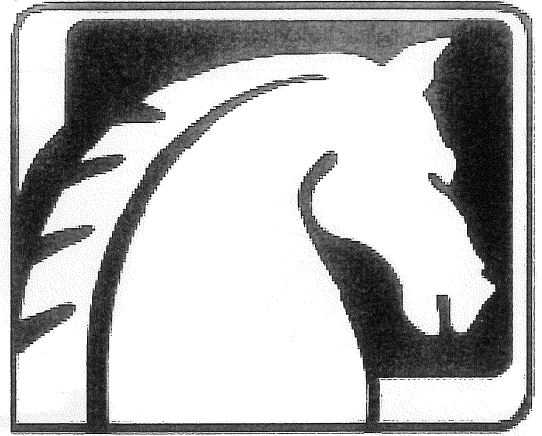


***THE
DEXTER
COMPANY***



**THOROUGHBRED
400**

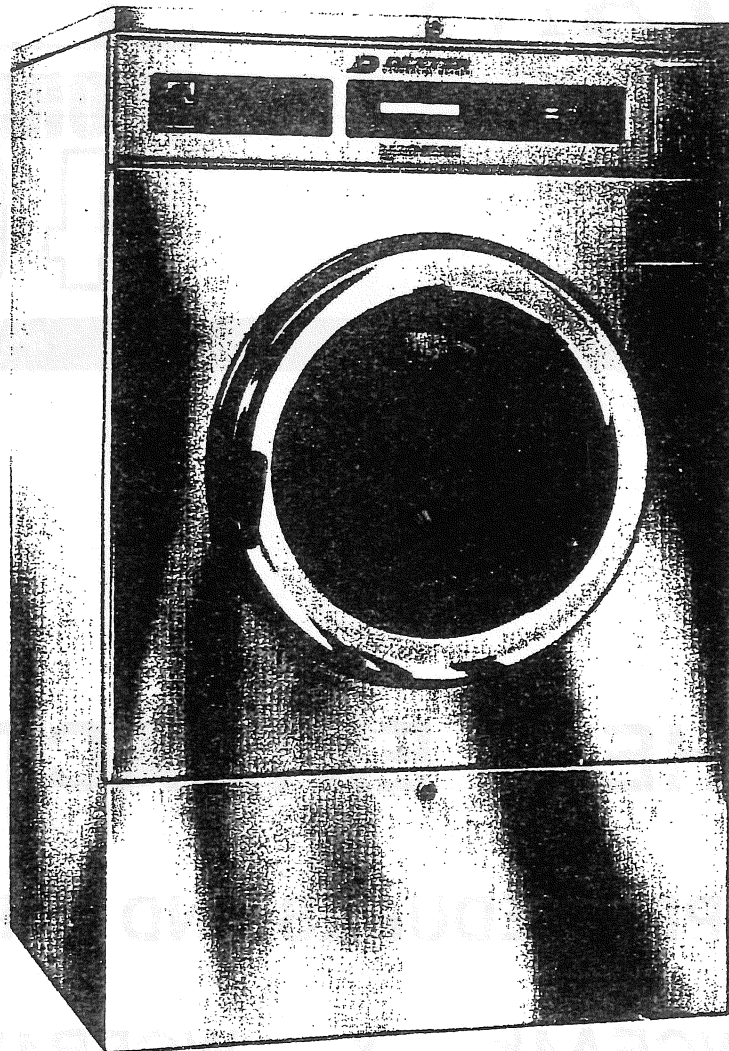
WASHER - EXTRACTORS

SERVICE PROCEDURES AND PARTS DATA

WCEA4K & WCEB4K

FAIRFIELD, IOWA 52556 / TELEPHONE 641-472-5131

Laundry Specialists Since 1894



**WASHER-EXTRACTORS
WCEA4K & WCEB4K**

TABLE OF CONTENTS

WARNINGS AND MAINTENANCE INSIDE BACK COVER

SECTION 1—SPECIFICATIONS AND INSTALLATION

	PAGE
MODEL SPECIFICATIONS	3
CYCLE DESCRIPTION CHART	4
INSTALLATION DETAILS	5
MOUNTING DIMENSIONS	6
ELECTRICAL POWER CONNECTIONS	9
OPERATING INSTRUCTIONS	10
INJECTORS AND RINSE CONVERSION	11

SECTION 2—ELECTRICAL DIAGRAMS AND COMPONENT LAYOUT

WIRING SCHEMATIC	14
WIRING DIAGRAM, 1 PHASE	15
WIRING DIAGRAM, 3 PHASE	18
SCHEMATIC EXPLANATION AND CONTROL LOGIC	21
COMPONENT LAYOUT, UPPER MACHINE	25
COMPONENT LAYOUT, ELECTRICAL CONTROL TROUGH	26

SECTION 3—SERVICE PROCEDURES

OPENING TOP PANEL	27
REMOVING TOP PANEL	27
REMOVAL OF LOWER SERVICE PANEL	27
BACK PANEL REMOVAL	27
LOADING DOOR REMOVAL	27
LOADING DOOR DISASSEMBLY	27
FRONT PANEL REMOVAL	28
TRIM RING REMOVAL	28
LOADING DOOR HINGE REMOVAL	28
DOOR LOCK ASSEMBLY	28
DRIVE BELT REMOVAL	28
DRIVE MOTOR REMOVAL	28
GRAVITY DRAIN VALVE	29
PROGRAM SWITCH	29
ESCUTCHEON	29
OPERATING LIGHTS	30
COIN ACCEPTOR	30
COIN ACCUMULATOR	30
PROGRAM TIMER	30
RELAYS	31
PRESSURE SWITCH AND WATER LEVEL ADJUSTMENT	31
WATER VALVES	32

Table of Contents (Cont.)

VACUUM BREAKER	32
CABINET ASSEMBLY REMOVAL	32
REMOVAL OF TUB ASSEMBLY	33
TUB BACK AND CYLINDER REASSEMBLY TO TUB	33
BEARING HOUSING REMOVAL	33
BEARING HOUSING AND TUB BACK DISASSEMBLY	34
REPAIR AND REASSEMBLY OF BEARINGS AND SEALS	34
OUTER TUB SERVICE	34
TRUBLE SHOOTING GUIDE	38

SECTION 4—PARTS DATA

ACCESSORIES	43
CABINET AND FRONT PANEL GROUP	45
DRIVE AND SUPPORT GROUP	47
CHASSIS AND DRAIN GROUP	49
SPIDER, BEARING HOUSING AND PULLEY GROUP	51
LOADING DOOR GROUP	53
DOOR LOCK GROUP	55
SOAP HATCH AND CONTROL PANEL GROUP	57
ELECTRICAL COMPONENTS, TOP COMPARTMENT	59
COIN HANDLING GROUP	61
GRAVITY DRAIN VALVE GROUP	62
WIRING HARNESS GROUP	63

Section 1

SPECIFICATIONS

MODEL	WCEA4K	WCEB4K
ELECTRICAL	220-240 VAC, 60 HZ, 1 PH	208-240 VAC, 60 HZ, 3 PH
CAPACITY	4 CUBIC FT. (UP TO 25#)	
CYLINDER DIM.	25" DIA.x14 $\frac{1}{8}$ " DEPTH	
MOTOR	(TWO SPEED) 0.35/1.5 HP.	
WASH SPEED	50 R.P.M.	
SPIN SPEED	510 R.P.M.	
EXTRACTION	92 G's	
PROGRAM: TEMPERATURES	4 TEMPERATURE CYCLES - PUSHBUTTON SELECTABLE BY CUSTOMER	
CYCLE TIMES	4 CYCLE TIMES - OWNER ADJUSTABLE BY CONCEALED MODE SWITCH (SEE CYCLE TIME CHART)	
MACHINE CONTROL: STANDARD OPTIONAL	COIN START WITH COIN COUNTER MANUAL START	
WATER USAGE WITH PREWASH WITHOUT	51.0 GAL 39.5 GAL (Water usage may vary with load)	
WATER INLET	2 SOLENOID OPERATED VALVES WITH FLOW WASHERS FLOW RATE, 5 GAL./MIN EACH FLOW PRESSURE, 30-120 PSI	
DRAIN VALVE	2 $\frac{1}{4}$ " DIAMETER	
GROSS WEIGHT	495 POUNDS	
NET WEIGHT	461 POUNDS	

CYCLE TIMES-WCE4

CYCLE	HEAVY DUTY	NORMAL	P. PRESS NYLON	WOOL DELICATE	
Pre-Wash (if used)	3'30"	3'30"	3'30"	3'30"	
Drain	60"	60"	60"	60"	
Wash- Long	11'50"	11'50"	11'50"	11'50"	
Normal	8'20"	8'20"	8'20"	8'20"	
Drain	60"	60"	60"	60"	
Spin	60"	60"	60"	60"	
First Rinse	3'20"	3'20"	3'20"	3'20"	
Drain	60"	60"	60"	60"	
Spin	60"	60"	60"	60"	
Second Rinse	3'20"	3'20"	3'20"	3'20"	
Drain	60"	60"	60"	60"	
Spin	3'50"	3'50"	3'50"	5'20"	
Tumble	10"	10"	10"	10"	
Approximate Total Time					
M 1	Pre-wash & Long	32' 0"	32' 0"	32' 0"	32' 0"
O 2	Long Wash	27'30"	27'30"	27'30"	27'30"
D 3	Pre-wash & Norm	28'30"	28'30"	28'30"	28'30"
E 4	Normal Wash	24' 0"	24' 0"	24' 0"	24' 0"
WATER TEMPERATURES					
Pre-wash	WARM	WARM	WARM	COLD	
Wash	HOT	WARM	WARM	COLD	
Rinse	COLD	COLD	COLD	COLD	
*Rinse (option)	WARM	WARM	WARM	COLD	

*Rinses can be converted to warm by moving the Brown / Orange wire on TB-11 to TB-9 (TB-# relates to a terminal number on the large terminal block located in the electrical control trough). Disconnect electrical power before moving wire.

INSTALLATION AND OPERATION OF WCE4 MODEL WASHER

All washers must be installed in accordance with all local, state and national building, electrical, and plumbing codes in effect in the area.

FOUNDATION REQUIREMENTS

The washer must be securely bolted to a substantial concrete floor, or mounted upon a suitable base which is in turn securely bolted to a substantial concrete floor. Care must be stressed with all foundation work to insure a stable unit, eliminating vibration. All installations must be made on sound concrete floors 6" or thicker. A minimum of four anchor bolts or expansion anchors of a quality grade must be used. We recommend 5/8" diameter when using expansion anchors with 1/2" being an absolute minimum.

MOUNTING

A concrete pad or steel base which elevates the machine 4 to 6 inches above the floor level is recommended to provide easy access to the loading door. **The following two pages illustrate the mounting dimensions for the machine and also show a typical concrete pad arrangement.** Allow a minimum of 24" of clearance behind the rear of the machine for service as is shown. Mounting hole dimensions are shown as either 14½ or 17½ inches. The 17½ spacing is preferable unless current anchors dictate the 14½ spacing. All 6 mounting holes may be used.

NOTE: Mounting bolts should be checked frequently to insure that they are still tight. The machine should be checked with a spinning load to be sure there is no unusual vibration or movement between the machine and the base or floor.

PLUMBING

Water supply hoses are furnished with each machine. The threaded connections on the hoses are standard garden hose type thread. Separate hot and cold water lines with shut off valves or faucets for inlet hose connections must be provided, maintaining 30 to 60 P.S.I. water flow pressure. A hot water recovery rate of approximately 40 gallons per hour is required. A hot water temperature of 160 degrees fahrenheit is recommended for best washing results.

DRAIN

The drain outlet tube at the rear of the machine is 2¼" in outside diameter. A flexible hose (Pt. No. 9247-417-002) is available to extend the drain system. Adequate fall must be maintained for proper drainage.

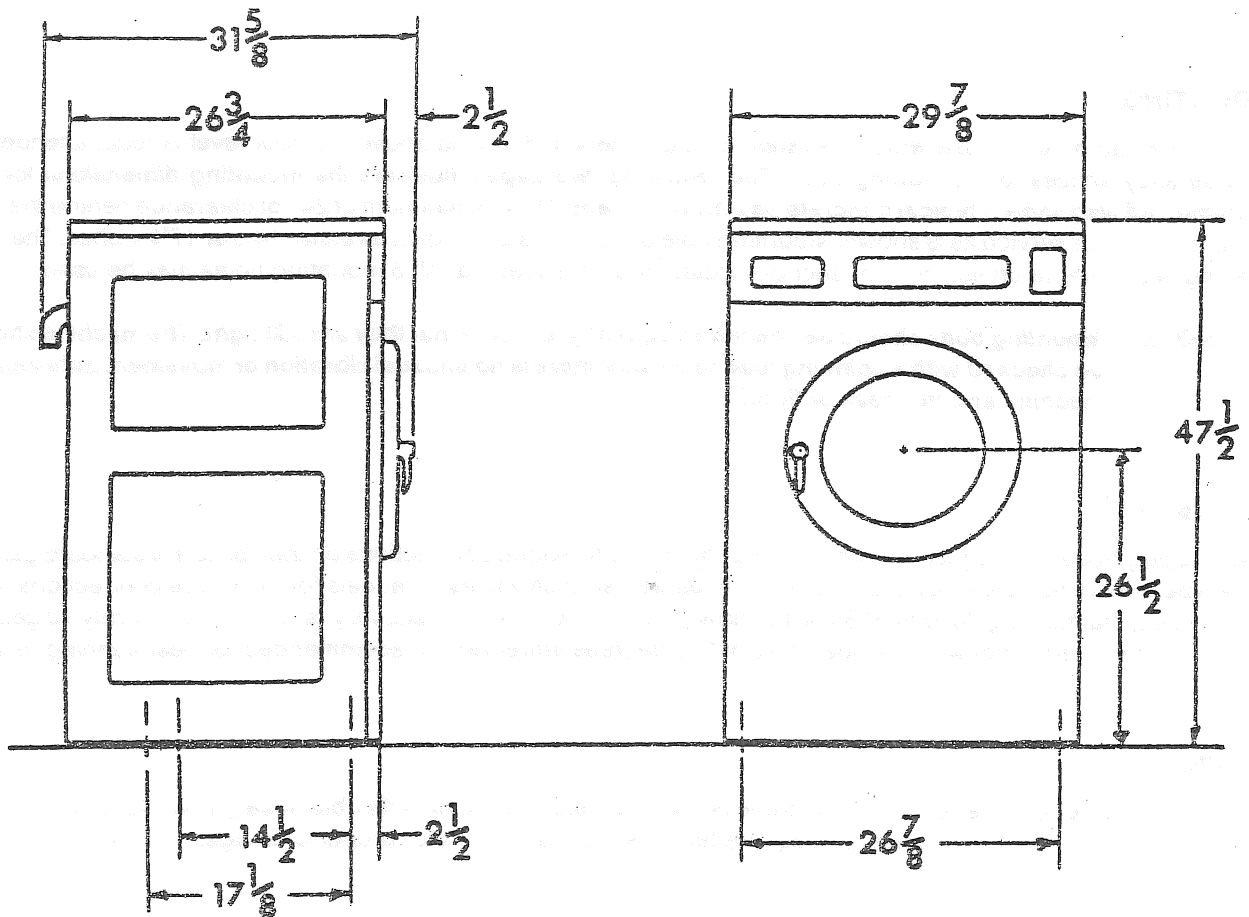
PROTECTIVE FILM

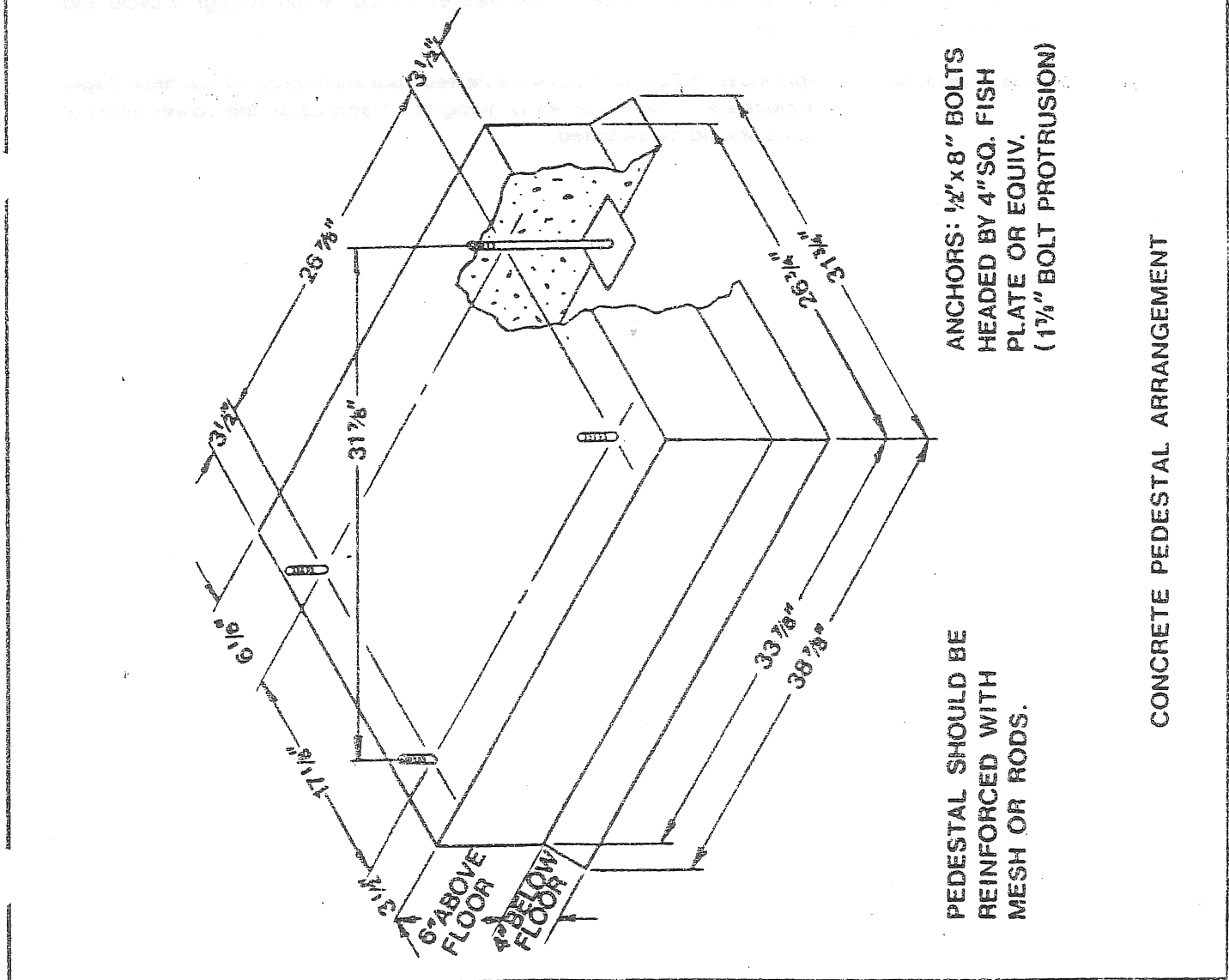
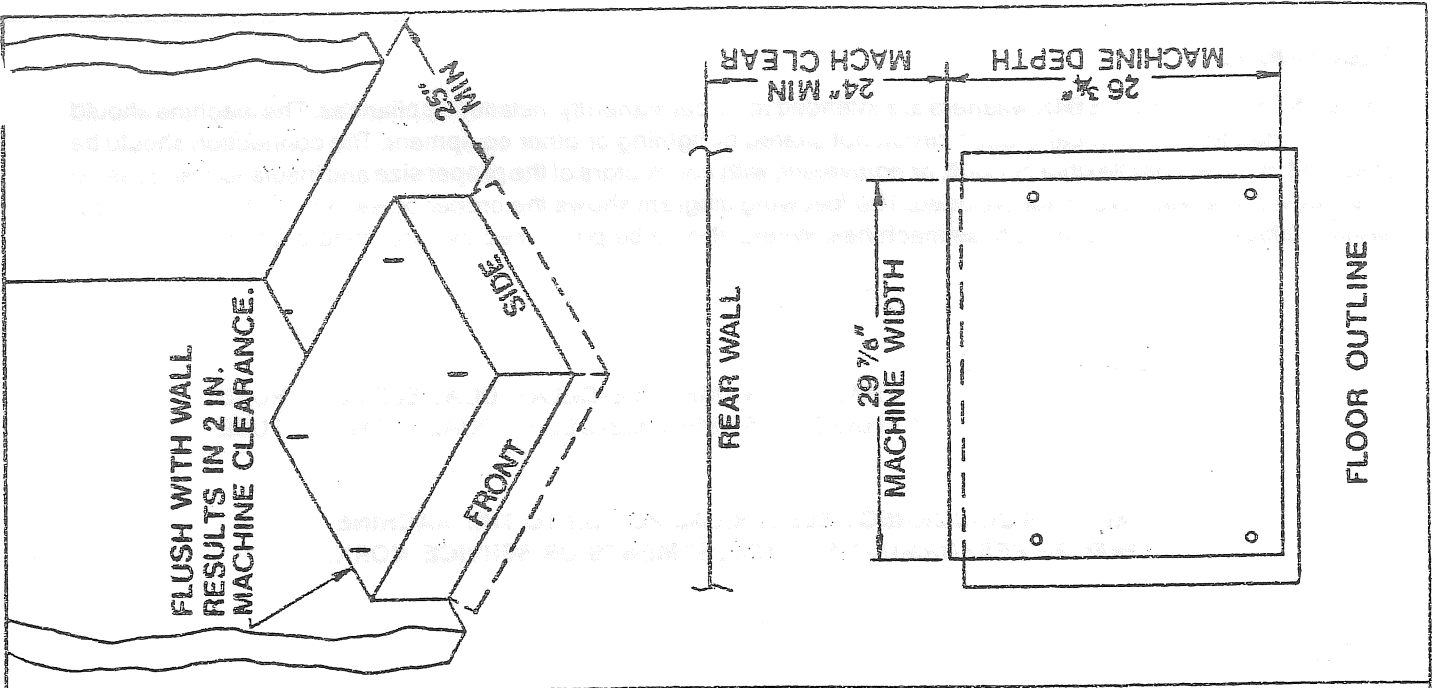
The machine may have protective adhesive film on the front escutcheon area and the front and side stainless steel panels. The film may be peeled off before putting the machine into service.

MOUNTING DIMENSIONS

MOUNTING DIMENSIONS FOR WCE4 SERIES WASHERS ARE SHOWN BELOW.

THERE ARE TWO SETS OF REAR MOUNTING HOLES. THEY ARE LOCATED AT $14\frac{1}{2}$ AND $17\frac{1}{8}$ INCHES FROM THE FRONT SET OF HOLES. EITHER SET OF REAR HOLES MAY BE USED IN CONJUNCTION WITH THE FRONT SET OF HOLES.





ANCHORS: 1/2"x8" BOLTS
 HEADED BY 4" SQ. FISH
 PLATE OR EQUIV.
 (1 7/8" BOLT PROTRUSION)

PEDESTAL SHOULD BE
 REINFORCED WITH
 MESH OR RODS.

CONCRETE PEDESTAL ARRANGEMENT

FLOOR OUTLINE

ELECTRICAL

Dexter WCEA4K and WCEB4K washers are intended to be permanently installed appliances. The machine should be connected to an individual branch circuit not shared by lighting or other equipment. The connection should be sheathed in water tight flexible conduit, or equivalent, with conductors of the proper size and insulation (suggested size below). A power cord is not provided. The following diagram shows the proper power connections to the rear terminal block for both 1 and 3 phase machines. Wiring should be performed by a qualified person.

SUGGESTED MINIMUM WIRE SIZE — 12 GA.

FUSING REQUIREMENTS:

3 PHASE — 8 AMP TIME-DELAY (DUAL ELEMENT) FUSE
1 PHASE — 15 AMP TIME-DELAY (DUAL ELEMENT) FUSE

**ALWAYS DISCONNECT ELECTRICAL POWER TO THE MACHINE
BEFORE PERFORMING ANY ADJUSTMENTS OR SERVICE WORK.**

CHECKOUT

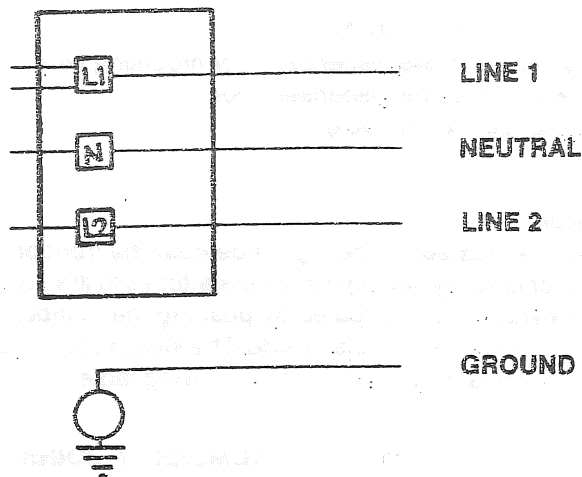
After all mounting, plumbing and electrical work is completed, the washer should be run through a cycle and checked for water leaks and proper functioning.

Note: 3 Phase Machines — Spin must be Counterclockwise viewed from the front of the machine. If spin is clockwise, the power wires going to L1 and L2 on the power terminal block should be switched.

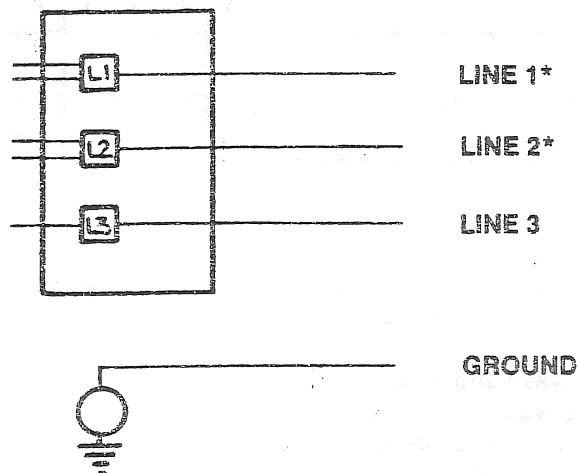
ELECTRICAL POWER CONNECTIONS

CONNECTIONS ARE MADE TO SMALL TERMINAL BLOCK LOCATED IN REAR OF ELECTRICAL CONTROL TROUGH. IT IS REACHED BY OPENING TOP PANEL OF MACHINE.

1 PHASE, 220-240 VAC, 60 HZ



3 PHASE, 208-240 VAC, 60 HZ



MACHINE MUST SPIN COUNTERCLOCKWISE WHEN VIEWED FROM FRONT. IF IT DOES NOT, REVERSE THE TWO STARRED (*) LEADS.

OPERATION INSTRUCTIONS

ACCUMULATOR AND MODE SWITCH

Prior to operation, the machine owner should set the accumulator and mode switches.

Always disconnect electrical power to the machine before setting the accumulator and mode switches. Avoid contact with capacitor or other electrical terminals.

1. Open the top of the machine as follows:

- A. Remove the center screw in the dispenser door mounting strip.
- B. Remove the 3 screws under the dispenser door.
- C. Unlock and open the top (1/4 turn lock)

2. Setting the Accumulator

The accumulator board is located on the right side near the front of the machine (inside the control trough). The accumulator is set by setting the small switches to the correct combination for the desired number of coins. The switches are actuated by pushing the number side of the switch operator. To deactivate a particular switch, push the blank side. The switch combinations are from 1 to 63 coins. The combinations for 1 to 20 coins are shown in the following table.

NUMBER OF COINS

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
SWITCH NO.	1	X		X		X		X		X		X		X		X		X		X		
	2		X	X			X	X			X	X			X	X			X	X		
	3				X	X	X	X					X	X	X	X						X
	4								X	X	X	X	X	X	X	X						
	5																X	X	X	X	X	
	6																					

3. Setting the Mode Switch

See Cycle Time Chart for Cycle Times received with each mode setting. With the power off the mode switch is simply turned to the desired setting.

- Position:
- 1=Pre-wash and long wash
 - 2=Long wash (no pre-wash)
 - 3=Pre-wash and normal wash
 - 4=Normal wash (no pre-wash)

Close the top, replace screws in dispenser, lock the top and reconnect power.

STARTING THE WASHER

- A. Load the clothes loosely in the cylinder and latch the door securely. Be sure clothing does not get caught between the door gasket and tub front when closing the door.

NOTE: To close the door the handle must be in the horizontal position. After moving the door to the closed position, the handle must be turned down to the vertical position in order to latch the door for machine operation.

- B. Using the pushbuttons on the front select the cycle having the desired temperature.
- C. Add $\frac{1}{4}$ to $\frac{1}{2}$ cup of detergent into the left compartment on top of machine. Location is illustrated on the front of the machine. Rinse conditioners may be added to the right compartment if desired.
- D. Insert the preset number of quarters to start the machine. The washer will automatically start and the red "ON" light will glow. The clothes door will lock and remain locked until the end of cycle.
- E. At the correct time in the cycle the green "ADD BLEACH" light will come on indicating the time and location for adding bleach.

END OF CYCLE

When the cycle is completed, the "ON" light will go off and the loading door can be opened by turning the door handle to the indicated position and pulling. Leave the clothes door open when the machine is not in use.

CONNECTIONS FOR INJECTION SYSTEMS

Signals for the connection of chemical injector systems are available at the connection points listed below. These points will give 120 V signals. The locations listed as TB-# are terminal block numbers for the large terminal block at the front of the control trough.

DESCRIPTION	TERMINAL LOCATION
Prewash	TB-12
Bleach	TB-2
Wash	This connection maybe made at the wash light at the front of the machine. The wire color to piggyback on is yellow/orange.
Rinse	TB-9
Final Rinse	TB-8

CONNECTION FOR WARM RINSES

As shipped from the factory all rinses are cold. Rinses can be converted to warm by moving the Brown/orange wire on TB-11 to TB-9 (TB-# relates to a terminal number on the large terminal block located in the electrical control trough). Disconnect electrical power before moving the wire.

Section 2

WIRING SCHEMATIC

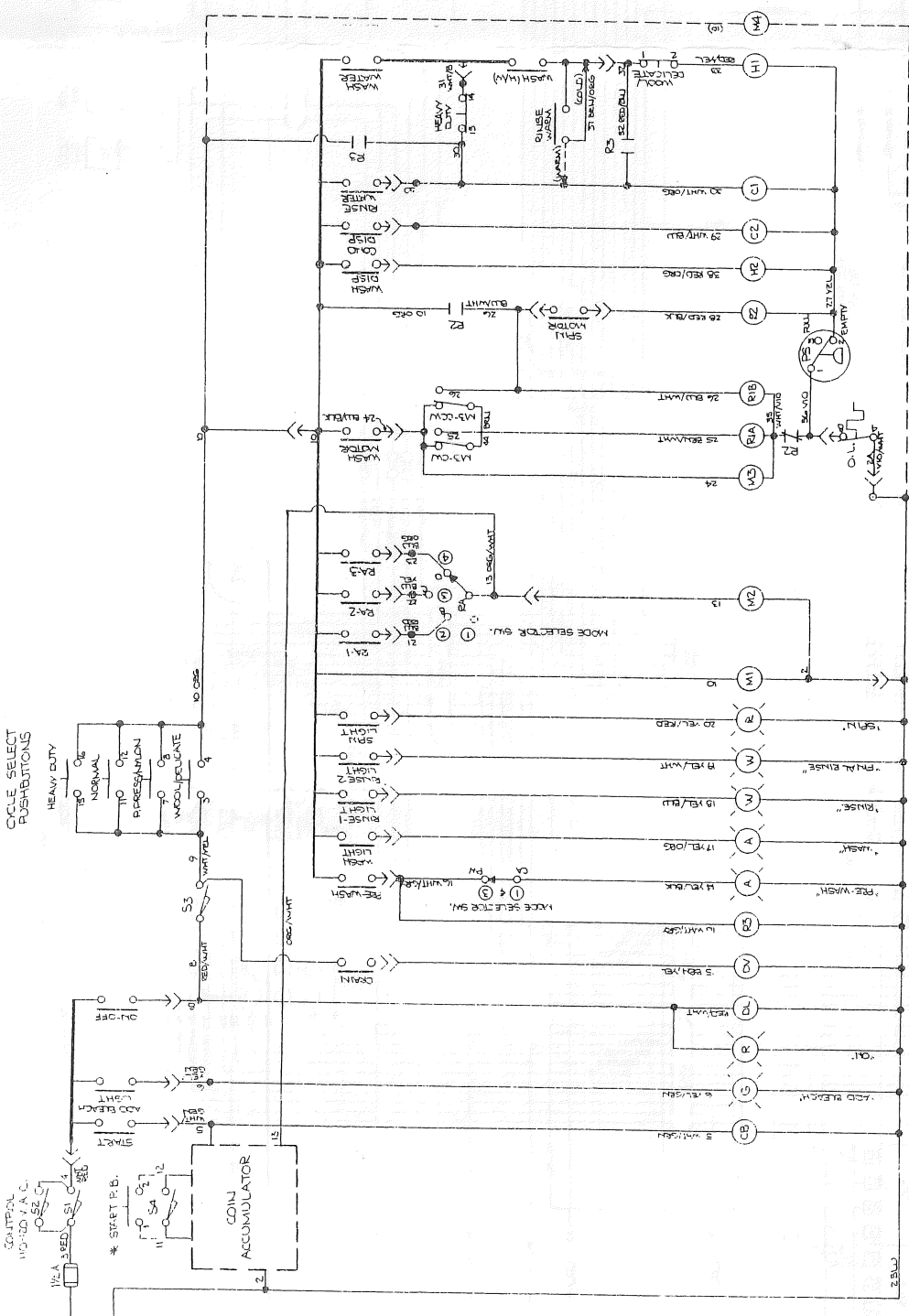
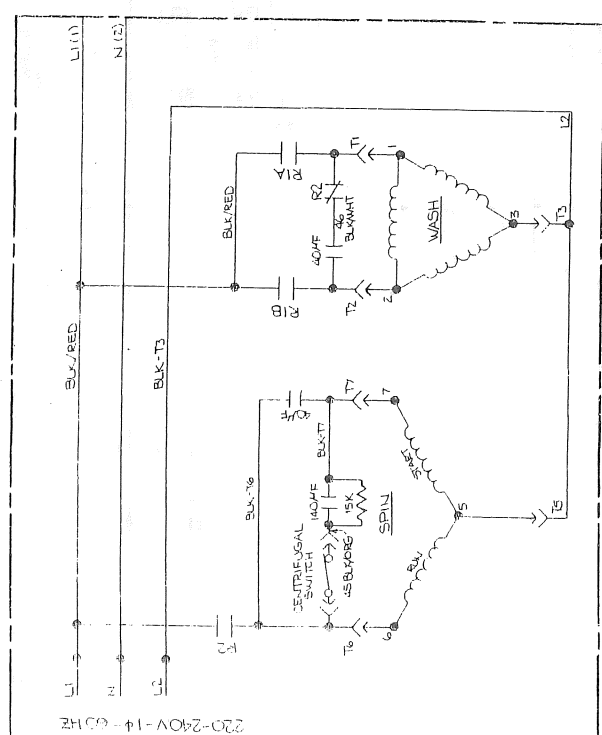
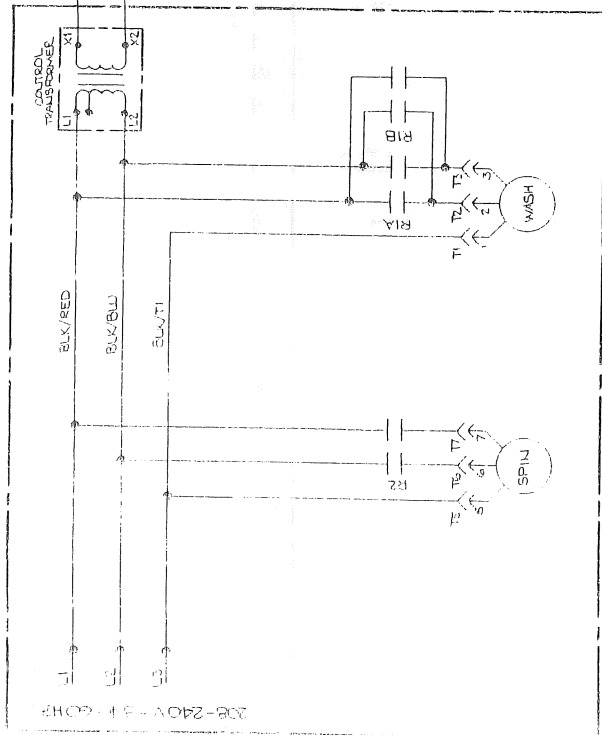
WIRING DIAGRAM, 1 PHASE

WIRING DIAGRAM, 3 PHASE

SCHEMATIC EXPLANATION AND CONTROL LOGIC

COMPONENT LAYOUT, UPPER MACHINE

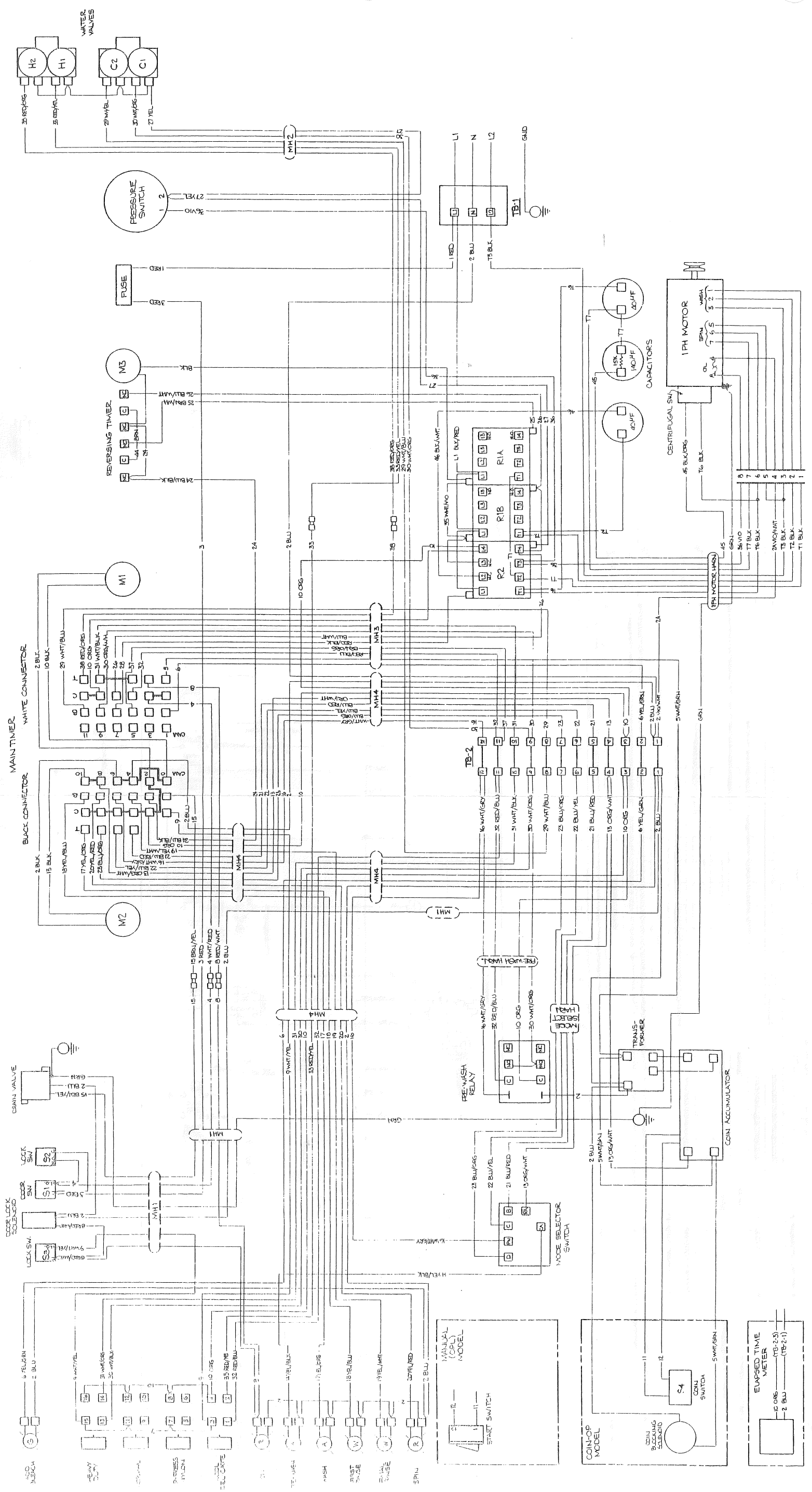
COMPONENT LAYOUT, ELECTRICAL CONTROL TROUGH

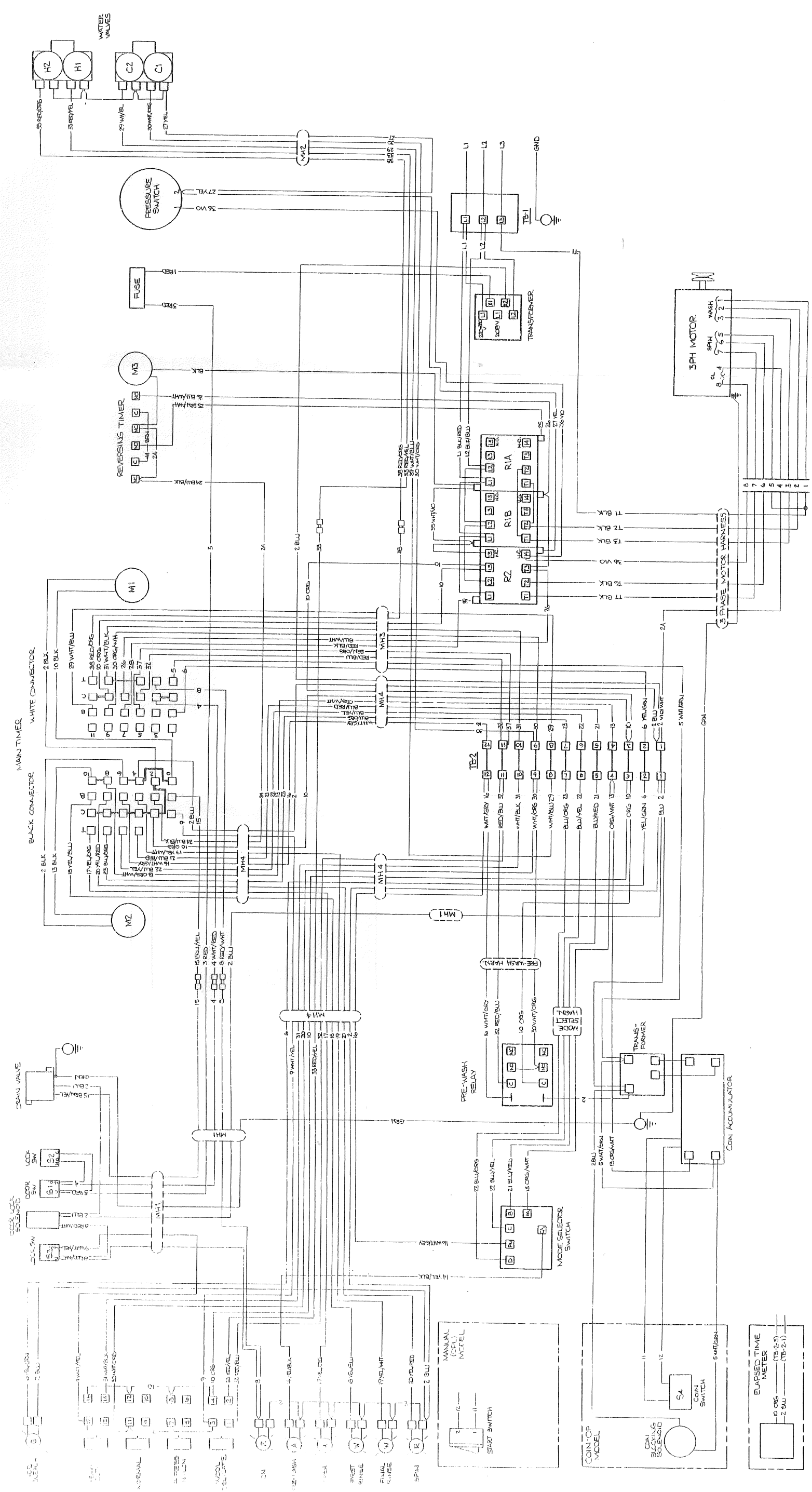


TIME	FUNCTION	TIME	FUNCTION	TIME	FUNCTION	TIME	FUNCTION	TIME	FUNCTION	TIME	FUNCTION	TIME	FUNCTION	TIME	FUNCTION	TIME	FUNCTION	TIME	FUNCTION																																																																																																																																																																																						
0	DRAIN	1	START AND BENCH LIGHT	2	DRAIN	3	DRAIN	4	DRAIN	5	DRAIN	6	DRAIN	7	DRAIN	8	DRAIN	9	DRAIN	10	DRAIN	11	DRAIN	12	DRAIN	13	DRAIN	14	DRAIN	15	DRAIN	16	DRAIN	17	DRAIN	18	DRAIN	19	DRAIN	20	DRAIN	21	DRAIN	22	DRAIN	23	DRAIN	24	DRAIN	25	DRAIN	26	DRAIN	27	DRAIN	28	DRAIN	29	DRAIN	30	DRAIN	31	DRAIN	32	DRAIN	33	DRAIN	34	DRAIN	35	DRAIN	36	DRAIN	37	DRAIN	38	DRAIN	39	DRAIN	40	DRAIN	41	DRAIN	42	DRAIN	43	DRAIN	44	DRAIN	45	DRAIN	46	DRAIN	47	DRAIN	48	DRAIN	49	DRAIN	50	DRAIN	51	DRAIN	52	DRAIN	53	DRAIN	54	DRAIN	55	DRAIN	56	DRAIN	57	DRAIN	58	DRAIN	59	DRAIN	60	DRAIN	61	DRAIN	62	DRAIN	63	DRAIN	64	DRAIN	65	DRAIN	66	DRAIN	67	DRAIN	68	DRAIN	69	DRAIN	70	DRAIN	71	DRAIN	72	DRAIN	73	DRAIN	74	DRAIN	75	DRAIN	76	DRAIN	77	DRAIN	78	DRAIN	79	DRAIN	80	DRAIN	81	DRAIN	82	DRAIN	83	DRAIN	84	DRAIN	85	DRAIN	86	DRAIN	87	DRAIN	88	DRAIN	89	DRAIN	90	DRAIN	91	DRAIN	92	DRAIN	93	DRAIN	94	DRAIN	95	DRAIN	96	DRAIN	97	DRAIN	98	DRAIN	99	DRAIN	100	DRAIN

- LEGEND**
- CB - COIN BLOCKING SOLENOID
 - C1 - COLD WATER VALVE SOLENOID (TUB)
 - C2 - COLD WATER VALVE SOLENOID (CONDITIONER DISPENSER)
 - DL - DOOR LOCK SOLENOID
 - H1 - HOT WATER VALVE SOLENOID (TUB)
 - H2 - HOT WATER VALVE SOLENOID (WASH DISPENSER)
 - M1 - MAIN TIMER MOTOR
 - M2 - RAPID ADVANCE TIMER MOTOR
 - M3 - REVERSING TIMER MOTOR
 - M4 - ELAPSED TIME METER (OPTIONAL)
 - PS - PRESSURE SWITCH
 - RIA - WASH MOTOR CONTACTOR (CW)
 - RIB - WASH MOTOR CONTACTOR (CCW)
 - R2 - SPIN MOTOR CONTACTOR (CCW)
 - R3 - PRE-WASH RELAY
 - S1 - DOOR SWITCH (DOOR CLOSED-PLUNCHED)
 - S2 - LOCK SWITCH (DOOR LOCKED)
 - S3 - LOCK SWITCH (DOOR UNLOCKED)
 - S4 - COIN SWITCH (DETECTS COIN)
 - T1 - MAIN TIMER CONTACT
 - T2 - PUSHBUTTON CONTACT
 - MODE SELECTOR SWITCH (SEE BELOW)
 - INTERNAL TIMER CONNECTION
 - INDICATOR LIGHT
- * - MAJUAL MODEL ONLY
 ** - COIN-OP MODEL ONLY
- MODE SELECTOR SWITCH**
- 1 - PRE-WASH & LONG WASH
 - 2 - LONG WASH
 - 3 - PRE-WASH & NORMAL WASH
 - 4 - NORMAL WASH

RAPID ADVANCE FOR APPROX 10" AT START OF CYCLE.





SCHEMATIC DIAGRAM — EXPLANATION AND LOGIC

Both a schematic diagram and connection wiring diagrams are included in this manual. They follow these explanations. In troubleshooting a machine, it is usually best to start with the schematic which shows the logic of operation more simply. Following are explanations of certain selected areas of the machine operation as shown by the schematic diagram.

I. POWER CONNECTIONS AND MOTOR WIRING.

The two large boxes at the very left of the schematic show the power connections and the motor wiring for the 3 phase and 1 phase machines as labeled.

A. Three phase, WCEB4K.

1. The upper left of the 3 phase box shows the power connections for the 3 incoming power lines (L1, L2, L3), those connections are at the rear terminal block in the control trough.
2. In addition to the motor to relay wiring, the upper right corner of the 3 phase box shows the control transformer used only on 3 phase machines.

B. One phase, WCEA4K.

1. The lower left hand box shows the 1 phase power connections (L1, L2, Neutral).
2. The motor connection area shows the three capacitors that are used only in 1 phase machines.

II. START CIRCUIT.

A. At the top of the diagram just to the right of the motor diagrams are components related to machine starting.

1. **S1** — This is the door latching switch that senses that the door has been closed. It then allows power to the rest of the controls.
2. The area labeled **START** (to the right and up from the coin accumulator) is the main timer cam that provides power to the accumulator during the off period to allow the machine to count coins.
3. **S4** — This is the coin switch attached to the coin acceptor and actuated by the coin passing the small wire lever. Each coin going by the switch closes the switch circuit to the coin accumulator.

4. **Coin Accumulator** — Counts the coins inserted into the coin acceptor. After the required number of coins has been inserted, a circuit is closed to provide power to the main timer rapid advance motor (M2) to move the timer into the operating cycle.

III. RUN CIRCUIT

- A. When the machine is started, the main timer rapid advance motor moves the timer into running position. The following steps then take place.
 1. The **ON-OFF** cam closes and takes over from the **START** cam to provide power for the controls and also lights the "ON" light.
 2. The door lock solenoid then closes. This mechanism also operates the two door lock switches labeled **S2** and **S3**.
 3. When **S3** closes, it provides power for timer cam **DRAIN**. Any time in the cycle that this cam is closed, it will power the drain valve motor to the closed position.
 4. Power for most other components passes through the **CYCLE SELECT PUSHBUTTONS** located on the front panel. From there most of the remaining main timer cams are fed through a common timer buss. Leaving all pushbuttons out will give a continuous soak period until a pushbutton selection is made.

IV. MODE SELECTOR SWITCH AND PROGRAM LENGTH

- A. The **MODE SELECTOR SWITCH** allows the selection of different cycle lengths by choosing how far the timer rapid advances at the beginning of the cycle.
- B. One of three separate timer cams (**RA-1**, **RA-2**, **RA-3**) is selected by the mode selector switch to power the rapid advance timer motor to the selected cycle start position for that mode.

V. WASH SPEED REVERSING ACTION

- A. The timer cam labeled **WASH MOTOR** is closed during most of the cycle and provides power to the reversing timer motor and cams.
- B. The reversing timer cams **M3-CW** and **M3-CCW** alternately engage the **R1A** and **R1B** relay coils for clockwise and counterclockwise tumble speed rotation. One side of the reversing timer motor and cams are switched through a normally closed set of contracts on the **R2** spin relay. This gives protection against tumbling when in spin speed. In addition power goes through the drive motor thermal overload labeled **O.L.** on the schematic.

VI. SPIN SPEED

- A. Spin speed is always counterclockwise. The following conditions must be satisfied to engage spin speed.
1. **SPIN MOTOR** contacts of main timer must be closed.
 2. The reversing timer must be in position to call for counterclockwise tumble speed.
 3. The pressure switch (labeled **PS**) must show an empty tub.
 4. The thermal overload in the motor must be closed.
- B. When all of the above conditions are satisfied, the spin speed relay, **R2**, will close and hold itself engaged through its own contacts. It will remain engaged until the main timer calls for the end of the spin cycle.

VII. WATER ENTRY (all water entry requires that the pressure switch be in the empty position).

A. Dispenser.

1. The wash compartment is flushed with full pressure hot water (water valve coil **H2**) For approximately 15 seconds at the beginning of the wash cycle. Hot water does not enter the tub during this flush in order to give full pressure to the dispenser. This flush is timed by the timer contact **WASH DISP**.
2. The conditioner compartment is flushed by cold water valve coil **C2** during the second rinse. This is controlled by timer contact **COND. DISP**.

B. Water to tub.

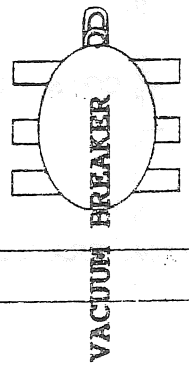
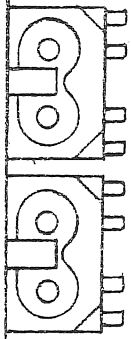
1. Hot water to the tub is controlled by water coil **H1** which depending on point in the cycle receives power in the following ways:
 - a) Prewash — If a prewash cycle is selected, the **R3** relay provides power to the coil.
 - b) Wash — Power comes through the following two timer cams, **WASH WATER** and **WASH (H/W)**.
 - c) Rinses — Rinses are normally cold. If the wiring change to warm rinses has been made, power is directed through the **RINSE WATER** cam to also provide hot water.
 - d) When the "WOOL-DELICATE" cycle is chosen, all hot water going directly to the tub is interrupted by the temperature selector switch.

2. Cold Water to the tub is controlled by water coil **C1**. Power to the coil is directed in the following ways:
 - a) Prewash — If a prewash cycle is selected, the **R3** relay provides power to the coil.
 - b) Wash — Power comes through the **WASH WATER** cam. When the "HEAVY DUTY" cycle is chosen, cold water to the tub is interrupted during wash to give a hot wash cycle.
 - c) Rinses — Cold rinse water is switched by the **RINSE WATER** cam.

VIII. END OF CYCLE.

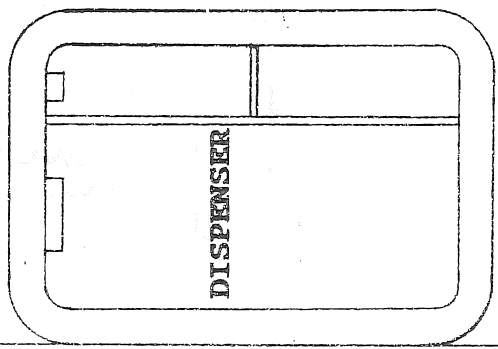
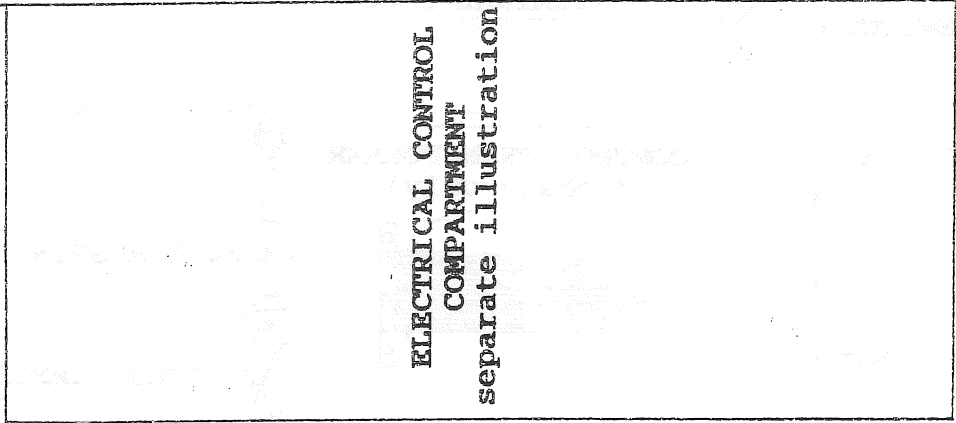
- A. At the end of the cycle, the **ON OFF** cam opens interrupting power to all relays stopping the machine.
- B. Power to the door lock solenoid is also interrupted allowing the door to be open by turning the handle.

HOT WATER VALVE COLD WATER VALVE



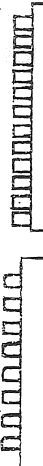
VACUUM BREAKER

ELECTRICAL CONTROL COMPARTMENT separate illustration



DISPENSER

PROGRAM SELECTOR SWITCH



PROGRAM LIGHTS



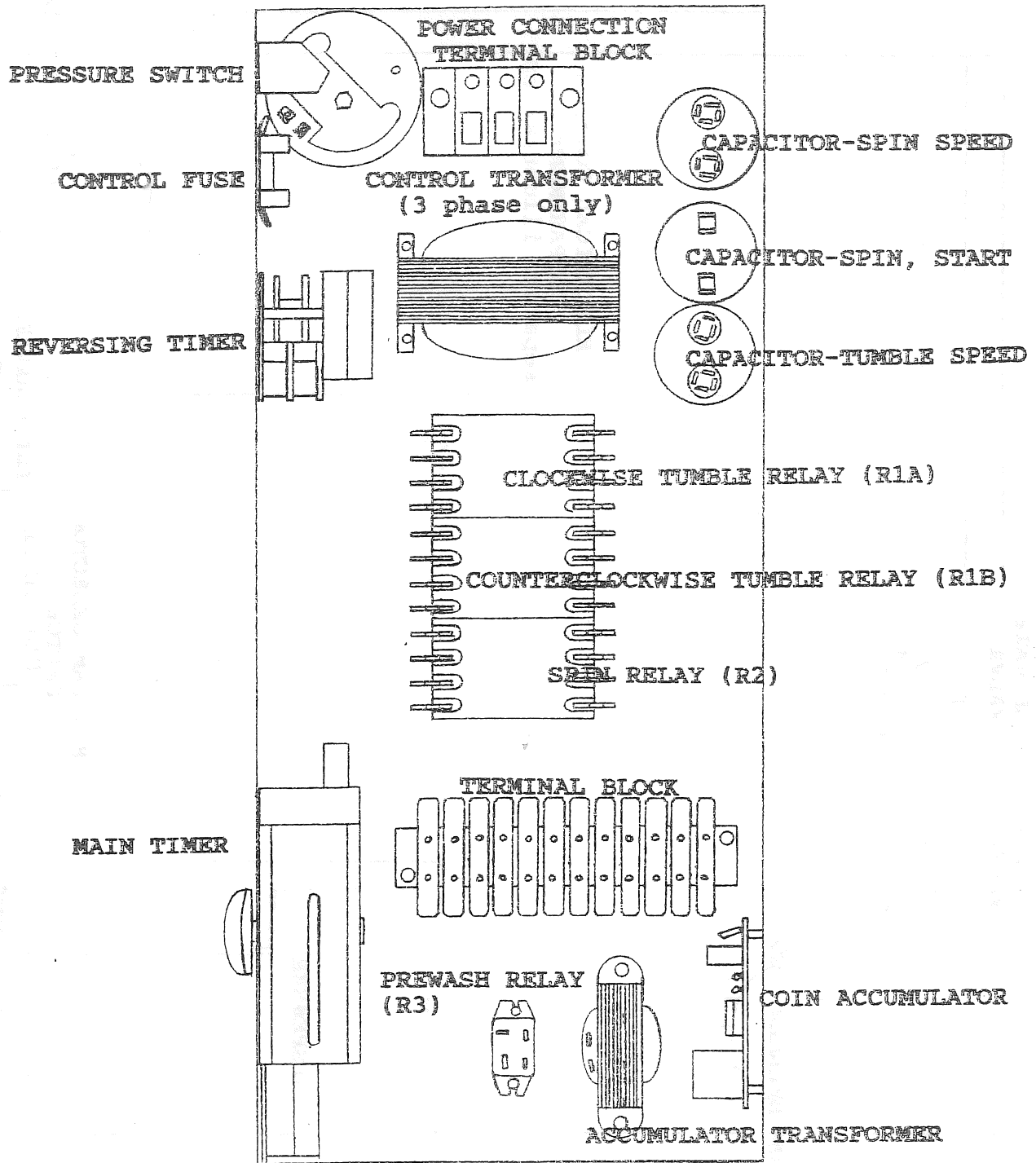
BLEACH LIGHT



COIN ACCEPTOR



VIEW INSIDE TOP TOP PANEL



**ELECTRICAL CONTROL
COMPARTMENT**

Section 3

SERVICE PROCEDURES

Before performing any service work, remove electrical power from the machine.

OPENING TOP PANEL

- A. Remove 4 screws that hold dispenser to top panel. Machines with flexible soap door remove center soap door screw only.
- B. Unlock top panel lock by turning key to right.
- C. Raise top panel (locating studs at front corners will provide some resistance until top is raised).
- D. A cable prevents the top from falling back.

REMOVING TOP PANEL

- A. Follow steps above to open top panel.
- B. Support the top panel and remove the collar on the retaining cable.
- C. Remove 2 bolts holding top panel to hinge on one side of the machine only.
- D. Slide top panel sideways to disengage from other hinge.

REMOVAL OF LOWER SERVICE PANEL

Remove 2 screws and pull toward you to disengage from the locator studs.

REMOVAL OF BACK PANEL — FOR SAFETY, ALWAYS REPLACE BACK PANEL BEFORE PUTTING MACHINE INTO SERVICE

Remove 10 screws holding back panel in position. The back panel is not only a safety requirement, but also contributes to the rigidity of the cabinet.

REMOVAL OF LOADING DOOR

- A. Support door to prevent dropping.
- B. Remove 3 screws holding hinge retainer.

LOADING DOOR DISASSEMBLY AND ASSEMBLY

- A. While holding glass, peel rubber gasket away from glass all the way around to remove the glass from the door.
- B. The gasket may then be removed from the door panel.
- C. Reverse procedure for reassembly (no sealing material is used).

REMOVAL OF CABINET FRONT PANEL

- A. Remove lower left and right corner screws located inside lower service door.
- B. Remove 3 screws between front panel top and front channel.
- C. Remove 2 screws on both left and right side of front panel.

REMOVAL OF LOADING DOOR TRIM RING

- A. First remove loading door and front panel as above.
- B. Remove 8 screws around trim ring.

REMOVAL OF LOADING DOOR HINGE

- A. First remove loading door, front panel, and trim ring.
- B. Remove 3 screws holding door hinge. Shims may be present between hinge and tub front. The number may be increased or decreased to adjust right side door pressure.

DOOR LOCK ASSEMBLY

After removing loading door, front panel, and trim ring, the door lock assembly may be removed by taking out 3 screws.

The door lock assembly contains 3 switches and a solenoid. The two switches that are operated by the solenoid are both lock sensing switches. The third switch is the latching switch and is operated by the door latch cam when the door is closed and the handle has been turned to the closed position. The latch switch should click to the closed position when the tip of the door handle is $\frac{1}{4}$ to $\frac{1}{2}$ inch from its fully closed position. The switch lever may be slightly bent to achieve this adjustment. The switch mounting has slotted mounting to allow for large adjustments.

REMOVAL OF DRIVE BELT

To remove the drive belt, use a pry-board or bar under the motor to relax the belt tension, then turn the cylinder and work the belt off the large pulley.

REMOVAL OF DRIVE MOTOR

- A. After removing power to the machine, reach through the lower service panel and disconnect the plug for the drive motor wiring harness from the motor connector. Single phase machines also have two additional wires on the centrifugal switch on the forward end of the motor which must be disconnected. Some machines may have a harness connector located in the harness just inside of the lower panel rather than a connector at the motor body.
- B. Remove the drive belt as explained above.

- C. Block the motor up in a way that will support its weight when the motor support rod is removed.
- D. Loosen the set screw in the shaft collar closest to the front of the machine. Also, loosen the set screw in the collar that is welded to the frame of the machine. The collar at the very back of the machine need not be loosened.
- E. After removing the screw that goes into the front of the motor support rod, the rod may be slid out the back of the machine and the motor removed.

GRAVITY DRAIN VALVE

The gravity drain valve is a normally open valve. When power is off, a spring forces it to the open position, allowing water out of the tub. When power is switched to the valve, the valve's motor drives the sealing ball closed and holds it in that closed position until power is removed.

Service — The drain valve is located behind the lower service panel on the left side of the machine. The valve inlet hose can be removed from the front of the machine to allow checking for blockage.

PROGRAM SWITCH OPERATION

The program switch selects the temperatures of the prewash (when used), wash, and rinses.

Checkout — For the cycle selections shown, the switch may be checked out by checking circuits across the following terminals:

Cycle Selection	Terminals Closed
Heavy duty	#1 to #2
	#15 to #16
Normal	#1 to #2
	#11 to #12
	#13 to #14
Perm-Press	#1 to #2
	#7 to #8
	#13 to #14
Woolen	#3 to #4
	#13 to #14

Switch Removal — The program switch is held in place by a hex nut with lockwasher on each end.

FRONT PANEL ESCUTCHEON

- A. The decorative escutcheon on the front of the machine is adhesive backed. It may be removed by simply peeling it off.
- B. To install a new escutcheon:
 1. First remove the coin acceptor.
 2. Before removing the paper backing check fit to the machine. The program push buttons and the coin acceptor opening are the locating guides.
 3. Remove the paper backing from the right side of the escutcheon, position the escutcheon on the panel and press right end into place, then peel the backing from the end and press into place.

OPERATION LIGHTS

- A. Bleach light — The bleach light indicates when the bleach is to be added.
 - To remove the bleach light, squeeze the retainers on the sides of light body together to release the light from the mounting bracket. The two wires may be placed in either position.
- B. Program lights — The program lights show the progress of the machine through the cycle. They are all contained in a common body and are replaced as a group. Release side clips from metal mounting brackets and transfer wires one at a time to new light.

DROP COIN ACCEPTOR

The drop style coin acceptor contains a coin switch actuated by each coin that is accepted. The acceptor also has a coin blocking assembly that prevents coins from being inserted if the loading door is open or the machine already in cycle.

The coin acceptor is released by removing four screws (#T-9 Torx driver).

COIN ACCUMULATOR

The coin accumulator receives a signal each time a coin goes past the coin switch on the acceptor. After the preset number of coins has been counted, the accumulator closes a circuit to drive the main timer into the cycle and start the machine.

The coin accumulator is mounted by 4 screws. When replacing, note the positions of the 4 lead wires.

The coin accumulator works on low voltage current. The transformer that is located beside the accumulator provides 24 volts for the accumulator.

PROGRAM TIMER

The program timer that controls most machine functions is a cam type of timer and uses two drive motors. One motor drives the timer at the normal timing speed and the other rapid advances the timer at the start of the cycle.

To remove the timer:

- A. Open top panel.
- B. Loosen set screw in knob and remove knob.
- C. Remove two screws mounting timer.
- D. Two multiple wire connectors may then be removed from the timer.

RELAYS

The following four relays are used in this machine: (Check control layout diagram for location)

- R1A — This relay switches tumble speed drive motor current in the clockwise direction.
- R1B — This relay switches tumble speed drive motor current in the counterclockwise direction.
- R2 — This relay switches the drive motor current to the spin speed motor windings. It also insures that the low speed relays cannot operate during spin.
- R3 — This is the pre-wash relay. When the mode switch is used to select a prewash cycle, this relay provides water to the tub and prevents the detergent compartment from being flushed during prewash.

PRESSURE SWITCH AND WATER LEVEL

The pressure switch senses water level by sensing air pressure through the pressure switch hose. The switch contacts open to stop water input at the full level and closes to allow spin and water fills at the empty level.

Normal water level — The normal water level of the machine is approximately ½" up from the bottom of the door glass. This is checked with the machine stationary and unloaded.

- A. Removal — The pressure switch is mounted by 2 screws and has the rubber pressure hose pushed on the bottom tube. The wires must be on terminals 1 and 2, in either order.
- B. Water level adjustments
 1. Before making any adjustments of the pressure switch, drain the tub and blow the hose clear of possible water bubbles which can cause erratic pressure switch operation, then follow the installation hints as outlined above.
 2. On all adjustments, it will be necessary to completely drain the unit, then refill for water level check.
 3. Not the hex-head screw in the center of the switch body.
 4. Clockwise rotation of the screw will raise the water level and counterclockwise rotation will lower the water level. Both the break and the reset adjustments are made with this screw adjustment.
 5. Approximately ¼ of a turn on this screw will vary the water level ¼".

WATER VALVES

The machine contains two double outlet water valves, one for hot and one for cold. The cold valve controls water going to the tub and to the rinse dispenser. The hot valve controls water going to the tub and to the wash dispenser.

VACUUM BREAKER

The vacuum breaker prevents any possibility of back siphoning of contaminated water and chemicals into the potable water supply. Many areas require this as a part of their sanitation codes.

REMOVAL OF CABINET

If necessary to remove the cylinder or work on the bearings and seals, it is advisable to remove the cabinet and control trough as a unit as outlined in the following directions.

- A. The power supply, water hoses, and drain connection must all be disconnected before proceeding with the disassembly.
- B. Now remove lower service panel and the top panel assembly.
- C. Remove left and right lower front panel screws holding panel to cradle.
- D. Remove lower back panel.
- E. Remove loading door.
- F. Remove 3 screws along the bottom of each side panel. When reinstalling these screws do not overtighten.
- G. Remove clamp and soap dispenser hose where it attaches to the tub inlet.
- H. Slide the top overflow hose through the hole in back so that it is entirely inside the back of the machine.
- I. Disconnect the door lock wires from all switches and the solenoid.
- J. Disconnect the wires to the dump valve at the bottom of the machine.
- K. Disconnect the wires to the drive motor. If the machine has a connector disconnect point in the harness just inside the lower service panel disconnect there. If not disconnect the connector at the motor. Note: 1 phase motors have 2 wires to the centrifugal switch on the front of the motor.
- L. Remove the clamp and the hose from the vacuum breaker where it connects to the inlet on the back of the tub.
- M. Remove the pressure switch hose from the small tube on the bottom of the switch.
- N. It should now be possible for two people to lift the cabinet up and off of the front of the machine and set it aside.

TUB BACK AND CYLINDER ASSEMBLY REMOVAL

- A. First remove the cabinet and control assembly as outlined previously.
- B. Remove the drive belt.
- C. Remove overflow hose from 4:00 position on tub back.
- D. Remove bolts mounting chassis to concrete or base.
- E. Place the chassis where it can be tipped forward. Place blocks under the top of the front to prevent damage by contact with the front trim ring or the door lock assembly.
- F. Remove the 12 bolts from the perimeter of the tub back clamp ring. Also, remove the 2 bolts that fasten the clamp ring to the two legs of the rear of the chassis.
- G. The entire tub back and cylinder assembly may be lifted up out of the tub (it may be necessary to break the adhesion of the silicone that seals the tub back to the tub). Blocks should be placed under the edges of the cylinder before setting it down to prevent damage to the cylinder flange.

REASSEMBLY OF TUB BACK AND CYLINDER ASSEMBLY TO TUB

- A. Reassembly of the tub back and cylinder assembly is basically the reverse of the above procedure. The following two operations must be performed.
 1. The tub back to cylinder contact area has no gasket and is sealed with silicone sealer. Before reassembly, remove all of the old sealer and place a new bead of sealer in that area. Have the tub back in the correct orientation before it contacts the sealer in order not to scrub the sealer away from any given area.
 2. The bolts around the perimeter of the tub back should be reinstalled as they were originally and torqued to 35 foot-lbs.

BEARING HOUSING REMOVAL FROM CYLINDER SHAFT

- A. Remove the bolt and washer from the end of the cylinder shaft.
- B. It is necessary to use a puller to remove the pulley from the shaft. Thread a bolt into the end of the shaft to prevent damage of the shaft end and threads. After the pulley is removed, the tolerance ring that fits between the pulley and shaft may be slide off. It should always be replaced before reassembly.
- C. It is also necessary to use a puller to remove the bearing housing assembly from the shaft. There is a flange on the bearing housing that may be used with a three jaw puller.

IMPORTANT - Be careful not to move the flat metal plate on the cylinder shaft that mounts the two rubber sealing rings. The location of this seal mounting plate is critical and it must not be moved. The two sealing rings can be replaced without disturbing it.

BEARING HOUSING AND TUB BACK DISASSEMBLY

- A. To remove the tub back assembly, the 6 bolts attaching it to the bearing housing must be removed.
- B. The seal assembly next to the front bearing is pressed into the housing and must be pulled out to get to the front bearing. The retaining ring next to the bearing must also be removed.
- C. The bearings are pressed into the housing and must be pressed back out.

REPAIR AND REASSEMBLY OF BEARINGS AND SEALS

- A. The following instructions are an outline for those who devise their own tooling for this repair. Dexter has tools designed for this job under part number 8545-054-001. These tools have instructions for applying them to the different steps of the bearing and seal repair. For those not wanting to install bearings into the housing, the bearing housing with the bearings and shaft lip seal installed is available as an assembly.
- B. If installing new bearings into a bearing housing, first press the front (large) bearing into the housing until it bottoms. With the bearing spacer in place, press the rear bearing in until the spacer is snug between the two bearings. Be sure and reinstall the retaining ring in front of the front bearing. Grease the area of the bearing housing from the retaining ring forward. Next, the shaft lip seal should be pushed into the front of the bearing housing until the dimensions shown in the accompanying illustration is reached.
- C. Before reassembling the bearing assembly to the cylinder and shaft, inspect the small wear sleeve on the shaft that is contacted by the shaft lip seal in the front of the bearing housing. If it is rough or rusted, use crocus cloth to clean and polish it. If it is severely damaged, it may be peened to loosen and remove it. A new sleeve would then need to be pressed on.
- D. The tub back assembly should be reattached to the bearing housing with the 6 mounting bolts torqued to 75 foot-lbs. If the 6 support assemblies have been removed from the bearing housing, the 6 rear bearing housing bolts should be torqued to 35 foot-lbs.

- E. The primary and secondary seals that mount on the sealing ring that stays with the cylinder shaft may be slid over the shaft and seated on the metal mounting ring (note the location of the existing seals before removal). It is important to seat these seals over the full circumference of the seals.

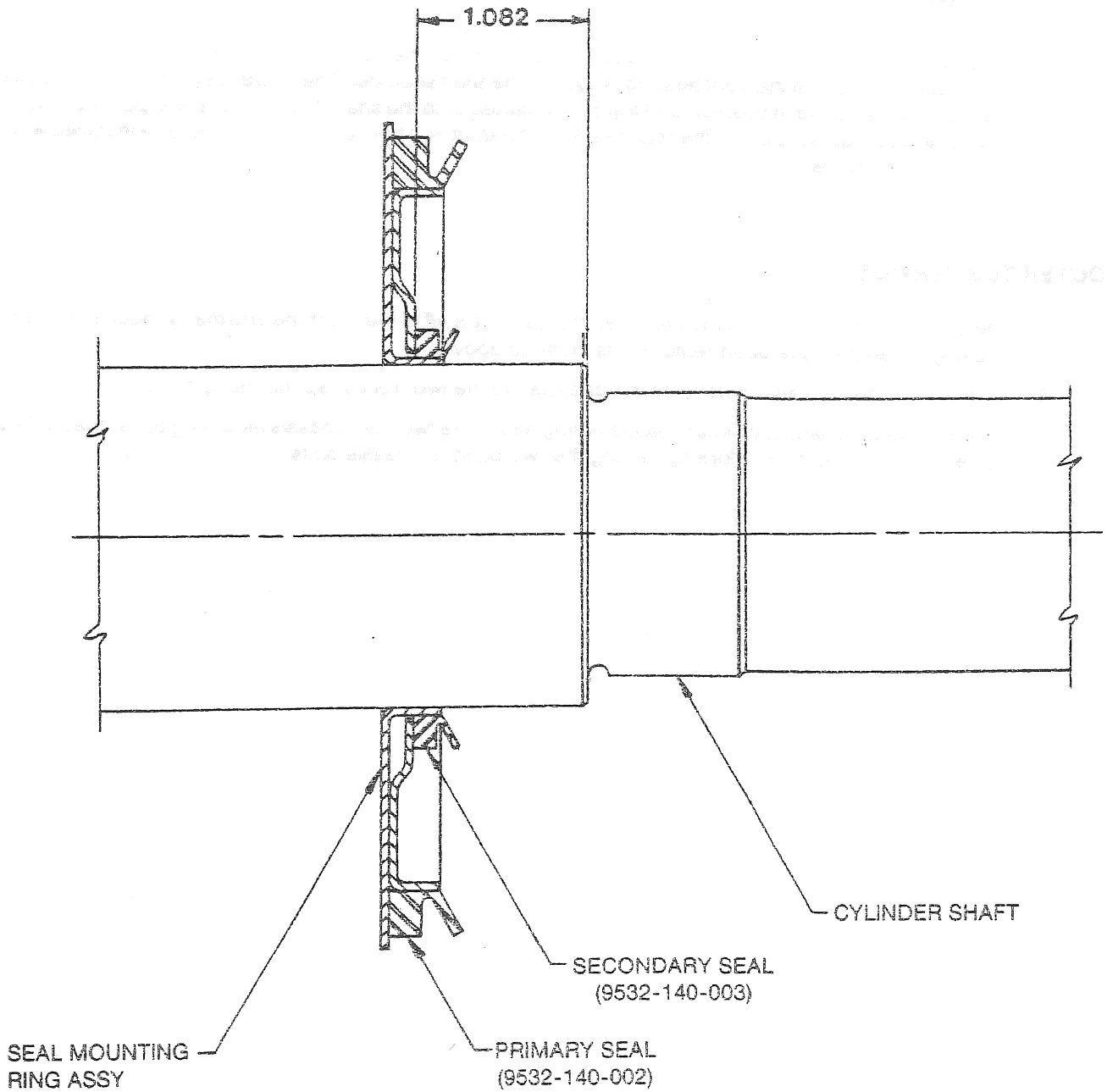
In the unlikely event that the metal ring that mounts these sealing rings were to be damaged or moved, a new one would need to be pressed on to the dimension shown in the accompanying illustration.

- F. The tub back assembly should be lightly lubricated with a silicone grease in the area where the primary and secondary seal contact it.
- G. To reassemble the bearings and tub back assembly, carefully set the assembly over the shaft engaging the bearings and bearing spacer. The bearing housing must be pushed onto the shaft by pushing the I.D. of the rear bearing until the front bearing is against the shaft shoulder. The tolerance ring that fits the pulley area should be placed in position and the pulley started onto the shaft. The pulley is then pushed onto the shaft until it contacts the I.D. of the rear bearing. The shaft end bolt with washer should be installed with a torque of 45 foot-lbs.

OUTER TUB SERVICE

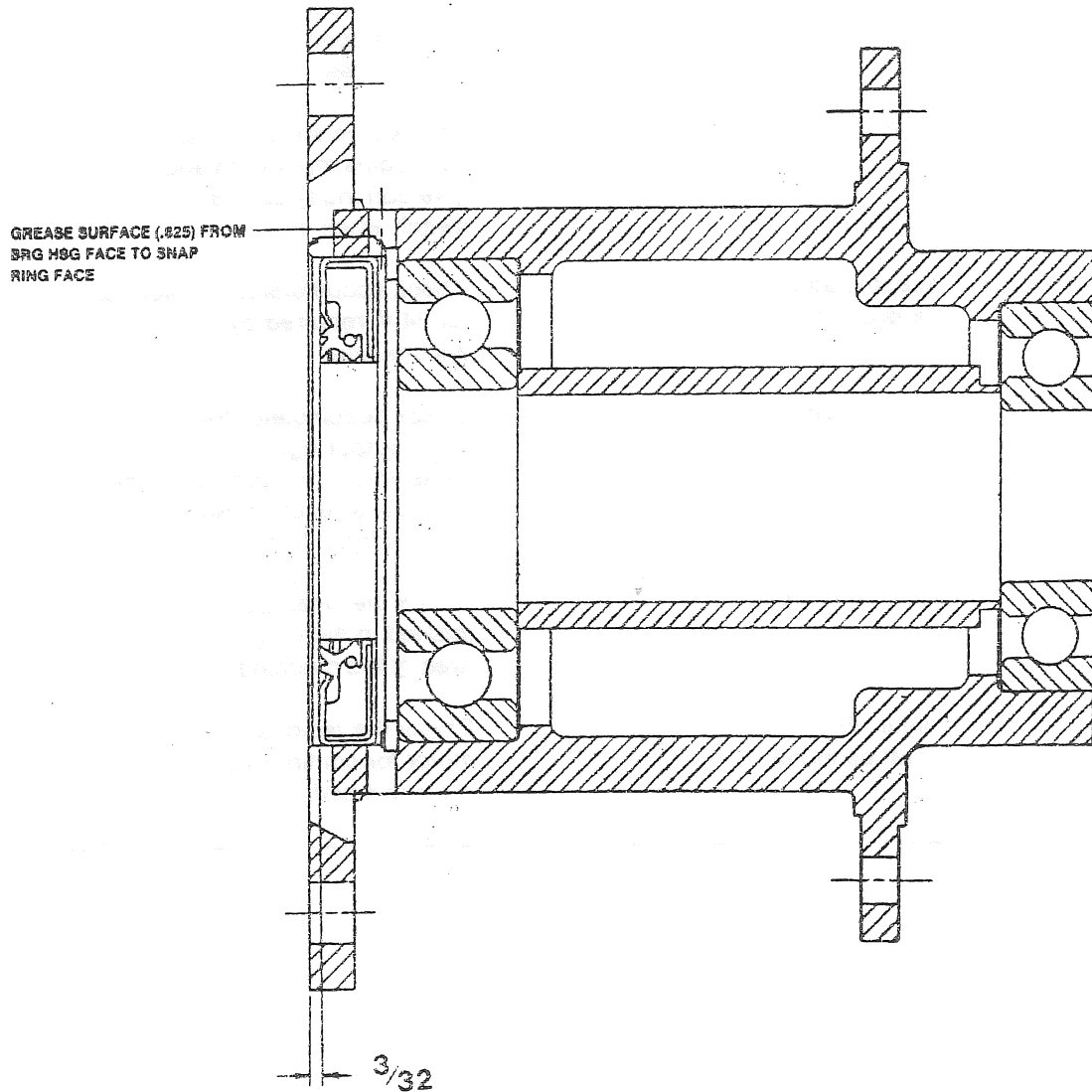
- A. The outer tub can easily be removed when the cabinet is off of the machine and the cylinder and bearing housing assembly have been removed as outlined above.
- B. At that point the only attachments to the chassis are the two front strap mounting bolts.
- C. If the front strap is removed, when reassembling attach the two front chassis mounting bolts loosely. Then tighten the top strap bolt before tightening the two band to chassis bolts.

SEAL RING LOCATION



SEAL ASSY AND CYLINDER SHAFT

SHAFT SEAL LOCATION



Trouble Shooting Guide

SYMPTOM	PROBABLE FAULT	REMEDY
Machine does not start	Power supply	Check these areas: — Circuit breakers — Voltage — Power leads — Power connections
	Door switch	Check for continuity through door switch when closed.
	Coin acceptor	Check coin switch to make sure coins trip switch and give continuity across switch when closed.
	Accumulator transformer	Check accumulator transformer for 24 V. required by accumulator
	Coin accumulator	Check accumulator for short output signal at orange-white wire when preset number of coins is reached. Replace accumulator if necessary.
	Fuse (1.5 amp)	Check the small glass fuse located in the control area of the machine.
	Timer, Rapid advance motor	Check the rapid advance motor for continuity and replace if bad.

(trouble shooting guide)

SYMPTOM	PROBABLE FAULT	REMEDY
Machine will not accept coins	Loading door open	Close door to move coin blocking apparatus on coin acceptor
	Power supply	See power supply checks above
	Coin blocking assembly	<ul style="list-style-type: none">— Check continuity of blocking solenoid— Check mechanism for freedom of movement
	Timer	Timer must be in off position, machine had to finish previous cycle
	Fuse (1.5 amp)	Check the small glass fuse in the control area and replace if necessary
Door does not lock	Timer position	The following sequence must have taken place to advance the timer before the door locks: <ul style="list-style-type: none">— Loading door closed— Proper number of coins inserted to start machine— Accumulator counted and credited coins to advance timer into cycle closing "on/off" cam
	Door locking solenoid does not close	If power is available to solenoid but doesn't close, check continuity; replace if bad
Door will not open	Timer	Make sure machine is in "off" position allowing timer to authorize door unlock
	Door lock solenoid	Check that door lock solenoid is not stuck closed

(trouble shooting guide)

SYMPTOM	PROBABLE FAULT	REMEDY
Machine starts but will not advance through cycle	Main timer drive motor	If power is available to main timer drive motor, but it doesn't run, replace timer motor
Hot water does not enter tub	Selector switch	Choose "Heavy Duty" cycle and check for continuity across selector switch contacts #1 and #2
	Pressure switch	Check pressure switch continuity between terminals #1 and #2
	Water valve coil	Check coil continuity at terminals and replace if necessary
No cold water to tub in wash	Selector switch	Choose "Perm-Press" cycle and check for continuity across contacts #13 and #14
	Pressure switch	Check pressure switch continuity between terminals #1 and #2
	Water valve coil	Check coil continuity at terminals and replace if necessary
No hot water in detergent dispenser	WASH DISP cam	Check for voltage at WASH DISP cam to close hot coil
	Pressure switch	Check pressure switch continuity between terminals #1 and #2
	Water valve coil	Check coil continuity at terminals and replace if necessary
No water to softener compartment	Clogged inlet screens	Check inlet screen and clean or replace as necessary
	Pressure switch	Check pressure switch continuity between terminals #1 and #2
	Water valve coil	Check coil continuity at terminals and replace if necessary

(trouble shooting guide)

SYMPTOM	PROBABLE FAULT	REMEDY
Water comes in but level does not rise	Dump valve	Check these areas: — Dump valve blockage — Dump valve motor and gear train — Power to the dump valve; if no power to dump, check (brn-yel) circuit for power
Water level too high	Pressure switch	Check for blockage in pressure switch hose. Check for pressure switch opening circuit across terminals #1 and #2. Replace switch if contacts do not open
Water drains slowly	Drain system	Check hoses and dump valve for blockage. Check building drains for blockage or inadequate size.
Machine does not tumble	R2 relay	Check continuity between terminals #13 and #14 on R2 relay.
	Wash speed capacitor	Check capacitor and replace.
Machine tumbles only in one direction	Reversing timer	Check reversing timer for motion; if none, check for power to timer motor and check continuity of timer motor.
	Tumble relays	Check R1A and R1B tumble speed relays. If one does not close during tumble speed, check coil continuity and power to the relay.

(trouble shooting guide)

SYMPTOM	PROBABLE FAULT	REMEDY
Machine does not spin	Spin relay	Check spin relay coil for continuity; replace if shorted. Check relay contacts.
	Pressure switch	Check pressure switch for contact across terminals #1 and #2, indicating pressure switch has reset.
	Spin start capacitor	Check and replace.
	Spin run capacitor	Check and replace.
	Centrifugal switch	Check and replace if it doesn't show continuity when stopped or doesn't open after motor is up to spin speed.
Mode selector doesn't give correct operation	Mode selector switch	Check continuity of mode switch as given below.
Machine does not stop at end of cycle	Coin accumulator giving continuous start signal	Check for continuous output from terminal where orange-white wire connects to accumulator. If so, replace accumulator.
Excessive vibration	Mounting system	Check these areas: — Strength of mounting structure, concrete or base. — Mounting bolts may be loose and need tightening.
	Drive belt	— Worn drive belt can cause vibration and noise.
	LOADING	— NOTE: SMALL LOADS CONTRIBUTE TO OUT OF BALANCE LOADING AND INCREASE VIBRATION.

Section 4

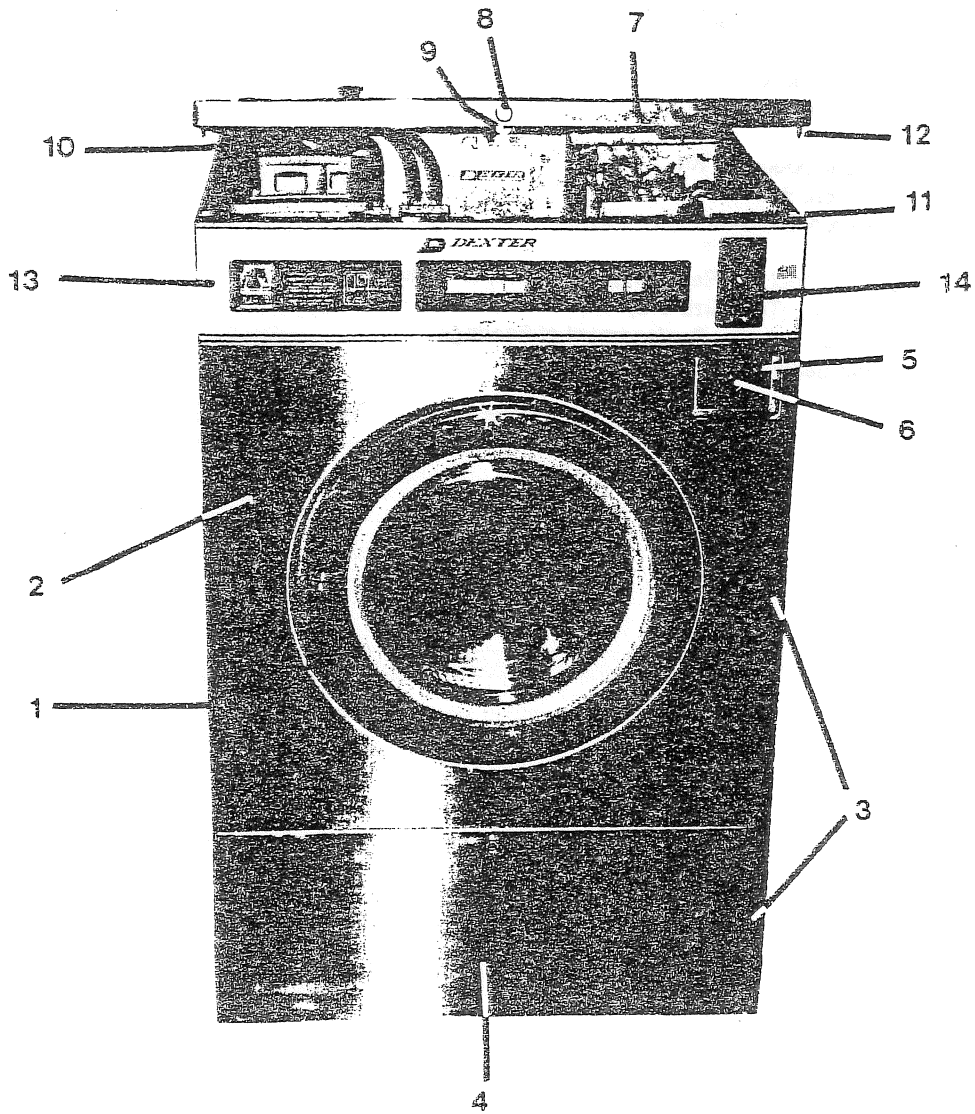
ACCESSORIES

Part Number	Description	
9990-027-011	Hose, Water Supply (furnished)	2
9641-242-000	Washer, Inlet Hose (furnished)	2
9565-003-001	Strainer, Inlet Hose (furnished)	2
9732-069-001	Hour Meter Kit	
9249-001-001	Hourmeter	
9732-073-001	Manual Operation Kit	
9539-474-001	Switch, Blk/Red	
9539-474-002	Switch, Blk/Wht	
8545-051-001	Special Tool For Removing Coin Acceptor Mounting Screws. (Torx Size T-9)	
8545-054-001	Special Tools For Replacement of Bearings and Seals	

KITS & ASSEMBLIES

Part Number	Description
9732-073-001	Manual kit - WCE4K

CABINET AND FRONT PANEL GROUP

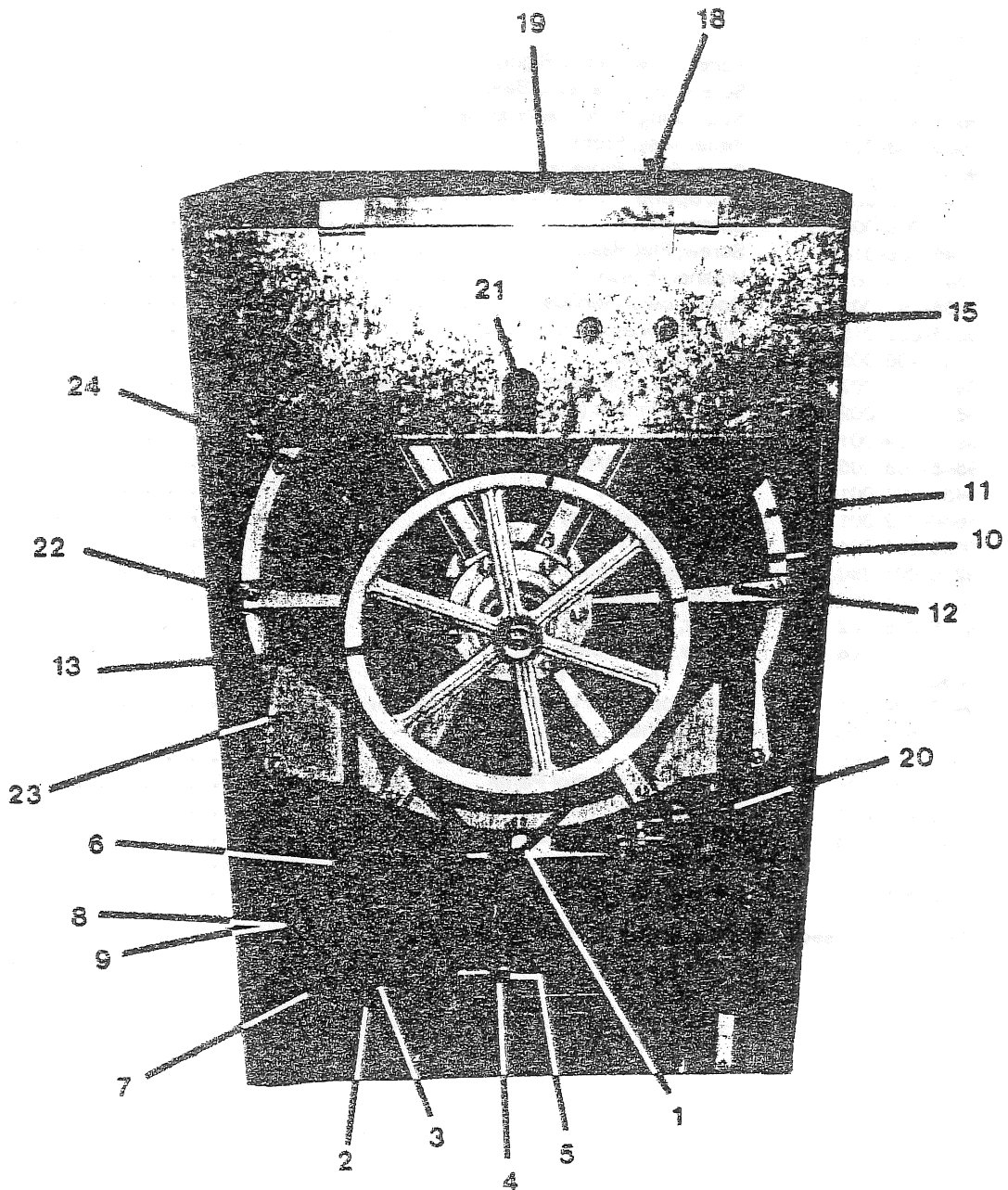


CABINET AND FRONT PANEL GROUP

			MODELS	
			W C E A 4 K	W C E B 4 K
Key No.	Part Number	Description		
1	9454-629-001	Panel, Side (Left or Right)	2	2
*	9545-030-002	Screw, (Side Panel to Base)	6	6
*	8640-423-001	Nut, Spring (Side Panel to Base)	6	6
2	9989-438-001	Panel Assy, Front	1	1
*	9059-063-002	Band, Edge Protector	1	1
*	8640-399-005	Nut, Spring	3	3
*	9545-008-005	Screw, Hex	5	5
3	9545-008-014	Screw, Flat Head	4	4
3	8641-585-001	Washer, Finish	4	4
4	9108-092-001	Door, Lower Service	1	1
*	9545-008-015	Screw, Locator	4	4
*	8641-436-005	Washer, Fiber	4	4
5	9807-077-007	Box Assy, Coin (See Coin Box Group)	1	1
6	8650-012-002	Lock, Coin Box (See Coin Box Group)	1	1
*	9942-024-001	Vault Assy, Coin	1	1
*	9545-008-005	Screw, Vault Mounting	4	4
7	9454-627-001	Panel, Top	1	1
8	8650-012-001	Lock, Top (w/Key)	1	1
9	9095-038-001	Cam, Lock-Top	1	1
*	8220-001-280	Wire Assy, Ground	1	1
10	9067-001-002	Cable, Top Panel Stop	1	1
*	9076-056-002	Collar, Cable Stop	2	2
*	9545-010-006	Screw, Cable Stop	2	2
11	9086-017-001	Catch, Top Panel Locator	2	2
12	9467-024-001	Post, Top Panel Locator	2	2
12	8641-582-005	Lockwasher	2	2
12	8640-163-000	Nut	2	2
13	9412-070-001	Nameplate, Control Panel	1	1
*	9989-440-001	Panel, Control (Mounts Nameplate)	1	1
*	9545-008-006	Screw, Control Panel Mtg	4	4
14	9021-001-005	Acceptor, Coin (25¢)	1	1
*	8502-616-001	Label, Door Opening	1	1

*NOT ILLUSTRATED — Used throughout parts data section of book.

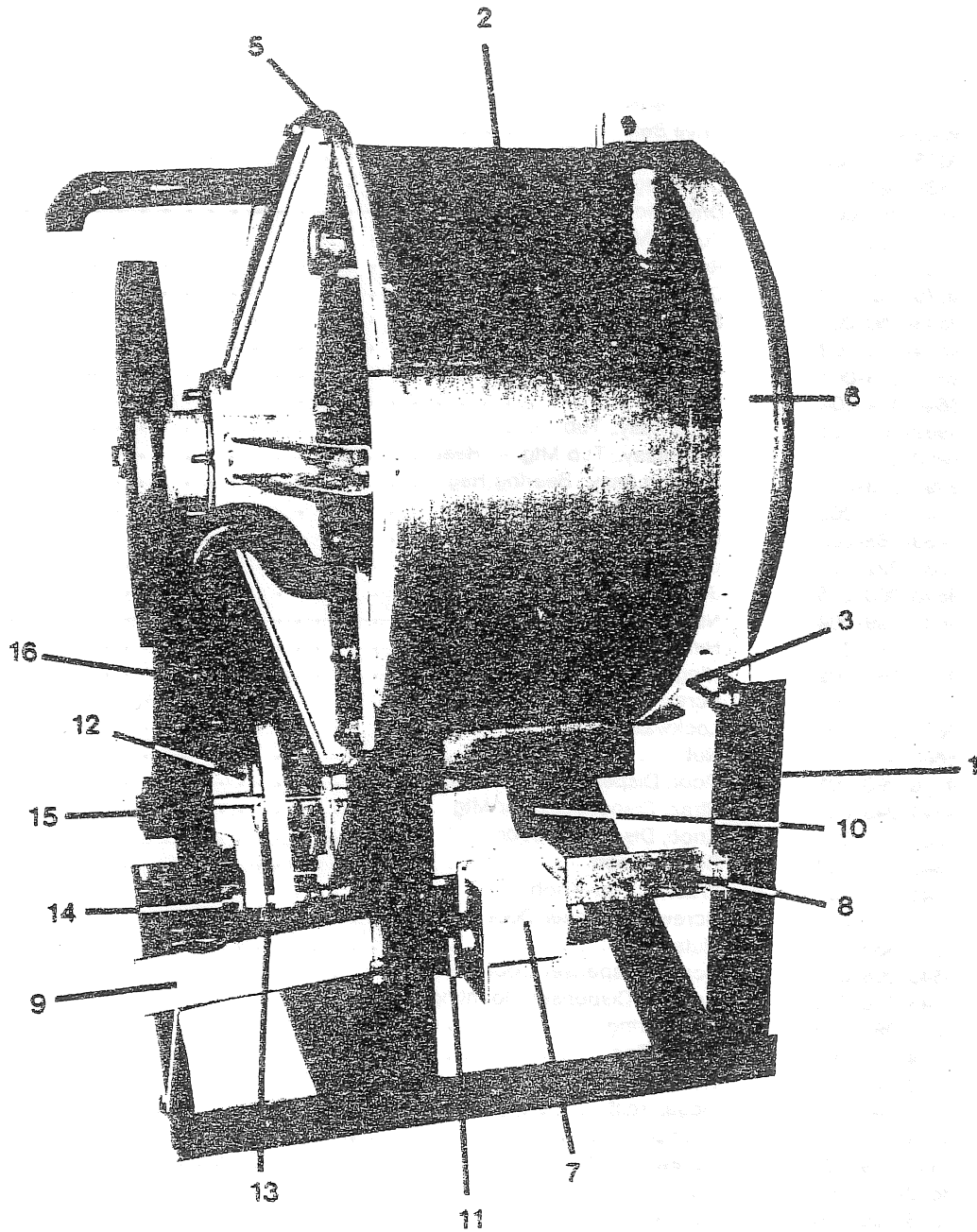
FIGURE 1



DRIVE & SUPPORT GROUP

DRIVE AND SUPPORT GROUP

			MODELS	
			W C E A 4 K	W C E B 4 K
Key No.	Part Number	Description		
1	9040-076-001	Drive Belt	1	1
2	9376-281-002	Drive Motor, 1 Phase	1	
*	9539-467-001	Centrifugal Switch, 1 Phase	1	
2	9376-281-003	Drive Motor, 3 Phase		1
3	9453-169-002	Pulley, Motor (w/set screws)	1	1
4	9497-222-002	Rod, Motor Mtg	1	1
5	9076-052-002	Collar, Shaft (w/set screws)	3	3
6	9544-050-001	Strap, Motor Tension	1	1
7	9534-319-002	Spring, Belt Tension	1	1
8	9545-055-001	Bolt, Eye	1	1
9	8640-414-004	Nut	1	1
10	9962-008-001	Back Assy., Tub	1	1
11	9950-041-002	Ring Assy., Tub Mtg. — Rear	1	1
12	9991-048-002	Support Assy., Bearing Hsg	6	6
13	9241-169-002	Housing, Bearing-Assembly	1	1
14	9453-168-002	Pulley, Driven	1	1
15	9081-092-001	Channel, Rear	1	1
*	9545-008-005	Screw	4	4
*	8640-399-004	Nut, Spring	14	14
16	9243-067-001	Hinge, Left Hand	1	1
17	9243-067-002	Hinge, Right Hand	1	1
*	9545-018-003	Screw	8	8
*	8641-582-007	Lockwasher	8	8
*	8640-414-001	Nut	8	8
18	9108-093-001	Door, Dispenser — Rubber	1	1
*	9544-048-001	Strap, Dispenser Door Mtg	1	1
*	9307-177-001	Knob, Dispenser Door	1	1
*	9545-010-008	Screw, Knob	1	1
*	8641-581-007	Washer, Flat-Knob	1	1
*	9545-012-017	Screw, Dispenser Door	2	2
*	8640-355-001	Nuts, Hex	2	2
*	9545-008-011	Screw, Dispenser Door (center)	1	1
*	9545-008-012	Screws, Dispenser Mounting	3	3
*	8640-399-003	Nut, Spring	4	4
19	9454-627-001	Panel, Top	1	1
20	9242-449-001	Hose, Overflow	1	1
21	9242-448-001	Hose, Vent	1	1
*	8654-029-000	Clamp, Hose	2	2
22	9545-029-003	Screw, (1½")	16	16
22	8640-415-004	Nut	16	16
23	9545-029-006	Screw (1¾")	2	2
23	8640-415-004	Nut	2	2
*	9989-439-001	Panel Assy., Back	1	1
*	9545-008-005	Screw	10	10
24	9242-175-000	Hose, Pressure Switch	1	1
*	8654-059-000	Clamp, Pressure Sw. Hose	1	1



CHASSIS & DRAIN GROUP

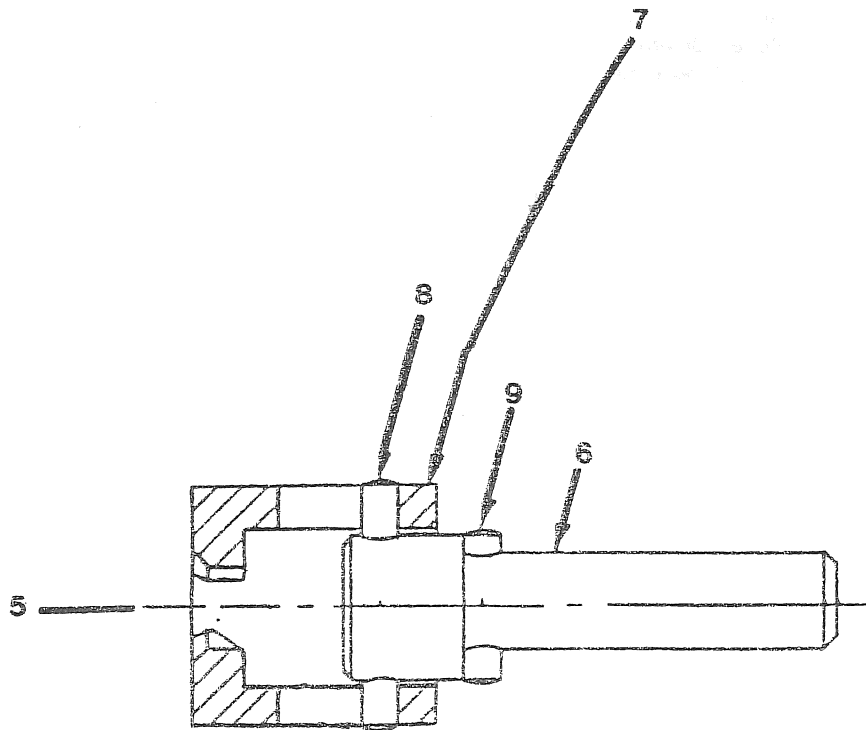
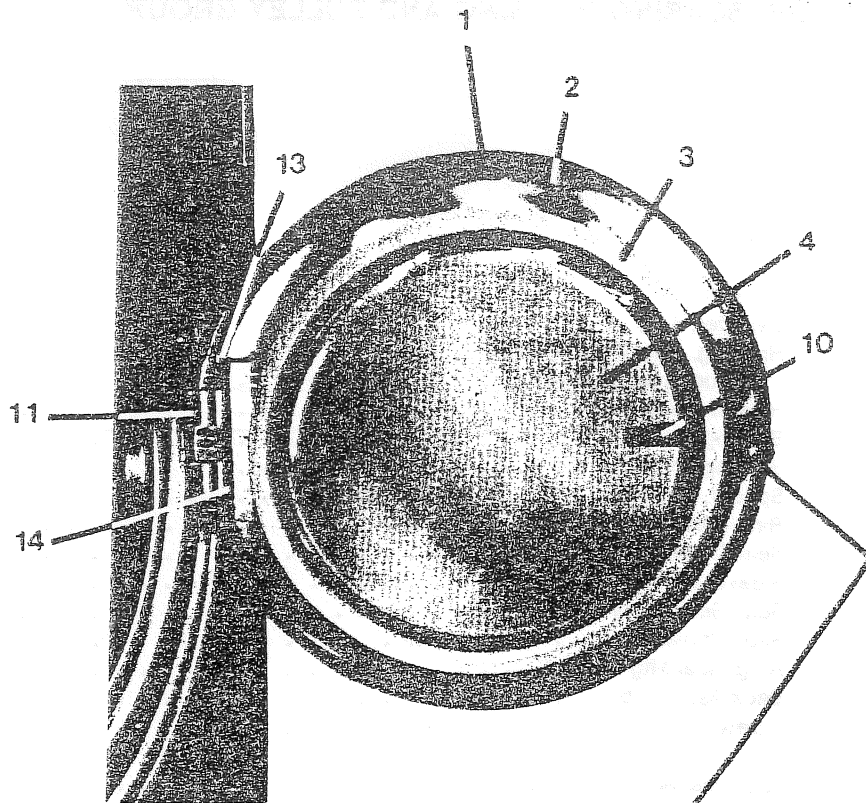
CHASSIS AND DRAIN GROUP

			MODELS	
			W C E A 4 K	W C E B 4 K
Key No.	Part Number	Description		
1	9945-087-002	Base Assy, Frame	1	1
2	9930-134-001	Tub Assy	1	1
3	9545-017-009	Screw	4	4
3	8641-582-016	Lockwasher	4	4
3	8640-417-002	Nut	4	4
4	9962-008-001	Back Assy, Tub	1	1
5	9950-041-002	Ring Assy, Tub Mtg-Rear	1	1
6	9950-040-002	Ring Assy, Tub Mtg-Front	1	1
*	9545-017-003	Bolt, Top Front Band	1	1
*	8641-582-016	Lockwasher	1	1
*	8640-417-002	Nut, Hex	1	1
7	9379-184-001	Valve, Drain	1	1
8	9029-005-001	Bracket, Drain Valve	1	1
*	9545-045-002	Screw, Valve to Bracket	1	1
*	9545-030-002	Screw, Bracket Mtg	2	2
9	9915-116-002	Tube Assy, Drain	1	1
*	9545-030-002	Screw, Tube Mtg	2	2
10	9242-447-001	Hose, Tub to Drain Valve	1	1
11	9242-451-001	Hose, Drain Valve to Tube	1	1
*	8654-117-011	Clamp, Hose	4	4
12	9376-281-002	Motor, Drive (1 PH)	1	
12	9376-281-003	Motor, Drive (3 PH)		1
13	9497-222-002	Rod, Motor Mtg	1	1
14	9076-052-002	Collar, Shaft	2	2
*	9545-029-005	Screw, Motor Mtg Rod	1	1
*	8641-582-014	Lockwasher	1	1
15	9453-169-002	Pulley, Motor	1	1
*	9545-028-013	Set Screw, long	1	1
*	9545-028-010	Set Screw, short	1	1
16	9040-076-001	Belt, Drive	1	1

SPIDER, BEARING HOUSING AND PULLEY GROUP

Key No.	Part Number	Description	MODELS	
			W C E A 4 K	W C E B 4 K
1	9848-109-001	Cylinder, Assy	1	1
2	9803-179-001	Housing, Bearing-Assembly (includes items #2-#7	1	1
*		Housing, Bearing	1	1
3	9036-159-002	Bearing, Front	1	1
4	9036-159-001	Bearing, Rear	1	1
5	9538-158-001	Spacer, Bearing	1	1
6	9487-238-001	Ring-Retainer, Internal	1	1
7	9532-141-001	Seal-Cylinder, Shaft	1	1
8	9535-061-001	Sleeve, Wear	1	1
9	9532-140-003	Seal, Secondary	1	1
10	9532-140-002	Seal, Primary	1	1
11	9950-042-001	Ring, Seal Mtg	1	1
13	9962-008-001	Back Assy, Tub	1	1
14	9545-017-009	Screw	6	6
14	8640-417-002	Nut	6	6
14	8641-582-016	Lockwasher	6	6
15	9991-048-002	Support Assy., Bearing Housing	6	6
16	9545-029-003	Screw	6	6
16	8640-415-004	Nut	6	6
17	9453-168-002	Pulley, Driven	6	1
18	9487-234-001	Ring, Tolerance	1	1
19	8641-581-026	Washer	1	1
19	9545-017-009	Screw	1	1
19	8641-582-016	Lockwasher	1	1

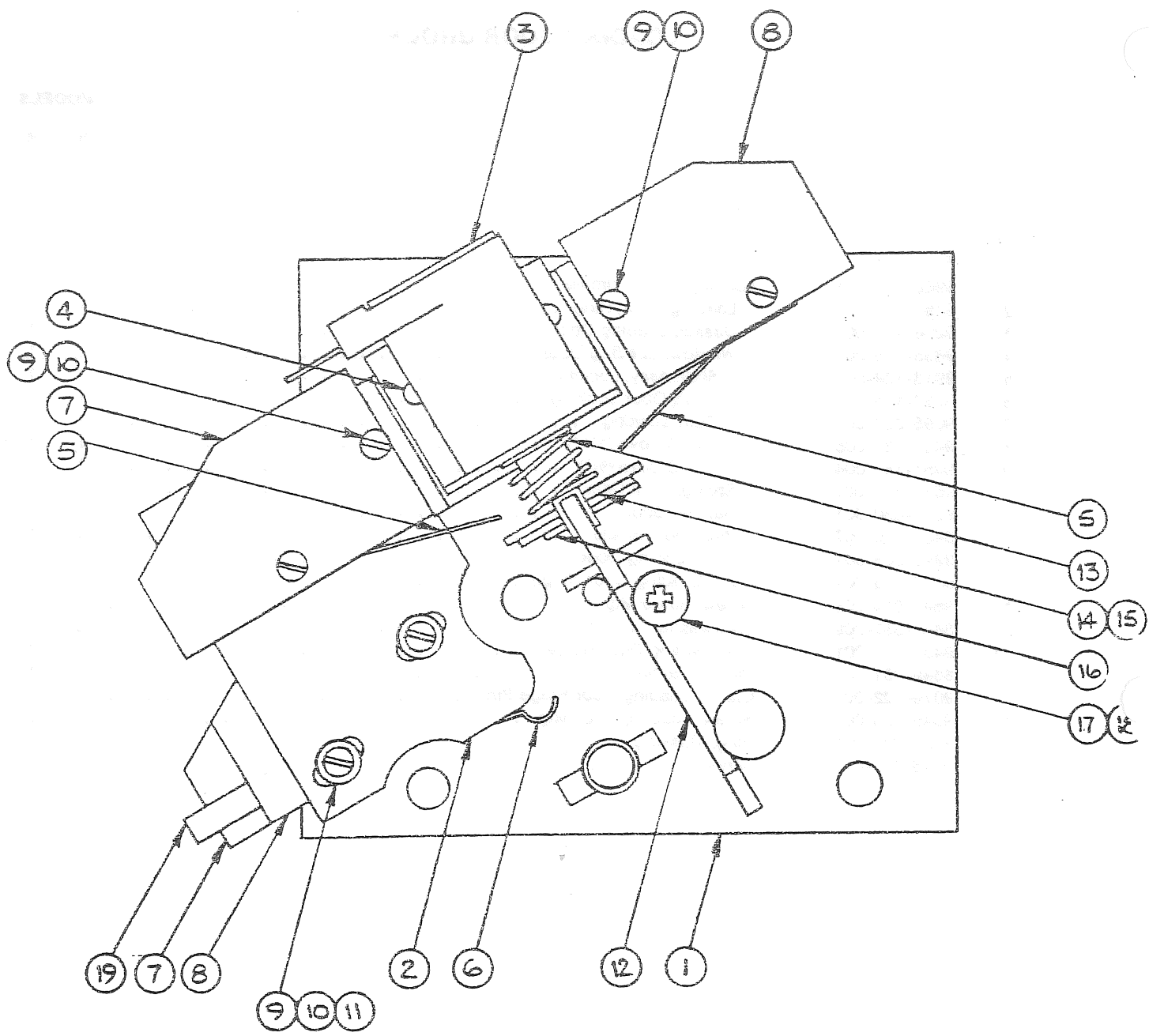
58 8000 010001



LOADING DOOR GROUP

LOADING DOOR GROUP

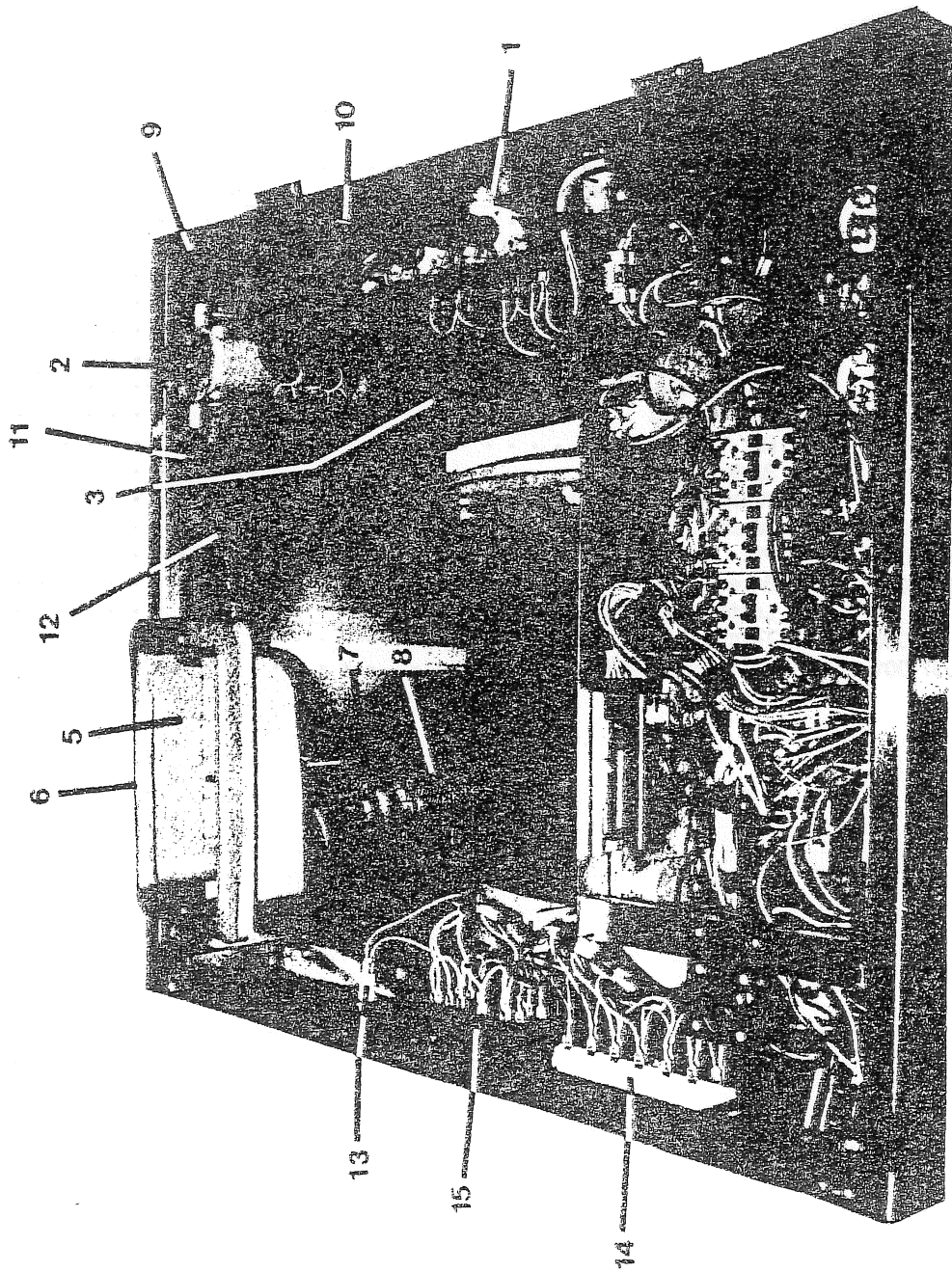
Key No.	Part Number	Description	MODELS	
			W C E A 4 K	W C E B 4 K
1	9960-259-001	Loading Door, Complete	1	1
2	9487-230-001	Loading Door, Ring	1	1
3	9206-417-001	Gasket, Loading Door	1	1
4	9635-016-001	Window, Loading Door	1	1
5	9913-134-001	Shaft Assy, Locking	1	1
6	9537-195-001	Shaft, Door Locking	1	1
7	9095-037-001	Cam, Locking	1	1
8	9451-181-005	Pin, Groove (1¼")	1	1
9	9451-181-004	Pin, Groove (¾")	1	1
*	9534-360-001	Spring, Lock Cam	1	1
10	9244-080-001	Handle, Door	1	1
*	9451-180-007	Pin, Door Handle	1	1
11	9243-068-001	Hinge, Loading Door	1	1
*	9552-036-001	Shim, Loading Door Hinge		
*	9545-014-009	Screw, Hinge Mtg	3	3
*	8641-582-009	Lockwasher	3	3
13	9451-184-001	Pin, Loading Door Hinge	1	1
*	8649-031-000	Ring, Retaining	1	1
14	9079-122-001	Clamp, Loading Door Hinge Pin	1	1
*	9545-056-001	Screw, Loading Door Mtg	3	3
*	9487-233-001	Ring, Masking	1	1
*	9545-010-010	Screw	8	8



DOOR LOCK GROUP

DOOR LOCK GROUP

Key No.	Part Number	Description	MODELS	
			W C E A 4 K	W C E B 4 K
*	9885-021-001	Lock Assy, Complete	1	1
1	9982-282-001	Plate Assy, Door Lock	1	1
2	9029-015-001	Bracket, Switch Mtg	1	1
3	9536-081-002	Solenoid, Door Locking	1	1
4	9545-012-018	Screw, Solenoid Mtg	2	2
5	9539-461-002	Switch, Door Lock Sensing	2	2
6	9539-461-003	Switch, Door Latch Sensing	1	1
7	9550-169-001	Shield, Door Switch — Long	3	3
8	9550-169-002	Shield, Door Switch — Short	3	3
9	9545-020-001	Screw, Pan Hd Sltd	6	6
10	8640-401-001	Nut, Special	3	3
11	8641-581-027	Washer, Flat	2	2
12	9874-001-001	Bar Assy., Lock	1	1
13	9534-361-001	Spring, Conical	1	1
14	8641-581-008	Washer, Flat — Small	1	1
15	8641-262-000	Washer, Flat — Large	1	1
16	9451-169-001	Pin, Cotter	1	1
17	9545-010-011	Screw, Truss Hd	1	1
18		Loctite, Used to Lock Screw		
19	8652-124-036	Terminal, Fully Insulated	1	1
*	9552-037-001	Shim, Door Lock		

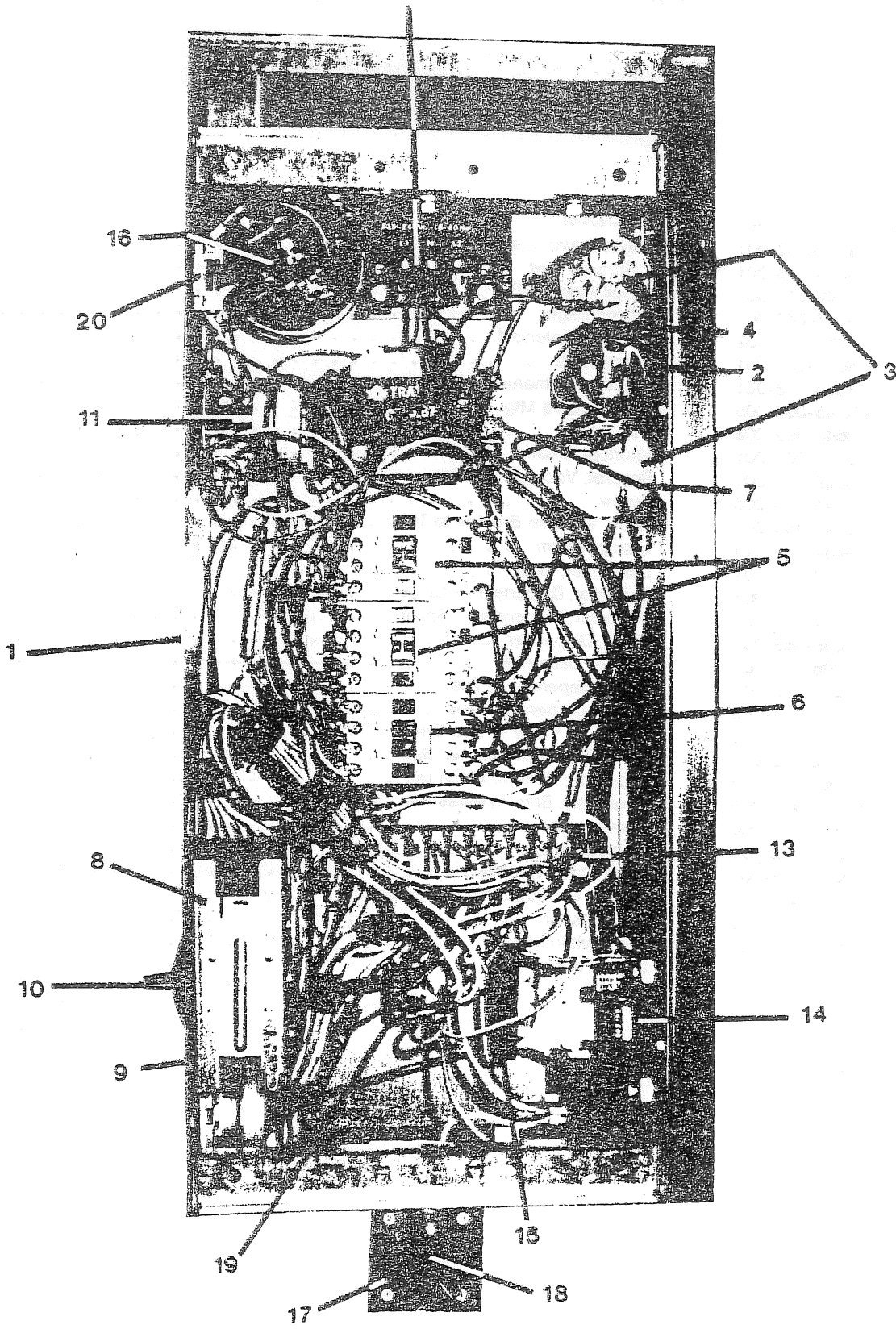


SOAP HATCH & CONTROL PANEL

SOAP HATCH AND CONTROL PANEL GROUP

			MODELS	
			W C E A 4 K	W C E B 4 K
Key No.	Part Number	Description		
1	9379-183-001	Valve, Water Inlet	2	2
*	9555-056-001	Screen, Inlet	2	2
*	9089-017-001	Coil Assy., 120 V	2	2
*	9118-049-001	Diaphragm	2	2
*	9211-021-002	Guide, Solenoid	2	2
*	9015-008-001	Armature	2	2
*	9534-298-001	Spring, Armature	2	2
*	9545-008-005	Screw, Valve Mtg	4	4
*	8640-399-006	Nut, Spring	4	4
2	9610-001-001	Vacuum Breaker	1	1
*	9029-006-001	Bracket, Vacuum Breaker	1	1
*	9545-008-005	Screw	4	4
3	9242-454-001	Hose, Vacuum Breaker to Tub	1	1
4	8654-117-014	Clamp, Worm	2	2
5	9122-005-001	Dispenser, Body	1	1
*	9114-040-001	Deflector, Dispenser — Large	1	1
*	9114-040-002	Deflector, Dispenser — Small	1	1
*	9049-068-001	Baffle, Dispenser	1	1
6	9206-416-001	Gasket, Dispenser	1	1
7	9242-450-001	Hose, Dispenser to Tub	1	1
8	8654-117-008	Clamp, Dispenser Hose	2	2
9	9242-453-002	Hose, Hot Valve to Vac. Brkr	2	2
10	9242-453-004	Hose, Cold Valve to Vac. Brkr	2	2
11	9242-453-003	Hose, Vac. Brkr. to Wash Dis	1	1
12	9242-453-005	Hose, Vac. Brkr. to Rinse Dis	1	1
*	8654-040-000	Clamp, Hose	12	12
13	3310-042-001	Light, Bleach	1	1
14	3310-041-001	Light, Cycle Control	1	1
15	9539-470-001	Switch, Pushbutton (cycle selector)	1	1
*	8641-582-006	Lockwasher	2	2
*	8640-413-001	Nut, Switch Mtg	4	4
*	8652-130-037	Lug, Grounding	4	4

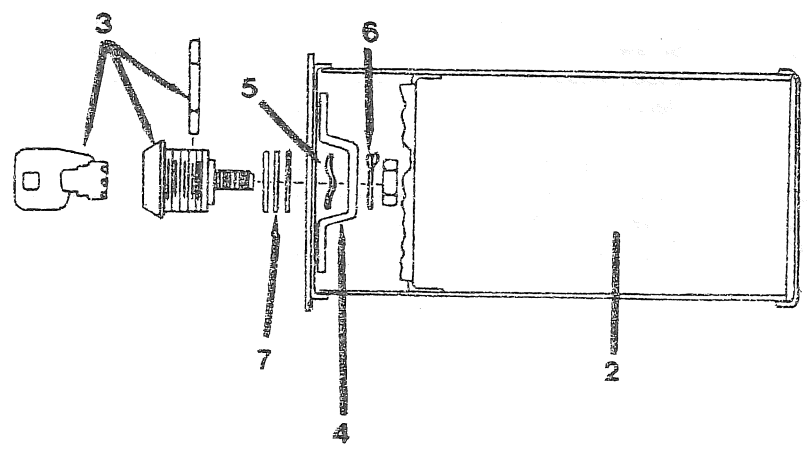
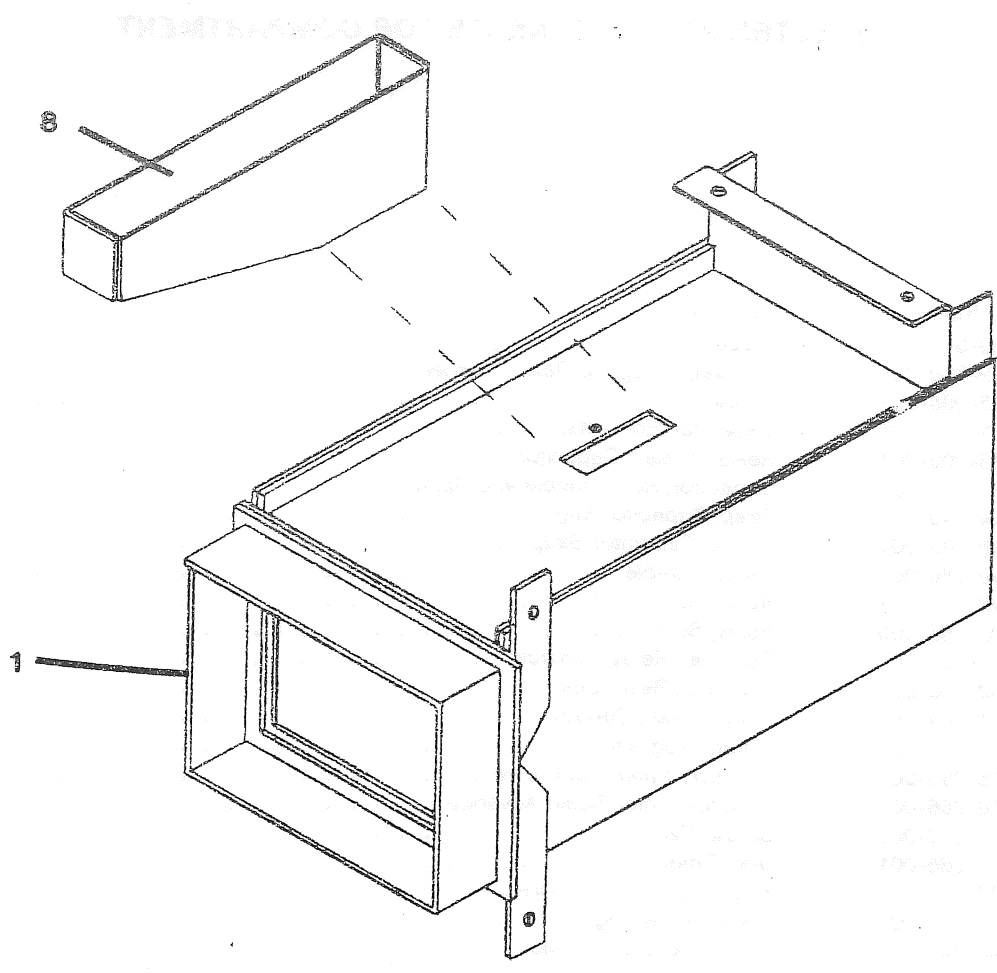
2.1900W



ELECTRICAL COMPONENTS
TOP COMPARTMENT

ELECTRICAL COMPONENTS TOP COMPARTMENT

			MODELS	
			W C E A 4 K	W C E B 4 K
Key No.	Part Number	Description		
1	9839-011-001	Trough Assy, Controls Mtg	1	1
*	9029-010-001	Bracket, Trough to Rear Channel	1	1
*	9545-008-005	Screw	4	4
2	5191-102-001	Capacitor, Spin-Start	1	
*	9483-002-001	Resistor, Start Capacitor	1	
3	5191-103-001	Capacitor, Run (Tumble and Spin)	2	
4	9544-049-001	Strap, Capacitor Mtg	1	
*	9545-045-001	Screw, Capacitor Strap	2	
5	5192-286-001	Relay, Tumble	2	2
6	5192-286-002	Relay, Spin	1	
6	5192-286-003	Relay, Spin		1
*	8652-132-001	Terminal, Relay Contacts		
*	8652-132-003	Terminal, Relay Coil		
7	8711-004-001	Transformer, Control		1
8	9571-353-002	Timer, Program	1	1
*	9376-285-002	Motor, Timer Main Drive	1	1
*	9376-286-002	Motor, Timer Rapid Advance	1	1
*	9545-012-001	Screw, Timer	2	2
9	9107-066-001	Dial, Timer	1	1
10	9307-176-001	Knob, Timer (w/set screws)	1	1
11	9571-354-001	Timer, Reversing	1	1
*	9545-044-004	Screw, Reversing Timer	2	2
12	9897-028-001	Terminal Block, Power Connection	1	1
13	9897-029-001	Terminal Block Assy, 12 Lug	1	1
14	9020-002-001	Accumulator, Coin	1	1
*	9545-015-002	Screw, Accumulator	4	4
*	9209-085-001	Grommet, Nut	4	4
15	8711-003-001	Transformer, (For Accumulator)	1	1
16	9539-457-001	Switch, Pressure	1	1
17	9539-471-001	Switch, Rotary Selector	1	1
*	9545-044-004	Screw	2	2
18	9307-176-001	Knob, Switch	1	1
*	9029-012-001	Bracket, Mode Switch	1	1
*	9545-045-002	Screw	2	2
*	8502-613-001	Label, Mode Switch	1	1
19	5192-285-001	Relay, Prewash	1	1
*	9545-031-003	Screw	2	2
*	9488-008-002	Rail, Relay Mtg	1	1
20	9054-045-001	Holder, Fuse	1	1
*	8636-018-001	Fuse, 1½ Amp	1	1
*	8652-130-037	Lug, Grounding	4	4

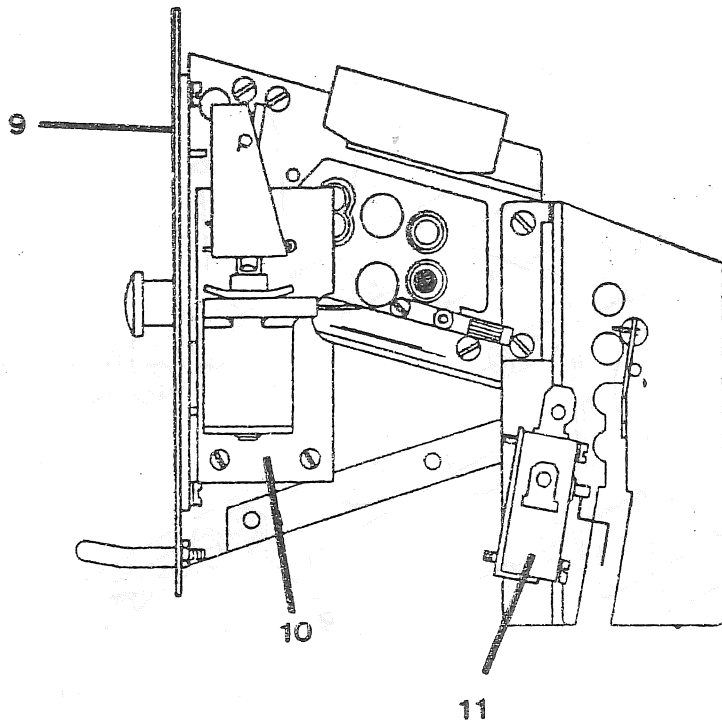


COIN HANDLING GROUP

COIN HANDLING GROUP

MODELS

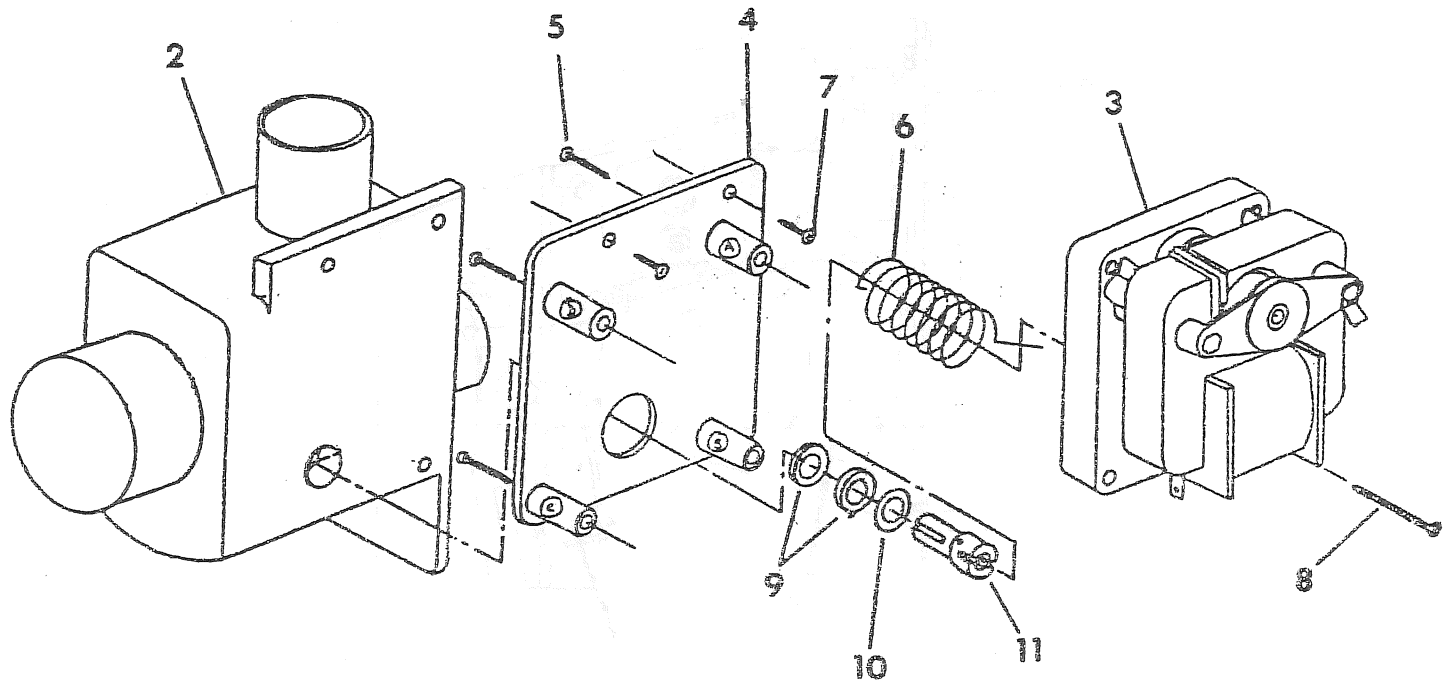
Key No.	Part Number	Description	MODELS	
			W C E A 4 K	W C E B 4 K
1	9942-024-001	Vault, Assy	1	1
*	9545-008-005	Screw, Vault Mtg	4	4
2	9807-077-007	Box Assy., Coin	1	1
3	8650-012-002	Lock, Coin Box (w/key)	1	1
4	9349-033-001	Latch, Coin Box	1	1
5	8641-569-002	Washer, Wave	1	1
6	8641-583-001	Washer, Keeper	1	1
7	8641-581-008	Washer, Spacer — Thick		
7	8641-581-010	Washer, Spacer — Thin		
8	9940-014-001	Chute Assy., Coin	1	1
*	9545-045-001	Screw, Chute Mtg	1	1
9	9021-001-005	Acceptor, Coin (w/coin blocking)	1	1
*	9021-001-004	Acceptor, Coin	1	1
10	9922-008-001	Coin Blocking Assy (complete)	1	1
*	9536-079-001	Solenoid, Coin Blocking	1	1
*	9534-362-001	Spring, Coin Blocking	1	1
*	9545-039-001	Screw, Blocking Assy., Mtg	2	2
*	8641-579-001	Lockwasher	2	2
*	9545-020-002	Screw, Acceptor Mtg	4	4
*	8640-355-005	Nut	4	4
11	9539-466-002	Switch, Coin	1	1



GRAVITY DRAIN VALVE GROUP

MODELS

Key No.	Part Number	Description	MODELS	
			W C E A K	W C E B A K
1	9379-184-001	Valve, Drain	1	1
2	9064-068-001	Body, Valve (w/ball)	1	1
3	9914-137-004	Motor & Gear Train	1	1
4	9452-538-001	Plate, Motor Mtg	1	1
5	8639-994-001	Screw	3	3
6	9534-340-001	Spring, Drive	1	1
7	9545-054-001	Screw	2	2
8	9545-054-002	Screw	1	1
9	9532-134-001	Seal, V Packer	2	2
10	8641-584-001	Washer	1	1
11	9451-185-001	Pin, Main Drive	1	1



WIRING HARNESS GROUP

8654-125-001

		MODELS	
		W C E A 4 K	W C E B 4 K
Part Number	Description		
9627-659-001	Wiring Harness (MH1), Drain Valve, Door Solenoid & Limit Switches	1	1
9627-660-001	Wiring Harness (MH2), Water Valve & Pressure Switch	1	1
9627-661-001	Wiring Harness (MH3), White Connector-Program Timer	1	1
9627-662-001	Wiring Harness (MH4), Black Connector-Program Timer	1	1
9627-657-001	Wiring Harness, Drive Motor (1 PH)	1	
9627-656-001	Wiring Harness, Drive Motor,(3 PH)		1
9627-658-001	Wiring Harness, Mode Selector	1	1
9627-654-001	Wiring Harness, Prewash Relay	1	1
* 8654-125-001	Clamp, Cable — 1/4 Dia	1	1
* 8654-125-003	Clamp, Cable — 7/16 Dia	3	3
* 8654-125-004	Clamp, Cable — 3/4 Dia	1	1

WARNING

WARNING — THIS WASHER IS EQUIPPED WITH DEVICES AND FEATURES RELATING TO ITS SAFE OPERATION. TO AVOID INJURY OR ELECTRICAL SHOCK, DO NOT PERFORM ANY SERVICING, UNLESS QUALIFIED TO DO SO.

A machine should not be allowed to operate if any of the following occur:

- Excessively high water level.
- Machine is not connected to a properly grounded circuit.
- Loading door does not remain securely locked during the entire cycle.
- Vibration or shaking from an inadequate mounting or foundation.

WARNING — FOR SAFETY

1. Always shut off power and water supply and also discharge capacitors before servicing.
2. Do not overload the washer.
3. Do not open door if cylinder is in motion or contains water.
4. Do not bypass any safety devices of this washer.
5. Do not use volatile or flammable substances in or near this washer.
6. Keep all panels in place. They protect against shock and injury and add rigidity to the washer.

MAINTENANCE HINTS

DAILY

- Clean the top and the cabinet to remove residue.
- Clean the soap dispenser and soap lid.
- Check the drain for leaking and proper draining.
- Check the loading door for leaks. Clean the door seal of all foreign material.
- Leave the loading door open to aerate the washer when not in use.

QUARTERLY

- Make sure the power is disconnected before making the following checks.
- Check the drive belt for wear and proper tension.
- Clean lint and other foreign material from around drive motor.
- Check all water connections for leaks.
- Wipe and clean the inside of the washer and check all electrical components for moisture and dust.
- Remove and clean water inlet hose filters. Replace if necessary.
- After any service, always replace all panels before reconnecting electrical power.