

# THE DEXTER COMPANY

OPL MECHANICAL TIMER  
OPL DUAL TIMER DRYER  
DEXTER STACKED WASHER/DRYER



## COMBINATION OPL UNIT

FAIRFELD IOWA 52556

part # 8533-048-001

12/02

FAX

641-472-5131

641-472-6336

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COMBINATION OPT. UNIT

800-433-8338

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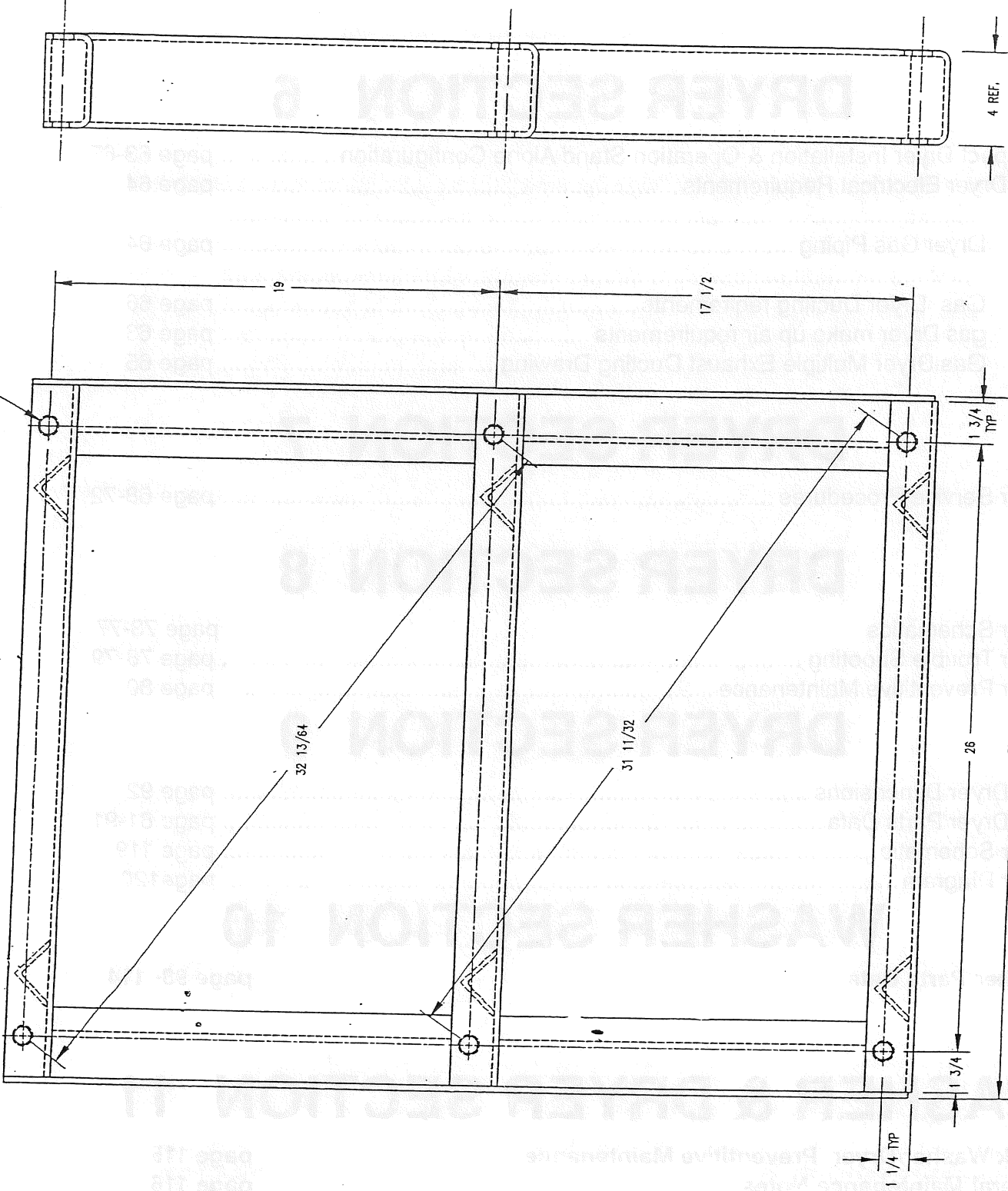
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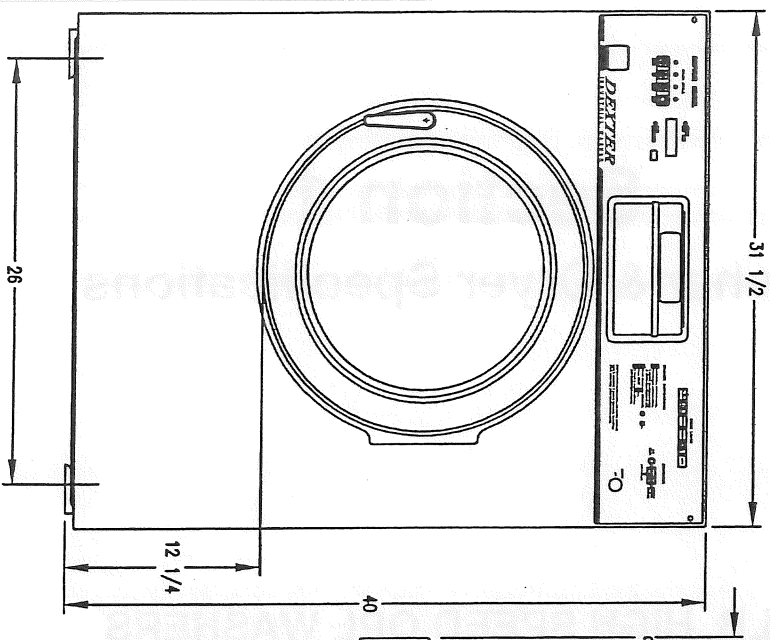
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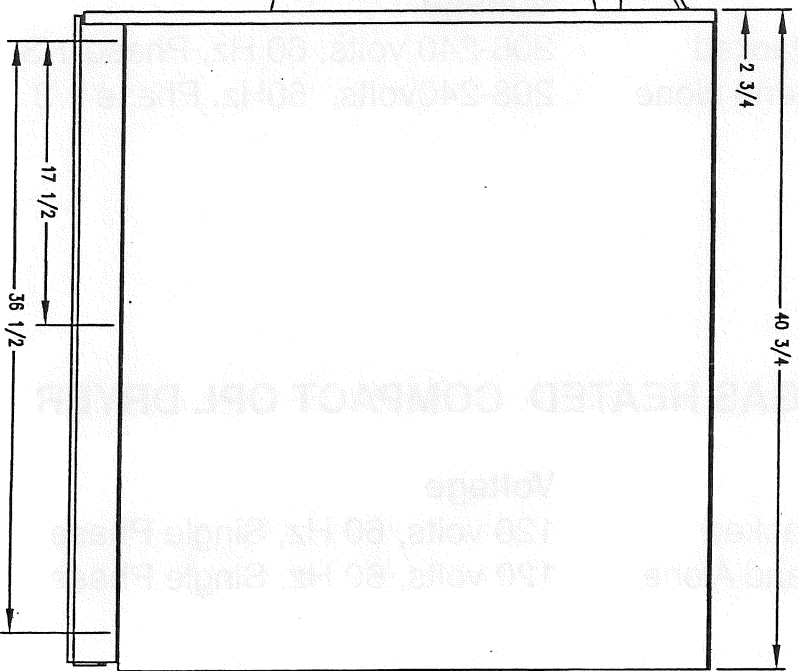
Stack Washer/Dryer Base  
General Specifications  
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Washer Diagrams

# OPL STACK WASHER/DRYER (WASHER HALF) MOUNTING DIMENSIONS

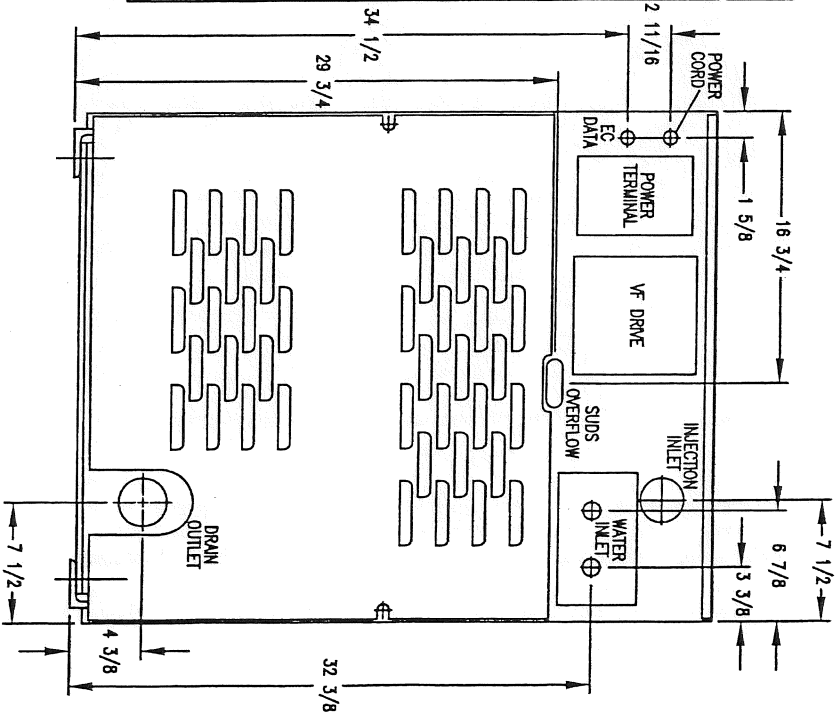
FRONT



SIDE



REAR



# Section 1

## Washer & Dryer Specifications

### 25 LB. HIGH SPEED OPL WASHERS

| Model        |             | Voltage                         |
|--------------|-------------|---------------------------------|
| WSTD25HTS-12 | Stacked     | 208-240 volts, 60 Hz, Phase 1/3 |
| WATD25HTS-12 | Stand alone | 208-240volts, 60Hz. Phase 1/3   |

### 30 LB.GAS HEATED COMPACT OPL DRYER

| Model        |             | Voltage                        |
|--------------|-------------|--------------------------------|
| DSTD30HTS-10 | Stacked     | 120 volts, 60 Hz, Single Phase |
| DATD30HTS-10 | Stand Alone | 120 volts, 60 Hz, Single Phase |

# Gas Heated Compact 30 Lb. OPL Timer Dryer Specifications

MODEL DATD30HT\_  
 GAS  
 NATURAL (SUPPLY LINE) 5"-10" W.C.  
 NATURAL (BURNER MANIFOLD) 3 1/2" W.C.  
 L.P. (SUPPLY LINE) 11"-13.5" W.C.  
 L.P. (BURNER MANIFOLD) 11" W.C.  
 INLET LINE SIZE  
 BTU INPUT / KCAL 80,000 / 20160

THIS MODEL MUST BE SECURED TO AVOID TIPPING AND SERIOUS DAMAGE WITH POSSIBLE INJURY

|  |                 |               |
|--|-----------------|---------------|
| DRY WEIGHT CAPACITY                        | 30 Lb.          | ( 13.5 kg )   |
| BASKET DEPTH                               | 27 1/2"         | ( 69.85 kg )  |
| BASKET DIAMETER                            | 30"             | ( 76.20kg )   |
| BASKET VOLUME                              | 11.25 cubic ft. | ( 318.57dm3 ) |
| DOOR OPENING                               | 22 11/16"       | ( 57.63kg )   |
| OVERALL HEIGHT (with legs)                 | 38.1/2"         | ( 97.79cm )   |
| CABINET WIDTH                              | 31 1/2"         | ( 80.01cm )   |
| OVERALL DEPTH                              | 47 5/16"        | ( 120.17cm )  |
| DOOR HEIGHT (FLOOR TO BOTTOM OF DOOR)      | 7 5/16"         | ( 18.57cm )   |
| NECESSARY SERVICE CLEARANCE BEHIND MACHINE | 18"             | ( 45.72cm )   |

TEMPERATURE CONTROL Mechanically thermostated with 22 amp contact  
 MANUALLY OPERATED Dual timers- 1-Dry time & 1-Cool down time

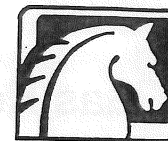
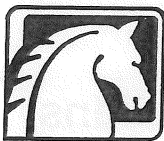
MOTOR & CONTROL ELECTRICAL 120 VOLT / 60 HZ / 1 PHASE  
 MOTOR H.P. 1/2 H.P.  
 BUILT-IN MOTOR PROTECTION CIRCUIT YES  
 CYLINDER ROTATION DIRECTION counter clockwise  
 SPEED (RPM) 47  
 COLORS White (standard) & Stainless Steel (optional)

MAKEUP AIR  
 EACH DRYER (MINIMUM) 1 SQ. FT. ( .093 ) SQ.M Free air no restrictions

TUMBLER AIR FLOW 500 CFM ( 14.16m3/min )  
 EXHAUST OUTLET AIR FLOW 450 CFM ( 12.75m3/min )  
 EXHAUST OUTLET SIZE 6" ( 15.24cm )  
 EXHAUST DUCT MAXIMUM LENGTH  
 with (2 elbows) 14ft. ( 4.26m )

SHIPPING WEIGHT 426lb. ( 192kg )  
 NET WEIGHT 386lb. ( 174kg )

4/02



# Compact OPL Timer Controlled Washer Specifications

**Model**                      **WATDHTS-12**                      **Capacity**                      **25lbs.**                      **11.26kg.**

## Dimensions

|  |         |           |  |         |          |
|--|---------|-----------|--|---------|----------|
| Cylinder Depth                                       | 14 1/4" | 35.9 cm   | Cylinder Diameter                        | 25"     | 63.5 cm  |
| Cylinder Volume (cubic feet)                         | 4.0     | 113.4 dm3 | Door Opening                             | 15 1/4" | 38.74 cm |
| Door Height (floor to bottom of door)                | 12 1/4" | 31.11cm   | Overall Height                           | 40"     | 101.6 cm |
| Cabinet Width  | 31 1/2" | 80.01cm   | Overall Depth                            | 40 3/4" | 103.5 cm |
| Drain Diameter (O.D.)                                | 3"      | 7.62cm    | Drain Height (floor to center of outlet) | 4 3/8"  | 11.15cm  |
| Recommended Clearance Between Machines (minimum)     |         |           |  | 1/2"    | 1.27cm   |
| Necessary Service Clearance Behind Machine (minimum) |         |           |  | 24"     | 60.96cm  |

## Cylinder RPM

|                               |                   |     |                            |         |     |
|-------------------------------|-------------------|-----|----------------------------|---------|-----|
| Tumble Speed                  | 50                | 50  | Intermediate Extract       | 530     | 530 |
| High Extract Speed            | 750               | 750 | High Extract Speed G-Force | 200 "G" |     |
| Cylinder Direction in Extract | counter/clockwise |     | CCW                        |         |     |

## Motor H.P.

Wash (single phase or three phase) 2 - 1.5Kw                      Extract (single phase or three phase) 2 - 1.5Kw

## Amperage (average measured on L1)

Wash (single phase or three phase) 2 - 1.5 Kw                      Extract (single phase or three phase) 2 - 1.5 Kw

## Running Amps (maximum)

Single Phase or Three Phase                      6.5

## Circuit Breaker (amps)

Single Phase or Three Phase                      15                      Built-in Controls  
Circuit Breaker    yes    Built-in Motor Protection    yes

## Voltage

**60 Hz.**                      **50Hz.**  
208-240                      220-240 1 phase only

## Service

Single Phase or three phase                      3 wire + gd                      2 wire + gd.

## Wire Size (min.)

|   |           |                              |                      |
|---|-----------|------------------------------|----------------------|
| Single Phase or three phase                       |           | 12 gauge                     |                      |
| Average Water Usage (Normal Cycle with Full Load) | 39 gal.   | 147.6L                       | Maxi-                |
| mum Hot Water Use (Hot cycle with Full Load)      |           | 15 gal.                      | 56.8L                |
| Recommended Hot Water (degrees)                   | 140F 60C  | Water Pressure (min/max)     | 30-120psi. 207827KPa |
| Water Inlet Size (hose thread)                    | 3/4" 19mm | Water Flow Rate (per minute) | 9 gal. 34.1L         |

## Wash Cycle

Normal Wash (Excluding Fill Time) 4 cycles selectable up to eight baths and pressure switch controlled    Wash  
Temperatures    hot/warm/cold                      Rinse Temperatures (standard cold)(optional warm)  
Seperate chemical injection system electrical connections at rear  
Seperate liquid chemical injection hookup point at rear

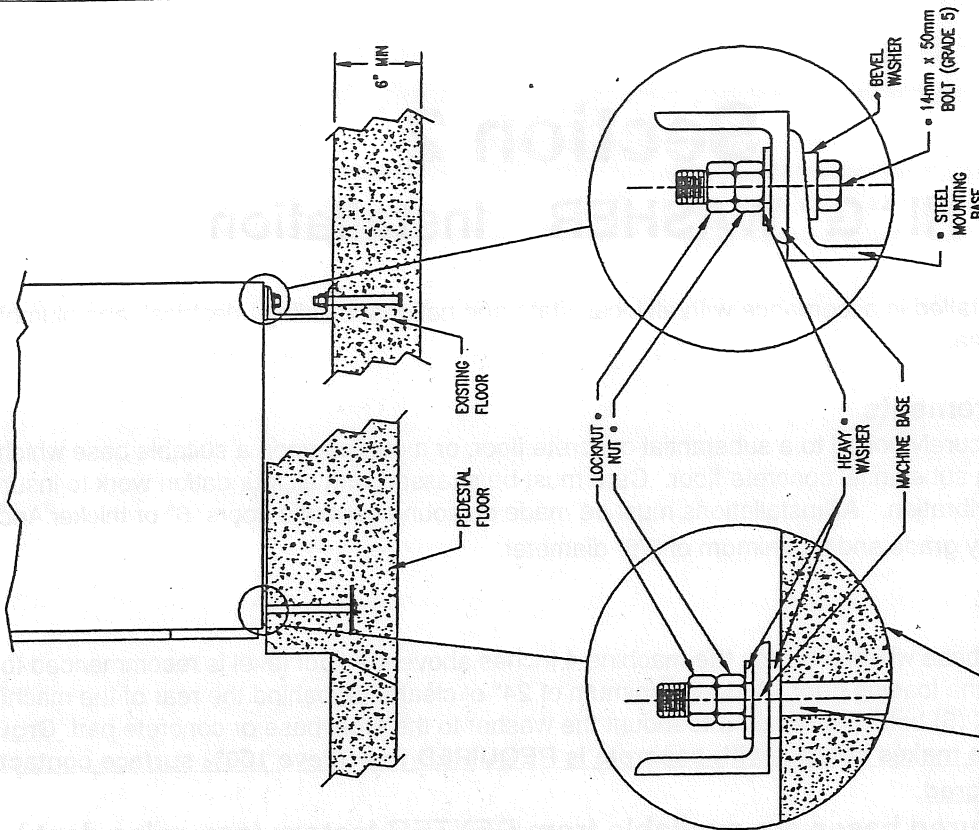
## Mounting Hole Dimensions

|                           |         |         |                                |        |               |
|---------------------------|---------|---------|--------------------------------|--------|---------------|
| Left to Right             | 26"     | 66.04cm | Front of Cabinet to First Hole | 2 3/4" | 6.99cm        |
| First Hole to Second Hole | 17 1/2" | 44.45cm | Second Hole to Third Hole      | 19"    | 48.26cm       |
| Mounting Bolt Diameter    | 5/8"    | 1.58cm  | Hole Diameter in Base          | 3/4"   | 1.91cm        |
| Concrete Thickness (min.) | 6"      | 15.24cm | Recommended Mounting Height    | 4"- 6" | 10.16-15.24cm |

## Weight

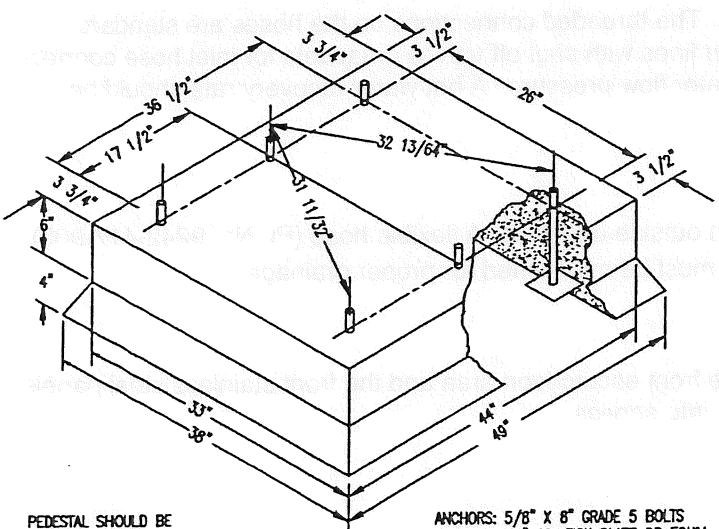
Shipping 496 lb. / 223 kg.                      Net 476 lb. / 214 kg.

SIDE VIEW



- BEVEL WASHER
- 14mm x 50mm BOLT (GRADE 5)
- STEEL MOUNTING BASE
- MACHINE BASE
- HEAVY WASHER
- LOCKNUT
- PEDESTAL MOUNTING (REINFORCED)
- 14mm x 200 GD. S. ANCHOR BOLT W/ 100mm SQUARE FISH PLATE
- NOT FURNISHED WITH MACHINE

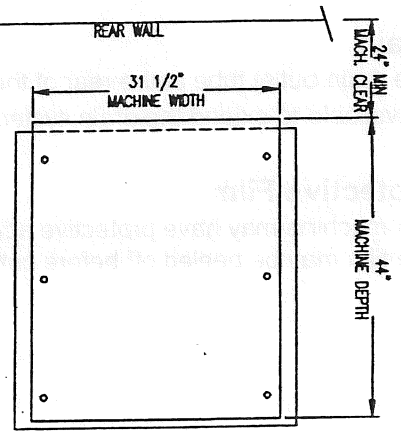
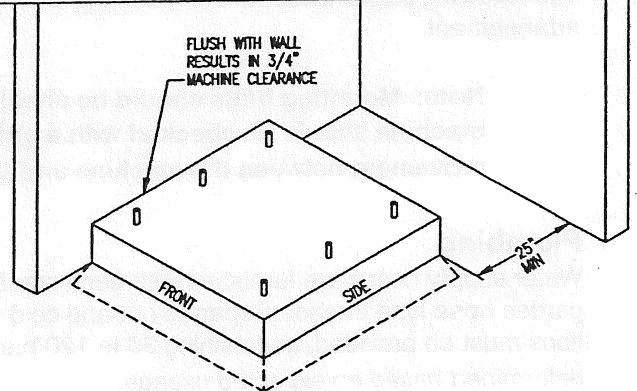
MACHINE MOUNTING DETAIL  
Figure 1-3



PEDESTAL SHOULD BE REINFORCED WITH MESH OR RODS.

ANCHORS: 5/8" X 6" GRADE 5 BOLTS HEADED BY 4" SQ. FISH PLATE OR EQUIV. (1 7/8" BOLT PROTRUSION)

CONCRETE PEDESTAL MOUNTING  
Figure 1-1



FLOOR OUTLINE  
Figure 1-2

# Washer Mounting Specifications

# Section 2

## HI "G" WASHER Installation

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. Anchor bolts must be of a quality grade and a minimum of 5/8" diameter.

### Mounting

A concrete pad or steel base which elevates the machine 4 inches above the floor level is recommended to provide easy access to the loading door. Allow a minimum of 24" of clearance behind the rear of the machine for service as is shown. SIX (6) bolts are required to mount the washer to the steel base or concrete pad. **Grouting where base or machine makes contact with concrete is REQUIRED to achieve 100% surface contact and for warranty to be honored.**

**Note: Premanufactured bases are available from DEXTER factory (see sales dept.)**

### Mounting Holes

The following pages illustrate the mounting dimensions for the machine and also show a typical concrete pad arrangement.

**Note: Mounting bolts should be checked frequently to insure that they remain 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 120 p.s.i. water flow pressure. A hot water recovery rate should be determined based on expected usage.

### Drain

The drain outlet tube at the rear of the machine is 3" in outside diameter. A flexible hose (Pt. No. 9242-417-003) is available to extend the drain system. Adequate fall must be maintained for proper drainage.

### Protective Film

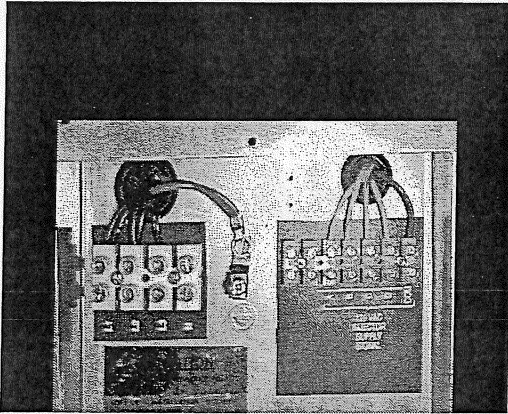
The machine may have protective adhesive film on the front escutcheon area and the front stainless steel panels. The film may be peeled off before putting the machine into service.

# Washer Electrical Connections

Dexter WSTD25 series washers are intended to be permanently installed appliances. The machines should be connected to an individual branch circuit not shared by lighting or other equipment. The electrical connection should be sheathed in water proof 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.

Electrical power connections are made to the terminal block located at the upper right-rear corner of the washer (viewed from front). The terminal block is accessed by removing the cover.

Fusing Requirements: Dual element time delay fuse or equivalent breaker of amperage specified below.



1 Phase/ 3 Phase

15 amp

1 Phase, 208-240 volts, 60 Hz.  
connect L1, L2, and ground

3 Phase, 208-240 volts, 60 Hz.  
connect L1, L2, L3 and ground  
(high leg must go on L3)

A-Prewash Product  
B-Detergent  
C-Bleach  
D-Sour/Softener  
Com-120VAC common  
Suggested Minimum Wire Size --  
12 Ga.

**Always disconnect electrical power to the machine before performing any adjustments or service work. A PROPER GROUND IS NECESSARY FOR PROPER OPERATION OF THIS MACHINE.**

## Liquid Chemical Connection

In the left rear corner of the washer is the chemical injection assembly. This is where all chemical hose connections are made. The chemical hoses should be inserted into the round pvc pipe a minimum of 14" and a maximum of 18" to eliminate chemical buildup in the pipe and/or restrict water flow to the tub.

## Final Check out

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. (ROTATION IS COUNTERCLOCKWISE AS VIEWED FROM FRONT WINDOW IN EXTRACT).

## Controls Transformer

This transformer is mounted at the back of the control trough and steps a range of 208 to 240 volts down to 115 volts for the controls. There are two terminals on the controls transformer for incoming power. One terminal is for 208 to 220 volts and the other is for 221 to 240 volts.

# WARNING

**THESE INSTALLATION AND  
SERVICING INSTRUCTIONS ARE  
FOR USE BY QUALIFIED  
PERSONNEL ONLY. TO AVOID  
INJURY AND ELECTRICAL SHOCK  
DO NOT PERFORM ANY  
SERVICING OTHER THAN THAT  
CONTAINED IN THE OPERATING  
INSTRUCTIONS, UNLESS  
QUALIFIED.**

Always disconnect electrical power to the machine before performing any  
adjustments or service work. A PROPER GROUND IS NECESSARY FOR PROPER  
OPERATION OF THIS MACHINE.

Liquid Chemical Controller  
In the left corner of the water is the chemical injection assembly. This is where all chemical fluid control  
is made. The chemical hose should be inserted into the front eye piece (minimum of 1/2" and 1/4")  
minimum for 20 minutes. Chemical injection is the most common water flow to the air.

Final Check out  
After all wiring, plumbing and electrical work is completed, the water should be put through a cycle and  
checked for water level and proper functioning. PROTECTION IS CRITICAL ORKWISE AS VIEWED FROM  
FRONT WINDOW IN EXTRACT.

Control Transformer  
This transformer is located in the back of the control panel and steps a range of 200 to 240 volts down to 115  
volts for the control. It is one of the primary components for the machine power. One terminal is to  
be 240 volts and the other is 115 volts.

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

# **FOUNDATION REQUIREMENTS**

**WARNING:** This machine is designed for use on or over bare concrete floor - not to be used above combustible flooring. The washer must be securely bolted and grouted to a substantial concrete floor, or mounted upon a suitable base which is, in turn, securely bolted and grouted to a substantial concrete floor.

**CARE MUST BE STRESSED WITH ALL FOUNDATION WORK TO INSURE A STABLE UNIT INSTALLATION, ELIMINATING POSSIBILITIES OF EXCESSIVE VIBRATION.**

All installations must be made on sound concrete floors, 6 inches (152 mm) or thicker. Anchor bolts or expansion anchors must be of a quality grade and a minimum of 5/8 inch (16 mm) diameter.

# Mounting

If an elevated concrete pedestal is desired, it should be embedded into the existing floor. Anchor bolts should be 5/8" x 8" (16 mm x 200 mm), grade 5 or better, headed by a 4 inch (10 cm) square fish plate and should protrude 1 7/8 inches (48 mm) above the finished surface of the pedestal. **EXPANSION ANCHORS ARE NOT RECOMMENDED FOR USE IN CONCRETE PEDESTALS, BECAUSE THE ANCHORS ARE TOO CLOSE TO AN EDGE, CAUSING IT TO BREAK OUT.**

# **MOUNTING**

**A concrete pedestal or steel mounting base which elevates the machine approximately 4 - 10 inches (101-250 mm) above the floor level is recommended to provide easy access to the loading door. Allow a minimum of 24 inches (610mm) of clearance behind the rear of the machine, to provide access for motor removal.**

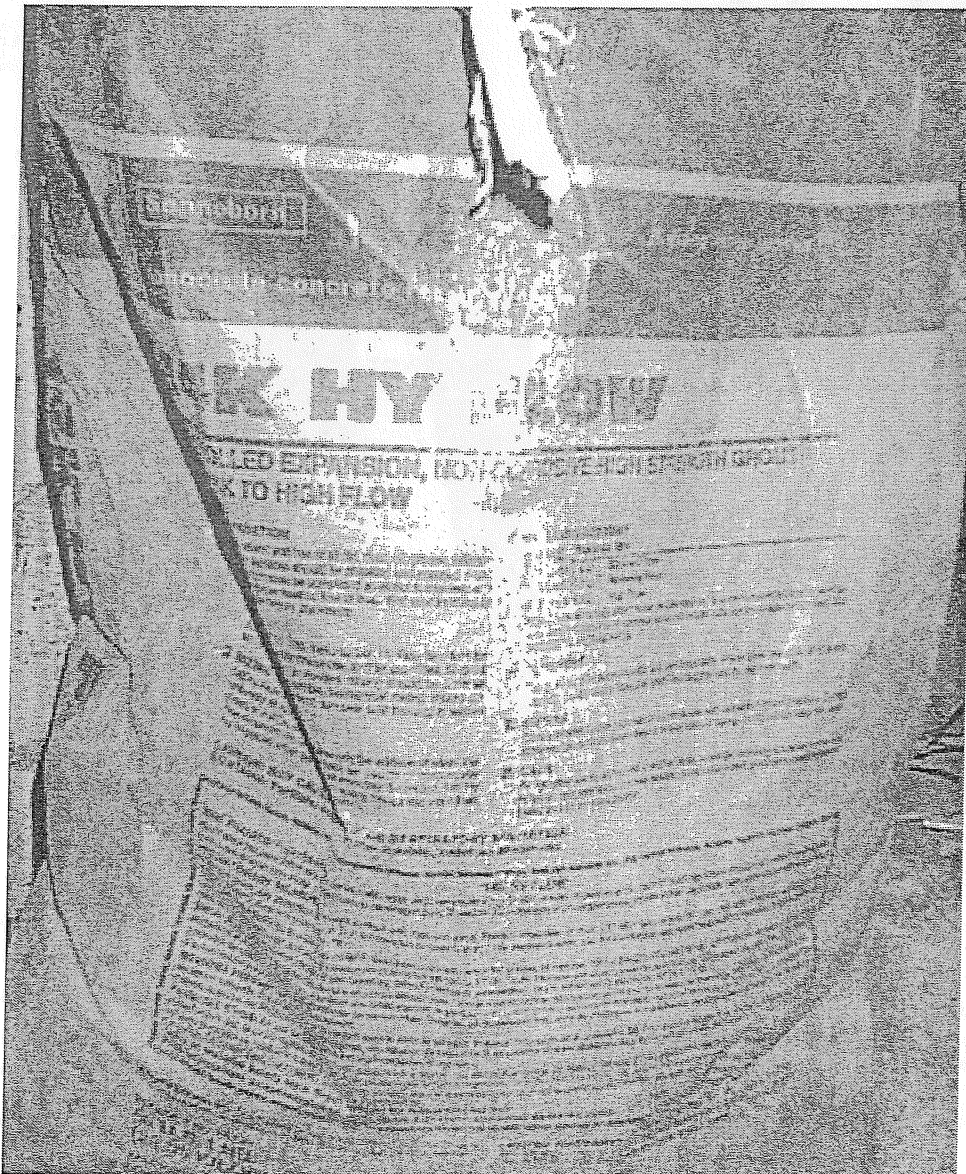
## **Mounting Holes :**

**The following pages illustrate the mounting dimensions for the machine and also show a typical base construction.**

**Note: Mounting bolts should be checked frequently to insure that they remain 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.**

**Grout** should be installed between base (if used) and concrete floor on all side rails and crossmembers. If using a base you must grout between base top and machine frame at all side rails and crossmembers.

**Photo of Dry Expansion Grout Mix with water to a consistency that is easiest to work with.**



# DO NOT GROUT LIKE THIS!!!

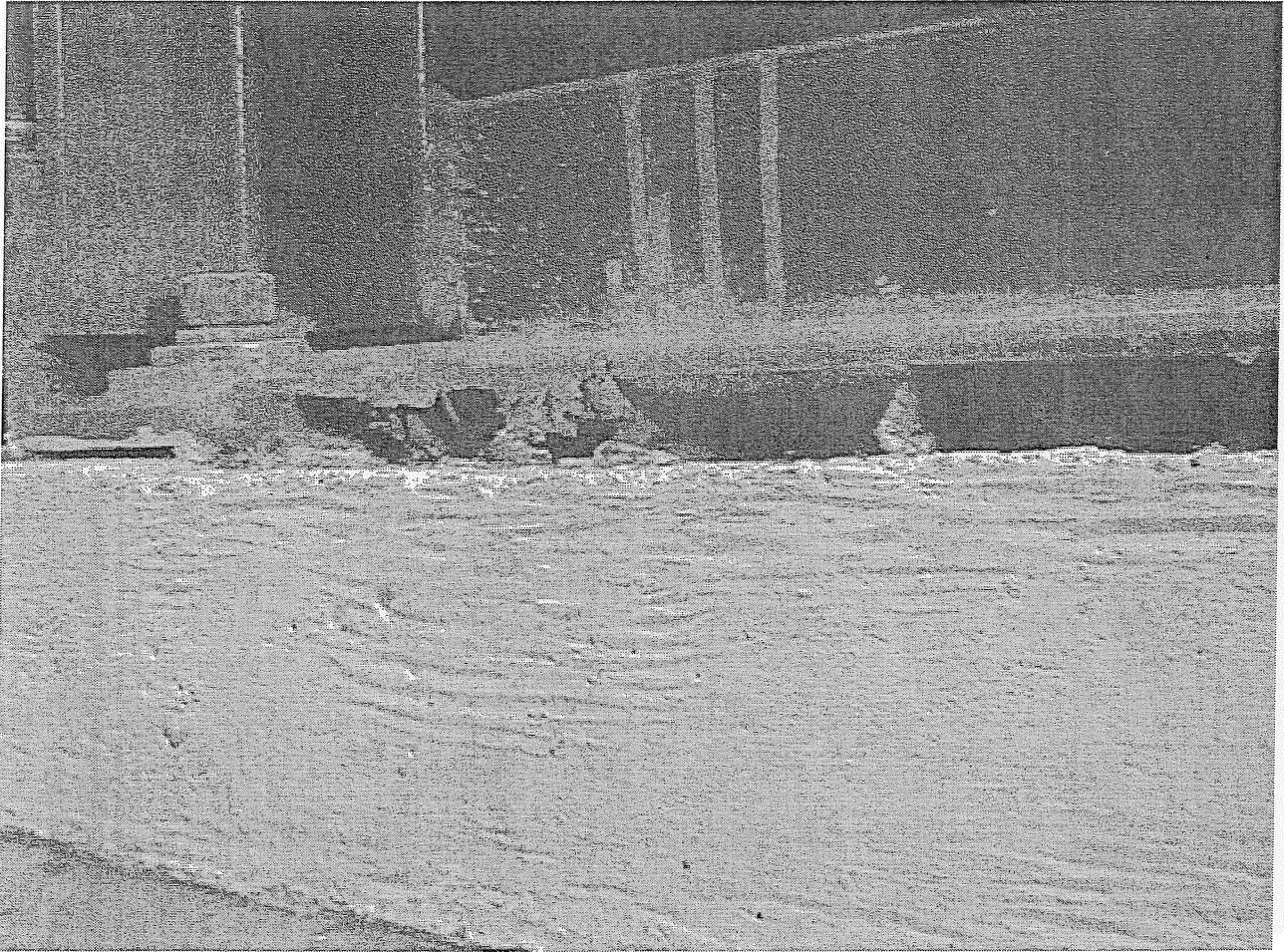
**Grouting fills all gaps and gives 100% surface contact. No frame movement means no frame flexing and no shaking.**



**DO NOT GROUT LIKE THIS!!!**



# DO NOT GROUT LIKE THIS!!!





# Washer Water Temperatures

## OPL Mechanical Timer Washer

### Push Button Temperature Switch

|         | 1 <b>HOT</b> | 2 <b>WARM</b> | 3 <b>WARM</b>   | 4 <b>COLD</b> |
|---------|--------------|---------------|-----------------|---------------|
| Flush   | Warm         | Warm          | Warm            | Cold          |
| Prewash | Warm         | Warm          | Warm            | Cold          |
| Wash    | Hot          | Warm          | Warm            | Cold          |
| Rinse 1 | Hot          | Hot           | Warm (Hot OPT)  | Cold          |
| Rinse 2 | Hot          | Hot           | Warm (Hot OPT)  | Cold          |
| Rinse 3 | Warm         | Warm          | Warm (Cold OPT) | Cold          |
| Rinse 4 | Warm         | Warm          | Warm (Cold OPT) | Cold          |
| Rinse 5 | Warm         | Warm          | Warm (Cold OPT) | Cold          |

#### Options

1. Replace all Hot rinses with Warm rinses by removing brn/red wire from coil of R5 relay and insulate.
2. Push button 3 replace Warm rinse 1 & 2 with Hot by removing black jumper wire between push button 3 and push button 4 and connecting the wht/brn wire (piggybacked on the black jumper) to push button 4 normally open terminal B1.
3. Push button 3 replace Warm rinse 3,4 & 5 with Cold by moving brn/org wire from pushbutton 3 common terminal A2 to push button 3 normally closed terminal C2.

# Cycle Times OPL Mechanical Timer Washer

## Rotary Switch Position

|           | 1       | 2        | 3         | 4          | Chemical Signal | Water Level |
|-----------|---------|----------|-----------|------------|-----------------|-------------|
| Flush     | 3 min.  | 3 min.   | Not used  | Not used   | No              | High        |
| Drain     | 42 sec. | 42 sec.  | Not used  | Not used   |                 |             |
| Prewash   | 3 min.  | 3 min.   | 3 min.    | 3 min.     | Yes—A           | High        |
| Drain     | 42 sec. | 42 sec.  | 42 sec.   | 42 sec.    |                 |             |
| Wash      | 7 min.  | 7 min.   | 7 min.    | 7 min.     | Yes—B           | Low         |
| Drain     | 49 sec. | 49 sec.  | 49 sec.   | 49 sec.    |                 |             |
| Rinse 1   | 2 min.  | Not used | 2 min.    | 2 min.     | No              | High        |
| Drain     | 41 sec. | Not used | 41 sec.   | 41 sec.    |                 |             |
| Rinse 2   | 7 min.  | 7 min.   | 7 min.    | Not used   | Yes—C           | Low         |
| Drain     | 49 sec. | 49 sec.  | 49 sec.   | Not used   |                 |             |
| Rinse 3   | 2 min.  | 2 min.   | 2 min.    | 2 min.     | No              | High        |
| Drain     | 41 sec. | 41 sec.  | 41 sec.   | 41 sec.    |                 |             |
| Int. Spin | 2 min.  | 2 min.   | 2 min.    | 2 min.     |                 |             |
| Rinse 4   | 2 min.  | 2 min.   | 2 min.    | 2 min.     | No              | High        |
| Drain     | 42 sec. | 42 sec.  | 42 sec.   | 42 sec.    |                 |             |
| Rinse 5   | 4 min.  | 4 min.   | 4 min.    | 4 min.     | Yes—D           | Low         |
| Drain     | 41 sec. | 41 sec.  | 41 sec.   | 41 sec.    |                 |             |
| Extract   | 5 min.  | 4 min.   | 5 min.    | 3 1/2 min. |                 |             |
| Tumble    | 37 sec. | 37 sec.  | 37 sec.   | 37 sec.    |                 |             |
| Total *   | 43 min. | 39.5 min | 39.5 min. | 30.5 min.  |                 |             |

\* Cycle times are approximate and do not include fill time from empty to low level.

FLUSHES AND PREWASH MAY BE REMOVED FROM ALL CYCLES BY CONNECTING ORANGE/WHITE WIRE TO TERMINAL #2.

Fill time from low to high level is included as timer operates during this period.

# Wash Formula Switch & Timer Configurations

| Application                               | Formula                                  | Timer          | Rotary                     |
|---|--|----------------|----------------------------|
|   |  |                | Mechanical Switch Position |
| Shirt Laundry                             | Shirts (No Starch)                       | X              | 4 (A)                      |
| oxygen bleach                             | Shirts (Starch)                          | X              | 4 (A)                      |
| Hotel/Motel                               | White Sheets                             | X              | 2 (B)                      |
| chlorine bleach                           | White Pillowcases                        | X              | 1(B)                       |
| White Towels, Bath Mats & Wash Cloths     |  | X3 (B) or 1(B) |                            |
| Colored Sheets & Towels                   |  | X              | 4 (B) or 1(B)              |
|   | Delicate Wash                            | X              | 4 (B)                      |
| Housekeeping Rags & Mops                  |  | X              | 1 (C)                      |
| Housekeeping Uniforms                     |  | X              | 2 (D)                      |
| Stain Treatment                           | No                                       |                |                            |
| Reclaim Part1                             | No                                       |                |                            |
| Part 2                                    | No                                       |                |                            |
| Health Care                               | Sheets & Pillowcases                     | X              | 2                          |
| chlorine bleach                           | Towels                                   | X              | 3 or 1                     |
|   | Diapers & Pads                           | X              | 1 (K)                      |
|   | Personals                                | X              | 4                          |
|   | Delicates                                | X              | 4                          |
| Food & Beverage                           | White (Cotton/Blend) Table Linen         | X              | 3 (E)                      |
| chlorine bleach                           | Colored (Cotton/Blend) Table Linen       | X              | 2 (F)                      |
| White (100% Polyester) Table Linen        |  | X              | 3 (E)                      |
| Colored (100% Polyester) Table Linen      |  | X              | 2 (F)                      |
|   | White Chef Coats                         | X              | 1 (J)                      |
| Kitchen & Maintenance Rags                |  | X              | 1 (G)                      |
| oxygen bleach                             | White/Colored (Cotton/Blend) Table Linen | X              | 3 (H)                      |
| White/Colored (100% Polyester)Table Linen |  | X              | 3 (H)                      |
|   | White Chef Coats                         | X              | 1 (L)                      |
| Kitchen & Maintenance Rags                |  | X              | 1 (M)                      |
| Other                                     | Oxygen Bleach—Terry                      | X              | 1 (N) or 3(P)              |
| oxygen bleach                             | Oxygen Bleach—Terry (No Iron)            | X              | 1 (N) or 3(P)              |
| Open                                      | No                                       |                |                            |

- (A) Switch Position #4 gives 7 minute wash. Flush & Prewash eliminated with jumper (connect orange/white wire to terminal strip #2)
- (B) Flush & Prewash eliminated with jumper (connect orange/white wire to terminal strip #2)
- (C) Switch Position #1 gives 2 flushes/3 rinses after bleach.
- (D) Switch Position #2 gives either 2 or 0 flushes. Flush & Prewash eliminated with jumper (connect orange/white wire to terminal strip #2)
- (E) Switch Position #3 gives 7 minute wash.
- (F) Switch Position #2 gives either 2 or 0 flushes/7 minute wash. Flush & Prewash eliminated with jumper (connect orange/white wire to terminal strip #2)
- (G) Switch Position #1 gives 3 min. flush/3 min. prewash/7 min. wash/5 rinses.
- (H) Switch Position #3 gives 7 minute wash/7 minute 2nd rinse.
- (J) Switch Position #1 gives 3 min. flush/3 min. prewash/7 min. wash.
- (K) Switch Position #1 gives 2 flushes.
- (L) Same as (G) only deletes first Flush

Please refer to OPL Washer CYCLE TIMES charts for all available options.

# Washer Cycle Optional Wiring Connections

## Omit All Flushes and Prewash

1. Remove the clear in-line splice from the end of the orange/white wire. (This wire will be laying loose next to the terminal strip)
2. Connect the orange/white wire to terminal #2 on the terminal strip.

## Omit Hot Rinses on Rinse #1 & #2

1. Remove brown/red wire from coil of R5 relay and insulate wire.

## Omit Rinse #4 ( FROM ALL CYCLES )

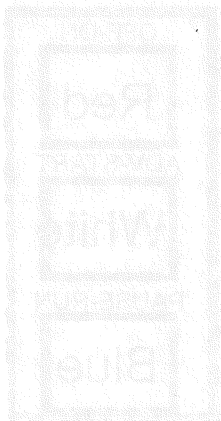
1. Remove the clear in-line splice from the end of the gray wire. (This wire will be laying loose next to the terminal strip)
2. Connect the gray wire to terminal #2 on the terminal strip.

## Add Hot Rinses on Rinse #1 & #2 on Temperature Push Button position #3

1. Remove black jumper from back of temperature switch that connects push button #3 N.O. (B2) to push button #4 N.O. (B1)
2. Move white/brown wire on back of temperature switch to push button #4 N.O. (B1).

## Add Cold Rinses on Rinse #3, #4 & #5 on Temperature Push Button position #3

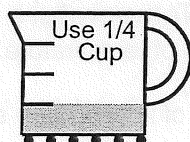
1. Move brown/orange wire from push button #3 Common (A2) to push button #3 N.C. (C2).



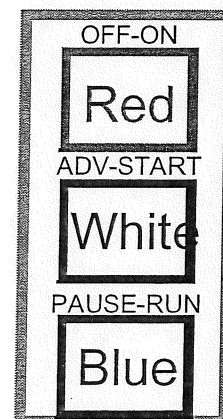
# WASHER OPL TIMER Operating Instructions

## Starting the Washer

- A. Load the clothes in the cylinder and latch the door. Check to insure that clothes do not get caught between the door gasket and the tub front.
- B. Make the appropriate cycle selection for the wash load using the 4-position rotary selector switch.
- C. Make the appropriate temperature selection for the wash load using the 4-push button temperature selector switch.
- D. To manually add wash compounds, pour low-sudsing powdered detergent in the amount shown below into the detergent dispenser in front of the machine. Rinse conditioners may also be added to the dispenser. The correct location is shown on the dispenser lid.



- E. To manually add bleach in Rinse, pour bleach in opening on front dispenser location of washer.
- F. To start the washer:
  1. The top (Off/On) and bottom (Pause/Run) rocker switches must be in the right hand position.
  2. The center (Advance/Start) rocker switch must then be pushed to the right hand position to begin the cycle.
- G. To rapid advance the washer during a cycle, push the center (Advance/Start) rocker switch to the left hand position.
- H. To pause for an extended soak, push the bottom (Pause/Run) rocker switch to the left hand position.
- I. To stop the wash cycle and drain the water, push the top (On/Off) button to the left hand position.



## Safety Door Lock

If power is interrupted the Safety Door Lock delays opening the door until it is safe to do so. If power failure occurs or if power is interrupted during maintenance, it will be necessary to wait 2 to 3 minutes before the door can be opened.

## End of Cycle

When the cycle is completed, the washer will stop, the "on" light will go off, and the loading door will unlock. It 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.

## Motor Drive Indicators

There are indicators on the drive which can be viewed by removing the access cover at the rear of the washer. The RUN indicator will illuminate green when power is applied to the washer. The ALARM indicator will illuminate red when the drive is faulted. Examples of conditions which will cause a drive fault are : undervoltage, overvoltage, overload, overbraking, etc.. Some drive faults can be reset by removing power from the washer for 2 to 5 minutes.

# SECTION 3 Washer Service Procedures

Before performing any service work, remove electrical power from the machine.  
Always replace panels before putting machine into service.

## Detergent Dispenser

Detergent is flushed from the front left of the compartment and fabric softener is flushed from the right side. There will be a small amount of water left in the fabric softener compartment after each use. This is normal.

## Vacuum Breaker

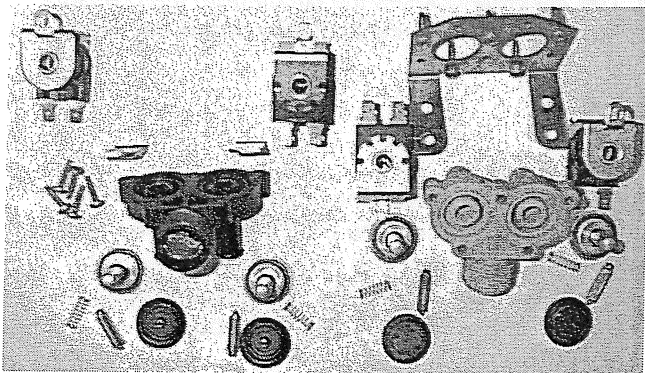
In the left rear of the cabinet is the vacuum breaker. It guides the water to the tub and dispenser and prevents a back flow of water.

## Chemical Injection Assembly

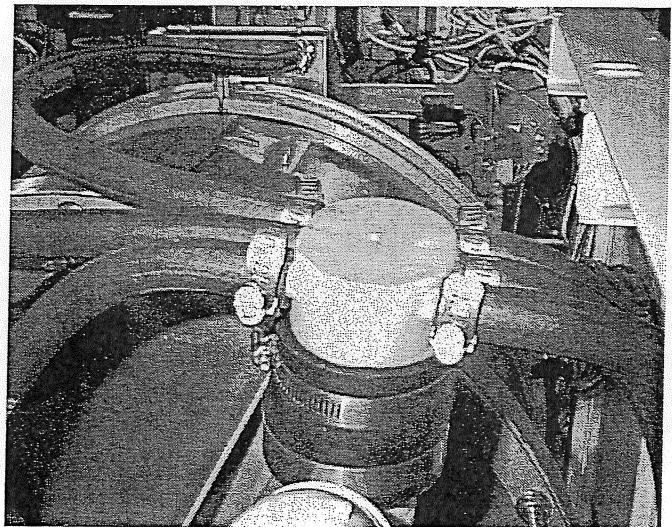
In the left rear corner of the washer is the chemical injection assembly. This is where all chemical hose connections are made.

## Water Valves

Remove back panel to access water valves. The two dual outlet water valves are mounted to the rear panel with two screws each. The hot water valve is black in color designating that it is for higher temperature hot water. The cold valve is blue in color designating that it is for lower temperature cold water. Always check inlet screens to be sure that they are clean. Disassembly requires the removal of two solenoid screws and three valve body screws. Below the solenoid coil is a solenoid guide, armature, armature spring and diaphragm. All valve parts are available individually or as a complete unit.



WATER VALVE



VACUUM BREAKER

## **Circuit Breaker**

The circuit breaker mounts to the rear channel. It protects all of the controls in the machine but does not include the motor. To reset the circuit breaker just push in the button.

## **Control Mounting Trough**

Remove rear panel to access control trough. It sets on the right side of the machine and holds many of the controls.

## **Reversing Timer**

The reversing timer operates the wash and spin relays and is mounted on the left side of the control trough with two screws. It has three cam operated switches. Two switches operate the wash cycle by alternately engaging the wash relays to tumble counter clockwise for 19 seconds, stop for 3 seconds, reverse direction and tumble clockwise for 19 seconds. The third switch engages the spin relay for the high speed spin portion of the cycle.

## **R1 Run Relay**

The R1 Run Relay is a small relay that is mounted directly behind the R2 intermediate extract relay. The 120VAC coil on the Run Relay is energized any time that the timer is in the run position and the door is locked. When energized, the Run Relay provides 24VDC to the reversing timer for wash and to the R2 intermediate extract relay for spin.

## **R2 Spin Motor Relay (Intermediate Extract Relay)**

The R2 Spin Motor Relay is the large relay that mounts in the center of the control trough. The 120VAC coil on the R2 Relay is energized any time that the timer is in the spin position. 24VDC is provided from the +24 terminal of the Variable Frequency Drive through the R1 Run Relay to the R2 Relay. When energized, the R2 Relay provides 24VDC to terminals S1 & S2 on the Drive and the washer spins at intermediate speed.

## **R3 Extract Relay (High Speed Extract Relay)**

The R3 Extract Relay is a small relay that is mounted directly behind the R1 run relay. The Main Timer provides 120VAC to the R3 Extract Relay coil. When this relay closes it provides 24VDC to the S3 terminal on the Variable Frequency Drive. This relay combined with the R2 Spin Motor Relay powers all 3 terminals S1, S2 & S3 on the Variable Frequency Drive for high spin.

## **R4 High Water Level Relay**

The R4 High Water Level Relay is a small relay that is mounted directly behind the R3 extract relay. The Main Timer provides 120VAC to the R4 High Water Level Relay coil. The R4 Relay closes the circuit from the pressure switch coming out of the high level contacts for the various high level baths in the cycle. It also opens the circuit coming out of the low level contacts.

## **Program Timer**

This timer is located in the center side of the control trough directly behind the reversing timer and is held in place with two screws. It controls most machine functions. There are two drive motors on the program timer. The one towards the front of the machine advances the timer at the beginning of the cycle. The timer motor towards the rear drives the timer throughout the cycle. These two motors can be replaced individually. The program timer has a black knob that allows the timer to be manually turned to any portion of the cycle for diagnostic purposes.

## Controls Transformer

This transformer is mounted at the back of the control trough and steps a range of 208 to 240 volts down to 115 volts for the controls. There are two terminals on the controls transformer for incoming power. One terminal is for 208 to 220 volts and the other is for 221 to 240 volts.

**Note: All 60 Hz. 25lb. stackwashers have a controls transformer. Always check the incoming voltage and use the appropriate transformer terminal when installing these washers.**

## Pressure Switch (Dual Level)

The pressure switch sets the water level in the washer and is located in the rear corner of the control trough. As the water level rises, it compresses the air in the pressure switch hose. When the washer reaches the desired water level, the compressed air in the pressure switch hose opens the contacts in the switch, shutting off the water. When at the empty level, the pressure switch contacts are closed allowing the machine to either spin or fill with water. At low level the water will be approximately 1/2" up from the bottom of the door glass. On high level the water will be approximately 3"-4" up from the bottom of the door. The pressure switch is sealed and is not adjustable.

## Power Connection Terminal Blocks

These terminal blocks set in the right rear corner of the washer and are accessed from the back. Incoming power to the washer and all electrical signals for chemicals should connect here. (See Electrical under Installation and Operation Section for exact connections)

## Cycle Indicator Lights

The 120VAC indicator lights are mounted to the control panel and are held in place with two tabs. They are removed by squeezing the tabs with a screw driver. The lights are replaced as a complete unit.

## Temperature Selector Switch

The push-button temperature selector switch is mounted on the left side of the control panel and is held in place with two nuts. It allows the selection of hot, warm or cold water temperatures.

**Note: Do not over tighten on reinstallation as the switch can be damaged.**

## Cycle Selector Switch

The rotary cycle selector switch is mounted to the right of the temperature selector switch and is held in place with 2 phillips screws. It allows the selection of 4 different wash cycles.

## Rocker Switches

These switches can be replaced individually by squeezing the tabs on the back side and pressing them out the front of the panel.

- A. Top switch is red and controls Off and On. This switch must be in the on position for the washer to operate. The off position will cause the washer to stop in the cycle and drain the water.
- B. Middle switch is white and controls Advance and Start. This switch must be held in the start position momentarily to start a cycle. Wash and rinse baths can be advanced through by holding the switch in the advance position.
- C. Bottom switch is blue and controls Pause and Run. This switch must be in the run position for the washer to advance through the cycle. The washer can be stalled at any point during the cycle for extended soaks by selecting pause. The door will remain locked and the drain valve will remain closed keeping the water in the tub.

## Drain Valve

The drain valve is a ball type and is powered closed by the drain valve motor. It is mounted under the washer tub on the left side. It is spring loaded open. If power is interrupted to the washer, the motor releases the sealing ball, allowing the drive spring to open the valve. With the valve open, all water in the washer will drain out.

## Service

For access to drain valve, remove front panel.

## Cleaning

- A. Loosen the clamp on the tub hose at the drain valve end and remove the hose from the drain valve.
- B. Loosen the drain hose clamp on the back of the drain valve.
- C. Remove two drain valve mounting bracket screws from the frame of the washer.
- D. Remove the drain valve and bracket assembly.
- E. Unplug the wiring after the drain valve is removed from the washer.

## Front Panel Removal

- A. Remove Torx T-20 screws on front panel.

## Masking Ring (door lock cover) Removal

- A. Remove front panel.
- B. Remove nuts that retain masking ring.
- C. Move it to the left and off.

## Door Locking Solenoid

The door locking solenoid is powered shut with control voltage to lock the door and releases when voltage is removed. It is located in the left front corner of the washer.

## Thermoactuators

The thermoactuators are a safety device that keeps the door from immediately unlocking if power is lost while the machine is operating. They are mounted under the door locking solenoid.

## Lock Thermoactuator

Control voltage is applied to the lock thermoactuator at the beginning of the cycle making it extend and block the door locking solenoid. This keeps the door locked for approximately two minutes after a power failure occurs. The lock thermoactuator does not delay the door opening at the end of a normal cycle.

## Unlock Thermoactuator

To insure that the lock thermoactuator has retracted by the end of the cycle, one minute prior to the end of the cycle, the unlock thermoactuator is powered with control voltage making it extend and unblock the door locking solenoid.

## Door Lock Assembly

After removing the front panel and trim ring, the door lock assembly can now be accessed.

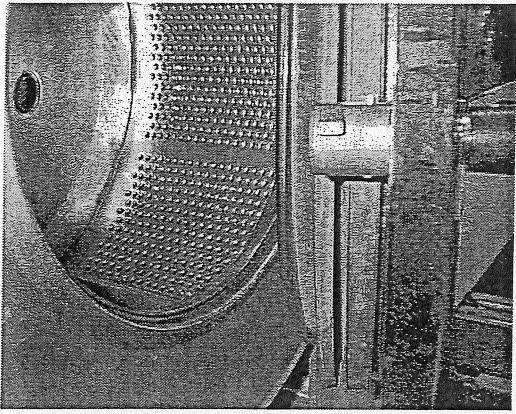
### Operation

After loading the clothing, the door should be closed and latched. The locking cam on the door contacts the latching switch actuator which closes the latching switch. The specified number of coins should now be added to start the washer. This satisfies the coin accumulator which powers the timer rapid advance motor. A timer contact provides power to the latching switch and with the door latched, the power travels through the latching switch to the door lock solenoid. This solenoid pulls up on the locking pawl by use of a linkage rod. The locking pawl has two jobs. The first is to lock the door. This is accomplished by blocking the locking cam on the door so that it can't rotate to unlock. The second job is to close the two piggyback lock sensing switches. These switches control power to all of the controls. If the door unlocks for any reason, these two switches will stop the machine. When the door handle is 1/4 to 1/2 of an inch from its fully closed position, the latching switch should close. The two piggyback lock sensing switches should be open when the door is unlocked and should be closed when the door is locked.

## Adjustment

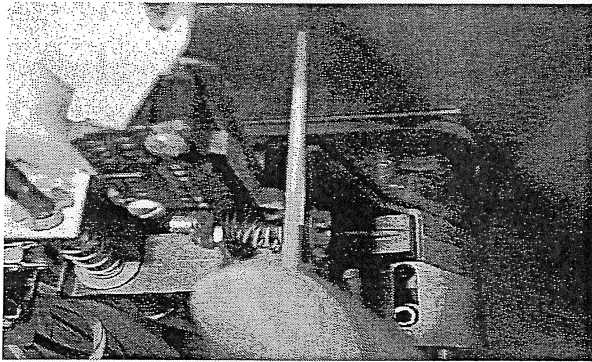
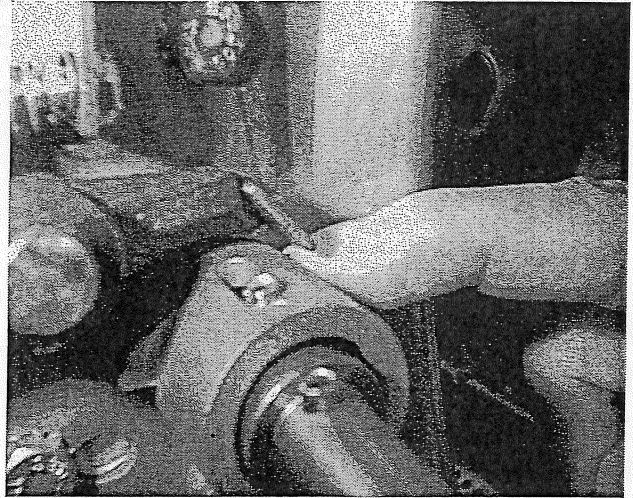
The latching switch and the piggyback lock sensing switches all have slotted mounting for easy adjustment.

1. Set door cam over pin.
2. Tighten spring screw on switch actuator arm until it just clears cam OD. ( Note : Spring screw will have approx. 1/8" thread exposed at end beyond nut.)
3. Set .040 thickness gage between arm and latch switch operator.
4. Swivel switch until it clicks closed. Back it up just until it clicks for a reset. Tighten in that position. Check again for close and rest with gage in place. Remove gage.
5. Check for switch actuation at partial turn of cam as in operation above.
6. Check that lock arm swings by cam lobe to lock position when switch just clicks.
7. Check when door is closed and in locked position and door solenoid is engaged and pawl is in the fully raised position that the piggyback switch actuator for the lock sensing switches is closed and the switch actuator is not touching the switch body but no more than .035 away.



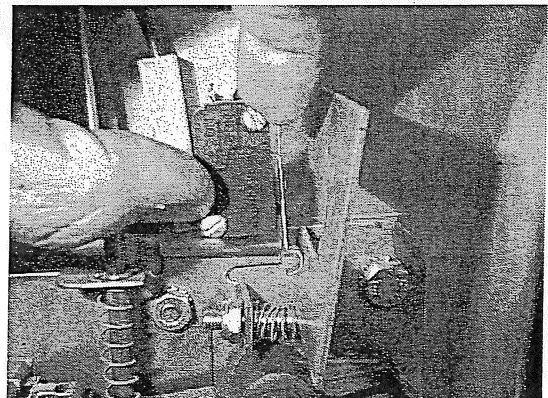
**PHOTO # 1 SHOWS THE  
DOOR CAM AWAY FROM  
DOOR LOCK ASSEMBLY**

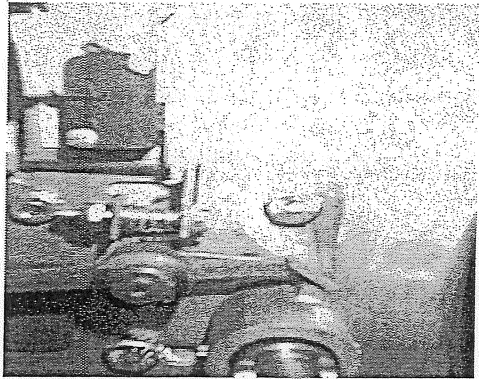
**PHOTO # 2  
SHOWS WHERE YOU  
WANT CLEARANCE**



**PHOTO # 3 SHOWS  
GUAGE IN PLACE  
FOR ADJUSTMENT**

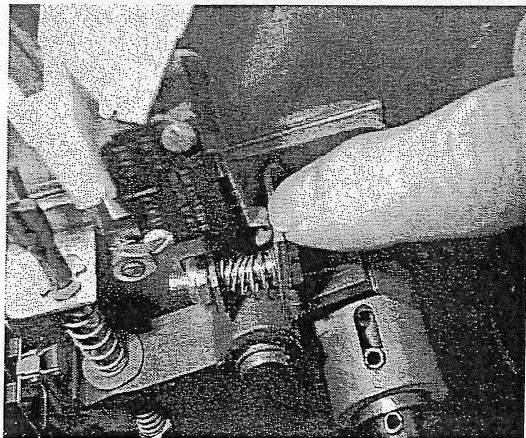
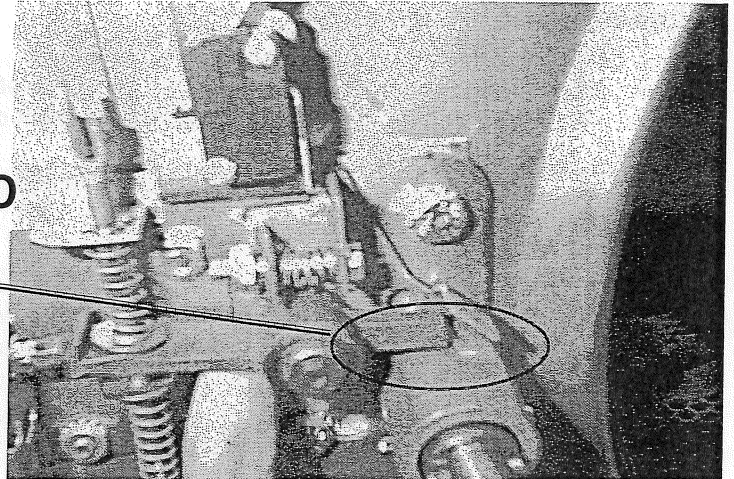
**PHOTO #4  
SHOWS SWITCH SWIVELLING FOR  
ADJUSTMENT WITH GUAGE IN.**





**PHOTO # 5**  
**SHOWS AREA WHERE CONTACT**  
**SHOULD BE MADE.**

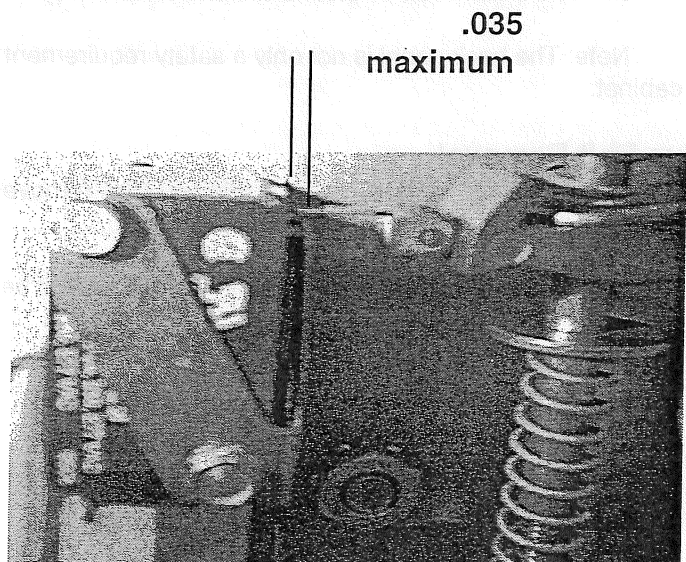
**PHOTO # 6**  
**SHOWS LOCK ARM ENGAGED**



**PHOTO #7**  
**JUST TO SHOW WITHOUT**  
**GUAGE IN PLACE.**

**Photo #8**

**GAP REQUIRED AT PIGGY-**  
**BACK SWITCH ACTUATOR**  
**(NOT TOUCHING SWITCH**  
**BUT NO MORE THAN .035**  
**MAX.**



## Loading Door Removal

- A. Support door to prevent dropping.
- B. Remove 3 bolts holding hinge retainer and set door off.

## Loading Door Disassembly

- A. Remove the loading door as outlined above.
- B. Lay the door on a flat surface with the glass down.
- C. While holding down on the door glass, lift up on the door ring and roll back the lip of the gasket with your fingers.
- D. Work all the way around the gasket and the glass is out.

## Loading Door Reassembly

- A. Lay the door ring face down on a flat surface.
- B. Start the glass into one side of the door gasket.
- C. Use one hand underneath to push the gasket out and the other hand on the top pulling the gasket in place.
- D. The front lip of the door gasket should be checked for proper seating.

## Loading Door Adjustment

The door can be adjusted by changing the number of shims behind the door hinge and the door lock assembly. The vertical fit of the door to the tub can be altered by loosening the door hinge bolts and raising or lowering the door before retightening. It is important for the door to be centered on the tub front. By chalking the nose of the tub and closing the door to transfer that line to the gasket, the centering can be evaluated. It is also important for door pressure to be similar around the door perimeter. Door pressure can be evaluated by inserting a dollar bill in several positions and tugging on it. See Parts Section for kit to increase door sealing pressure.

## Loading Door Hinge Removal

- 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.

NOTE: Door hinge mounting bolts penetrate tub front and require silicone sealer applied to holes when reinstalling.

## Back Panel Removal

- A. Remove all screws holding back panel in position except the bottom row.
- B. The bottom row of screws are slotted and only need to be loosened and the panel will lift off.

Note: The back panel is not only a safety requirement but also contributes to the rigidity of the cabinet.

## Drive Belt Removal

Turn the drive belts off the basket pulley first and then remove from the motor pulley. Reverse this procedure for installation.

Note: The WSTD25 has two drive belts that should be replaced in pairs.

## Drive Motor

Refer to Motor Nameplate for horse power and amperage draw on motors.

### Removal

- A. Remove the drive belt as explained above.
- B. Remove the tension spring and bracket.
- C. Disconnect the motor wires in the control area at the rear of the machine. The motor wire retaining clamp should be removed and reused. There is a diagram showing where each motor wire plugs in so there is no need to mark them.
- D. Loosen the set screws on the motor support shaft.
- E. Remove the retaining bolt from the front of the support shaft.
- F. Remove the motor support shaft.
- G. Lift motor out of machine.

**Note:** It is advisable to put a board under the motor and slide it out rather than lifting it.

## Control Panel Name Plate

The name plate on washer front is adhesive backed.

### Removal

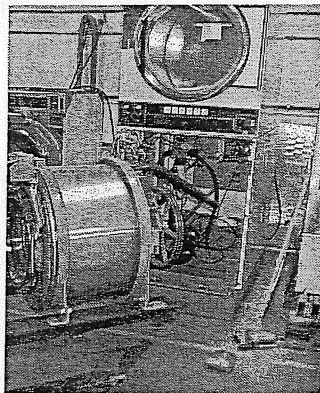
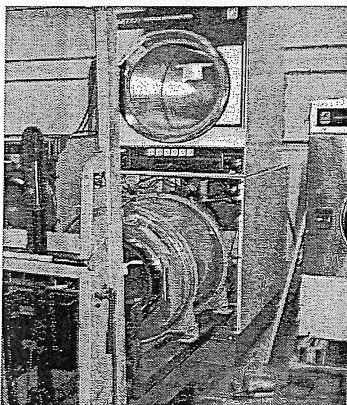
- A. The name plate may be removed by simply peeling it off.

### Installation

- A. Remove any remaining glue from the control panel.
- B. Before removing the paper backing from the name plate, check fit to the control panel.
- C. Remove the paper backing from the right side of the name plate, position it on the panel and press right end into place, then peel the backing from the left end and press into place.

## Removing the washer tub assembly from the washer frame

- C. Remove the left and right lower front panel screws that retain the panel to the chassis.
- A. Remove the Drain Hose from the bottom of tub assembly.
- C. Remove Overflow and Tub vent hoses at rear tub back.
- D. Remove the pressure switch hose from the bottom of the switch.
- H. Disconnect the door lock wires from all switches and the door lock solenoid. The following illustration of their locations should be consulted.
- I. Disconnect pull rod between solenoid and door lock assembly.
- J. Disconnect the wires to the drain valve at the bottom of the machine.
- E. Remove 4 (four) bolts at outer tub and slide complete assembly out front . (Note: very heavy, use appropriate devices )



## Basket Pulley

The cast iron basket pulley is retained by a bolt, locking washer and a flat washer.

### Removal

- A. Insert a large screw driver or punch through a spoke in the pulley into the bearing housing support. This keeps the pulley from turning.
- B. Remove the retaining bolt, lockwasher and flat washer and reinstall just the bolt.
- C. Use a puller (Grip-O-Matic #1038 for 25 lb washer ) to remove the pulley from the shaft.

### Reassembly

- A. Make sure that the tolerance ring is in place inside the pulley.
- B. The shoulder inside the pulley that holds the tolerance ring should face the back of the washer when installed correctly.
- C. Use a stack of flat washers and a longer bolt to press the pulley onto the basket shaft.
- D. Reinstall the retaining bolt, lock washer and flat washer. The shaft end bolt with washer should be installed with a torque of 45 ft/lbs.

## Bearing Housing, Water Seals and Tub Back

### Removal From Basket Shaft

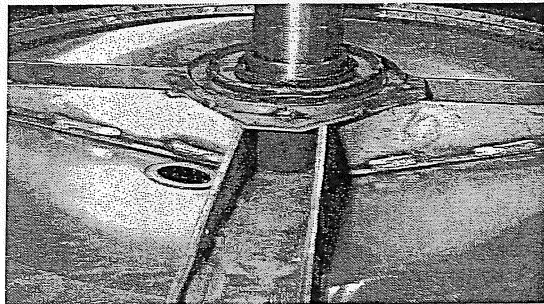
- A. Remove assembly from washer (see Tub Back, Bearing and Cylinder (basket) Assembly removal).
- B. Remove basket pulley (see Basket Pulley removal above).
- C. It is necessary to use a puller (Grip-O-Matic #1038 for 25 lb washer ) to remove the bearing housing assembly from the cylinder shaft. There is a flange on the bearing housing that should be used with this three armed puller.

### Disassembly

- A. To remove the tub back assembly, the 6 bolts attaching it to the bearing housing must be removed.
- B. Remove water seals from the seal mounting plate on the cylinder shaft. These are removed with your fingers.
- C. The retaining ring next to the front bearing must also be removed.
- D. The bearings are pressed into the housing and must be pressed back out.

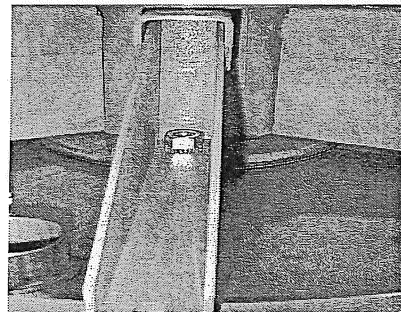
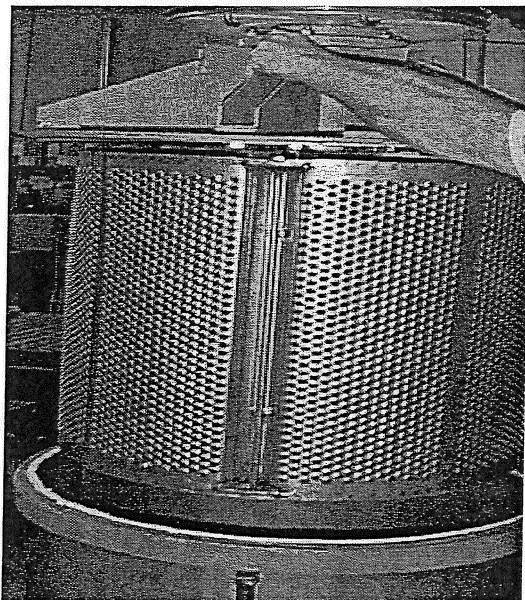
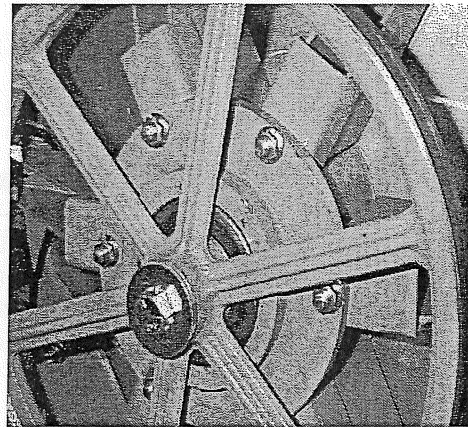
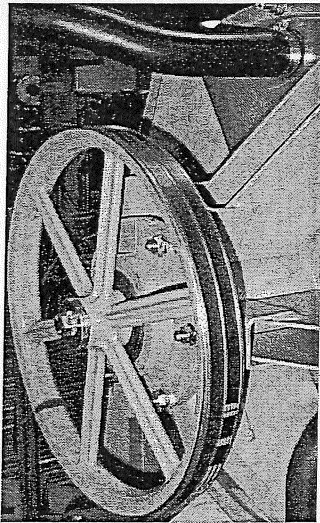
### Reassembly

- A. When 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 (see picture).
- B. The tub back assembly should be reattached to the bearing housing with the 6 mounting bolts and torqued according to the torque chart.



## Bolt Torque Chart

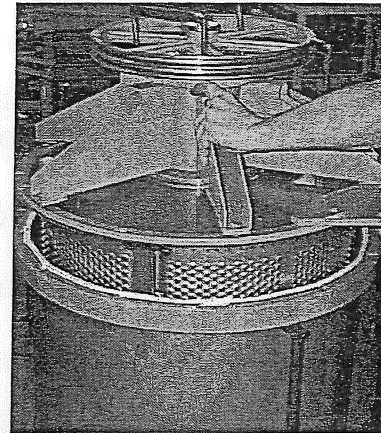
| Bolt Size          | Where Used                   | Part number  | Qty. | Torque         |
|--------------------|------------------------------|--------------|------|----------------|
| 5/8"x 1 1/2" bolt  | Tub End of Bearing Hsing.    | 9545-060-001 | 6    | 120-150 ft/lbs |
|                    | Tub Assembly to Base Frame   | 9545-060-001 | 4    |                |
| 7/16"x 2" bolt     | Tub Back Ring to Tub Back    | 9545-059-002 | 12   | 100-125 ft/lbs |
| 7/16"x 1 1/2" bolt | Pulley End of Bearing Hsing. | 9545-059-003 | 6    | 100-125 ft/lbs |
| 5/8"x 1 1/2" bolt  | Basket Pulley to Shaft       | 9545-060-001 | 1    | 100-125 ft/lbs |



## Tub Back, Bearing and Cylinder (basket) Assembly

### Removal

- A. Remove the top and back panel as described previously.
- B. Move the rear channel, that the water valves mount to, forward by removing the five mounting screws.
- C. Remove the drive belt.
- D. Remove the overflow hose, tub fill hose and pressure switch hose from the back of the tub.
- E.. Mark the tub back and bearing assembly for ease in assembly later. (see picture)
- F. Remove the 12 bolts and nuts from the perimeter of the tub back clamp ring. Two of the twelve bolts are longer and go through the thicker part of the brace where it connects to the frame.
- G. Remove the 2 bolts that fasten the clamp ring to the frame.
- H. The entire tub back and cylinder assembly may be lifted 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.



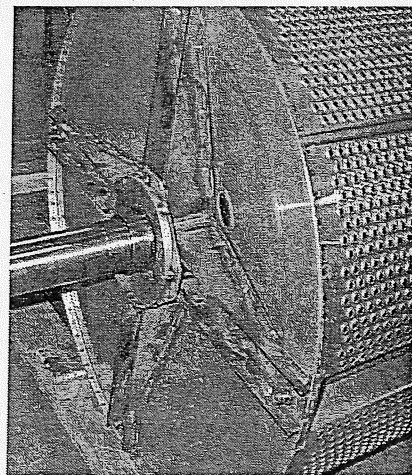
### Reassembly

Reverse the procedures above paying attention to the following areas

- A. Lay the washer on its front.

Note: Put a thick pad across the front of the washer, above the door, to protect the door handle and coin acceptor.

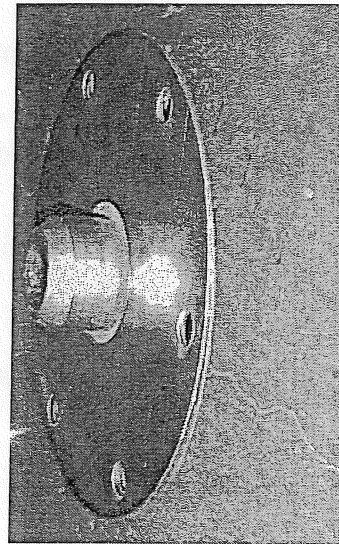
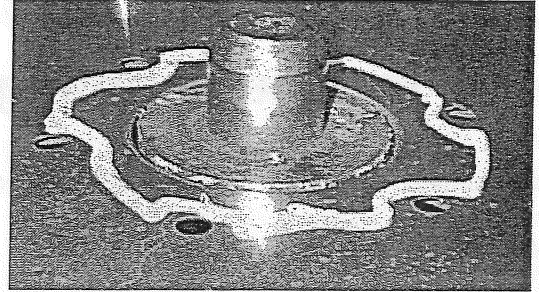
- B. Make sure the bearing housing weep holes are located at 12 o'clock and 6 o'clock.
- C. Clean the silicone rubber from the back of the outer tub and the perimeter of the tub back where the two meet. There is no gasket in this area.
- D. Apply a new bead of silicone rubber around the back of the outer tub. (see picture)
- E. Lower the tub back, bearing and cylinder assembly into the washer outer tub. (see picture top of next page)
- F. Torque all bolts according to the following chart.



**Note: The bead of silicone that seals each bolt to the tub back. This must be cleaned and replaced upon reassembly (see picture).**

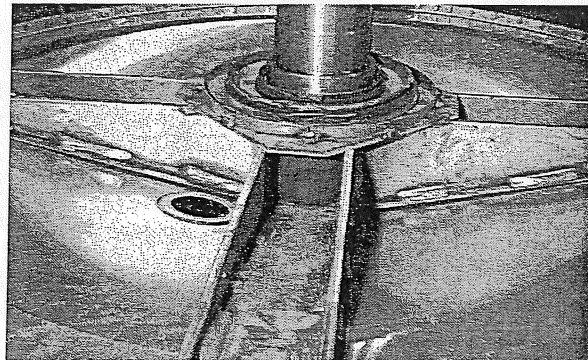
If the 6 support assemblies have been removed from the bearing housing, the 6 rear bearing housing bolts should be torqued according to the chart also.

- C. The primary and secondary seals that mount on the sealing ring may be slid over the shaft and seated on the metal sealing ring. 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. The 25 lb ring must be pushed against the stop on the shaft. Before installing the new sealing ring, a bead of silicone should be put on the basket shaft (see picture). After installing the seals, lubricate the faces of the seals with silicone grease (see picture).



#### **Reinstallation onto Basket Shaft**

- A. Carefully set the assembly over the shaft engaging the bearings and bearing spacer.
- B. The tolerance ring that fits inside the pulley should be placed in position (see Basket Pulley Reassembly for correct positioning).
- C. The pulley should then be started onto the shaft. A stack of flat washers and a longer pulley bolt will be required to pull the basket shaft through the bearings and pulley.
- D. Install the shaft end bolt with washers and torque to specifications in Bolt Torque Chart.
- E. See Tub Back, Bearing and Cylinder Assembly for installation of complete assembly back into washer.



# OPL TIMER

## Trouble Shooting Compact 25 Lb. Washer,

| Symptom                | Probable Cause             | Suggested Remedy   |
|------------------------|----------------------------|--|
| Machine does not start | Power Supply               | Check these areas: Circuit breakers, Voltage, Power leads, Power connections   |
|                        | "Start" Switch             | When actuated there must be continuity through the contacts on the start switch.   |
|                        | "Pause-Run" Switch         | Must be in "Run" position and should have continuity through the switch.   |
|                        | "Off-On" Switch            | Check for continuity in "On" position. If no continuity, replace switch.   |
|                        | Door Switch                | Check for continuity through door switch when door closed. If no continuity, adjust or replace switch.   |
|                        | Control Breaker            | Check 1.5 amp breaker for continuity. If no continuity, replace breaker.   |
|                        | Timer                      | Check to insure that the timer is in the "off" position to supply 120VAC through the "Start" cam to the start switch.  |
|                        | Timer, Rapid Advance Motor | Check the rapid advance motor for continuity and replace if no continuity.   |
| Door does not lock     | Control Transformer        | Check voltage output from control transformer for 120VAC. If voltage is incorrect, replace transformer.  |
|                        | Timer Position             | The following sequence must have taken place to advance the timer before the door locks.<br><ol style="list-style-type: none"> <li>1. Loading door closed.</li> <li>2. Timer initially in "Off" position.</li> <li>3. Pause-Run in "Run" position.</li> <li>4. Off-On in "On" position.</li> <li>5. Push Start button.</li> <li>6. Timer advances to "On" position.</li> </ol> |
|                        | Door locking solenoid      | Check to insure that solenoid is receiving 120VAC. If it is, replace solenoid.   |
|                        | Door Switch                | Check for continuity through door latch switch when door is closed. If no continuity, adjust or replace door switch.   |

| Symptom  | Probable Cause                          | Suggested Remedy   |
|--|---|--|
| Door will not open<br><br>voltage at the correct times, change | Thermoactuator                          | Check to see if thermoactuator(s) and/or its mechanism is stuck or binding and not allowing the door lock solenoid to open. Check to be sure that the locking thermoactuator is not receiving 120VAC during the last 1 1/2 minutes of the cycle. Also check to see that the unlocking thermoactuator is receiving 120VAC during the last minute of the cycle. If the thermoactuators do not receive the timer. If the timing and voltage is correct, replace the thermoactuator. |
|  | Door Rod                                | Check to see that door rod from solenoid to lock ass'y is long enough to allow lock ass'y to disengage. If not, adjust rod.  |
|  | Door Lock Solenoid                      | Check that door lock solenoid is not stuck closed. If stuck, replace solenoid.   |
|  | Timer                                   | Make sure machine is in "off" position allowing Timer to authorize door unlock.  |
| Machine starts but timer will not advance                      | Water Valves                            | Check to insure that water valves are operating. If not, check for 120VAC to water valve from timer. If 120VAC, clean screens. If still no operation, change water valve. If no voltage check pressure switch then change timer.   |
|  | Drain Valve                             | Check to insure that drain valve is closing. If not, check for 120VAC to drain valve from timer. If 120VAC, change or clean drain valve. If no voltage, change timer.  |
|  | Fill Hose Screens & Water Valve Screens | Check all screens for obstructions and clean.  |
|  | Water                                   | Check to insure that water is turned on and operating.   |
|  | Pressure Switch Hose                    | Check hose for holes. Be sure the inlet end of the large part of the hose is lower than the rest of the hose and is free of debris.  |
|  | Pressure Switch                         | Check to insure that pressure switch has continuity between #31 & #32 and #21 & #22. If no continuity, check pressure switch hose for obstruction. If hose okay, change pressure switch.   |
|  | Main Timer Drive Motor                  | If power is available to main timer drive motor but it doesn't run, replace timer motor.   |

## Symptom

## Probable Cause

## Suggested Remedy

Machine tumbles  
in only one direction

Reversing Timer

Check to see that reversing timer is running. Check for alternating 24VDC at blue and at orange from reversing timer to signal reversing operation to drive. If not running or no voltage, replace reversing timer.

Variable Frequency  
Drive

Check blue and orange wires on variable frequency drive for alternating 24VDC for forward and reverse direction from the reversing timer. If no voltage, see reversing timer above. Be sure to check wire connections at drive. If 24VDC at drive, replace drive.

Does not give  
intermediate spin

Pressure Switch

Check pressure switch for continuity across terminals #31 & #22 indicating pressure switch has reset to the empty position. If no continuity change pressure switch.

Reversing Timer

Check to see if running. Check for 24VDC (from drive) output on blue/wht wire. If not running or no output, change reversing timer.

Pause-Run Switch

Check in run position for continuity to allow spin relay to operate.

Spin Relay R2

Check spin relay coil for continuity, replace if shorted. Check for 24VDC input to spin relay contacts. Check for 24VDC out of relay on red & black wires. If input voltage is okay and there is no output voltage, change relay.

Timer

Advance to spin cycle, check for 120VAC on red/blk from main timer. If no voltage, change timer.

Machine starts and  
advances through cycle  
but motor does not operate

Variable Frequency Drive

Check Variable frequency drive  
Green light on back illuminated, Okay.  
Red light on back illuminated, do the following:  
1. Disconnect power to washer for two minutes to reset variable frequency drive.  
Reconnect to power and check for green light.  
Green--okay. Red--go to step 2.  
2. Check incoming power to washer for correct voltage. Line voltage out of the specified operating range will cause the drive to fault, lighting the red light.  
3. Check motor. Disconnect from power. Push tab on bottom of drive and remove lower cover. (Do not remove complete cover as it will damage the drive)  
Disconnect the three gray wires that operate the motor from terminals "U", "V", and "W" in the drive. Reconnect power to the washer and check the green light. Green--change the drive motor.  
Red--change the variable frequency drive.

## Symptom

## Probable Cause

## Suggested Remedy

Machine starts and advances through cycle but motor does not operate (continued)

Pause-Run Switch

Check to be sure that switch is in run position to allow run relay to operate.

R1 Relay

Start machine to verify that door locks and check for 120VAC to R1 (run relay) coil. Check for continuity across relay coil. Check for 24VDC input on white wire and 24VDC output on blk/red wire. If no output, replace relay.

Reversing Timer

Check to see that reversing timer is running. Check for alternating 24VDC at blue and at orange from reversing timer to signal reversing operation to drive. If not running or no output voltage, replace reversing timer.

Intermediate spin speed works-no high extract

Program Timer

Advance to final extract, check red/green wire from timer for 120VAC to extract relay. If no voltage, replace timer.

Extract Relay (R3)

Check relay for continuity through coil. Check output on green wire from extract relay for 24VDC. If no continuity or no 24VDC, replace relay.

Hot water does not enter tub in wash

Water Valve Coil

Check coil continuity at terminals and replace if no continuity.

Water Inlet

Check water inlet screens for blockage and clean screens if necessary.

Water

Check to insure that water is turned on and operating.

Pause-Run Switch

Check in run position for continuity. If no continuity, replace switch.

Timer

Advance machine into wash cycle and check for 120VAC at red/blue wire coming from timer.

Water Temperature Selector Switch

Check switch for continuity between red/blue wire and red/yellow wire when Hot is selected. If no continuity, change switch.

High Water Level Relay

Check for continuity across N.C. contacts of high water level relay. If no continuity, replace relay.

Pressure Switch

Check pressure switch continuity between terminals #21 & #22. If no continuity, check pressure switch hose for obstruction. If hose okay, change pressure switch.

| Symptom                                    | Probable Cause                    | Suggested Remedy  |
|--|-----------------------------------|---|
| No cold water to tub in wash               | Water Valve Coil                  | Check coil continuity at terminals and replace if no continuity.  |
|  | Water Inlet                       | Check water inlet screens for blockage and clean if screens necessary   |
|  | Water                             | Check to insure that water is turned on and operating.  |
|  | Pressure Switch                   | Check pressure switch continuity between terminals #21 & #22. If no continuity, check pressure switch hose for obstruction. If hose okay, change pressure switch. |
|  | Pause-Run Switch                  | Check in run position for continuity. If no continuity, replace switch.   |
|  | Timer                             | Choose cold cycle, advance to wash, check for voltage on white/black from timer. If no voltage, replace timer.  |
|  | Water Temperature Selector Switch | Choose cold cycle, advance to wash and check wht/org wire from selector switch for 120VAC. If no voltage, change switch.  |
| No hot water in detergent dispenser        | High Water Level Relay            | Check for continuity across N.C. contacts of high water level relay. If no continuity, replace relay.   |
|  | Hot Rinse Relay                   | Check for continuity across N.C. contacts of hot rinse relay. If no continuity, replace relay.  |
|  | Water Valve Coil                  | Check coil continuity at terminals and replace if no continuity.  |
|  | Water Inlet                       | Check water inlet screens for blockage and clean if screens necessary.  |
|  | Water                             | Check to insure that water is turned on and operating.  |
| Water does not flush softener compartment. | Pause-Run Switch                  | Check in run position for continuity. If no continuity, replace switch.   |
|  | Timer                             | Advance to wash, check for voltage on red/org from timer. If no voltage, replace timer.   |
|  | Water Valve Coil                  | Check coil continuity at terminals and replace if no continuity.  |
|  | Water Inlet                       | Check water inlet screens for blockage and clean screens if necessary.  |

| Symptom   | Probable Cause         | Suggested Remedy  |
|---|------------------------|---|
| Water does not flush softener compartment.<br>(continued) | Water                  | Check to insure that water is turned on and operating.  |
|   | Pause-Run Switch       | Check in run position for continuity. If no continuity, replace switch.   |
|   | Pressure Switch        | Check pressure switch continuity between terminals #21 & #22. If no continuity, check pressure switch hose for obstruction. If hose okay, change pressure switch.   |
|   | Timer                  | Advance machine to final rinse and check for voltage at wht/blue wire coming from timer. If no voltage, replace timer.  |
| Water comes in but level does not rise                    | High Water Level Relay | Check for continuity across N.C. contacts of high water level relay. If no continuity, replace relay.   |
|   | Drain Valve (open)     | Check these areas<br>- Drain valve blockage<br>- Drain valve motor and gear train. If power but drain valve does not close, replace valve.<br>- Power to the drain valve. If no power to drain valve, 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 #31 & #22. Replace switch if contacts do not open.   |
|   | High Water Level Relay | Check for continuity across N.C. contacts of high water level relay. If no continuity, replace relay.   |
| Water drains slowly                                       | Drain System           | Check hoses and drain valve for blockage. Clean if necessary. Check building drains for blockage or inadequate size.  |
| Water leakage around loading door                         | Door Adjustment        | Door may need adjustment due to abuse or wear. Check tightness around perimeter using a dollar bill. Adjust left to right tightness by shims at door lock or hinge side. It is important to center gasket to tub opening before tightening door to hinge bolts. Chalk may be used on tub front to show point of contact with tub. If gasket is deformed, worn, or damaged, replace.<br>Refer to parts section for door gasket expander kit. |

## Symptom

## Probable Cause

## Suggested Remedy

Excessive vibration

Mounting System

Check these areas:

- Strength of mounting structure, concrete or base.
- Mounting bolts may be loose and need to be tightened.
- Check grouting for cracks or breakage.

Drive Belt

- Worn drive belt can cause vibration and noise.

Pulleys

- Damaged pulleys.

LOADING

- NOTE: SMALL LOADS CONTRIBUTE TO OUT OF BALANCE LOADING AND INCREASE VIBRATION.

# WASHER OPL Wiring Schematics

## Timer Sequence Chart

The timer sequence charts are used in conjunction with the wiring diagrams to trace the circuitry during the timer cycle. The timer contacts and the operation or component that each contact controls are listed down the left side of the chart. The phases of the complete cycle are shown across the bottom of the chart. The timer switch increments are numbered across the top of the chart. The solid horizontal bars in the chart denote when the various contacts are closed during the cycle.

To use the timer sequence chart to trace the circuitry:

1. Locate the particular part of the cycle on the sequence chart.
2. Determine which timer contacts are closed during that particular step of the cycle by noting the solid vertical bars in that step across the chart.
3. Draw in the gap of the respective contacts on the wiring diagram with a soft dark pencil, to illustrate the contacts as being closed.
4. Determine which switch contacts are closed, by the switch chart, and illustrate them as closed on the wiring schematic.
5. The circuitry during the particular step of the cycle may then be easily traced on the wiring diagram, since all contacts and switches are then properly illustrated as being open or closed.

# OPL Timer Washer Schematic

## WATD25HTS-12 and WSTD25HTS-12

### Start Circuit

Power travels into the control trough on L1 & L2. 240VAC goes to a Control Transformer that steps the voltage down to 120VAC for the controls. 120VAC then travels to the On/Off Switch. If On is selected 120VAC travels to the 1.5 amp Circuit Breaker. On 1 phase, 120VAC goes directly to the On/Off Switch and then to the 1.5 amp Circuit Breaker.

From the Circuit Breaker, 120VAC travels on the white/red wire to the Main Timer Start and On-Off Contacts. The Start Contact is closed before the machine has been started so 120VAC travels through the Start Contact and is supplied to the Advance/Start Switch. When the Advance/Start Switch is closed 120VAC is supplied on the orange/white wire to the Rapid Advance Timer Motor. This timer motor starts advancing the Main Timer to the preselected starting position. The On-Off Contact in the Main Timer closes to insure that the S1 Door Switch is closed (showing that the door is locked). The On-Off Contact also provides 120VAC to the On Light on the red wire. With the S1 Switch closed the Door Lock Solenoid is now powered with 120VAC via the white/red wire. The Door Lock Solenoid pulls in, locking the door and closing the S2 and S3 Switches. The S2 Switch is a backup to the S1 Switch so that the adjustment on S1 isn't as critical. The S3 Switch provides 120VAC to Timer Contacts RA-1,2,3,4 to power the Rapid Advance Motor again (if 2 Flushes are not selected) and the Main Timer is allowed to advance on to the preselected start position.

# OPL Timer Washer Schematic

## WATD25HTS-12 and WSTD25HTS-12

### Fill Circuit-Warm

120VAC is supplied to the controls through the S1, S2, and S3 Door Switches. The On Light and the Door Lock Solenoid (discussed in Start Circuit) will remain on throughout the cycle. The Lock Thermoactuator Contact in the Main Timer is closed and provides the neutral side to operate the Thermoactuator. 120VAC is provided to the Lock Thermoactuator on the orange wire from the S3 Door Switch. The Drain Contact in the Main Timer is closed and provides 120VAC to the Drain Valve on the brown/yellow wire which closes the valve. The Wash Contact in the Main Timer is closed and provides 120VAC to the Reversing Timer and the Reversing Timer Motor on the blue/black wire. This will start the Reversing Timer operating which will alternately open and close the Micro Switches that provide the direction of tumble for the wash basket. Depending on the cycle selected either the Wash Light Contact, the Prewash Light Contact, or No Contact (1st Flush) in the Main Timer is closed and provides 120VAC to these Lights. The orange wire coming from the S3 Door Switch provides power to the Wash Water Contact in the Main Timer as well as the High Water Level Contact if high water level is called for. 120VAC connects from the Wash Water Contact to the Wash Temperature Contact via an internal timer connection.

Now a water temperature must be selected with the Temperature Selector Switch. We'll use #2 Warm. The washer fills the tub through the back of the machine with both the C1 Cold and H1 Hot Water Valves. 120VAC travels from the Wash Water Timer Contact to the #1 Contact in the Selector Switch via the white/black wire. 120VAC goes through the closed #1 Contact in the Selector Switch and energizes the C1 Cold Water Valve Solenoid via the white/orange wire. 120VAC also travels to the closed #4 Contact in the Selector Switch. This closed contact provides power to the H1 Hot Water Valve Solenoid via the red/yellow wire. The neutral for the Water Valves & Main Timer Motor is provided through the Pause/Run Switch. The Main Timer is stopped until the Pressure Switch provides neutral when low level is reached.

As the washer fills with water, the Wash Basket will tumble one direction for 19 seconds, pause, and then reverse direction for 19 seconds. All Flushes and Rinse 1, 3 & 4 are high level. Wash, Rinse 2 & Final Rinse are low level. For a high level bath 120VAC travels from the timer High Water Level Contact on the green/white wire to the R4 High Water Level Relay.

When energized, the R4 High Water Level Relay opens the neutral yellow wire from the low level side of the Pressure Switch & closes the violet/yellow from the high side. When the water reaches the predetermined level the Pressure Switch moves to the full position and opens the neutral side of the line to the Water Valves. This shuts the Water Valves off.

# OPL Timer Washer Schematic

## WATD25HTS-12 and WSTD25HTS-12

### Wash Circuit

As the washer fills the tub through the back of the machine with either one or both the C1 Cold and H1 Hot Water Valves, the Wash Basket will tumble one direction for 19 seconds, pause, and then reverse direction for 19 seconds. This is accomplished through the use of a Reversing Timer. 120VAC is supplied to the Reversing Timer Motor on the blue/black wire from the Wash Motor Timer Contact in the Main Timer and 120VAC is supplied to the R1 Run Relay any time the door is locked. This R1 Relay closes & provides 24VDC to the Reversing Timer Wash Micro Switches. The Reversing Timer will alternately open and close the two Wash Micro Switches and provide 24VDC to the FW (forward) or RV (reverse) terminals on the Variable Frequency Drive.

As discussed in Start and Fill, the Lock Thermoactuator, Drain Valve, On Light, and Main Timer Motor (except in fill) are all operating throughout the Wash Cycle.

#### Liquid Chemicals

Injection Pumps receive 120 volt signals from the terminal strip on the back of the washer. These are labeled A, B, C, & D. (A-Prewash, B-Wash, C-Rinse 2, D-Final Rinse)

**\* When trying to measure 24VDC use SC for one test lead and other lead to any above terminals listed and you will get a 0 volt reading when the operating signal is at that terminal.**

## OPL Timer Washer Schematic WATD25HTS-12 and WSTD25HTS-12

### Drain, Rinse 1, 2, 3 & 4 & Final Rinse Circuit

The Drain Contact on the Main Timer opens removing power to the Drain Valve. The normally-open spring-loaded Drain Valve opens and empties the tub.

For Rinse 2, 3 & 4 the Rinse Light Contact in the Main Timer closes and provides 120VAC to the Rinse Light. The Rinse Water Contact in the Main Timer also closes and provides 120VAC to the C1 Cold Water Solenoid and through the Rinse Temp Contact to the H1 Hot Water Solenoid (Except when cold #4 is selected). The tub will fill until the predetermined level is achieved at which time the Pressure Switch Contact will open the neutral side of the line shutting off the C1 Cold Water Solenoid.

For the Final Rinse, the Final Rinse Light Contact in the Main Timer closes and provides 120VAC to the Final Rinse Light. Rinse water is the same as in Rinses above.

The Hot Rinse Contact provides 120VAC to the R5 relay on the brown/red wire. This opens the circuit to the C1 Cold Water Solenoid when Temperature Selector Switch #1 or #2 is depressed.

As discussed in Start and Fill, the Lock Thermoactuator, Drain Valve, On Light, and Main Timer Motor (except in fill) are all operating throughout the Rinse Cycle.

# OPL Timer Washer Schematic

## WATD25HTS-12 and WSTD25HTS-12

### Intermediate Extract Circuit

The Wash Contact remains closed and provides 24VDC to the closed Clockwise Micro Switch on the Reversing Timer. 24VDC is then fed to the Counter Clockwise Micro Switch via a jumper wire. 120VAC is then sent to the Delay Spin Micro Switch. The Delay Spin Micro Switch provides 120VAC to the Spin Motor Contact in the Main Timer on the blue/white wire. The Spin Motor Contact is closed for spin and the voltage continues on to the R2 Spin Motor Relay Coil on the red/black wire. With 120VAC to the R2 Spin Motor Relay Coil two things happen. 120VAC is now provided from the orange wire directly to the Relay eliminating the Reversing Timer and the Micro Switches from the circuit.

The second thing that happens when the R2 Relay is closed is that 24VDC is provided from the SC terminal of the Variable Frequency Drive through the R1 Run Relay through the R2 Spin Relay to terminals SR & S3& S1 on the Drive and the washer spins at intermediate speed.

**\* When trying to measure 24VDC use SC for one test lead and other lead to any above terminals listed and you will get a 0 volt reading when the operating signal is at that terminal.**

# OPL Timer Washer Schematic WATD25HTS-12 and WSTD25HTS-12

## Final Extract Circuit

Same as Intermediate Extract but adds the R3 Extract Relay. The Main Timer provides 120VAC to the Extract Relay Coil. When this relay closes it provides 24VDC to the S2 terminal on the Variable Frequency Drive. This means that all 4 terminals , SR & S1 & S2 & S3 are powered with 24VDC for high spin.

**\* When trying to measure 24VDC use SC for one test lead and other lead to any above terminals listed and you will get a 0 volt reading when the operating signal is at that terminal.**

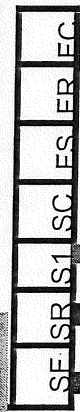
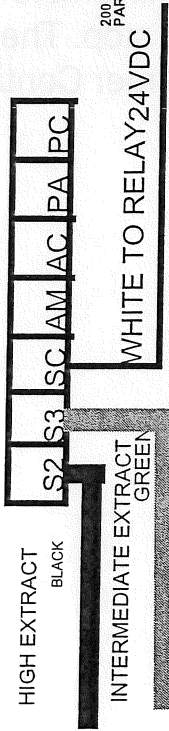
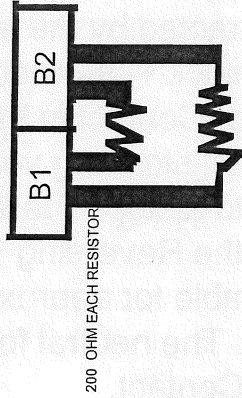
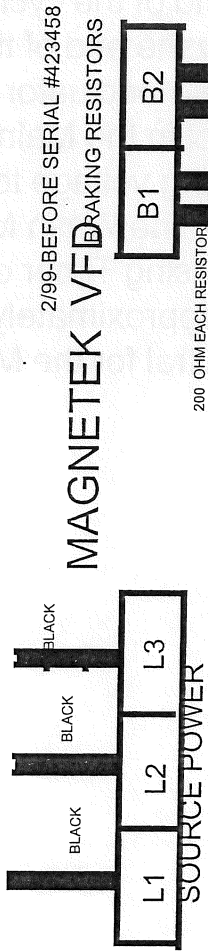
# OPL Timer Washer Schematic WATD25HTS-12 and WSTD25HTS-12

## Thermoactuator and Shake Out Circuit

The Lock Thermoactuator Contact in the Main Timer opens removing the neutral to the Thermoactuator approximately 3 minutes before the end of the cycle. This allows the Thermoactuator time to retract by the end of the cycle.

To insure that the Lock Thermoactuator has retracted by the end of the cycle, one minute prior to the end of the cycle, the Unlock Thermoactuator is powered with 120 volts through the Unlock Thermoactuator Contact in the Main Timer.

The Spin Motor Contact in the Main Timer opens, stopping voltage to the R2 Spin Motor Relay & the motor. The basket will coast to a stop. The Wash Motor Contact in the Main Timer closes providing power to the Reversing Timer once again (discussed in Wash Cycle). The washer will tumble for approximately 30 seconds to let the clothes shake loose and then stop. The neutral for the Main Timer Motor is provided through the Delay Fill Timer Contact.

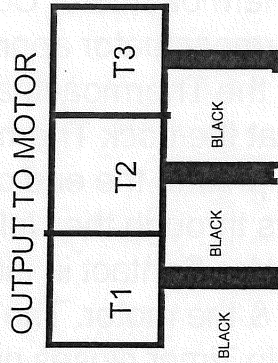


BETWEEN SC AND S1 S2 S3 SR SE A 24VDC READING WILL BE THERE ALL THE TIME WHEN A PARTICULAR FUNCTION IS CALLED FOR A 0VDC READING BETWEEN SC AND OTHER FUNCTION TERMINAL BEING CALLED FOR.



REV.

8/98 tm



# WASHER PREVENTIVE MAINTENANCE (PM) REQUIREMENTS

**MAKE SURE ALL POWER IS DISCONNECTED BEFORE MAKING CHECKS INSIDE MACHINE.**

## **DAILY**

1. Check that the door remains securely locked during the entire cycle.
2. Clean the top front cabinet around soap dispenser.
3. Clean the soap dispenser and soap lid.
4. Check the drain for leaking and proper draining.
5. Check the water connections for leaks.
6. Check door seal for foreign material.
7. Leave the loading door open to aerate the washer when not in use.

## **QUARTERLY**

1. Check the drive belt for wear and proper tension.
2. Clean lint and other foreign material from around drive motor.
3. Remove water inlet hose filter screens and clean or replace as necessary .
4. Check all electrical components for moisture and wipe away any foreign debris.

## **ANNUALLY**

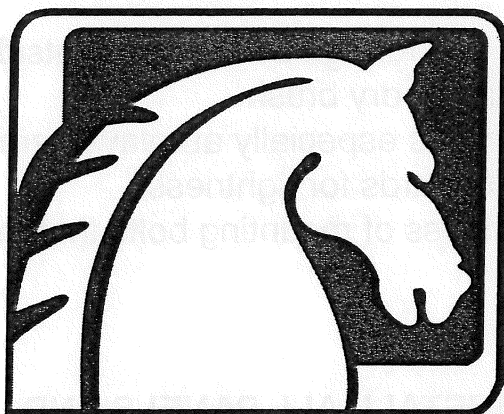
1. Clean and remove lint and foreign debris from outside cover of VFD with a dry clean rag or dry brush.
2. Inspect all wire connections especially at relays, terminal connections and circuit boards for tightness.
3. Inspect and check tightness of mounting bolts that mount washer frames to floor.

**AFTER ANY SERVICE REINSTALL ALL PANELS AND SAFETY SCREENS BEFORE RECONNECTING POWER**

# SECTION 6

## 30 LB.GAS HEATED COMPACT OPL DRYER SERVICE & PARTS

| <b>Model</b>             | <b>Voltage</b>                 |
|--------------------------|--------------------------------|
| DSTD30HTS-10 Stacked     | 120 volts, 60 Hz, Single Phase |
| DATD30HTS-10 Stand Alone | 120 volts, 60 Hz, Single Phase |



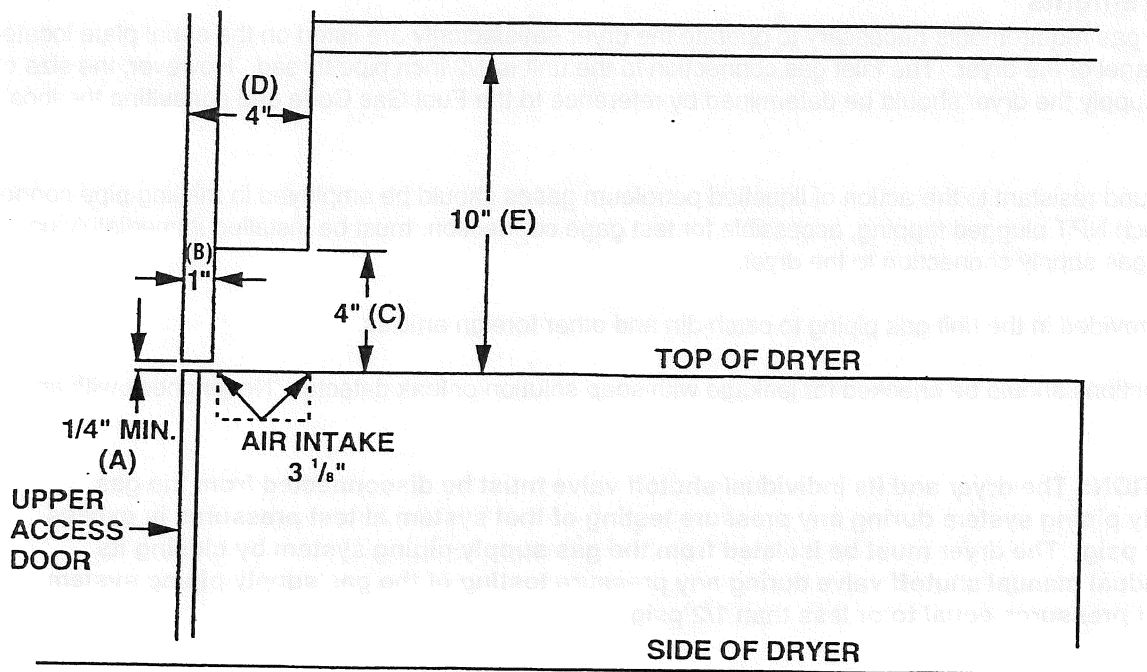
# Dryer Installation and Operation

All commercial dryer installations must conform with local applicable local codes or in the absence of local codes, with the National Fuel Gas Code ANSI Z223.1A-1988. Canadian installations must comply with current standard CAN/CGA-B149(.1 or .2) Installation Code for Gas Burning Appliances or Equipment, and local codes if applicable. The appliance, when installed, must be electrically grounded in accordance with the National Electric Code, ANSI/NFPA No. 70-1990, or when installed in Canada, with Standard CSA C22.1 Canadian Electrical Code Part 1.

## Installation Clearances:

This unit may be installed at the following alcove clearances.

1. Left side- 1/2"
2. Right side- 1/2"
3. Back- 18" (Certified for 6" clearance: however 18" is required to clean, service, and maintain the dryer).
4. Front- 48" to allow use of dryer.
5. Top- Refer to figure labelled "Vertical Clearance Dimensions".
6. Floor- This unit may be installed upon a combustible floor.



**Vertical Clearance Dimensions**

## Make-up Air

Adequate make-up air must be supplied to replace air exhausted by dryers on all types of installations (440 CFM 12.5m<sup>3</sup>/Min.). Provide a minimum of 1 square feet of make-up air opening to the outside for each dryer. This is a net requirement of effective area. Screens, grills or louvers which will restrict the flow of air must be considered. Consult the supplier to determine the free area equivalent for the grill being used.

The source of make-up air should be located sufficiently away from the dryers to allow an even air flow to the air intakes of all dryers. Multiple openings should be provided.

**NOTE:** The following considerations must be observed for gas dryer installations where dry cleaners are installed. The sources of all make-up air and room ventilation air movement to all dryers must be located away from any dry cleaners. This is necessary so that solvent vapors will not be drawn into the dryer inlet ducts. Dry cleaner solvent vapors will decompose in contact with an open flame such as the gas flame present in clothes dryers. The decomposition products are highly corrosive and will cause damage to the dryer ducts and clothes loads.

### **DRYER Electrical Requirements**

The electrical requirements necessary to operate the unit satisfactorily are listed on the serial plate located on the back panel of each dryer. The electrical connection should be made to the pigtail leads in the outlet box on the rear of the unit, using #12 AWG wire.

ONE 15 Amp circuit breaker is required for the dryer. The wiring diagram is located on the belt guard on the back of the dryer.

**NOTE: IT IS ABSOLUTELY ESSENTIAL THAT THE DRYER BE GROUNDED BY A SEPARATE GROUND CONDUCTOR FROM THE GROUND SCREW ON THE DRYER TO THE NEUTRAL BAR IN THE SUPPLY BREAKER BOX.**

### **Gas Requirements**

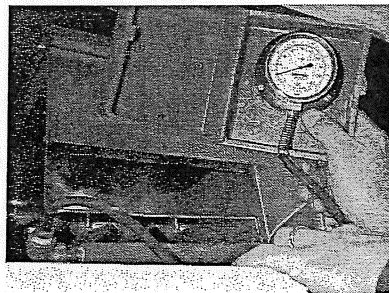
The complete gas requirements necessary to operate the dryer satisfactorily are listed on the serial plate located on the back panel of the dryer. The inlet gas connection to the unit is 1/2 inch pipe thread. However, the size of the piping to supply the dryer should be determined by reference to the Fuel Gas Code and consulting the local gas supplier.

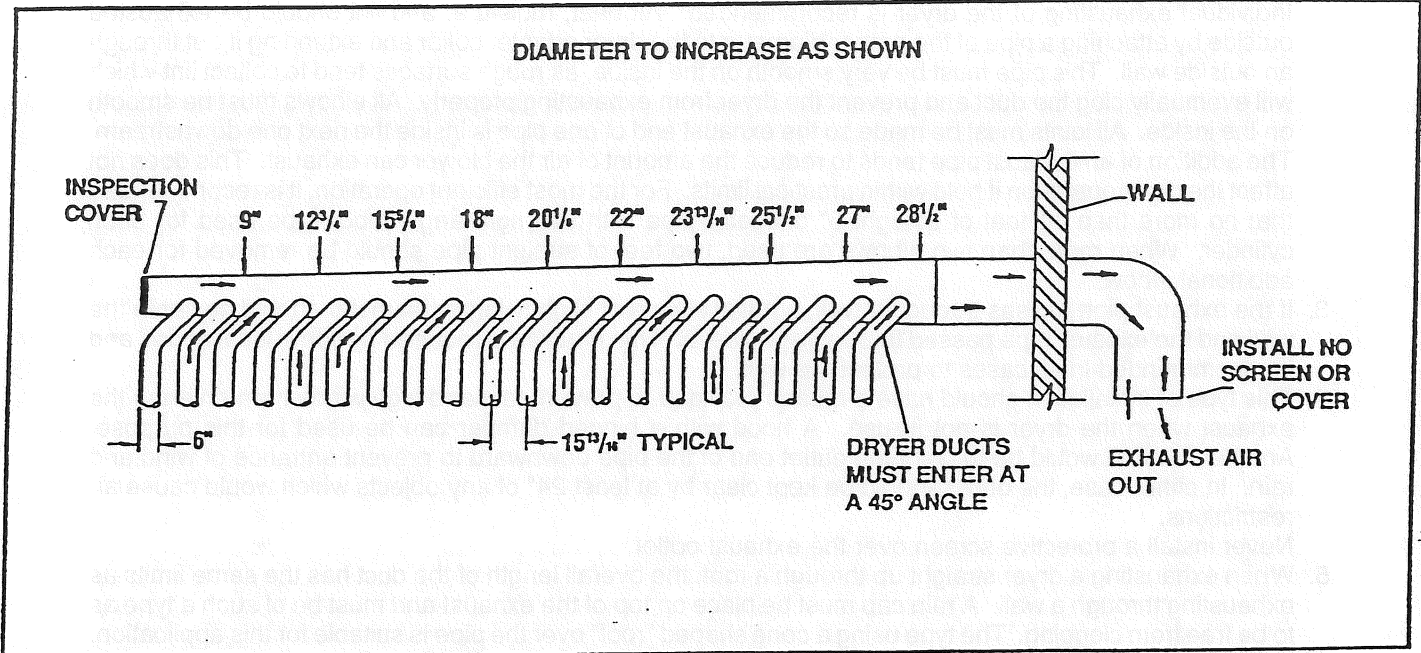
A joint compound resistant to the action of liquefied petroleum gases should be employed in making pipe connections. A 1/8 inch NPT plugged tapping, accessible for test gage connection, must be installed immediately upstream of the gas supply connection to the dryer.

A drip tee is provided in the unit gas piping to catch dirt and other foreign articles.

All pipe connections should be checked for leakage with soap solution or leak detector. Never check with an open flame.

**CAUTION: The dryer and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psig. The dryer must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig.**





## 30 LB. Stack & Compact Dryer Exhausting Using a Main Discharge Duct with 6" individual ducting

NOTE: An undersized duct will restrict air flow, an oversized duct will reduce air velocity both contributing to lint build up. An inspection cover should be provided for the main duct.

DRYER EXHAUST INSTALLATION

## DRYER EXHAUST INSTALLATION

1. The dryer requires an 6" exhaust connection. Exhausting of the dryer should always be planned and constructed so that minimum air restrictions occur. (Refer to Figure on previous page for multiple dryer exhausting). Any restriction due to pipe size or type of installation can cause slow drying time, excessive heat, and lint build up in system and the room. From an operational standpoint, incorrect or inadequate exhausting can cause cycling of the high limit thermostat which shuts off the main burners and results in inefficient drying.
2. Individual exhausting of the dryer is recommended. All heat, moisture, and lint should be exhausted outside by attaching a pipe of the proper diameter to the dryer adapter collar and extending it out through an outside wall. This pipe must be very smooth on the inside, as rough surfaces tend to collect lint which will eventually clog the duct and prevent the dryer from exhausting properly. All elbows must be smooth on the inside. All joints must be made so the exhaust end of one pipe is inside the next one downstream. The addition of an exhaust pipe tends to reduce the amount of air the blower can exhaust. This does not affect the dryer operation if held within practical limits. For the most efficient operation, it is recommended that no more than 14 feet of straight 6" diameter pipe with two right angle elbows be used for each cylinder. When more than two elbows are used, two feet of straight pipe should be removed for each additional elbow.
3. If the exhaust pipe passes through a wall, a metal sleeve of slightly larger diameter should be set in the wall and the exhaust pipe passed through this sleeve. This practice is required by some local codes and is recommended in all cases to protect the wall.
4. This type of installation should have a means provided to prevent rain and high winds from entering the exhaust when the dryer is not in use. A hood with a hinged damper can be used for this purpose. Another method would be to point the outlet end of the pipe downward to prevent entrance of wind and rain. In either case, the outlet should be kept clear by at least 24" of any objects which would cause air restrictions.  
Never install a protective screen over the exhaust outlet.
5. When exhausting a dryer straight up through a roof, the overall length of the duct has the same limits as exhausting through a wall. A rain cap must be place on top of the exhaust and must be of such a type as to be free from clogging. The type using a cone shaped "roof" over the pipe is suitable for this application.

**Warning: Exhausting the dryer into a chimney or under a building is not permitted. In either case there is a danger of lint build-up which can be highly combustible.**

6. Installation of several dryers where a main discharge duct is necessary, will need the following considerations for installation. Entrance into the main discharge duct should be at a 45 degree angle in the direction of discharge air flow.

**NOTE: Never install ducts at a right angle into the main discharge duct. The following illustration shows the various round main duct diameters to use with the individual dryer ducts. The main duct can be rectangular or round, provided adequate air flow is maintained. For each individual dryer the total exhausting (main discharge duct plus duct outlet from the dryer) should not exceed the equivalent of 14 feet and two elbows. The diameter of the main discharge duct at the last dryer must be maintained to exhaust end.**

**NOTE: An undersized duct will restrict air flow, an oversized duct will reduce air velocity, both contributing to lint build up. An inspection door should be provided for periodic clean-out of the main duct.**

# Dryer Controls

## Dry Time Timer

The dry time timer sets the drying time only and does not include the cool-down time. However, for safety there is an automatic cool down of 2 minutes minimum built into the cycle even when none is called for by the cool down timer.

## Cool Down Timer

The cool down timer sets the cool down time for the cycle. This time is added to the time placed on the main cycle timer.

## Adjustable Thermostat

The thermostat knob allows you to set the desired temperature range for the particular load being dried.

## Push to Start Switch

The push-to-start switch must always be pushed to start a stopped tumbler. (At least one of the timers must have time placed on it and the loading door must be closed for tumbler motion to occur).

## On Light

The ON light is built in to the push-to-start button. It indicates that time has been added to at least one of the timers.

## Operating Instructions

1. Load clothes into the tumbler and close the door. The clothes should be well separated. Untangling following washing may be necessary for best drying.
2. Set the temperature selector to the desired setting for the type of clothes to be dried.

### LOAD

Delicate  
Perma-Press/ Personal  
100% Cottons

### TEMPERATURE

Warm  
Medium  
Hot

3. Set the drying timer for the time estimated to dry the load of clothing.
4. Set the cool-down timer for the desired cool-down time.
5. Press the start switch and hold momentarily until dryer reaches operating speed.

**IMPORTANT:** Normally, dryer operation will continue uninterrupted through the complete cycle determined by number of minutes set on timer. However, opening the loading door will interrupt the circuits and the drive motor and main burners will cease to function. The signal light will remain on and the time cycle will continue independent of the interruption until expiration of the time on the timers or until drying cycle is resumed by closing the door and restarting the dryer to continue drying the clothes. Either the drying timer or the cool-down timer may be canceled at any time by turning the knob counterclockwise to "off".

## Characteristics of running dryer:

Temperature selection may be changed at any time with the dryer running.

Running time may be extended any time that while the dryer is running if desired.

# Section 7

## Dryer Service Procedures

### Clothes Door Removal

1. The clothes door may be removed from the hinge bracket by unscrewing and removing the allen head pivot screw located at the door upper hinge point.
2. Next lean the door out of the top of the hinge bracket and lift the door from the bottom hinge pin.

### Clothes Door Latch Adjustment

1. Loosen the lock nut on the latching stud. It is located directly behind the door handle.
2. Open the loading door.
3. Screw the door catch stud in or out as necessary and then retighten the lock nut.

### Installation of Clothes Door Window & Gasket

1. Remove the loading door.
2. Place the clothes door, with its face down, on a solid surface.

**Note: Prewarming the gasket under a heat lamp makes the installation much easier.**

3. Put the door glass gasket on the loading door with the ridges in the wide side up. Locate the seam at the door latching stud.

NOTE: The gasket has one narrow opening on one side and a wide opening on the other. The narrow side mounts to the door. The wide side holds the glass. The wide side has ridges on one interior lip. This ridged side should go up with the door laying face down.

4. Coat the inside and outside of the gasket with rubber lubricant or liquid soap.
5. Slide the glass into the middle of the gasket with half of the glass above the door and half below the door.
6. While pressing on the glass, use a modified screwdriver (grind the end off so that it is round and put a slight bend in it) and run it around half of the glass.
7. With half of the glass installed, turn the door over and repeat step 6.
8. Insert the modified screwdriver at the 6 o'clock position and pry the glass up enough to install the door glass support spacer (small diameter rubber tube).

## DOOR SWITCH REMOVAL & INSTALLATION

1. The door switch is located directly behind the hinge plate of the loading door assembly. Open the door for access to the switch area. Remove the two screws holding the switch box cover in position. This will allow the removal of the cover and the switch actuator plate.
2. The entire switch box can now be pulled from the front panel opening, creating access to the door switch mounting screws.
3. Remove these two mounting screws and twin nut which frees the door switch and insulating shield. Remove wires.
4. When installing the door switch make certain the insulating shield is reassembled.
5. The actuator plate and switch box cover should be assembled as illustrated in the parts section of the book.

## DOOR SWITCH OPERATION & TESTING

1. The normally open door switch must be closed (0 ohms resistance) for the motor and heat circuits to operate. When the door is opened, the door switch breaks the 24 volt control circuit.

## DOOR SWITCH ADJUSTMENT

1. Remove the two switch box cover screws.
2. Remove the switch cover and actuator plate.
3. Pull the entire switch box out from the opening in the front panel.
4. Loosen the bottom door switch mounting screw.
5. A slotted mounting allows the switch to slide in or out for adjustment.

## HIGH LIMIT THERMOSTAT LOCATIONS & FUNCTIONS

- A. Burner Housing- This hi-limit is located on the left side of the burner housing.
1. The thermostat opens the circuit to the main burners in the event of malfunction in the gas control area or temperature control. This thermostat will open quickly if there is a significant loss of air flow over the burner area.
  2. It is covered by a guard and is held in place by two screws. There are spacers between the thermostat and bracket which must be used to give proper operation.
- B. Over temperature Safety Thermostat- The second hi-limit thermostat is located on the burner housing left side above where the gas valve is located.
1. The manually resettable thermostat limits the operating temperature a dryer can reach should some abnormal situation occur.
  2. Should the thermostat be tripped, the dryer will cease to heat until the thermostat is reset. Once the dryer cools, the thermostat may be reset by inserting a pencil or stick through the opening in the thermostat cover and pushing the button in.

## **FINAL DRIVE BELT REPLACEMENT**

To replace the final drive belt turn the cylinder slowly by hand and work the belt off of the large pulley.

## **MOTOR DRIVE BELT REPLACEMENT**

To replace the motor drive belt the final drive belt should be removed as above. Cut the old motor belt and remove. The new motor drive belt fits inside of three of the four motor mounting bolts. To achieve this, remove these three bolts one at a time and slide the belt in past each in turn. In this way the motor is always supported by 3 bolts at any time.

**Note:** All drive belts are self adjusting.

## **TUMBLER PULLEY REMOVAL AND INSTALLATION**

Remove the 1 1/2" nut and lock washer. Pull the pulley off the shaft. Watch for the locking key on the tumbler shaft. Upon installation, the tumbler nut should be torqued to 150 ft./lbs.

## **INTERMEDIATE PULLEY AND TENSION ARM REMOVAL**

1. The intermediate pulley is retained with a snap ring. Remove the snap ring and the pulley slides off the shaft.
2. With the pulley off, there is access to the self adjusting tension arm assembly. The tension arm assembly may be removed by removing the snap ring that holds it to the tension arm support assembly pin. The arm assembly is replaced as a complete unit .
3. The grease fitting for the intermediate shaft should be greased monthly.

## **TENSION ARM SUPPORT ASSEMBLY ADJUSTMENT**

The tension arm support assembly may be adjusted for alignment of the intermediate pulley and also to align the belts. The three outer nuts allow the alignment of the pin to be adjusted by pivoting the assembly on the center bolt. The center bolt can be screwed in to allow bringing the complete assembly farther back if necessary for belt alignment.

## **MOTOR AND BLOWER ASSEMBLY REMOVAL AND INSTALLATION**

1. Remove the tumbler and intermediate pulleys. (see above)
2. Remove the motor wiring cover and take the 3 motor wires off.
3. Remove the 9 nuts and lock washers that retain the blower cover and set assembly out of dryer.
4. The blower is held in place with 2 square headed set screws. Upon reassembly, one blower set screw should fit in the counter sink in the shaft and the other set screw should go against the flat side of the shaft. Use red Loctite on the set screws and torque to 165 in./lbs.
5. The motor is mounted with 4 bolts to the blower cover.

## **AIR FLOW SWITCH OPERATION AND ADJUSTMENT**

The air flow switch assembly is part of the ignition safety circuit and insures that the burners don't operate unless there is air flow. When the drive motor and blower are running the flat actuator is pulled in against the back of the dryer closing the switch. If this doesn't happen ignition will not occur. The air flow switch assembly is mounted by two screws through the bracket. It can be adjusted by loosening these mounting screws and moving the switch forward or backward.

## **IGNITION TRANSFORMER FUSE**

The 1 1/2 amp fuse protects the ignition transformer. To remove it just twist and pull it out.

## **IGNITION CONTROL TRANSFORMER**

When heat is called for, the ignition control transformer steps 120VAC down to 24VAC to power the ignition control.

## PRESSURE REGULATOR ADJUSTMENT

1. Shut off the gas supply to the dryer.
2. Remove the 1/8" pipe plug from the end of the main burner manifold.
3. Attach a manometer to the end of the main burner manifold.
4. Remove the pressure regulator cover screw on the gas valve.
5. Open the gas shut-off valve and start the dryer.
6. Using a screw driver, adjust the pressure for a manometer reading of 3.5" water column on natural gas or 11" water column on LP. Turning the adjustment screw clockwise will raise the pressure and counter clockwise lowers the pressure. (Note: The main burners must be operating when adjusting the pressure regulator)
7. Shut off the gas supply to the dryer.
8. Remove the manometer and install the 1/8" pipe plug in the manifold.
9. Open the gas shut off valve and check for gas leaks.

## ELECTRONIC SPARK IGNITION MODULE OPERATION AND TESTING

1. When heat is called for, 24 volts is supplied from the transformer on the red wire to the spark ignition module. The module will then send a high voltage signal to the spark electrode for 10 seconds to light the burner. At the same time the spark ignition module also sends a 24 volt signal on the brown wire to the gas valve coils to open the valve. When ignition occurs the high voltage signal stops. If ignition does not occur within 10 seconds, the spark ignition module will lock out closing the gas valve and stopping the spark. To reset the spark ignition module the dryer loading door must be opened for 10 seconds.

## ELECTRONIC SPARK Ignition MODULE REMOVAL

1. Unlock and open the upper service door. It is held open with the door support arm.
2. Remove the high voltage lead (spark plug wire) from the module.
3. Remove the quick connect wire harness.
4. Remove two 1/4" mounting screws.

## SPARK ELECTRODE ASSEMBLY OPERATION

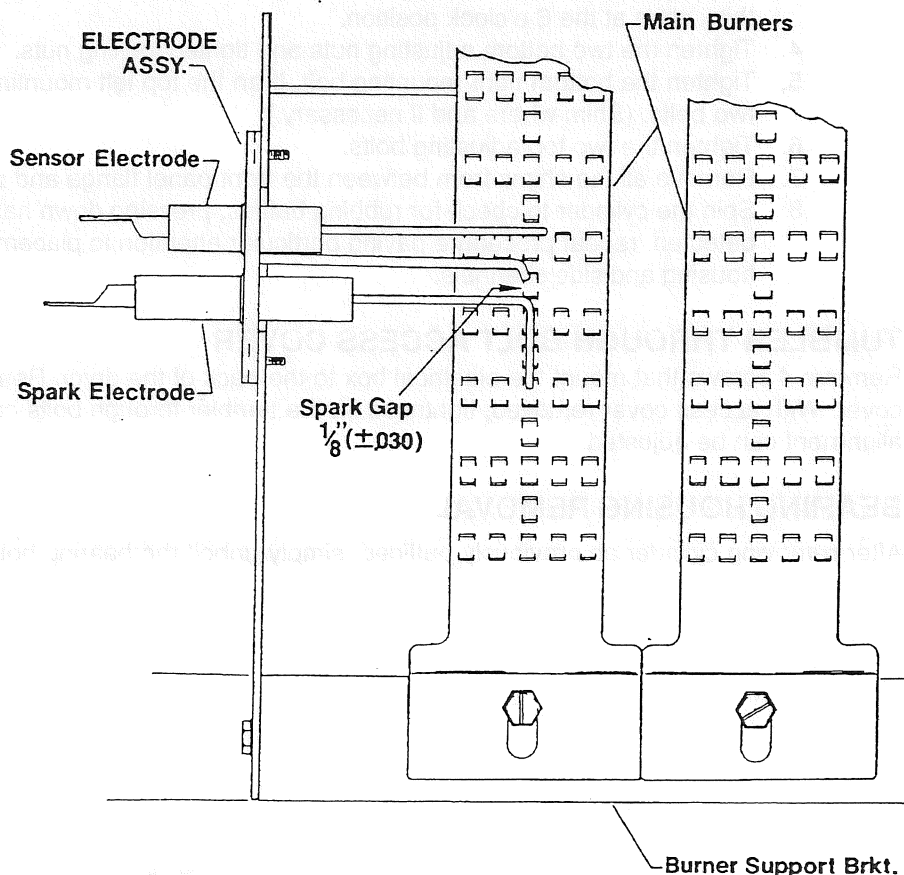
1. The front electrode conducts the spark from the black high voltage wire to the center grounding probe located directly over the burner. The back electrode detects ignition and monitors the flame. (Note: Proper grounding of the ignition system (yellow wires) is necessary for correct operation)

## SPARK ELECTRODE ADJUSTMENT

1. The gap between the front spark electrode and the center grounding probe should be 1/8".

## SPARK ELECTRODE ASSEMBLY REMOVAL

1. Remove the high voltage lead and the spark sensing wire.
2. Remove the two 1/4" mounting screws.



### IMPORTANT:

Electrodes are positioned  $\frac{3}{8}$ " above burner surface.

Electrode ends are centered to burner.

2. Remove two screws to detach electrode assembly.

### **GAS VALVE & MANIFOLD REMOVAL**

1. Disconnect union at gas valve and disconnect wires from gas valve operator coils.
2. Remove right manifold mounting bracket screws and slide manifold to remove from left bracket.

### **MAIN BURNER ORIFICE REMOVAL**

1. Remove manifold and gas valve assembly as above.
2. Using an open end wrench, remove orifices from manifold.

### **MAIN BURNER REMOVAL**

1. Remove the 4 screws securing the cover for the burner housing and the one screw mounting the high limit cover. With the burner housing cover removed, there is complete access to the burner assemblies.

### **CYLINDER REMOVAL**

1. Remove the front panel in front of the cylinder.
2. Remove drive belt, pulley, and key from cylinder shaft.
3. Pull the cylinder from the front of the machine.

### **ADJUSTMENT OF CYLINDER ASSEMBLY**

1. Loosen the two top adjusting bolts and two bottom adjusting nuts and lock nuts holding the bearing housing to the drive plate.
2. Loosen the four mounting bolts on the side channels.
3. Open the clothes door and insert a 1/2" thick shim at the 3 and 9 o'clock positions and a 1/4" thick shim at the 6 o'clock position.
4. Tighten the two bottom adjusting nuts and tighten locking nuts.
5. Tighten the bottom right mounting bolt, then the top left mounting bolt. Tighten the remaining two bolts. (Shim where and if necessary.)
6. Tighten the two top adjusting bolts.
7. Remove all the shims from between the front panel flange and cylinder (3, 6, and 9 o'clock).
8. Spin the cylinder to check for rubbing baffles, pressing down hard while rotating. If rubbing is detected, repeat procedure paying particular attention to placement of shims between bearing housing and side channels.

### **TUMBLER THROUGH BOLT ACCESS COVER**

Remove 4 screws that mount the electrical box to the back of the dryer. Remove 2 screws that retain access cover. With access cover removed, tightness on the tumbler through bolts can be checked and tumbler alignment can be adjusted.

### **BEARING HOUSING REMOVAL**

After removing cylinder as previously outlined, simply unbolt the bearing housing and remove.

## 30lb. Compact Stack Dryer Schematic

### Dryer Idle, Door Open

120VAC is supplied by L1 on the black wire. 120VAC also goes through the dry timer switches at terminal "A" and is then jumpered to the cool down timer switches at terminal "A" and then to one side of the door switch on a black wire. Closing the loading door sends 120VAC to the two blue wires. One blue wire makes 120VAC available to one side of the Motor.Run Relay. The other blue wire provides a 120VAC signal to the Start switch telling it that the door is closed.

## 30lb. Compact Stack Dryer Schematic

Door Closed, Dry Timer On or Cool Down Timer On , Start Switch Pushed And Motor Starting and Running

Door closed and heat timer turned on has 120 volts now at the Start Switch and at the Centrifugal Switch inside the motor on the blue wire .Push the Start Switch and now 120VAC is supplied to the Motor on the red wire. The Motor Start Switch is drawn in the start position. In this position the incoming power is supplied directly to the main run winding and through the Start Capacitor to the Auxiliary Winding (start winding). As the Motor comes up to speed, this switch opens the circuit to the Start Winding and closes the circuit at blue wire connection in the motor and allows 120 volts through the blue wire and to the red wire onto the Heat circuit which then goes up to the Hi-Limit switch. The heat circuit in the dryer will not operate if the motor is not running.

## 30lb. Compact Stack Dryer Schematic

### Heat Circuit

With the Drive Motor running and dry timer on , 120VAC is provided to the High Limit Thermostat on red wire . The High Limit Thermostat is normally closed. (It will open, turning off the heat circuit, if the dryer can't move enough air from problems such as an exhaust restriction) 120VAC goes through the normally closed High Limit Thermostat on the Brn wire to the normally open Air Switch (Sail Switch) on the brown wire. This switch is closed only if the dryer is running and has the correct air flow. With the dryer running and the Air Switch closed, 120VAC is supplied to the gray wire that connects to the Manual Reset Over-Temp Thermostat . 120 volts is supplied through this normally closed contact on the gray wire to the cycling thermostat. If the cycling thermostat switch is closed calling for heat 120 volts will pass through this switch starting on the bl/wht wire then changes color to black as it leaves this switch and goes to the transformer. This transformer steps 120VAC down to 24VAC. There is a 1.5 amp in-line fuse that protects the Control Transformer on the red wire . 24 volts is supplied to the Spark Ignition Module (Ignition Controller) by the Control Transformer on the red wire after the fuse. The Spark Ignition Module will then send high voltage to the Spark Electrode via the High Voltage Lead (this lead looks like an automotive spark plug wire). The Spark Ignition Module also sends 24VAC to the Gas Valve Coils at the same time which open the Gas Valve. After ignition occurs and is proven the high voltage sparking stops and flame is sensed on the flame sensor and allows the gas valve to stay open and continue burning. If ignition does not occur, the Spark Ignition Module will spark for 10 seconds and then it locks out. To reset the Spark Ignition Module the dryer loading door must be opened for 10 seconds or power removed and restored to allow a reset .

## 30lb. Compact Stack Dryer Schematic

### Over Temperature Thermostat (Manual Reset Safety Shutoff Thermostat)

This thermostat is manually reset by pushing in the red button. The Over Temperature Thermostat is a safety backup for the entire Heat Circuit. If the dryer overheats the Over Temperature Thermostat opens the heat circuit until it is manually reset.

## 30lb. Compact Stack Dryer Schematic

### Cool Down

As the Dry Timer times out, 120 volts on the black wire passes through the "A" contacts on the dry timer to the "C" contact on the Cool Down Timer and then to the Cool Down Timer motor which starts timing down. While this timer motor runs no power is allowed to the heat circuit but the basket motor will continue to run. This Cool Down period allows the clothing (zippers, snaps, etc.) time to cool down to a temperature that is easily handled by customers.

### End of Cycle

At the end of the cool down time the switches in the timer resets and the Drive Motor stops.

# Section

## DRYER Trouble Shooting

| Symptom                                 | Probable Cause                 | Suggested Remedy   |
|---|--------------------------------|--|
| Tumbler does not turn                   | Drive belts                    | Check both drive belts. Replace if failed.   |
|   | Over temperature<br>Thermostat | Check to see if manually resettable thermostat is kicked out. Reset by pushing red reset button. |
|   | Drive motor                    | Check capacitor and motor. Replace if failed   |
|   | Door switch                    | Check door switch contacts and adjustment. Adjust or replace door switch.                        |
|   | Timer                          | Check to see if heat timer or cool down is turned on   |
| Tumbler turns but<br>no spark at burner | Glass fuse                     | Check small glass control fuse in back of dryer. Replace if failed.                              |
|   | Ignition<br>Transformer        | Check for 24VAC output from transformer. Replace if no voltage.                                  |

| Symptom  | Probable Cause                          | Suggested Remedy  |
|--|---|---|
| Tumbler turns but no spark at burner (continued) | Ignition control                        | Check for 24VAC coming into the control on the red wire. If voltage, then check for 24VAC out on the brown wire. Also check for spark at the ignitor. If no 24VAC output or no spark to the ignitor, replace ignition control.  |
|  | Air Flow Switch                         | Check air flow switch to be sure it closes when dryer is running. If not, adjust or replace switch.   |
|  | Hi-limit                                | Check for continuity. Should be 0 ohms resistance when cold. If not, replace thermostat.  |
|  | Gas supply                              | No gas can cause system lockout   |
| Tumbler turns, ignition sparks, no flame         | Transformer                             | Measure voltage at Ignition system transformer should have 115 V on primary side and 24VAC on secondary side going to Ignition Control at red and yellow wire.  |
|  | Gas supply                              | Make sure gas supply is flowing.  |
|  | Gas pressure                            | Make manometer check of gas pressure. Adjust if necessary to 3 1/2" WC (natural) while burning.   |
|  | Spark electrode                         | Check for damage to electrode or mounting. Replace if necessary.  |
|  | Gas valve                               | Check coil continuity, replace valve if failed.   |
|  | Ignition Control                        | Check for 24VAC to gas valve coils. If no voltage replace ignition control.   |
| Slow drying                                      | Air flow restrictions                   | <ol style="list-style-type: none"> <li>1. Check lint screen and clean if necessary.</li> <li>2. Check exhaust for correct length and clean if necessary.</li> <li>3. Check exhaust damper to insure that it opens when dryer is running and closes when dryer is not in use.</li> <li>4. Check makeup air to insure that it is adequate. Increase makeup air if necessary.</li> </ol> |
|  | Thermostat                              | Check for continuity at switch contacts. Replace if no continuity.  |
| Manual overtemp Tripping Frequently              | Recirculating chamber Lint Accumulation | Remove manual overtemp thermostat and inspect in chamber for excessive lint build up . Access also gained to this chamber by removing recirculation duct mounted at bottom of chamber.  |
|  | Exhaust ducting Excessive lint buildup  | Remove exhaust duct at rear of dryer and inspect for excessive lint build up in complete duct from dryer to where duct exits building.  |

# **DRYER PREVENTIVE MAINTENANCE (PM) REQUIREMENTS**

**MAKE SURE ALL POWER IS DISCONNECTED BEFORE  
MAKING CHECKS INSIDE MACHINE.**

## **DAILY**

1. Clean lint screen with soft brush and check for rips or tears.  
Replace as necessary

## **MONTHLY**

1. Clean lint from motor end bells and dryer controls area.
2. Clean lint from lint screen compartment.
3. Clean lint accumulation from top and all around area above burner housing. Failure to keep this section of dryer free from lint can create a fire hazard.

## **SEMI-ANNUALLY**

1. Check V-belts for cracks, wear, fraying, or looseness.
2. Check tightness of all fasteners holding parts to any support channel.
3. Clean all lint accumulation from front panel, lint screen, and around burner housing.
4. Place a few drops of light oil on top and bottom pivots of the door hinge.
5. Inspect door glass gasket for excessive wear.
6. Clean lint accumulation from primary air ports in burners.
7. Check intermediate drive pulley bushings for excessive wear.

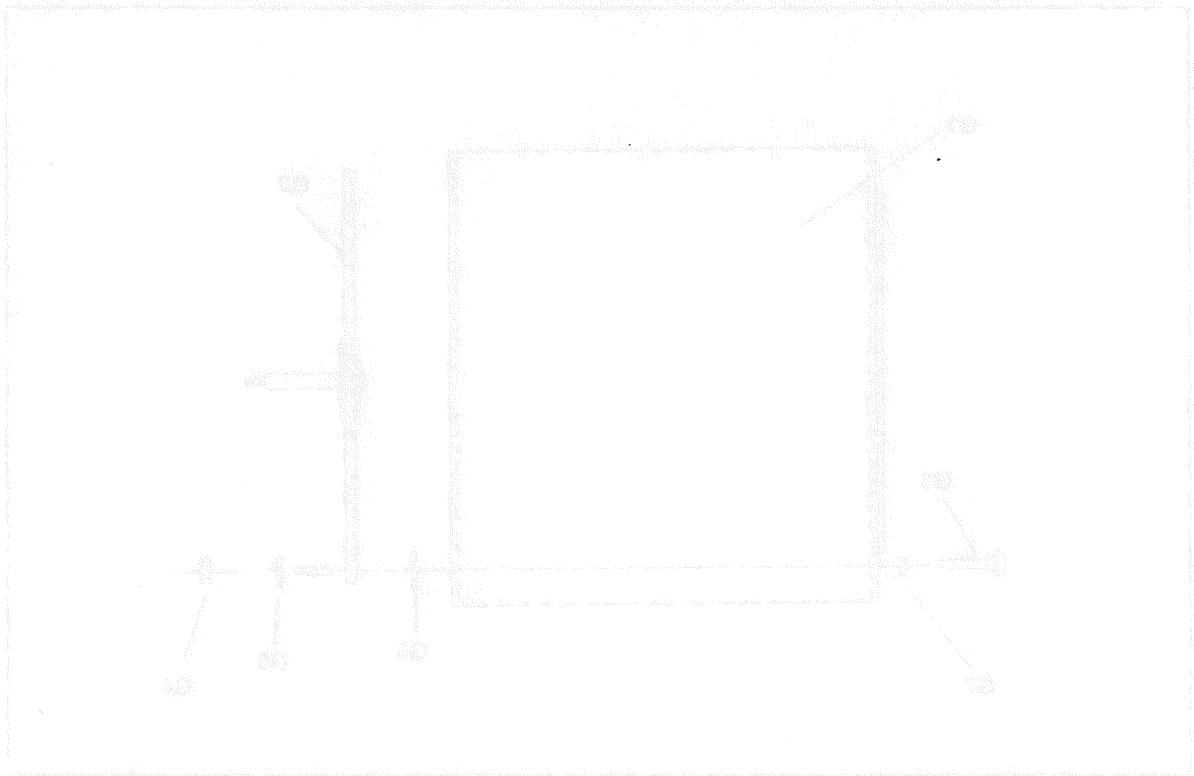
## **ANNUALLY**

1. Remove, inspect and clean main burner orifices of obstructions or dirt and also primary air ports in burners.
2. Grease bearings at intermediate drive pulley with grease fitting.
3. Remove and inspect exhaust ducting of any lint accumulation in exhaust system all the way out to exit walls or roof.
4. Check tumbler shaft retaining nut for 125 Ft.Lb. torque \*.

\* PLEASE NOTE THAT WE HAVE EXTENDED THE TIME BETWEEN CHECKS AFTER SERIAL NUMBER #149253 AND WHEN YOUR NEXT QUARTERLY SCHEDULED PM CHECK IS DUE YOU MAY INSTALL LOCKTITE #271 ACROSS THE THREADS AND TIGHTEN TO 150 FT. LB. AND THIS WILL THEN EXTEND YOUR NEXT PM CHECK TIME TO ANNUALLY.

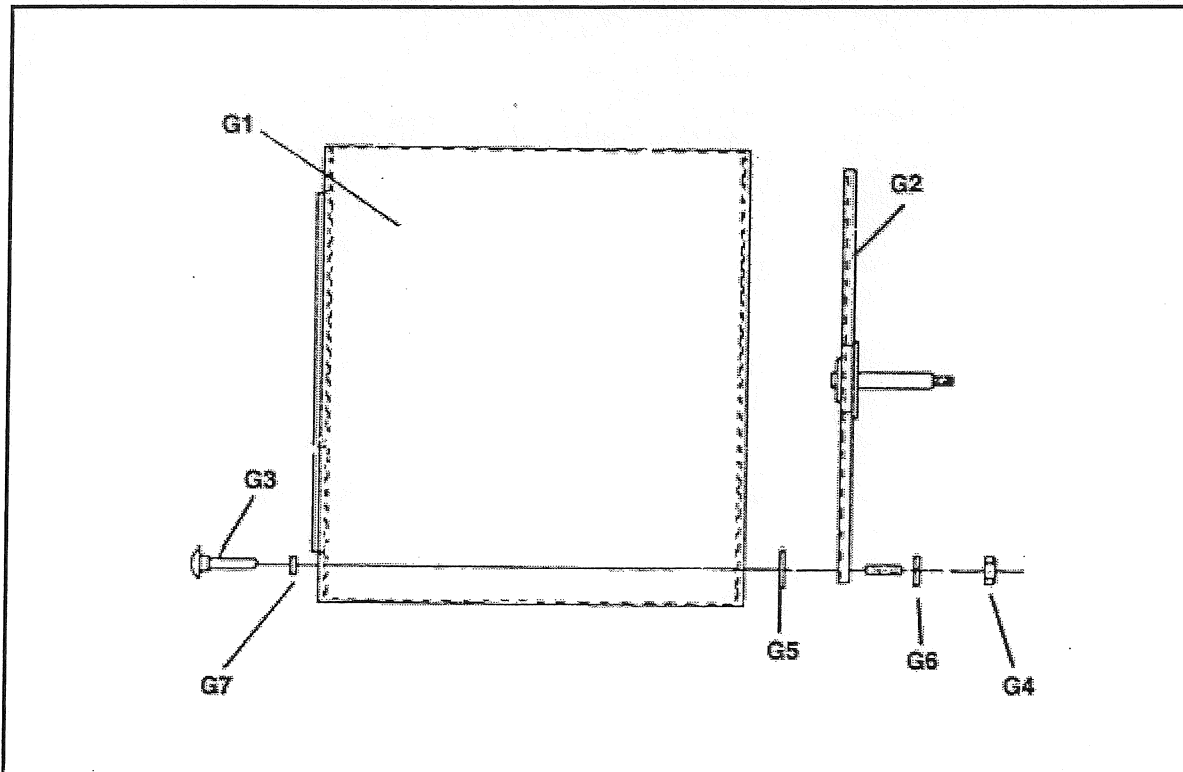
# OPL DRYER LABELS AND WIRING GROUP

| Key | Part Number  | Description   |   |
|-----|--------------|---|---|
|     | 9627-785-001 | Wiring Harness- Controls,Main OPL .....                         | 1 |
|     | 9631-403-002 | Wire, Hi Voltage, Spark type .....                              | 1 |
|     | 9627-678-001 | Wiring Harness, Low Voltage Ignition between igniter&controller | 1 |
| *   | 8502-645-001 | Label Instruction .....   | 1 |
| *   | 8502-617-001 | Label "Made in the USA" .....                                   | 1 |
| *   | 8502-600-002 | Label Warning & Notice .....                                    | 2 |
| *   | 8511-001-002 | Label Quality .....   | 1 |
| *   | 8527-116-001 | Decal Manual Timer OPL .....                                    | 1 |
| *   | 8527-117-001 | Decal Temp/Start OPL .....                                      | 1 |
| *   | 8527-112-001 | Decal Lighting & Clearance .....                                | 1 |
| *   | 8636-018-001 | Fuse 1.5amp .....   | 1 |
| *   | 9345-900-001 | Wiring Schematic .....  | 1 |
| *   | 9345-901-001 | Wiring Label Diagram .....                                      | 1 |
| *   | 8514-042-001 | Owners Booklet .....  | 1 |



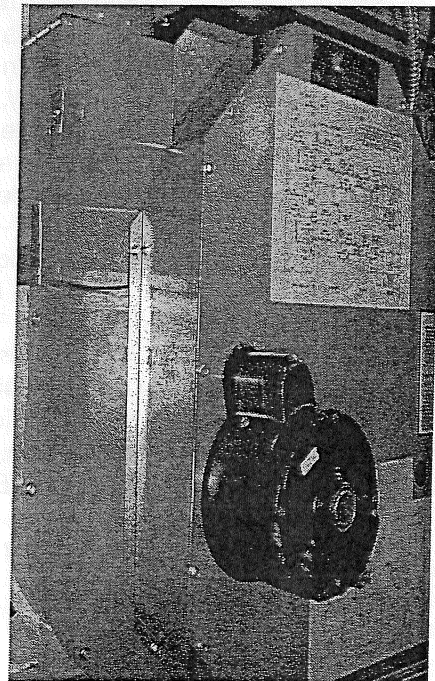
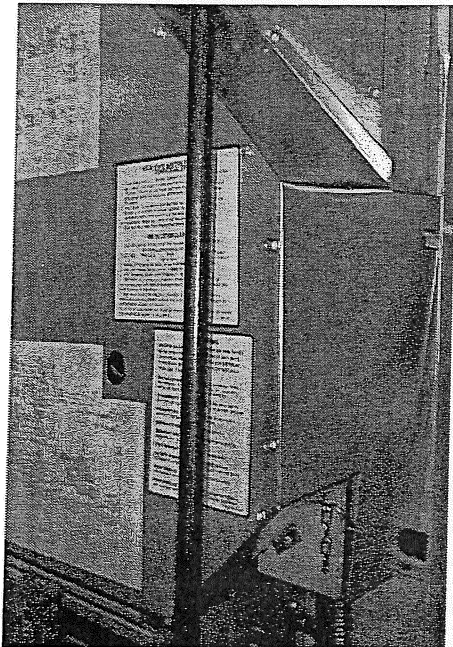
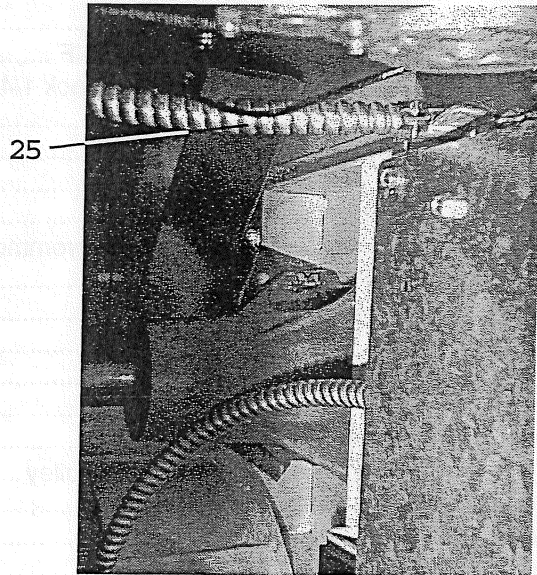
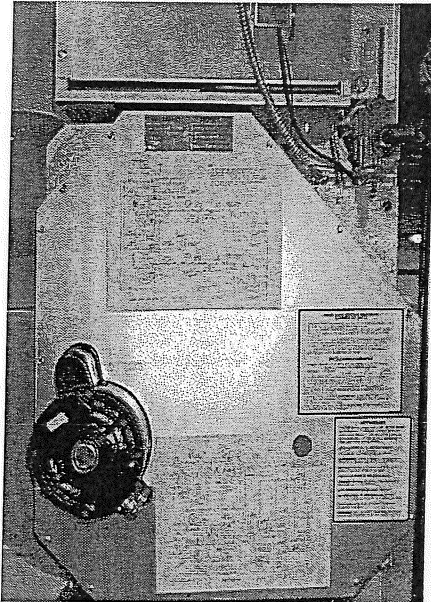
# OPL DRYER TUMBLER GROUP

| Key | Part Number  | Description   |    |
|-----|--------------|---|----|
| G1  | 9848-112-001 | Tumbler Ass'y .....   | 1  |
| G2  | 9568-009-005 | Spider Ass'y .....  | 1  |
| G3  | 9497-019-003 | Rod, Tumbler .....  | 3  |
| G4  | 8640-415-001 | Nut 3/8"-16 .....   | 3  |
| G5  | 8641-582-003 | Washer, Spring Lock .....   | 3  |
| G6  | 8641-554-001 | Washer, Special .....   | 3  |
| G7  | 9552-013-000 | Shim .....  | AR |
| *   | 9551-019-006 | Perforated Basket Material Only ( not formed flat stock only) ..... |    |



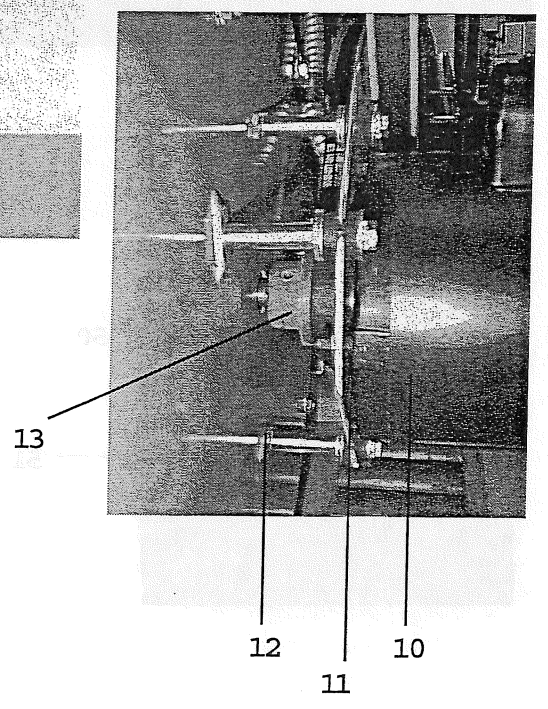
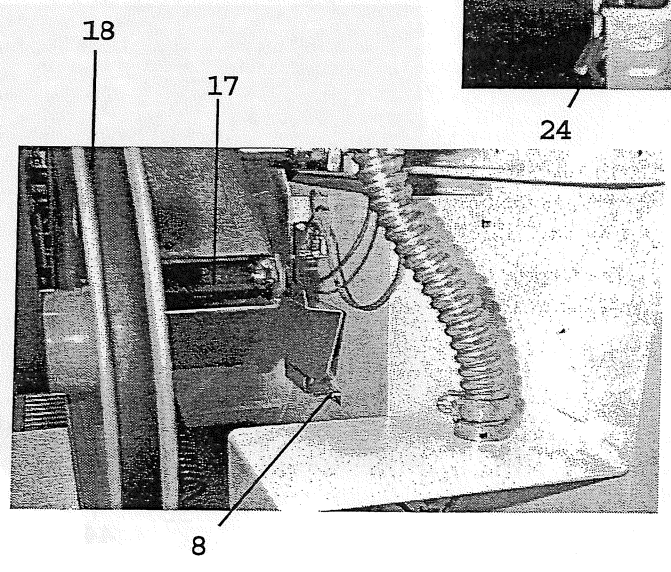
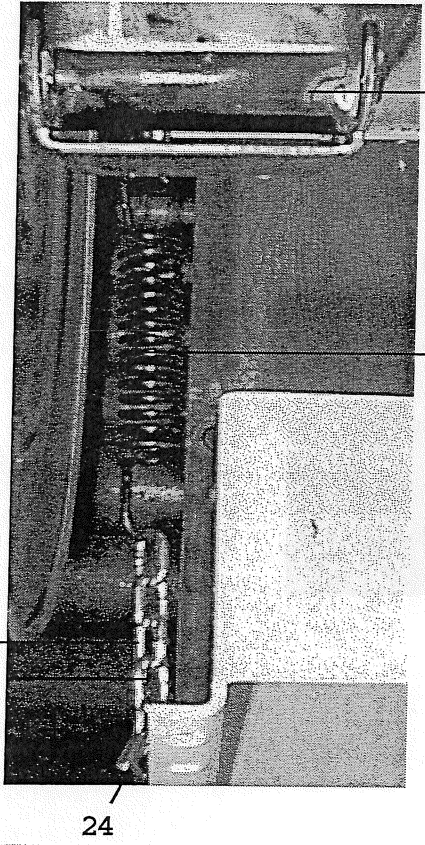
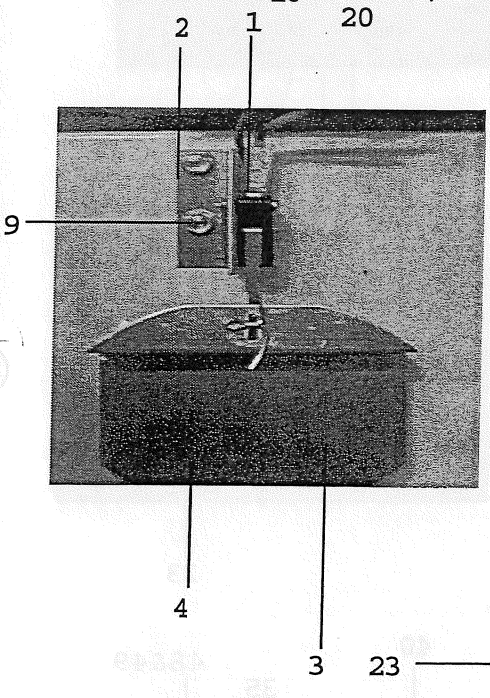
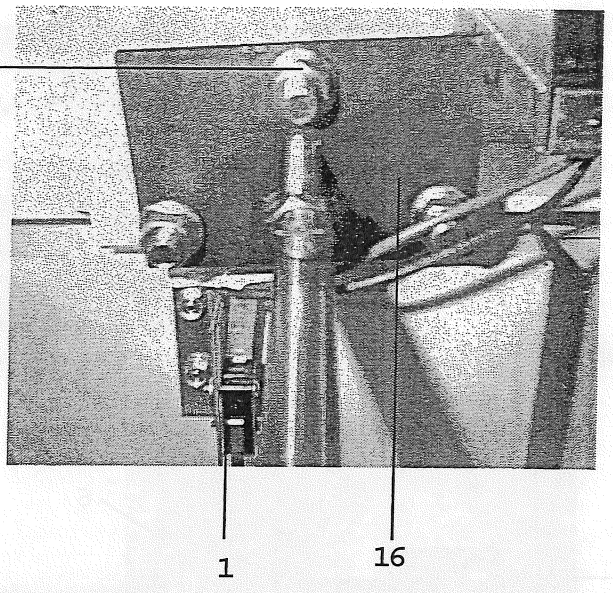
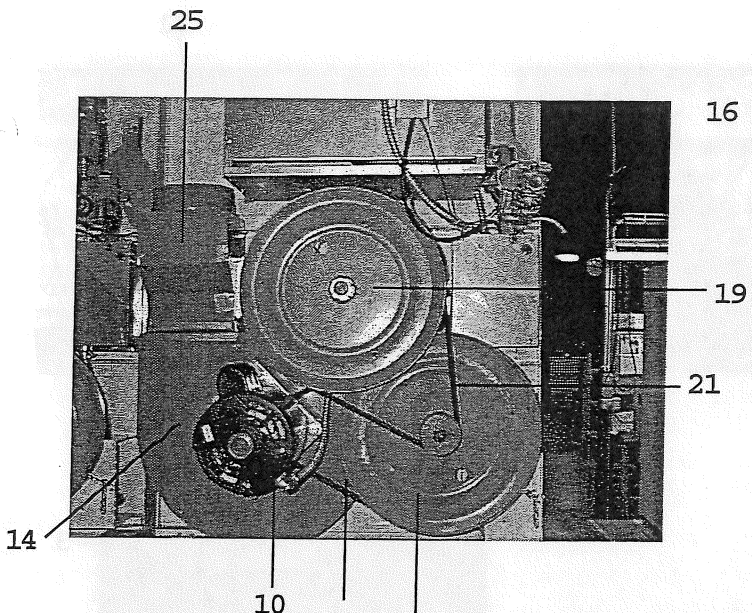
# OPL REAR PANEL GROUP

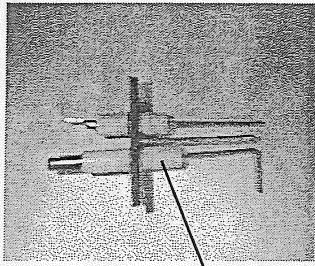
| Key | Part Number  | Description   |    |
|-----|--------------|---|----|
| *   | 9208-048-001 | Guard, Drive  | 1  |
| *   | 9454-649-001 | Panel, Drive Guard, RH side .....                         | 1  |
| *   | 9989-444-001 | Panel, Drive Guard, LH( complete assembly 2 pieces below) | 1  |
| *   | 9454-650-001 | Panel, Drive Guard, LH side .....                         | 1  |
| *   | 9029-049-001 | Bracket Driveguard .....                                  | 1  |
| *   | 9545-008-024 | Screw 10ABx3/8 .....                                      | 18 |
| 25  | 9973-029-001 | Heat Recirculation Assembly Duct .....                    | 1  |



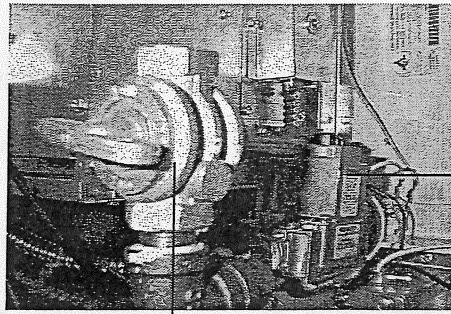
# OPL DRYER REAR VIEW

| Key | Part Number  | Description                                       |    |
|-----|--------------|---|----|
| *   | 9801-060-001 | Switch Assy, Air Flow .....                       | 1  |
| 1   | 9539-461-009 | Switch, Air Flow .....                            | 1  |
| 2   | 9029-044-001 | Bracket, Switch- Air Flow .....                   | 1  |
| 3   | 9008-007-001 | Actuator, Switch .....                            | 1  |
| 4   | 9451-169-002 | Pin, Cotter .....                                 | 1  |
| 5   | 9545-020-001 | Screw 4-40x 5/8 .....                             | 2  |
| 6   | 8640-401-001 | Nut, Special Twin 4-40 .....                      | 1  |
| 7   | 9550-169-003 | Shield, Switch .....                              | 1  |
| 8   | 9029-046-001 | Bracket, Actuator Stop .....                      | 1  |
| 9   | 9545-008-024 | Screw 10ABx 3/8 .....                             | 4  |
| 10  | 9376-296-002 | Motor, Drive 115/1/60hz. ....                     | 1  |
| 11  | 9452-692-001 | Plate, Motor Mtg .....                            | 1  |
| 12  | 8640-413-002 | Nut, Motor to Plate 10-32 UNF .....               | 4  |
| 12  | 9545-018-019 | Screw, Motor Plate to Hsg Back 1/4-20x21/2" ..... | 5  |
| 12  | 8641-582-007 | Lockwasher .....                                  | 5  |
| 12  | 9538-163-006 | Spacer .....                                      | 5  |
| 12  | 8641-581-017 | Flat Washer 1/4x7/8 .....                         | 15 |
| 12  | 9209-086-002 | Rubber Grommet .....                              | 5  |
| 12  | 9538-166-006 | Grommet Spacers fit inside grommet .....          | 5  |
| 13  | 9453-157-001 | Pulley, Motor .....                               | 1  |
| *   | 9545-028-013 | Screw, Set .....                                  | 2  |
| 14  | 9962-015-002 | Back Assy, Blower Hsg .....                       | 1  |
| 14  | 8640-414-004 | Nut Hex 1/4-20 .....                              | 9  |
| 14  | 8641-582-007 | Lockwasher 1/4 .....                              | 9  |
| 15  | 9278-039-001 | Impeller, W/Set Screws .....                      | 1  |
| 16  | 9991-053-001 | Support Assy,for Intermed. Pulley .....           | 1  |
| 16  | 9545-029-010 | Bolt, Rd Hd 3/8-16x1 1/4" .....                   | 3  |
| 16  | 9545-029-003 | Bolt 3/8-16x1 1/2" .....                          | 1  |
| 16  | 8640-415-004 | Nut FlangeWHZLK 3/8-16 .....                      | 3  |
| 16  | 8641-581-035 | Washer, Flat .....                                | 4  |
| 17  | 9861-022-001 | Arm Assy-Tension, Complete .....                  | 1  |
| *   | 8641-581-035 | Washer, Flat .....                                | 3  |
| *   | 9487-200-003 | Ring-Retaining .....                              | 3  |
| 18  | 9908-039-004 | Pulley Assy, Intermediate W/bronze bushing .....  | 1  |
| 19  | 9908-040-001 | Pulley Driven .....                               | 1  |
| 19  | 9538-164-001 | Spacer, Shaft .....                               | 1  |
| 19  | 9306-006-000 | Key, Tumbler Shaft .....                          | 1  |
| 19  | 8640-222-000 | Nut, Hex 1"-14 .....                              | 1  |
| 19  | 8641-582-015 | Washer, Lock .....                                | 1  |
| 20  | 9040-077-001 | Belt, Drive- Motor .....                          | 1  |
| 21  | 9040-073-009 | Belt, Drive- Tumbler .....                        | 1  |
| 22  | 9534-319-002 | Spring, Tension .....                             | 1  |
| 23  | 9099-012-002 | Chain, Tension .....                              | 1  |
| 24  | 9248-022-002 | Hook, Tension .....                               | 1  |
| 25  | 9803-184-002 | Damper Housing Assembly .....                     | 1  |
| 25  | 9545-008-024 | Screw, 10ABx3/8 .....                             | 4  |
| 25  | 9125-003-001 | Damper .....                                      | 2  |
| 25  | 9451-146-004 | Pin-Damper .....                                  | 2  |
| 25  | 8520-141-000 | Nut, Spring .....                                 | 4  |
| 25  | 9545-008-026 | Screw, 10B x 1/2 .....                            | 3  |

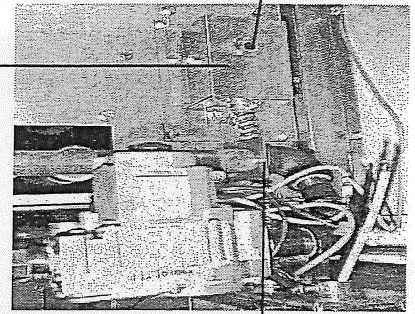




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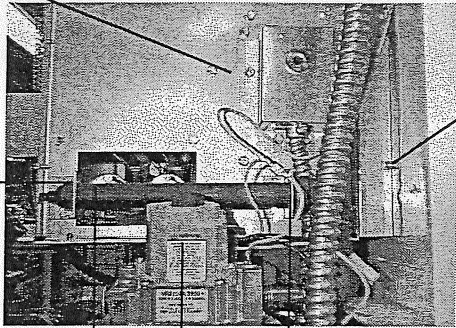
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Service Cover

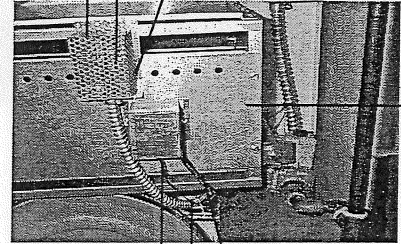


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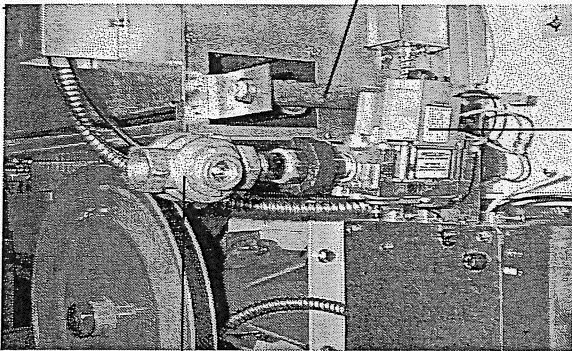


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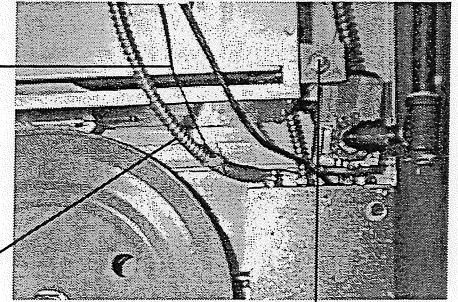
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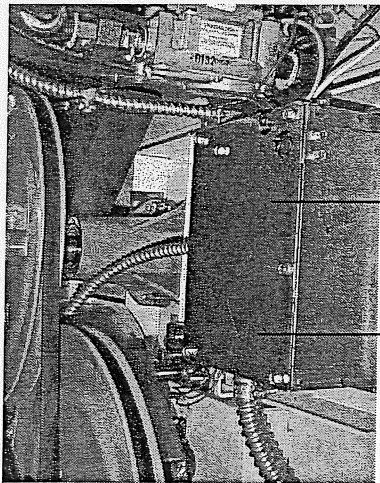
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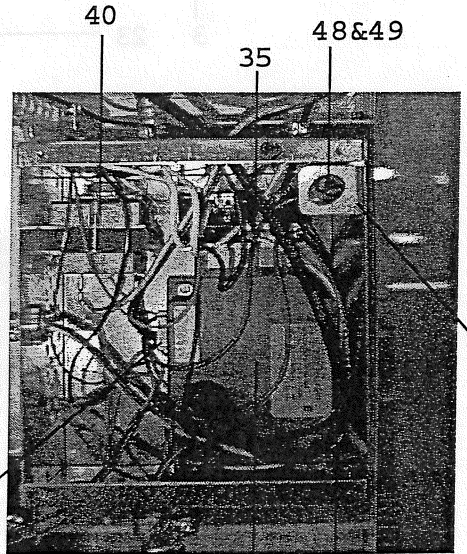
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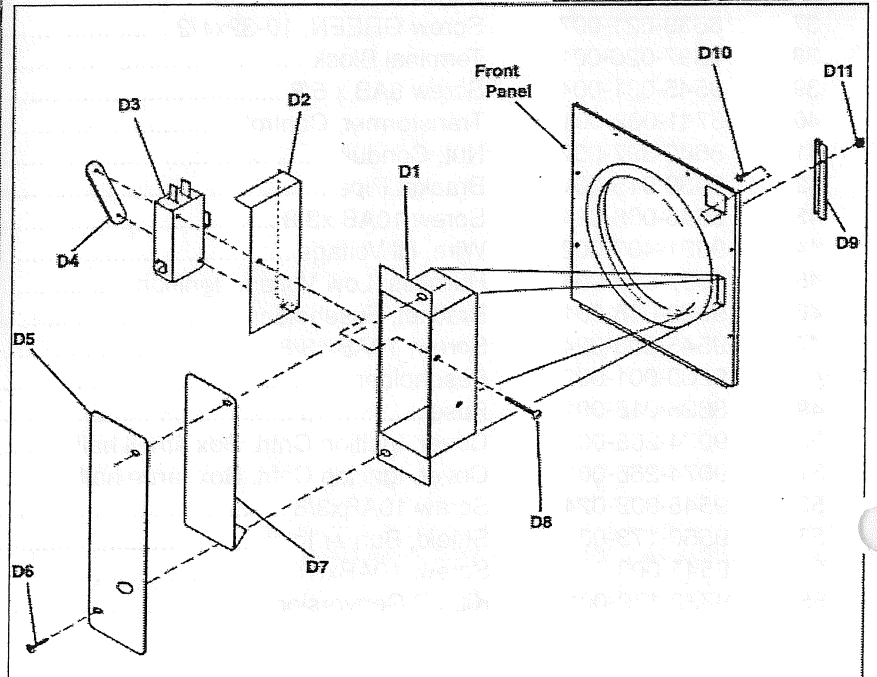
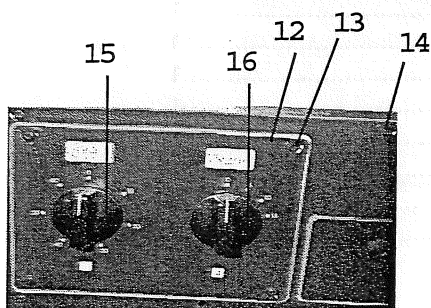
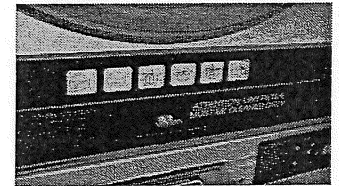
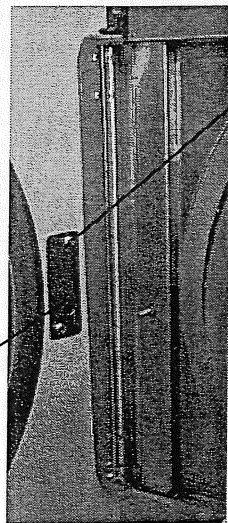
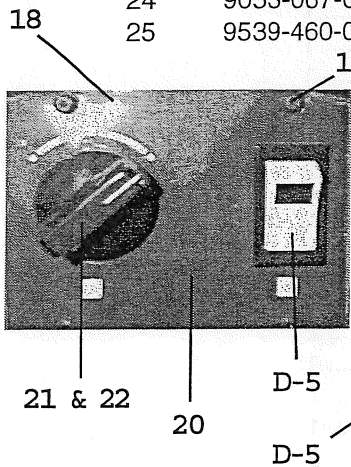
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# OPL DRYER BURNER HOUSING AND IGNITION CONTROL GROUP

| Key | Part Number  | Description  |   |
|-----|--------------|--|---|
| 1   | 9803-185-001 | Housing Assembly, Burner.....                          | 1 |
| *   | 9454-641-001 | Left Buner Plate ( burner side ) with cleanout.....    | 1 |
| *   | 9452-696-001 | Service Cover Plate for overtemp reset.....            | 1 |
| 2   | 9545-008-006 | Screw 10ABx3/8.....                                    | 4 |
| 3   | 9003-220-001 | Angle, Burner Support.....                             | 1 |
| 4   | 9545-008-006 | Screw 10ABx 3/8.....                                   | 2 |
| 5   | 9048-020-001 | Burner, Main.....                                      | 2 |
| 6   | 9545-008-006 | Screw 10ABx 3/8.....                                   | 2 |
| 7   | 9454-645-001 | Panel, Back Burner Housing.....                        | 1 |
| 8   | 9545-008-001 | Screw 10Bx 1/4.....                                    | 4 |
| 9   | 9875-002-002 | Electrode Assy, Ignition.....                          | 1 |
| 10  | 9545-045-001 | Screw, Electrode Mtg 8Bx 1/4.....                      | 2 |
| 11  | 9550-172-001 | Shield, Ignitor Terminals.....                         | 1 |
| 12  | 9545-008-024 | Screw, 10ABx3/8.....                                   | 2 |
| 13  | 9379-186-001 | Valve, Gas Shut Off.....                               | 1 |
| 14  | 9029-116-001 | Bracket Gas Valve Support.....                         | 1 |
| 15  | 9545-008-024 | Screw, 10ABx3/8.....                                   | 2 |
| 16  | 9857-134-001 | Control Assy, Gas.....                                 | 1 |
| 17  | 9381-009-001 | Manifold, Assy.....                                    | 1 |
| 18  | 9425-069-009 | Orifice, Burner-Natural.....                           | 2 |
| 19  | 9425-069-008 | Orifice, Burner-LP.....                                | 2 |
| 20  | 9029-047-001 | Bracket, Manifold.....                                 | 1 |
| 21  | 9039-915-001 | Bracket, Inlet Pipe.....                               | 1 |
| 22  | 9545-008-006 | Screws, 10ABx3/8.....                                  | 4 |
| 23  | 8615-104-038 | Pipe Plug in end of burner Manifold.....               | 1 |
| 24  | 9452-615-001 | Plate Assy, Hi-Limit Stat.....                         | 1 |
| 25  | 9545-008-006 | Screw 10ABx 3/8.....                                   | 2 |
| 26  | 9576-203-002 | Thermostat, Hi-Limit.....                              | 1 |
| 27  | 9538-142-001 | Spacer, Hi-Limit used to mount Hi Limit Thermostt..... | 2 |
| 28  | 9545-045-007 | Screw 8Bx 3/4.....                                     | 2 |
| 29  | 9074-234-001 | Cover, Hi-Limit Stat.....                              | 1 |
| 30  | 9545-008-006 | Screw 10AB x 3/8.....                                  | 1 |
| 31  | 9576-207-008 | Thermostat, Safety Shutoff Overtemp Manual Reset.....  | 1 |
| 32  | 9545-008-006 | Screw 10AB x 3/8.....                                  | 2 |
| 33  | 9825-057-002 | Cover, Safety Stat Overtemp Manual reset.....          | 1 |
| 34  | 9545-008-006 | Screw 10AB x 3/8.....                                  | 2 |
| 35  | 9857-116-002 | Control, Ignition.....                                 | 1 |
| 36  | 9545-031-006 | Screw 6AB x 1.....                                     | 2 |
| 37  | 8639-621-007 | Screw GREEN, 10-32x1/2.....                            | 1 |
| 38  | 9897-026-001 | Terminal Block.....                                    | 1 |
| 39  | 9545-031-004 | Screw 6AB x 5/8.....                                   | 2 |
| 40  | 8711-002-001 | Transformer, Control.....                              | 1 |
| 41  | 8640-397-002 | Nut, Conduit.....                                      | 1 |
| 42  | 9039-915-001 | Bracket Pipe.....                                      | 1 |
| 43  | 9545-008-024 | Screw 10AB x3/8.....                                   | 2 |
| 44  | 9631-403-002 | Wire, Hi Voltage.....                                  | 1 |
| 45  | 9627-678-001 | Harness, Low Voltage Ignition.....                     | 1 |
| 46  | 9029-048-001 | Bracket, Fuseholder.....                               | 1 |
| 47  | 9545-008-024 | Screw, 10ABx 3/8.....                                  | 2 |
| 48  | 9200-001-002 | Fuseholder.....  | 1 |
| 49  | 8636-018-001 | Fuse.....  | 1 |
| 50  | 9074-265-001 | Cover, Ignition Cntrl. Box small half.....             | 1 |
| 51  | 9074-266-001 | Cover, Ignition Cntrl. Box large half.....             | 1 |
| 52  | 9545-008-024 | Screw 10ABx3/8.....                                    | 6 |
| 53  | 9550-173-001 | Shield, Burner Inlet.....                              | 1 |
| 54  | 9545-008-024 | Screw, 10ABx3/8.....                                   | 3 |
| 55  | 9732-179-001 | Kit, LP Conversion.....                                | 1 |

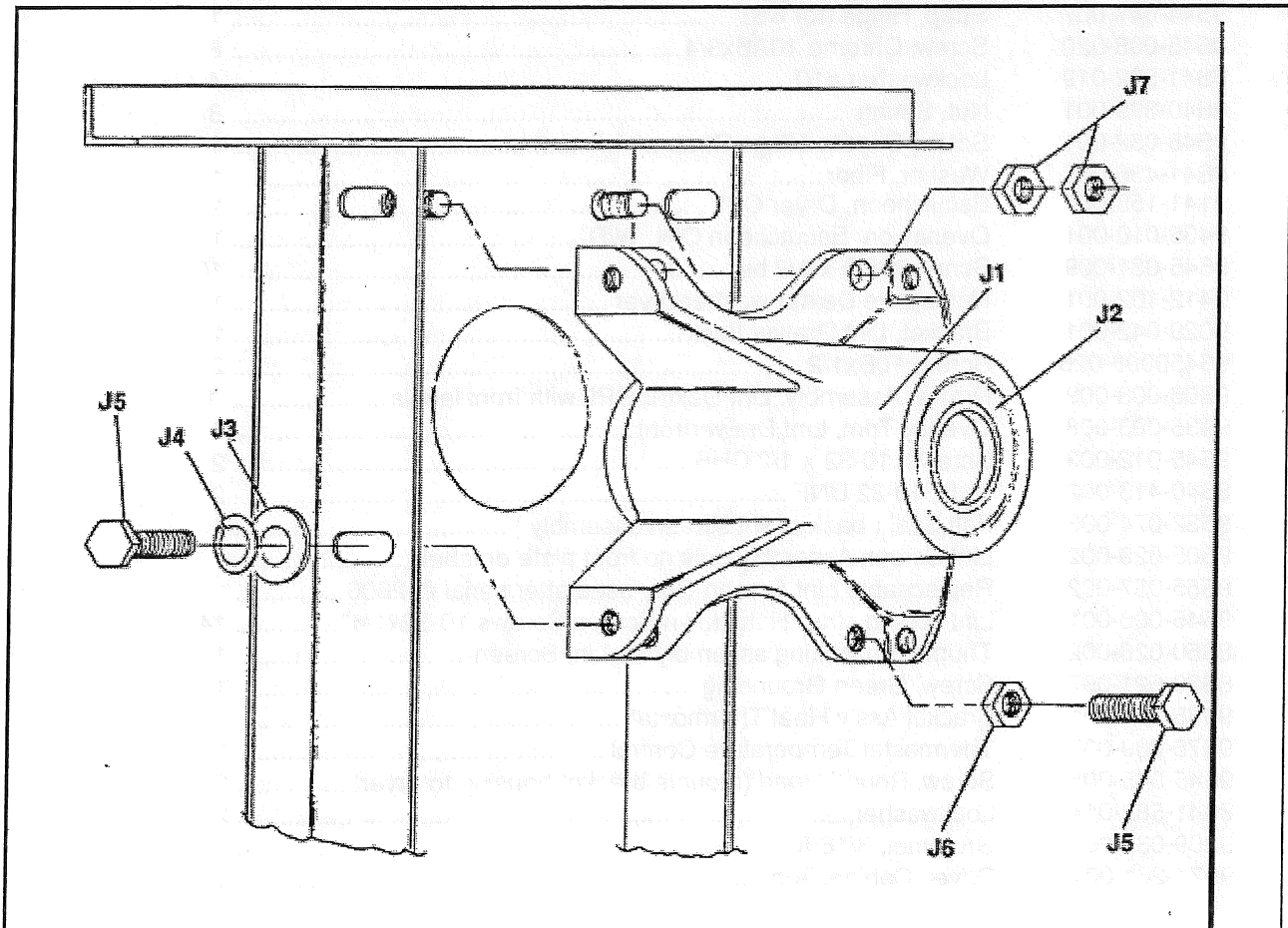
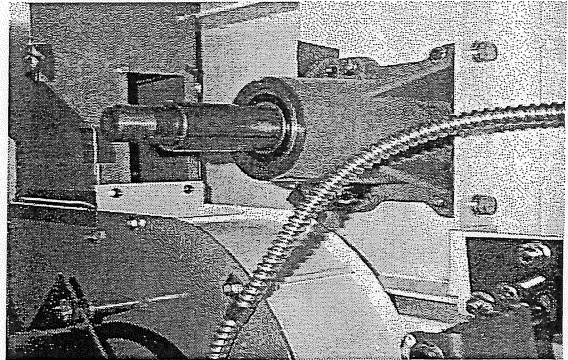
# OPL DRYER CONTROL FRONT AND DOOR SWITCH GROUP

| Key | Part Number  | Description                            |   |
|-----|--------------|--|---|
| D-1 | 9041-076-002 | Box, Door Switch .....                 | 1 |
| D-2 | 9550-159-001 | Shield, Door Switch .....              | 1 |
| D-3 | 9539-461-001 | Switch, Door .....                     | 1 |
| D-8 | 9545-020-001 | Screw, Switch Mtg 4-40x5/8 .....       | 2 |
| D-4 | 8640-401-001 | Nut, Special Twin .....                | 1 |
| D-5 | 9074-255-001 | Cover, Switch Box.....                 | 1 |
| D-6 | 9545-008-020 | Screw, Box Cover 10 AB x3/4 .....      | 2 |
| *   | 9209-037-001 | Grommet 1/4 .....                      | 1 |
| D-7 | 9008-004-002 | Actuator, Switch .....                 | 1 |
| D-9 | 6068-043-001 | Conduit, Special.....                  | 1 |
| D10 | 9545-012-003 | Screw 8-32 x 3 3/16" .....             | 1 |
| D11 | 8640-413-004 | Nut, ElasticStop 10-32 .....           | 1 |
| *   | 8641-436-000 | Washer Fiber type.....                 | 1 |
| 10  | 9277-048-001 | Insulation Front Panel top .....       | 1 |
| 11  | 9277-048-002 | Insulation front Panel bottom .....    | 1 |
| 12  | 9452-686-001 | Plate Controls OPL Lefthand side.....  | 1 |
| 13  | 9545-031-009 | Screw, 6BSDx1/2 Blk .....              | 4 |
| 14  | 9545-010-010 | Screw 8-32x5/16 .....                  | 4 |
| 15  | 9571-350-002 | Timer Dry .....                        | 1 |
| 16  | 9571-350-002 | Timer Cooldown .....                   | 1 |
| 17  | 9307-176-001 | Knob Black Control .....               | 2 |
| 18  | 9452-687-001 | Plate Control OPL Righthand side ..... | 1 |
| 19  | 9545-031-009 | Screw, 6BSDx1/2 Blk .....              | 4 |
| 20  | 8527-117-001 | Decal Temp Start OPL W/D .....         | 1 |
| 21  | 9307-176-001 | Knob Temp Control .....                | 3 |
| 22  | 9576-209-003 | Thermostat .....                       | 1 |
| 23  | 9545-044-006 | Screw 6-32x5/16 .....                  | 2 |
| 24  | 9053-067-002 | Bushing for wire .....                 | 1 |
| 25  | 9539-460-001 | Start Push Type .....                  | 1 |



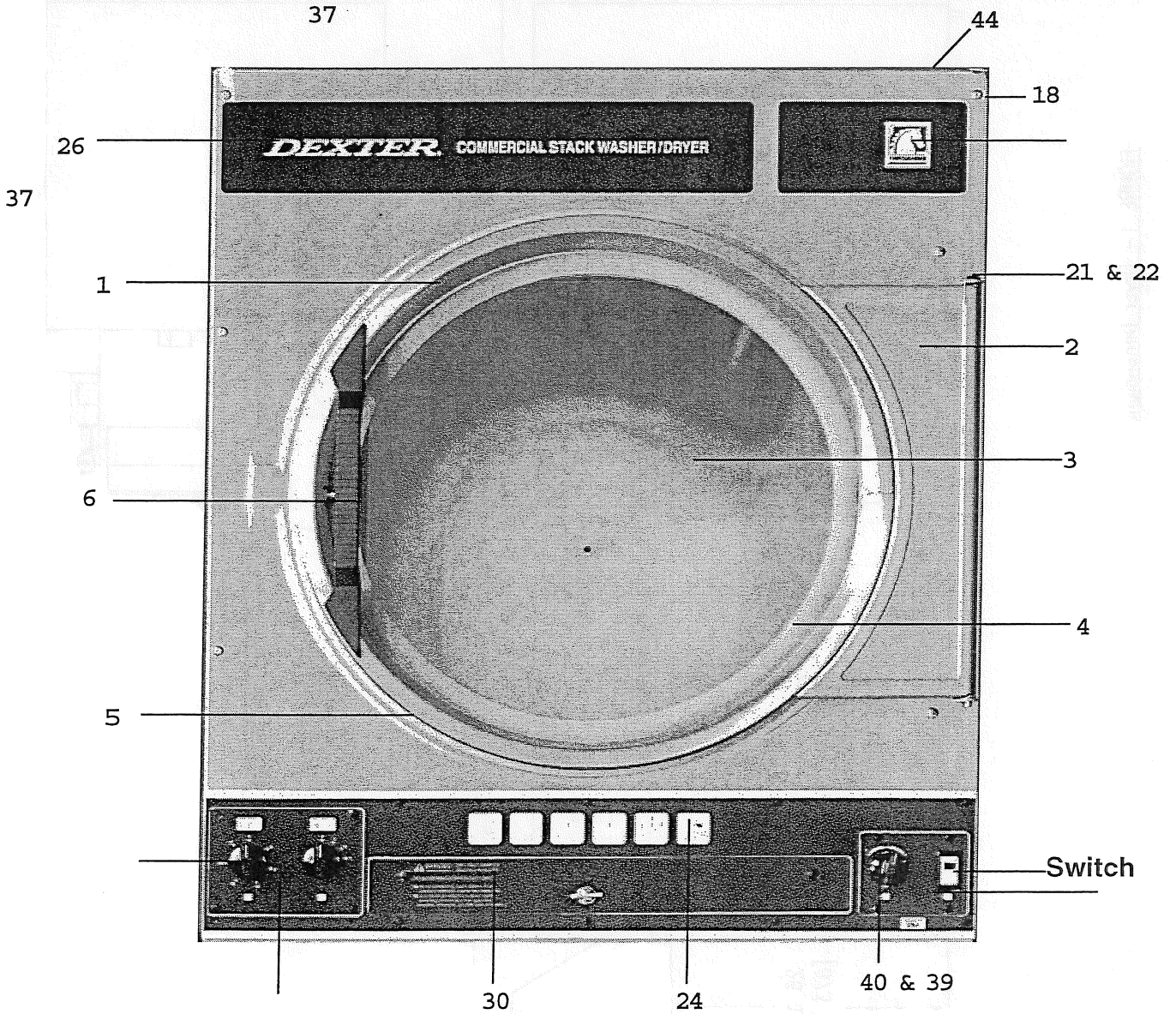
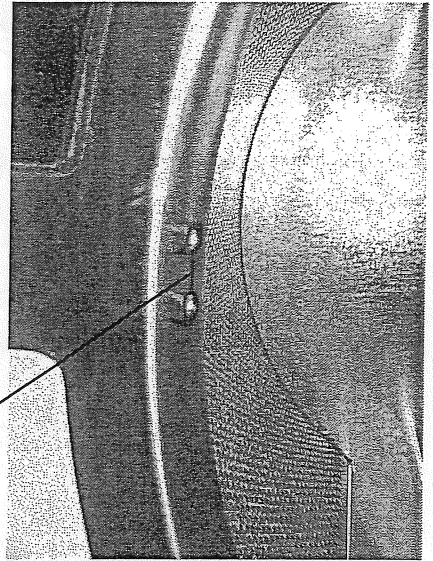
# OPL DRYER BEARING HOUSING GROUP

| Key | Part Number  | Description  |   |
|-----|--------------|--|---|
| J1  | 9241-161-002 | Housing, Bearing .....   | 1 |
| J2  | 9036-130-001 | Bearing, Ball .....  | 2 |
| *   | 9538-139-002 | Spacer, Bearing .....  | 1 |
| J3  | 8641-581-009 | Washer, Flat .....   | 4 |
| J4  | 8641-582-003 | Lockwasher .....   | 4 |
| J5  | 9545-049-001 | Screw, 3/8-24x1 .....  | 6 |
| J6  | 8640-415-002 | Nut, 3/8-24 .....  | 2 |
| J7  | 8640-400-002 | Nut, 5/16-18 .....   | 4 |
| *   | 9803-160-003 | Bearing Housing Complete Ass'y (includes bearings, spacer) ..... | 1 |



## OPL DRYER CABINET GROUP

| Key | Part Number  | Description   |    |
|-----|--------------|---|----|
| *   | 9960-256-030 | Door Assy., Loading Complete-SS .....                       | 1  |
| 1   | 9960-255-008 | Door Assy., Loading-SS(ring only) .....                     | 1  |
| 2   | 9982-280-011 | Plate Assy., Hinge (SS) .....                               | 1  |
| *   | 9545-012-015 | Screw, Hinge to Door 10-32x3/8 .....                        | 4  |
| *   | 8640-413-002 | Nut, Hinge to Door 10-32 UNF .....                          | 4  |
| 3   | 9212-002-003 | Glass, Door .....   | 1  |
| 4   | 9206-164-009 | Gasket, Glass .....   | 1  |
| *   | 9548-117-000 | Support, Door Glass .....                                   | 1  |
| 5   | 9206-420-002 | Gasket, Outer Rim .....                                     | 1  |
| 6   | 9244-082-001 | Handle, Loading Door .....                                  | 1  |
| 7   | 9545-018-017 | Screw, Handle 1/4-20x3/8 pan head .....                     | 2  |
| 8   | 9531-033-001 | Stud, Door Catch .....                                      | 1  |
| 9   | 8640-413-003 | Nut, Acorn 10-32 .....                                      | 1  |
| 10  | 8640-413-001 | Nut, Hex 10-32 .....  | 1  |
| 11  | 9086-015-002 | Catch, Loading Door .....                                   | 1  |
| 12  | 8638-190-009 | Rivet pop for mounting catch .....                          | 2  |
| 13  | 9545-012-003 | Screw 10-32x1/2 CHR .....                                   | 2  |
| 14  | 8640-413-004 | Nut Elastic 10-32 .....                                     | 2  |
| 15  | 8641-436-000 | Washer Fiber .....  | 2  |
| 16  | 9989-468-001 | Panel Assy., Front- OPL Dryer (SS) .....                    | 1  |
| 17  | 9544-047-007 | Strap, Hinge (for SS) .....                                 | 1  |
| 18  | 9545-008-020 | Screw, Chrome 10ABx3/4 .....                                | 8  |
| 19  | 8641-582-019 | Lockwasher #10 .....  | 4  |
| 20  | 8640-399-001 | Nut, Spring .....   | 8  |
| 21  | 9545-052-001 | Screw, Door to Hinge Strap .....                            | 1  |
| 22  | 8641-436-003 | Washer, Fiber .....   | 1  |
| 23  | 9141-155-001 | Escutcheon, Dryer OPL .....                                 | 1  |
| 24  | 9435-010-001 | Overlay on Escutcheon OPL W/D .....                         | 1  |
| 25  | 9545-031-009 | Screw 6BSD x 1/2 blk. ....                                  | 10 |
| 26  | 9412-102-001 | Nameplate Dexter washer/dryer .....                         | 1  |
| 27  | 9029-042-001 | Bracket, Lint Drawer Lock .....                             | 1  |
| 28  | 95450008-026 | Screw, 10Bx1/2 .....  | 2  |
| 29  | 9866-003-009 | Drawer Assembly, Lint Dexter OPL with front labels .....    | 1  |
| 30  | 9435-003-008 | Overlay Trim, Lint Drawerfront .....                        | 1  |
| 31  | 9545-012-003 | Screws, 10-32 x 1/2 CHR .....                               | 2  |
| 32  | 8640-413-002 | Nuts, 10-32 UNF .....                                       | 2  |
| 33  | 9532-074-003 | Felt Seal ( back of lint screen assembly ) .....            | 1  |
| 34  | 9805-029-002 | Lint Screen Assembly only no front plate or label .....     | 1  |
| 35  | 9555-057-002 | Replaceable Lint Screen Only used after serial #12606 ..... | 1  |
| 36  | 9545-008-001 | Lint screen strap Hold down Screen Screws 10-32x1/4" .....  | 14 |
| 37  | 8650-026-002 | Thumbturn locking assembly for Lint Screen .....            | 1  |
| 38  | 8639-621-007 | Screw, Green Grounding .....                                | 1  |
| 39  | 9985-174-001 | Bracket Ass'y Heat Thermostat .....                         | 1  |
| 40  | 9576-209-003 | Thermostat Temperature Control .....                        | 1  |
| 41  | 9545-045-005 | Screw, Round Head (mounts bracket housing to dryer) .....   | 2  |
| 42  | 8641-582-014 | Lockwasher .....  | 2  |
| 43  | 9209-037-002 | Grommet, 3/16 ID .....                                      | 1  |
| 44  | 9074-261-001 | Cover, Cabinet Top .....                                    | 1  |



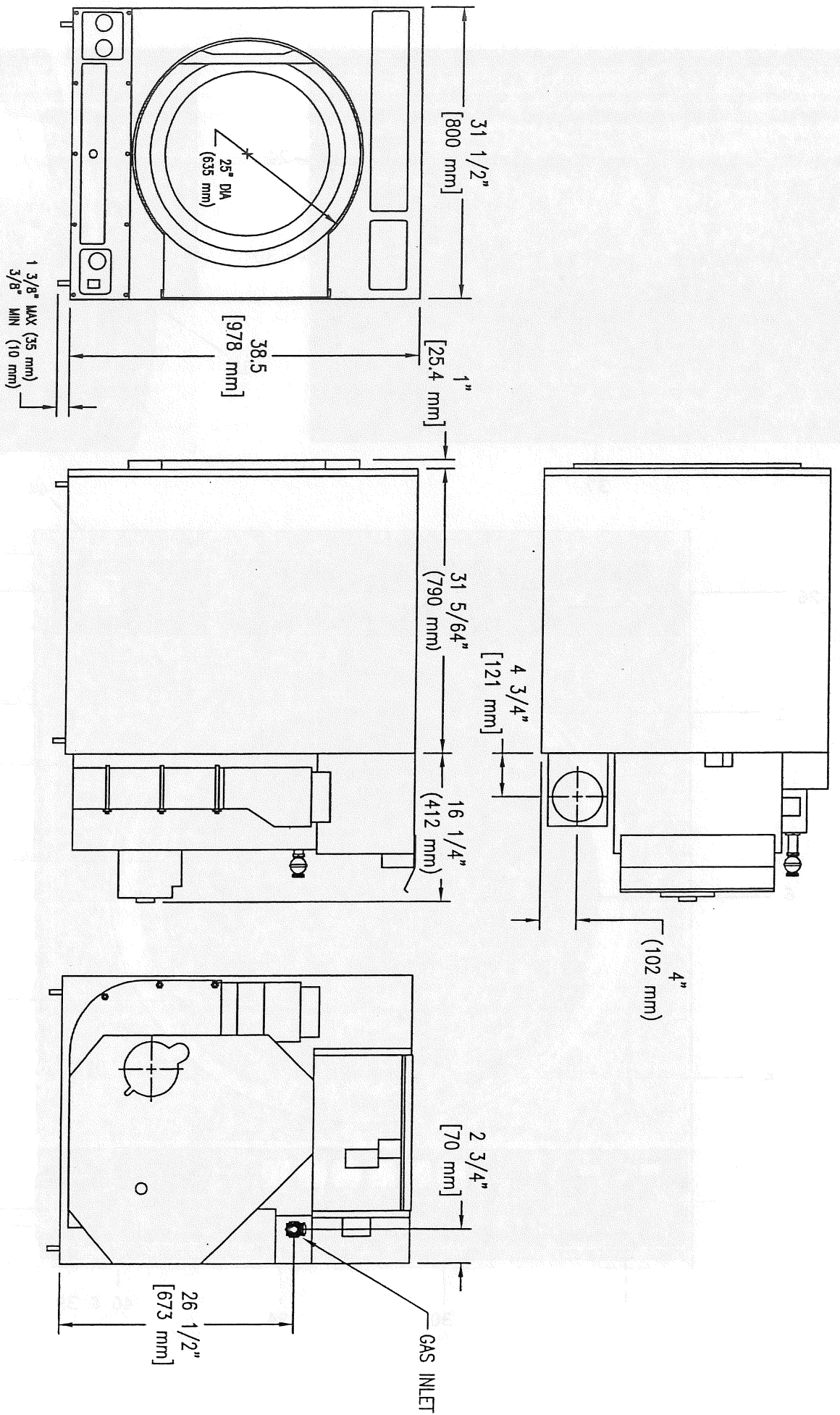


FIGURE 1—Dryer Dimensions

# OPL Washer Parts Data

## Accessories

Models WSTD25HTS-12 208-240 volts 60hzSingle PhaseorThree Phase  
 Models WATD25HTS-12 208-240 volts 60hzSingle Phase or Three Phase

MODELS  
 WSTD 25

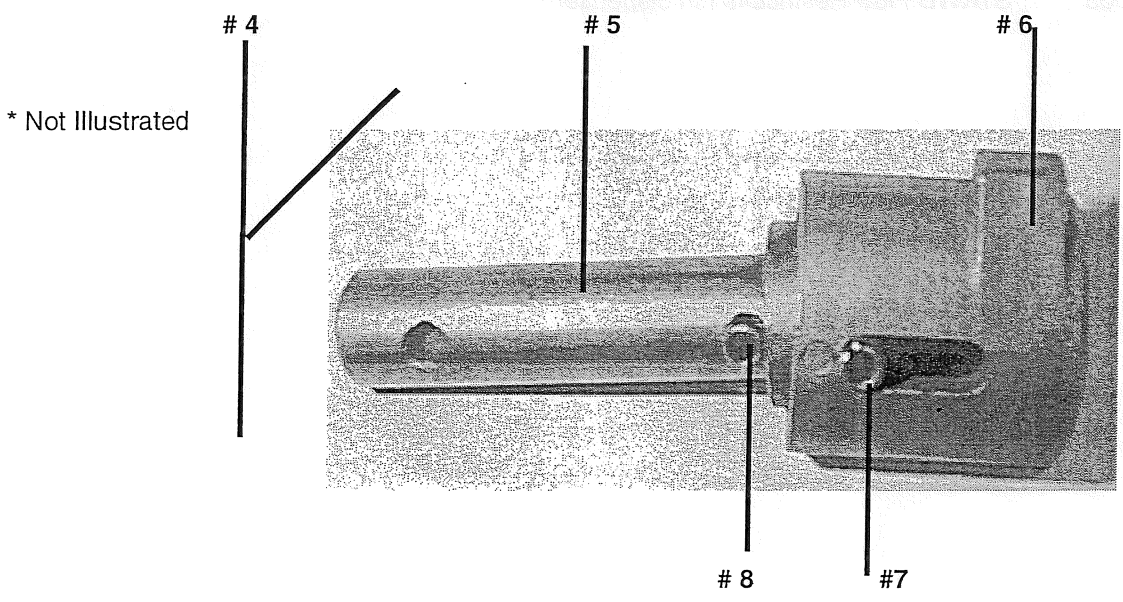
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|-------------|-------------|
|-------------|-------------|

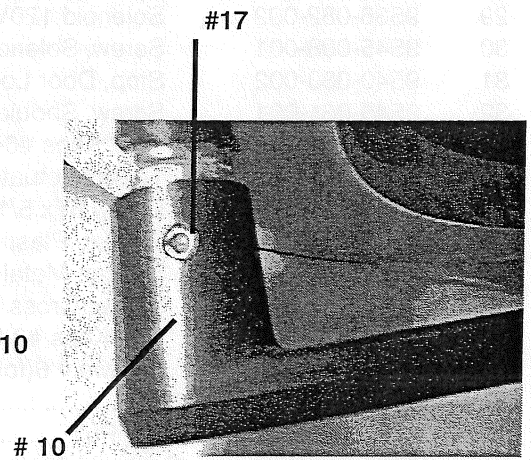
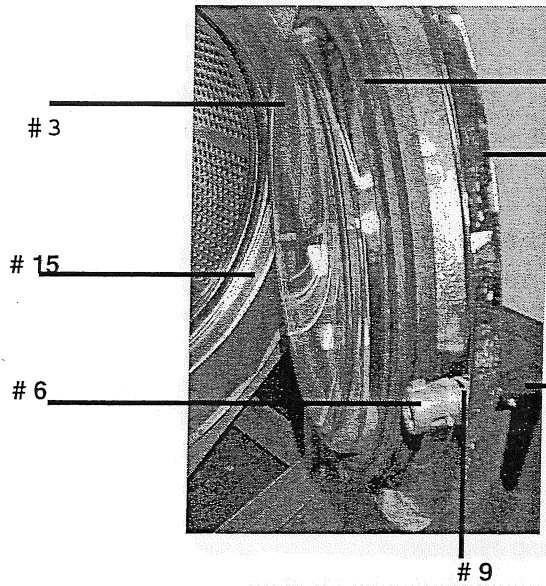
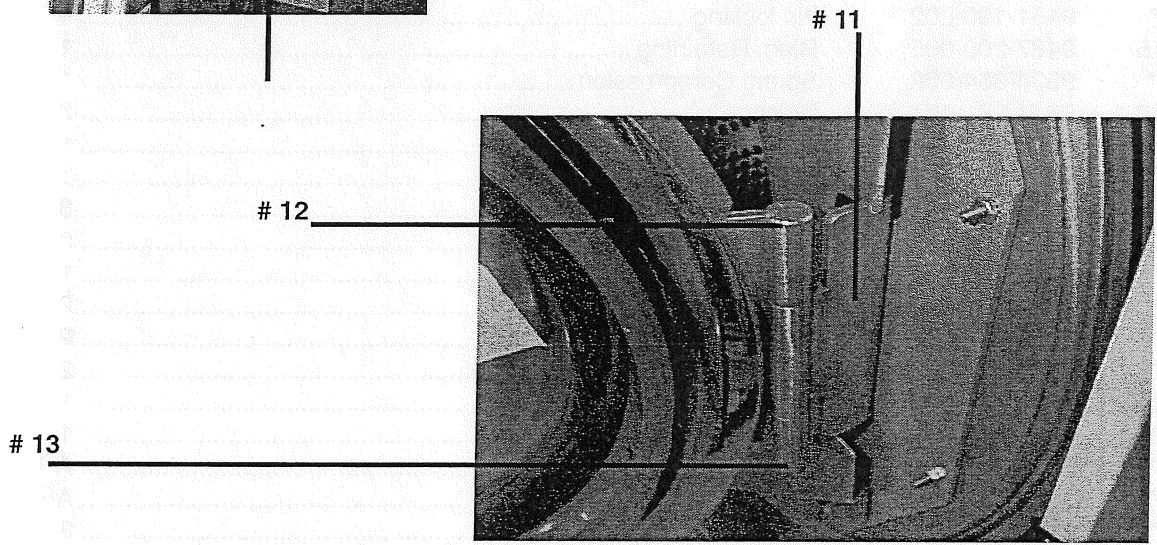
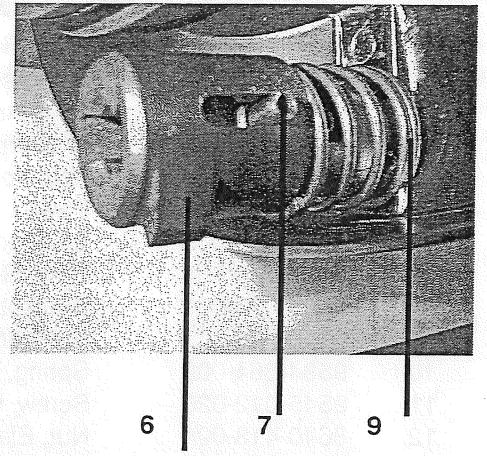
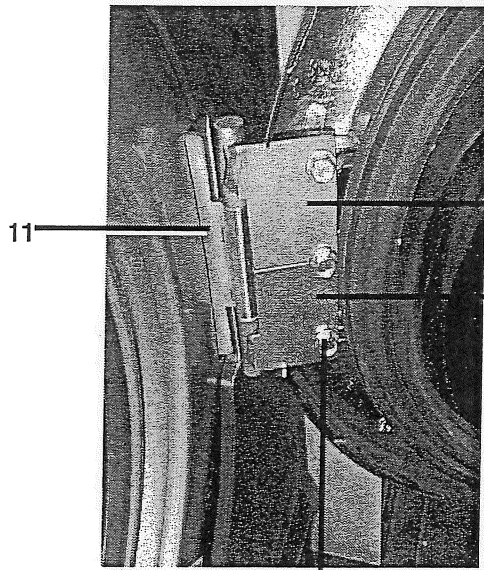
|                    |   |
|--------------------|---|
| Grip-O-Matic #1038 | Puller to Remove Pulley and Bearing Housing from Shaft.                 |
| 9990-027-011       | Hose, Water Supply (furnished) 3/8" I.D. x 48" ..... 2                  |
| 9990-027-013       | Hose, Water Supply (optional) 5/8" I.D. x 48" .....                     |
| 8641-242-000       | Washer, Inlet Hose (furnished) ..... 2                                  |
| 9565-003-001       | Strainer, Inlet Hose (furnished) ..... 2                                |
| 9242-417-001       | Drain hose 10 ft. length x 2-1/4" I.D. ....                             |
| 9242-417-003       | Drain hose 10ft. length x 3" I.D. ....                                  |
| 8641-586-002       | Bevel Washer for 5/8" bolt used in installations using angle iron bases |
| 8641-586-003       | Bevel Washer for 3/4" bolt used in installations using angle iron bases |
| 9732-139-001       | Kit , Door Gasket Expander (large) .....                                |
| 9732-139-002       | Kit , Door Gasket Expander (small) .....                                |
| 8545-055-002       | Electrical Probe 100-600VAC .....                                       |
| 8545-055-001       | Electrical Probe 24-90 VAC .....  |
| 8538-151-001       | Sealing compound .....  |
| 8545-051-002       | TORX#20 .....   |
| 8545-051-003       | Special Tool For Removing (T-10 Torx).....                              |
| 9475-002-003       | STKWD Flow Restrictors ( in dispenser )                                 |
| 9732-207-002       | 100G Delta Drive to Replace Magentek in SCTD SWD                        |
| 9732-207-001       | 200G Delta Drive to Replace Magentek in SCTD SWD                        |

# OPL WASHER LOADING DOOR GROUP

## 180 DEGREE DOOR HINGE

| KEY | PART NUMBER  | DESCRIPTION  |     |
|-----|--------------|--|-----|
| *   | 9960-259-006 | Loading Door, Complete ( includes #1thru #10) .....      | .1  |
| 1   | 9487-265-002 | Loading Door Ring 180 degree.....                        | .1  |
| 2   | 9206-419-001 | Gasket, Loading Door.....                                | 1   |
| 3   | 9635-016-001 | Window, Loading Door.....                                | .1  |
| 4   | 9913-134-003 | Shaft Assy. Locking (includes #5 thru #8).see below..... | .1  |
| 5   | 9537-195-002 | Shaft, Door Locking.....                                 | .1  |
| 6   | 9095-040-001 | Cam, Locking.....  | 1   |
| 7   | 9451-181-005 | Pin, Groove (1 1/4 ).....                                | .1  |
| 8   | 9451-181-004 | Pin, Groove (3/4).....                                   | 1   |
| 9   | 9534-360-002 | Spring, Lock Cam .....                                   | 1   |
| 10  | 9244-080-003 | Handle, Door .....                                       | .1  |
| 17  | 9451-181-006 | Roll Pin, Door Handle (groove) .....                     | 1   |
| 11  | 9955-030-001 | Hinge Assy, Loading Door ( mounts to tub front )....     | .1  |
| *   | 9545-014-009 | Screw, Hinge Mtg 5/16-18 x3/4.....                       | 3   |
| *   | 8641-582-009 | Lockwasher 5/16.....                                     | 3   |
| *   | 9552-036-001 | Shim, Loading Door Hinge, Thin.....                      | .AR |
| *   | 9552-036-002 | Shim, Loading Door Hinge, Thick.....                     | .AR |
| 12  | 9845-005-001 | Top, Loading Door Leaf Hinge.....                        | 1   |
| 13  | 9845-005-002 | Bottom, Loading Door Leaf Hinge .....                    | 1   |
| 16  | 9545-056-002 | Screw, Loading Door Mtg 5/16x5/8 Thrdform. ....          | 1   |
| 15  | 9487-254-002 | Ring, Masking .....                                      | 1   |
| *   | 8640-413-002 | Nut 10-32 UNF.....                                       | .4  |
| *   | 9051-053-001 | Bumper to stop loading door .....                        | 1   |

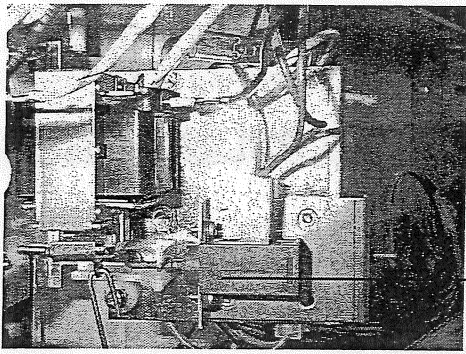




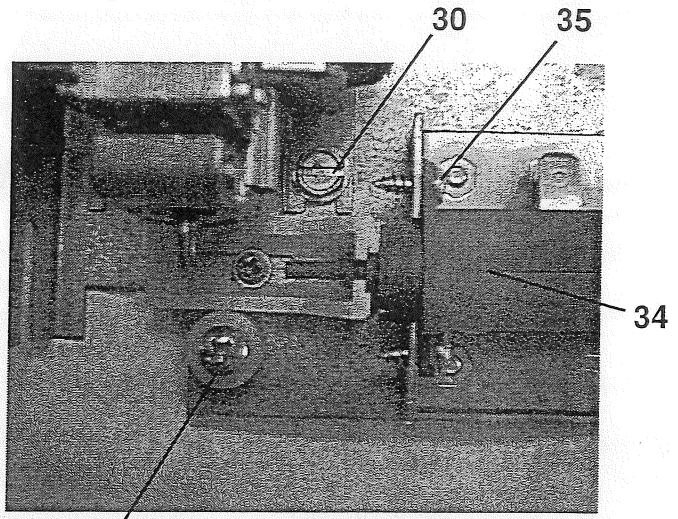
## OPL WASHER DOOR LOCK GROUP

| Key | Part Number  | Description   |    |
|-----|--------------|---|----|
| *   | 9885-023-001 | Lock Assy, Complete (includes #1 thru #25)  | 1  |
| 1   | 9982-284-001 | Plate Assy, Door Lock   | 1  |
| 2   | 8641-581-030 | Washer, Flat  | 1  |
| 3   | 9008-005-001 | Actuator, Latching Switch   | 1  |
| 4   | 9450-002-002 | Pawl, Locking   | 1  |
| 5   | 8641-569-003 | Washer, Spring  | 1  |
| 6   | 9487-200-004 | Ring, Retaining   | 1  |
| 8   | 9029-035-001 | Bracket, Switch   | 1  |
| 9   | 8640-413-002 | Nut, Hex 10-32 UNF  | 2  |
| 10  | 9534-364-002 | Spring, Actuating   | 1  |
| 11  | 9545-012-020 | Screw, Hx 10-32 x1  | 1  |
| 12  | 8640-413-004 | Nut, Elastic Stop 10-32   | 2  |
| 13  | 9534-364-001 | Spring, Return  | 2  |
| 14  | 9451-192-001 | Pin, Pivot  | 1  |
| *   | 9451-193-001 | Pin, Guide  | 1  |
| *   | 9451-190-002 | Pin locking   | 1  |
| 15  | 9487-200-005 | Ring, Retaining   | 1  |
| *   | 9534-364-002 | Spring Compression  | 1  |
| 16  | 8641-581-031 | Washer  | 2  |
| *   | 8640-413-004 | Nut, Elastic 10-32  | 1  |
| 17  | 9539-461-008 | Switch, Latching Sensing  | 1  |
| 18  | 9550-169-003 | Shield, Switch  | 3  |
| 19  | 9545-020-001 | Screw 4-40x5/8  | 2  |
| 20  | 8640-401-001 | Nut, Twin   | 1  |
| 21  | 9539-461-007 | Switch, Locking Sensing   | 2  |
| 22  | 9008-006-002 | Actuator, Switch  | 2  |
| 23  | 9545-020-003 | Screw 4-40x11/8   | 2  |
| 24  | 8640-401-001 | Nut, Twin   | 1  |
| 25  | 9451-181-004 | Pin, TublarDowel  | 1  |
| *   | 9552-037-001 | Shim, Door Lock, Thin   | AR |
| *   | 9552-037-002 | Shim, Door Lock, Thick  | AR |
| *   | 9545-018-014 | Screw, Lock mtg1/4-20x3/4   | 3  |
| *   | 8641-582-007 | Lockwasher  | 3  |
| *   | 8640-412-005 | Nut, 8-32   | 3  |
| 26  | 9922-011-007 | Solenoid Ass'y Door Locking (includes 27 thru 42 )before #448723                              | 1  |
| 27  | 9029-128-001 | Bracket, Solenoid   | 1  |
| 28  | 9985-169-001 | Bracket, ass'y solenoid slide   | 1  |
| 29  | 9536-082-002 | Solenoid 120V 60 HZ   | 1  |
| 30  | 9545-008-001 | Screw, Solenoid Mtg 10B x 1/4   | 4  |
| 31  | 9540-033-002 | Stop, Door Lock Solenoid  | 1  |
| 32  | 9545-061-001 | Screw, Shoulder   | 1  |
| 33  | 8640-411-002 | Nut, Keps #6-32 Elastic   | 1  |
| 34  | 9586-001-001 | Thermoactuator 120V   | 2  |
| 35  | 9545-031-011 | Screw 6Tx 5/16  | 4  |
| 36  | 9538-157-004 | Spacer, Plastic   | 1  |
| 37  | 9538-166-004 | Spacer, Metal   | 1  |
| 38  | 9545-010-001 | Screw, Cross Recessed 8-32 x 3/4  | 1  |
| 39  | 8640-412-005 | Nut, Keps #8-32   | 1  |
| 40  | 9545-044-003 | Screws # 6(for mounting sol. brkt.)   | 3  |
| 41  | 8640-412-005 | Nut,  | 3  |
| 42  | 9497-225-008 | Rod, Pull   | 1  |
| *   | 9922-011-009 | Solenoid Ass'y Door Locking AFTER #448728<br>(includes same as above except #43 and 44 below) |    |
| 43  | 9029-178-001 | Bracket Assembly #27 ABOVE  |    |
| 44  | 9985-178-001 | Bracket Assembly #28 ABOVE  |    |

\* Not Illustrated

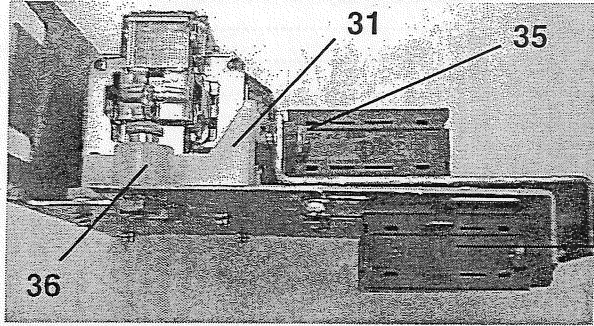


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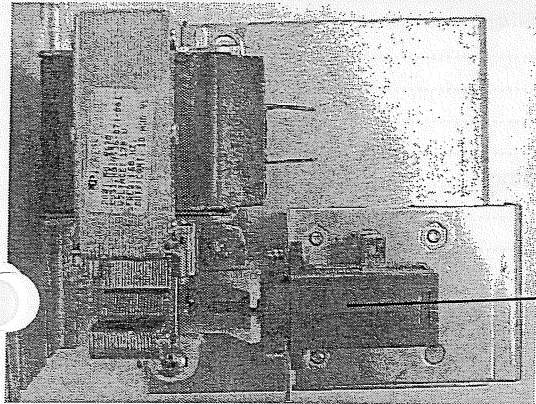


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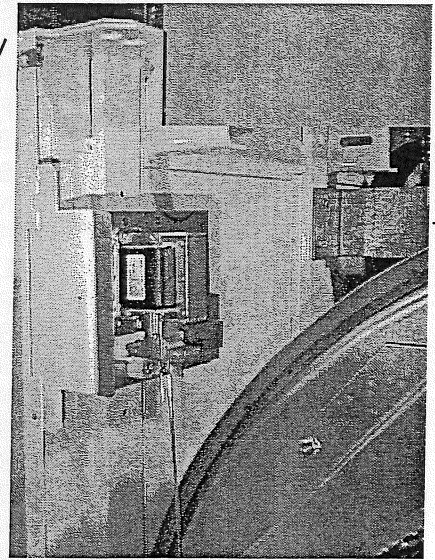
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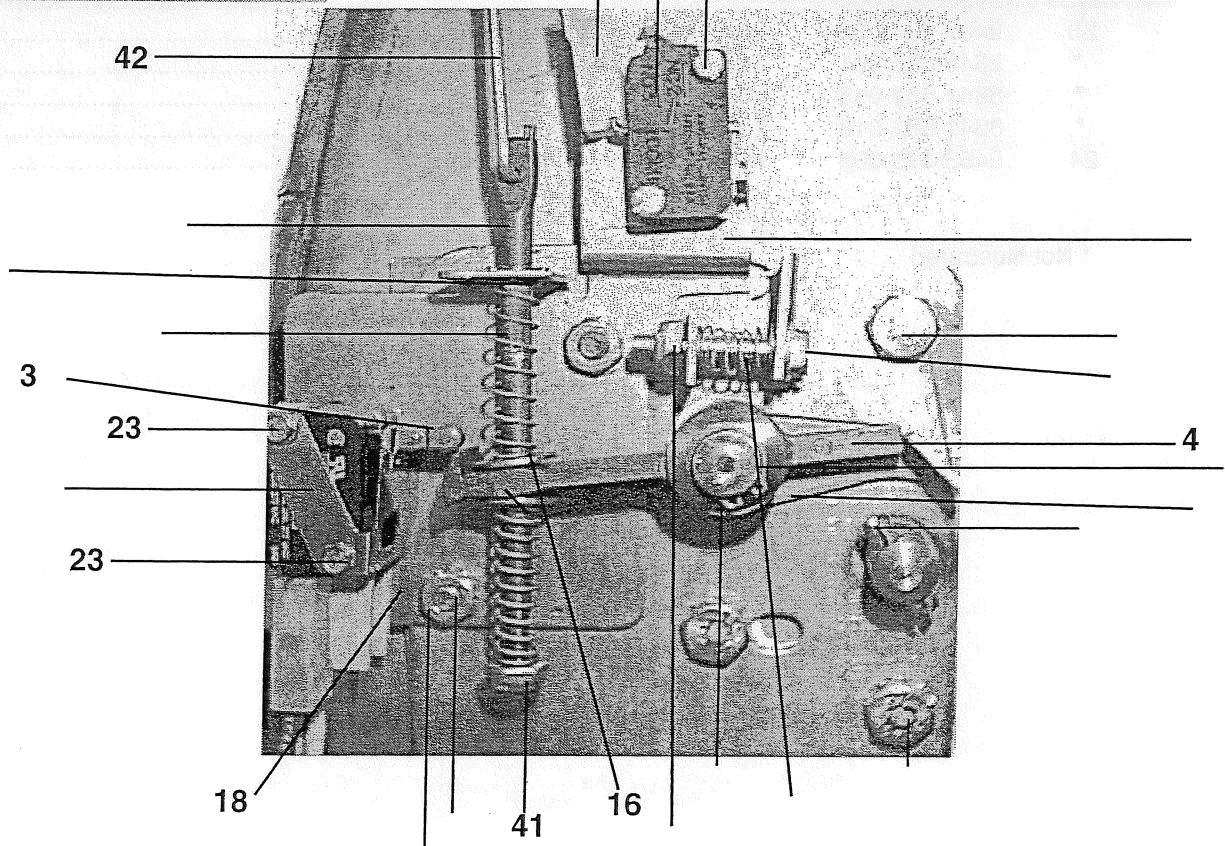


34

New  
mount  
style



18 19



42

3

23

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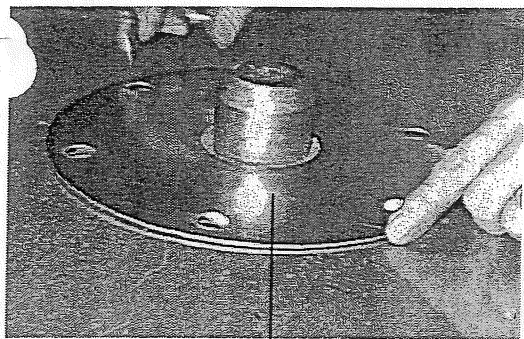
## OPL BEARING HOUSING, WATER SEALS AND PULLEY GROUP

| Key | Part Number  | Description   |    |
|-----|--------------|---|----|
| 1   | 9848-120-001 | Cylinder, Assy Only .....                               | 1  |
| *   | 9869-011-001 | Tub & Cylinder Assembly Complete .....                  | 1  |
| *   | 9456-041-007 | Plug plastic inside cylinder 1 1/2" .....               | 1  |
| *   | 9803-186-001 | Housing, Bearing- Assembly (includes items #2-#6) ..... | 1  |
| 2   | 9241-180-002 | Housing, Bearing .....                                  | 1  |
| 3   | 9036-159-005 | Bearing, Front Large .....                              | 1  |
| 4   | 9036-159-004 | Bearing, Rear Small .....                               | 1  |
| 5   | 9538-167-001 | Spacer, Bearing .....                                   | 1  |
| 6   | 9487-238-003 | Ring, Bearing Retainer .....                            | 1  |
| 8   | 9532-140-006 | Seal, Secondary Forsheda .....                          | 1  |
| 9   | 9532-140-009 | Seal, Primary VRinga .....                              | 1  |
| 10  | 9950-048-001 | Ring, Seal Mounting complete .....                      | 1  |
| 11  | 9487-261-003 | Ring Seal Tub Back Mating .....                         | 1  |
| *   | 9962-013-003 | Back Assy, Tub .....                                    | 1  |
| 12  | 9545-060-001 | Screw, 5/8 x 1 1/2 Gr. 5 (used at housing) .....        | 6  |
| 13  | 8640-425-001 | Nut .....   | 6  |
| *   | 8641-581-040 | Flat Washer .....                                       | 6  |
| 14  | 8641-582-018 | Lockwasher .....  | 6  |
| 16  | 9950-041-004 | Ring Assy., Tub Mtg.- Rear .....                        | 1  |
| 17  | 9991-056-002 | Support Assy. Arms, Bearing Hsg to Ring .....           | 6  |
| 18  | 9545-059-002 | Screw, 7/16-14x2"- Tub Back to Tub .....                | 12 |
| *   | 8640-416-005 | Nut, Flange WHZ. Lock 7/16 .....                        | 12 |
| *   | 9552-038-003 | Shim .....  | AR |
| 19  | 9545-059-003 | Screw, 7/16-14 x 1 1/2 Gr 8 (used at housing) .....     | 6  |
| 20  | 9545-059-002 | Screw, 7/16-14 x 2 (used at outer ring) .....           | 12 |
| 21  | 8640-416-005 | Nut 7/16 .....  | 18 |
| 22  | 9453-168-003 | Pulley, Driven .....                                    | 1  |
| 23  | 9487-234-003 | Ring, Tolerance .....                                   | 1  |
| *   | 9545-060-001 | Screw 5/8-11x1 1/2 .....                                | 1  |
| *   | 8641-582-018 | Washer Flat 5/8x2 1/4 .....                             | 2  |
| *   | 8641-582-018 | Lockwasher ext tooth 5/8 .....                          | 1  |
| 24  | 9453-170-003 | Pulley, Driver on motor .....                           | 1  |

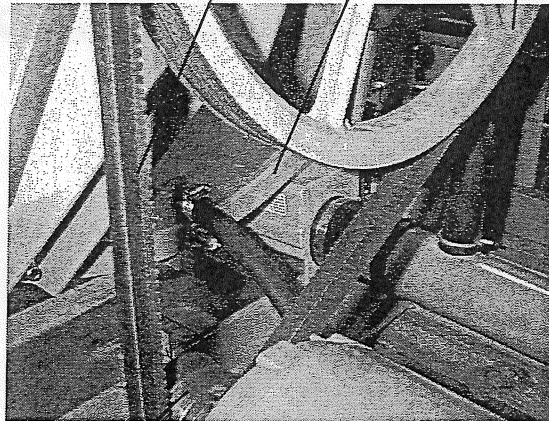
\* Not Illustrated

9040-077-003

V-Belt

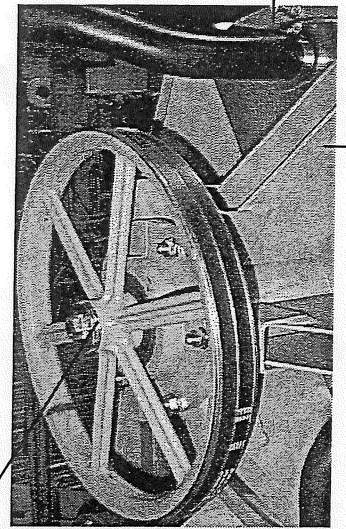


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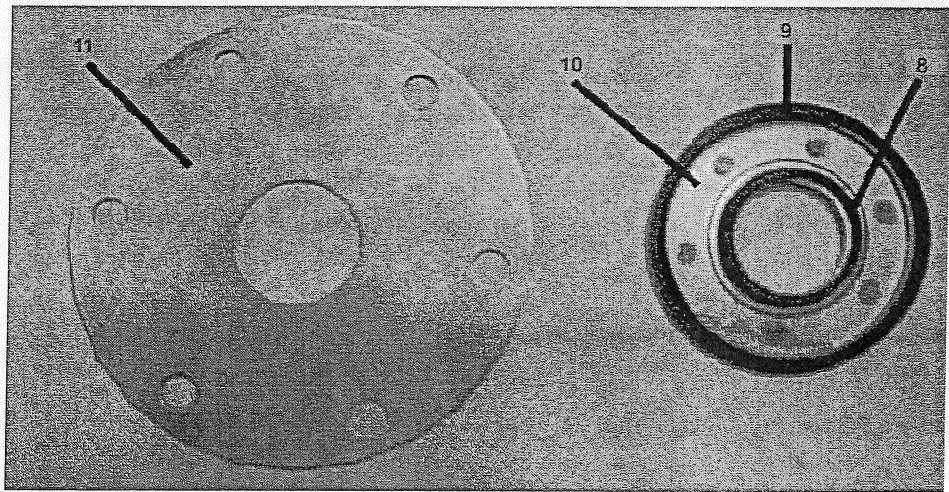
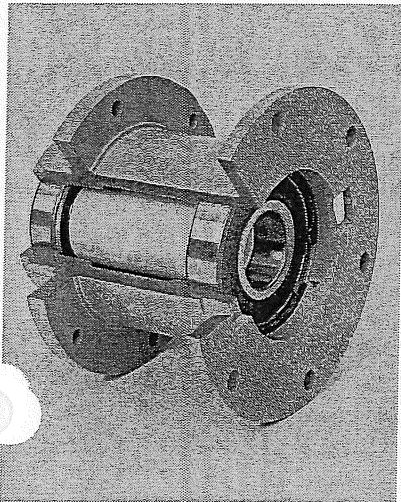
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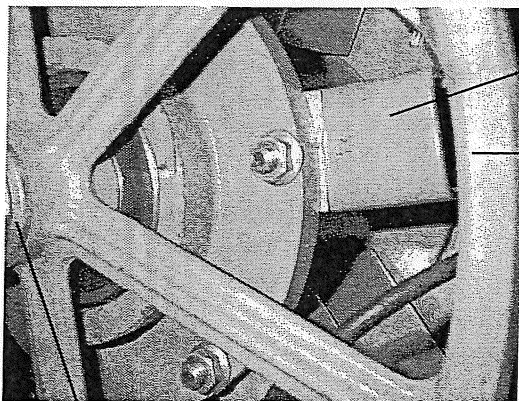


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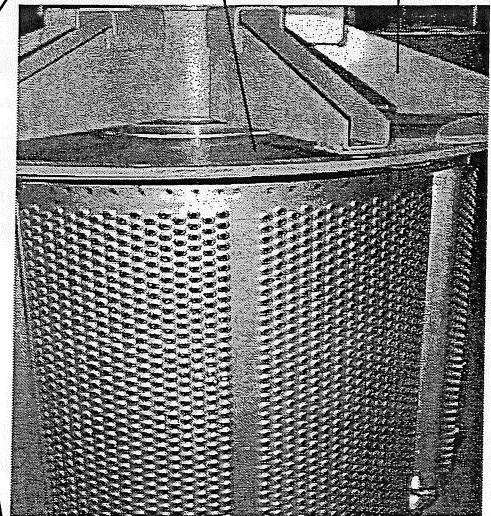
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23

Back Tub Assembly

1



17

# OPL WASHER CHASIS, MOTOR AND DRAIN GROUP

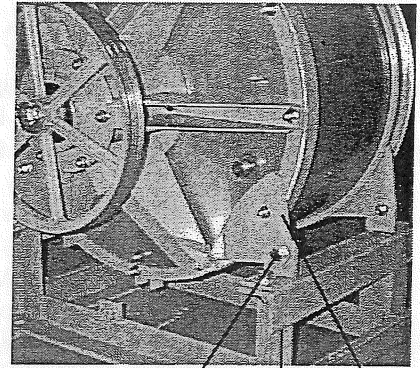
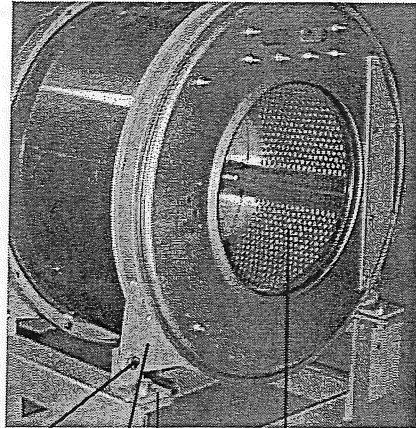
| Key | Part Number  | Description  |    |
|-----|--------------|--|----|
| 1   | 9945-109-002 | Base Assy, Frame .....   | 1  |
| 2   | 9869-011-001 | Cylinder & Tub Assy .....  | 1  |
| 3   | 9950-051-004 | Ring Assy, Tub Mounting-Front .....                              | 1  |
| 4   | 9545-017-003 | Bolt 1/2-13x13/4 .....   | 1  |
| 5   | 8641-582-016 | Lockwasher 1/2 .....   | 1  |
| 6   | 8640-417-002 | Nut 1/2-13 .....   | 1  |
| 7   | 9950-049-002 | Ring Assy, Tub Mounting- Rear .....                              | 1  |
| 8   | 9545-059-002 | Screw, 7/16 .....  | 12 |
|     | 8640-416-005 | Nut 7/16 .....   | 12 |
| 9   | 9003-263-003 | Angle Mounting Bracket righthand as viewed from front .....      | 2  |
| 10  | 9003-263-004 | Angle Mounting Bracket lefthand as viewed from front .....       | 2  |
| 11  | 9003-255-002 | Bracket Flat Bar Angle Brace (rear base to side panel) .....     | 1  |
| 12  | 9545-029-003 | Screw, 3/8-16 x 1 1/2 .....                                      | 2  |
| 13  | 8640-415-004 | Nut 3/8-16 .....   | 2  |
| 14  | 9545-060-003 | Bolt, 5/8-11x1 1/2 Ring Assy. to Angle Mounting Bracket .....    | 4  |
| 15  | 9545-060-004 | Bolt, 5/8-11x2 Angle Mounting Bracket to Base .....              | 4  |
| 16  | 8641-581-038 | Flat Washer .....  | 4  |
| 17  | 8640-425-001 | Nut, Hex .....   | 8  |
| 18  | 8641-582-018 | Lockwasher 5/8 .....   | 8  |
| 19  | 9379-187-001 | Valve, Drain .....   | 1  |
| 20  | 9545-014-012 | Screw, 5/16-18x1 1/4 .....                                       | 2  |
| 21  | 8640-400-003 | Nut 5/16-18 .....  | 2  |
| 22  | 9915-122-002 | Tube Assy, Drain .....   | 1  |
| 23  | 9545-030-002 | Screw 1/4Bx3/4 .....   | 2  |
| 24  | 8654-117-014 | Clamp, Hose .....  | 4  |
| 25  | 9376-301-001 | Motor Magnatek 3ph 208-240 VAC 2 HP .....                        | 1  |
| 26  | 9991-055-002 | Motor Plate Support Assembly Mount .....                         | 1  |
| 27  | 9545-014-004 | Screw 5/16-18x5/8 .....  | 4  |
| 28  | 8640-400-003 | Nut 5/16-18 .....  | 4  |
| 29  | 9534-319-002 | Spring Belt tension .....  | 1  |
| 30  | 9375-002-007 | VFD Drive Magnatek (check matching braking resistor also ) ..... | 1  |
| 31  | 9483-004-002 | Resistors Dynamicbraking (matched with VFD drive) 200 ohms..     | 3  |
| 32  | 9497-222-004 | Rod, Motor Mtg .....   | 1  |
| 33  | 9076-052-002 | Collar, Shaft .....  | 2  |
| 34  | 9545-029-005 | Screw, Motor Mtg Rod .....                                       | 1  |
| 35  | 8641-582-014 | Lockwasher .....   | 1  |
| 36  | 9453-170-003 | Pulley, Motor .....  | 1  |
| 37  | 9545-028-015 | Set Screw, Square Head .....                                     | 2  |
| 39  | 8538-151-001 | Sealastic Sealer Tube .....                                      |    |
| 40  | 9456-041-007 | Plastic plug inside cylinder 1-1/2" .....                        | 1  |

\* Not Illustrated



9 & 12 & 13

Masking Ring



14 & 15

7 & 8

1

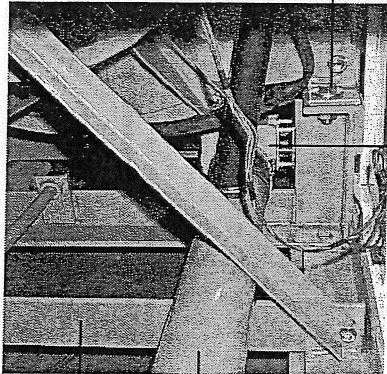
14 & 15

14 & 15

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10 & 12 & 13

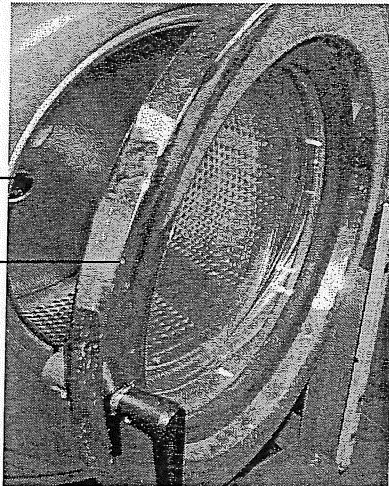
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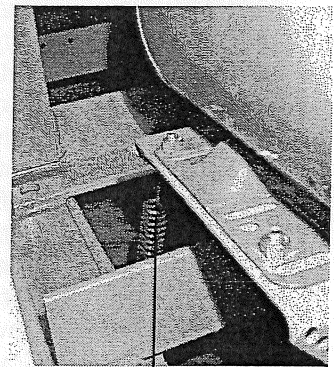
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22



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Door Ring

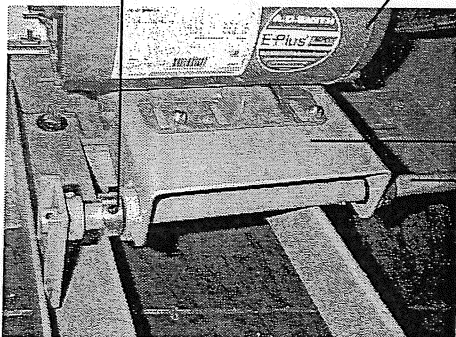


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36 & 37

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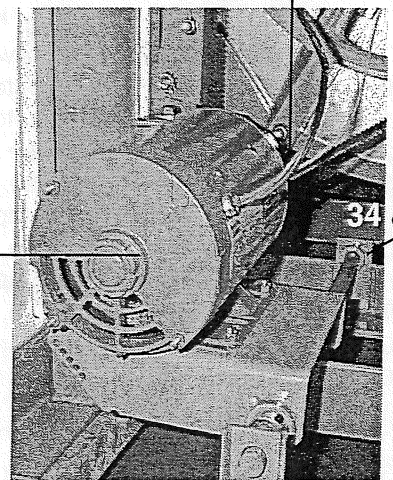
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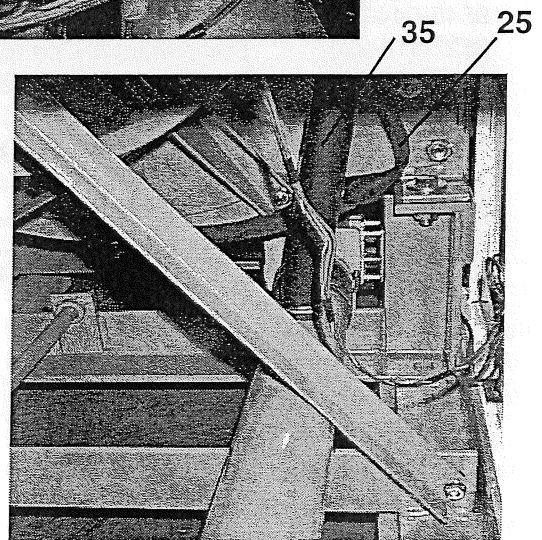
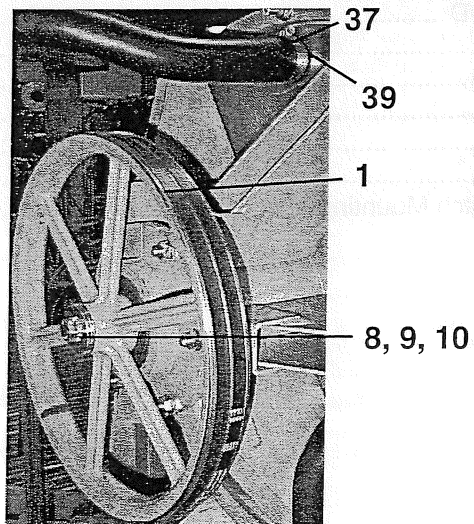
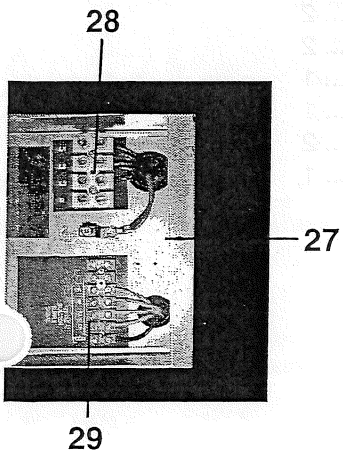
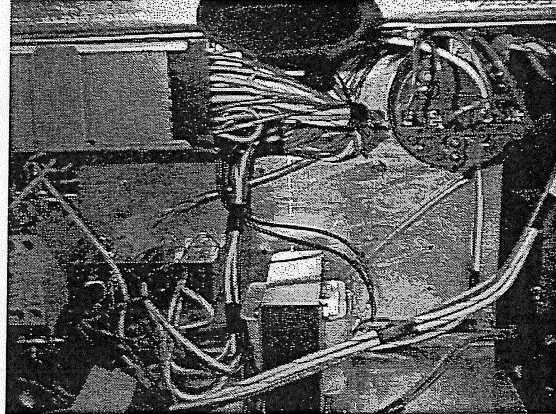
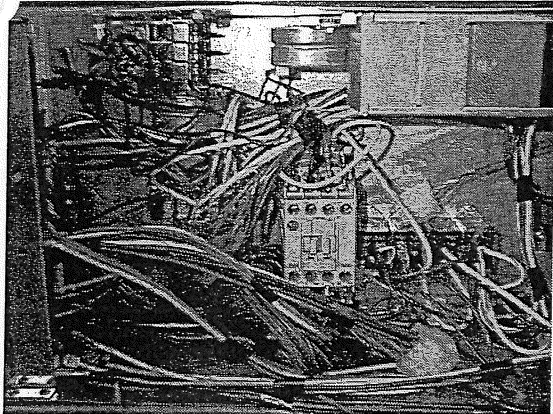
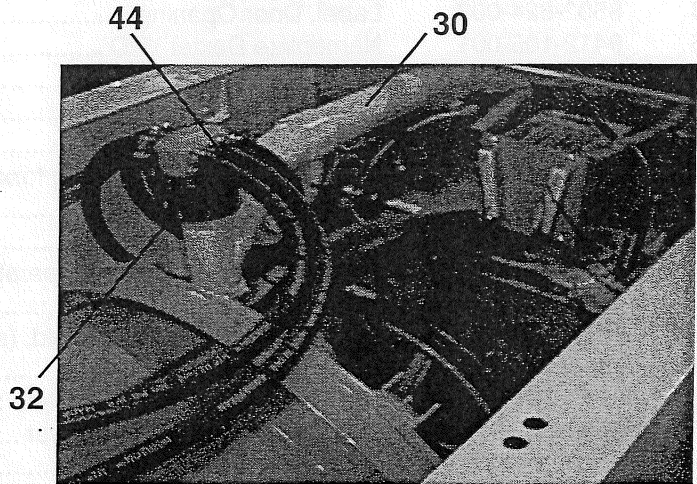
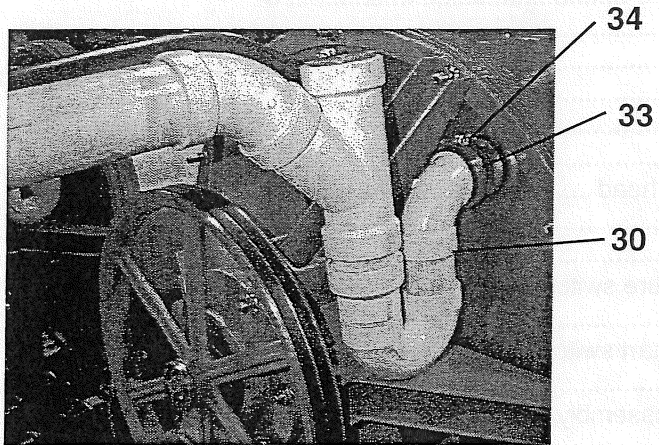
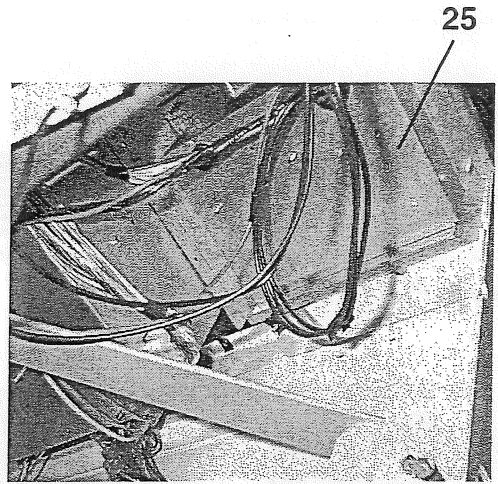
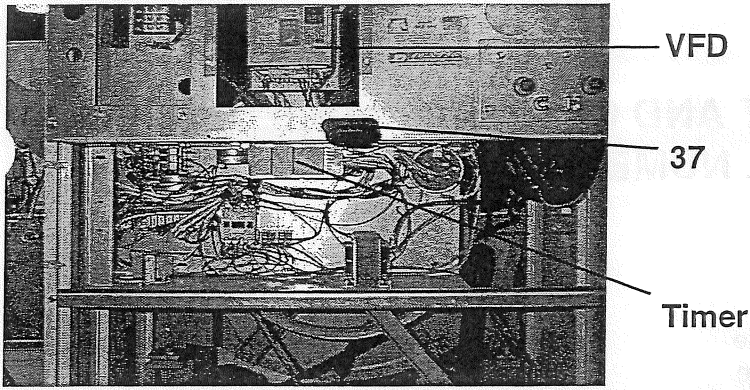
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34 & 35

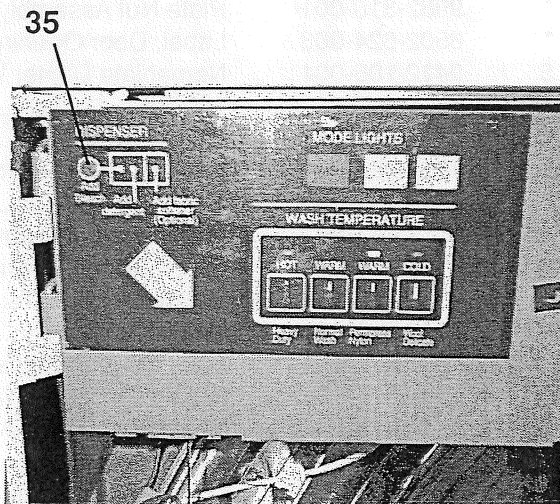
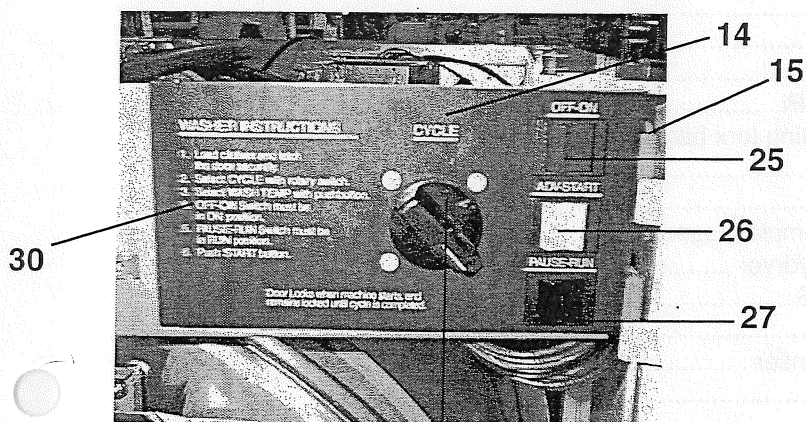
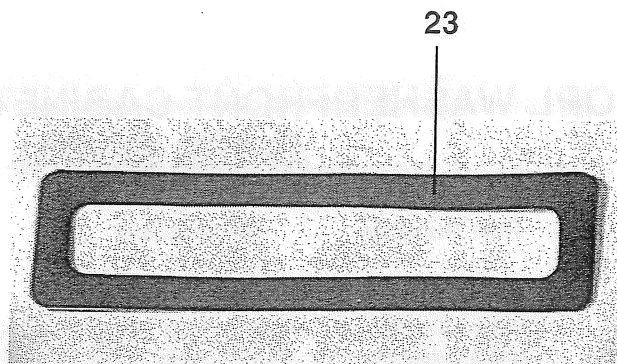
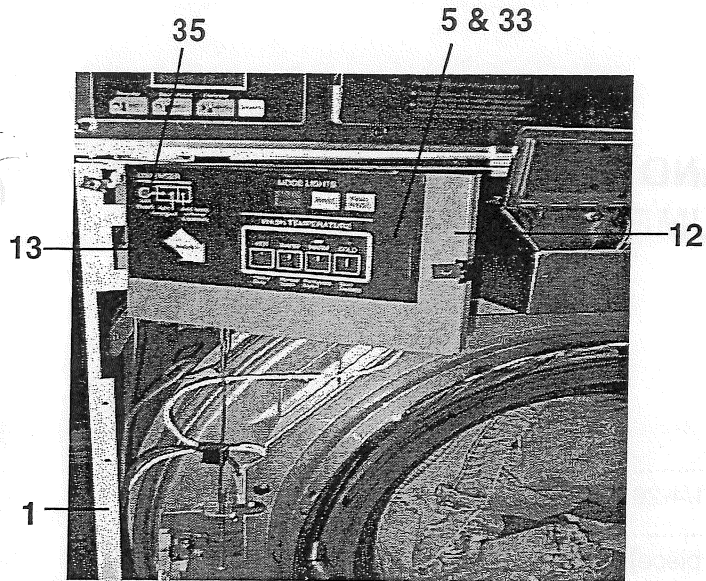
## OPL WASHER REAR VIEW

| Key | Part Number   | Description                                    |    |
|-----|---------------|--|----|
| 1   | 9040-077-003  | Drive Belt .....                               | 2  |
| 2   | 9376-301-001  | Drive Motor, 3 Phase .....                     | 1  |
| 3   | 9453-170-003  | Pulley, Motor .....                            | 1  |
| *   | 9545-028-015  | Screw, set .....                               | 2  |
| *   | 9053-074-002  | Bushing, Motorsupport Plastic Insert .....     | 2  |
| 4   | 9497-222-006  | Rod, Motor Mtg .....                           | 1  |
| *   | 9991-055-002  | Support Assembly Motor Mounting .....          | 1  |
| 5   | 9545-014-004  | Screw 5/16-18x5/8 motor mount .....            | 4  |
| 5   | 8640-400-003  | Nut WHZ lock 5/16-18 .....                     | 4  |
| 6   | 9076-052-002  | Collar, Shaft (w/set screws) .....             | 2  |
| 7   | 9534-319-002  | Spring, Belt Tension .....                     | 1  |
| 8   | 9453-168-003  | Pulley, Driven .....                           | 1  |
| 9   | 9487-234-003  | Tolerance Ring between pulley and shaft .....  | 1  |
| 10  | 9545-060-001  | Screw, Pulley to Shaft 5/8-11x 1 1/2 .....     | 1  |
| 10  | 8641-581-032  | Washer, Flat 5/8 x 2 1/4 .....                 | 2  |
| 10  | 8641-582-018  | Lockwasher 5/8 .....                           | 1  |
| 11  | 9081-131-001  | Channel, Rear .....                            | 1  |
| 12  | 9545-008-026  | Screw .....                                    | 4  |
| 12  | 8640-399-004  | Nut, Spring .....                              | 4  |
| 13  | 9454-714-001  | Panel, Back Guard .....                        | 1  |
| 14  | 9545-008-026  | Screw, #10Bx1/2 .....                          | 10 |
| 15  | 9545-030-002  | Screw, 1/4Bx3/4 .....                          | 3  |
| 16  | 8640-399-004  | Nut Spring type .....                          | 8  |
| 17  | 9454-717-001  | Panel, Top Rear .....                          | 1  |
| 18  | 9989-470-002  | Panel, Top Front .....                         | 1  |
| 19  | 99545-008-026 | Screw #10Bx1/2 .....                           | 14 |
| 20  | 9074-267-001  | Cover Motor Control Rear .....                 | 1  |
| 21  | 9074-267-001  | Cover Control Rear .....                       | 1  |
| 22  | 9545-008-026  | Screw, #10Bx 1/2 .....                         | 2  |
| 23  | 9003-265-001  | Angle Support Control Trough .....             | 1  |
| 24  | 9545-008-026  | Screw 10Bx 1/2 .....                           | 2  |
| 25  | 9242-175-005  | Hose Pressure Switch .....                     | 1  |
| 26  | 8654-117-015  | Clamp Hose 1" .....                            | 1  |
| 27  | 9029-076-001  | Terminal Mounting Bracket .....                | 1  |
| *   | 9545-008-026  | Screw, #10Bx1/2 .....                          | 4  |
| 28  | 9897-033-002  | Terminal Block Main Power Connection .....     | 1  |
| *   | 9558-025-001  | Strip Marker .....                             | 1  |
| *   | 9545-031-010  | Screw, 6ABx3/4 .....                           | 2  |
| 29  | 9558-032-002  | Terminal Block Assembly Injector Signals ..... | 1  |
| *   | 9558-028-001  | Strip Marker Injector Terminal .....           | 1  |
| *   | 9545-053-002  | Screw 4Bx5/8 .....                             | 2  |
| 30  | 9883-008-001  | Injector Assembly for chemicals PVC .....      | 1  |
| 31  | 0935-127-001  | Injector Assembly End Car .....                | 1  |
| 32  | 9242-461-001  | Hose Vacuum Breaker to Injector .....          | 1  |
| 33  | 9242-462-001  | Hose Injector to Tub Back .....                | 1  |
| 34  | 8654-117-014  | Clamp Hose .....                               | 2  |
| 35  | 9242-449-004  | Hose, Overflow to drain tube .....             | 1  |
| 36  | 8654-029-000  | Clamp, Hose .....                              | 2  |
| 37  | 9242-463-005  | Hose, Overflow Suds Vent .....                 | 1  |
| 39  | 8654-117-009  | Clamp, Hose .....                              | 1  |
| 40  | 9915-122-002  | Tube Assembly from drain valve to rear .....   | 1  |
| 41  | 9242-457-001  | Hose Drain valve to tube .....                 | 1  |
| 42  | 9242-464-001  | Hose Tub to Drain Valve .....                  | 1  |
| 43  | 8654-117-014  | Clamp Hose .....                               | 4  |
| 44  | 9610-001-002  | Vacuum Breaker for water inlet .....           | 1  |

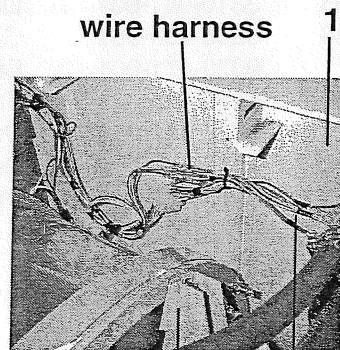
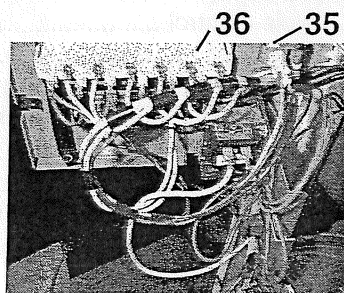
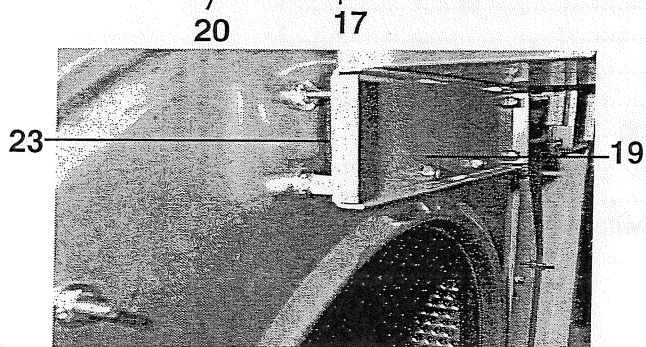


# OPL WASHERFRONT CABINET AND CONTROL PANEL GROUP BEFORE SERIAL NUMBER #448723

| Key | Part Number  | Description   | Model<br>WSTD 25 |
|-----|--------------|---|------------------|
| 1   | 9989-471-002 | Panel, Side ( Right)- White                         | 1                |
| 1   | 9989-472-002 | Panel, Side ( Left ) - White                        | 1                |
| 2   | 9545-018-023 | Screw, (Side Panel to Base) .....                   | 8                |
| 3   | 9982-318-001 | Plate Nut Assembly Welded 1/4-20 .....              | 8                |
| 4   | 8502-624-003 | Label, Door Opening .....                           | 1                |
| 5   | 9412-105-001 | Nameplate Dexter W/D .....                          | 1                |
| 6   | 9051-053-001 | Bumper Loading Door .....                           | 1                |
| 7   | 8640-412-005 | Nut keps 8-32 .....                                 | 1                |
| 8   | 9454-702-002 | Panel Assy, Front .....                             | 1                |
| 9   | 9545-008-020 | Screw Front panel mounting torx head .....          | 8                |
| 10  | 8641-582-019 | Lockwasher Int. Tooth .....                         | 8                |
| 11  | 8640-399-001 | Nut, Spring .....                                   | 8                |
| 12  | 9982-315-002 | Control Panel Left Side(temperature switch) .....   | 1                |
| 13  | 9451-146-005 | Pins for Hinge .....                                | 2                |
| 14  | 9452-690-002 | Control Panel Right Side Pntd. (start switch) ..... | 1                |
| 15  | 9451-146-005 | Pins for Hinge .....                                | 2                |
| 16  | 9807-087-001 | Front Soap Dispenser complete assembly .....        | 1                |
| 17  | 8502-687-001 | Label Dispenser washer/dryer .....                  | 1                |
| 18  | 8640-413-006 | Nuts Hexelastic 10-32 SS .....                      | 6                |
| 19  | 9355-001-001 | Locator Panel .....                                 | 1                |
| 20  | 9987-104-001 | Lid Assembly soap dispenser .....                   | 1                |
| *   | 8640-430-001 | Nut 10-32 selfclinching .....                       | 2                |
| 22  | 9545-012-017 | Screw 10-32x1/2 SS .....                            | 2                |
| 23  | 9206-422-001 | Gasket Mounts between soap box and tub front .....  | 1                |
| 24  | 9574-252-002 | Siphon Tube inside soap box for softner .....       | 1                |
| 25  | 9539-474-004 | Switch, Red--OFF/ON .....                           | 1                |
| 26  | 9539-474-005 | Switch, White--ADVANCE/START .....                  | 1                |
| 27  | 9539-474-006 | Switch, Blue--PAUSE/RUN .....                       | 1                |
| 28  | 9539-471-001 | Switch, Rotary Selector .....                       | 1                |
| 29  | 9539-479-009 | Switch, Push-button (temperature selector) .....    | 1                |
| 30  | 8527-120-001 | Decal Controls OPL W/D .....                        | 1                |
| 31  | 9307-176-001 | Knob, Control .....                                 | 1                |
| *   | 9545-044-004 | Screw, 6-32 x 1/4" .....                            | 2                |
| 32  | 8527-118-001 | Decal Manual Control OPL W/D .....                  | 1                |
| 33  | 9412-105-001 | Nameplate Dexter W/D .....                          | 1                |
| *   | 9538-165-001 | Spacer .....  | 2                |
| 34  | 8640-412-003 | Nut, Switch mounting .....                          | 2                |
| 35  | 3310-042-001 | Light, Pilot, Green .....                           | 1                |
| 36  | 3310-041-001 | Light, Cycle Control .....                          | 1                |
| 37  | 9206-100-001 | Gasket, Light .....                                 | 2                |
| 40  | 9029-071-001 | Bracket Pressure Switch Mounting .....              | 1                |

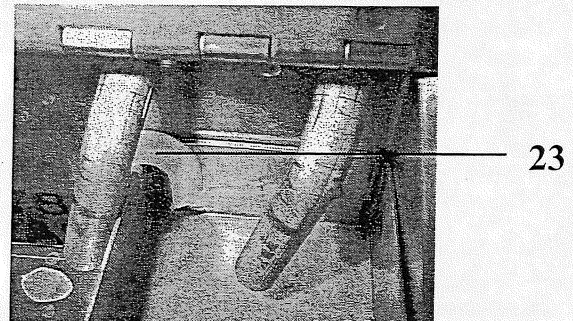
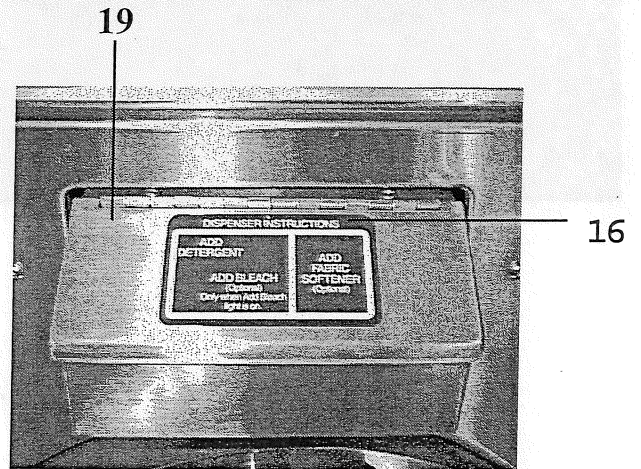
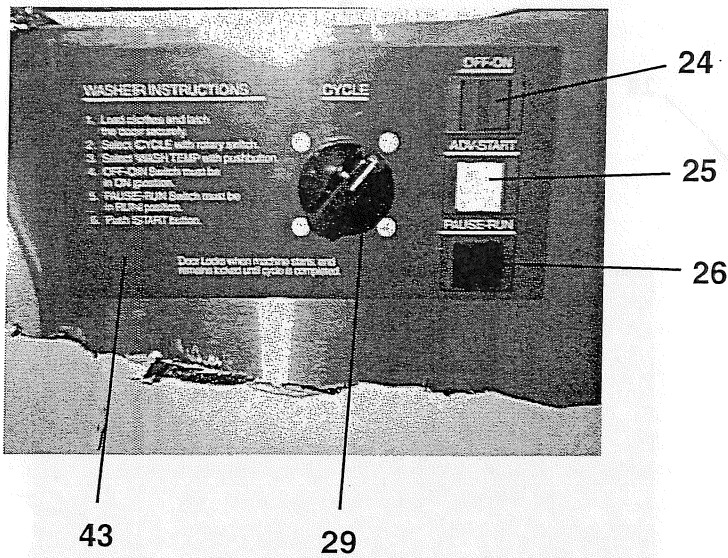
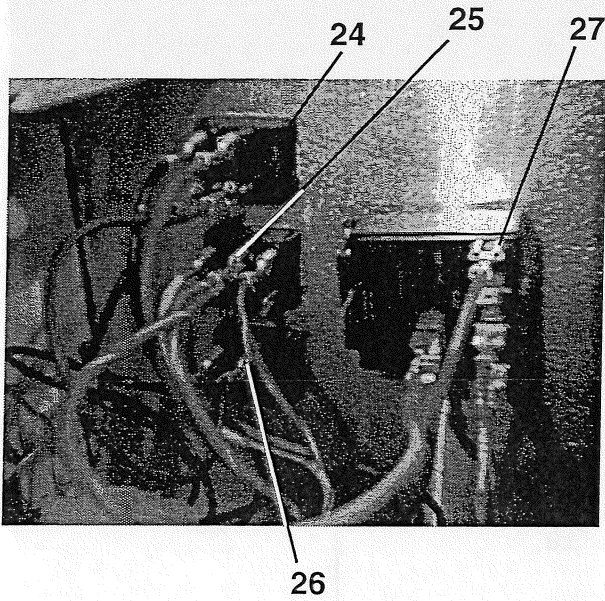
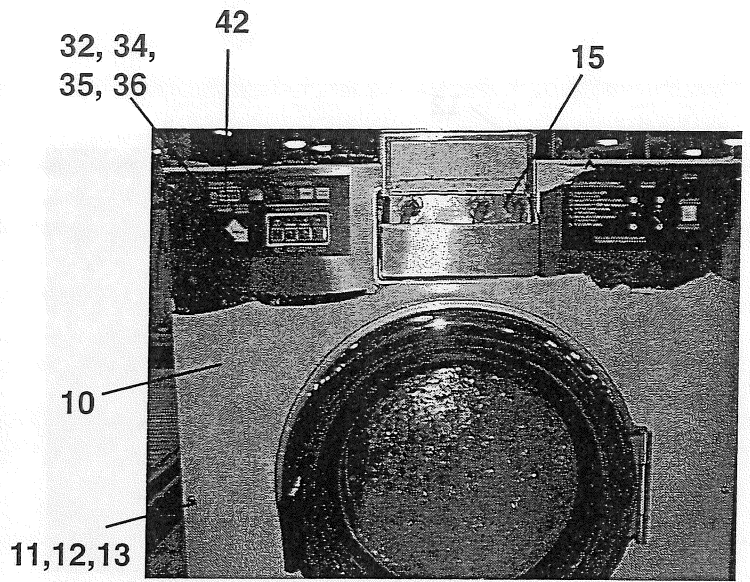
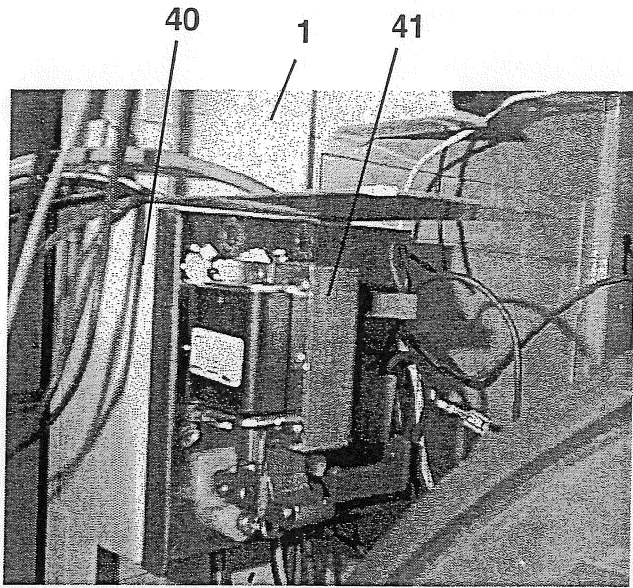


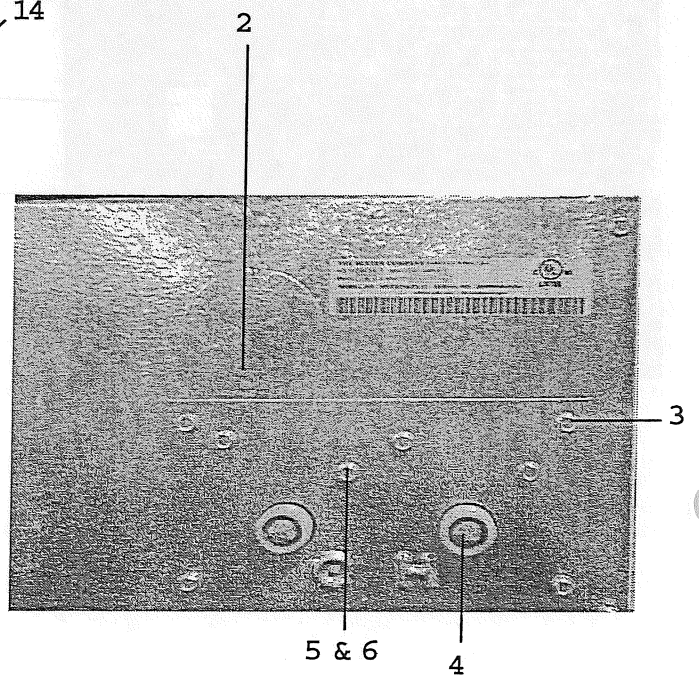
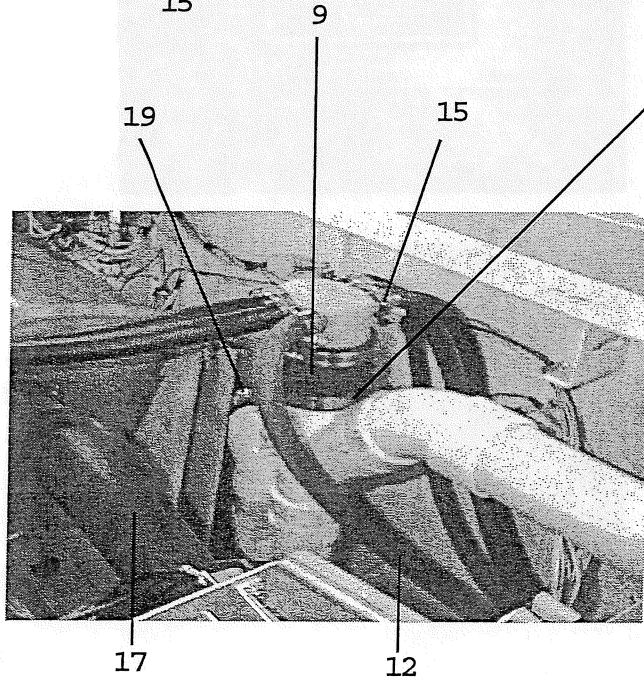
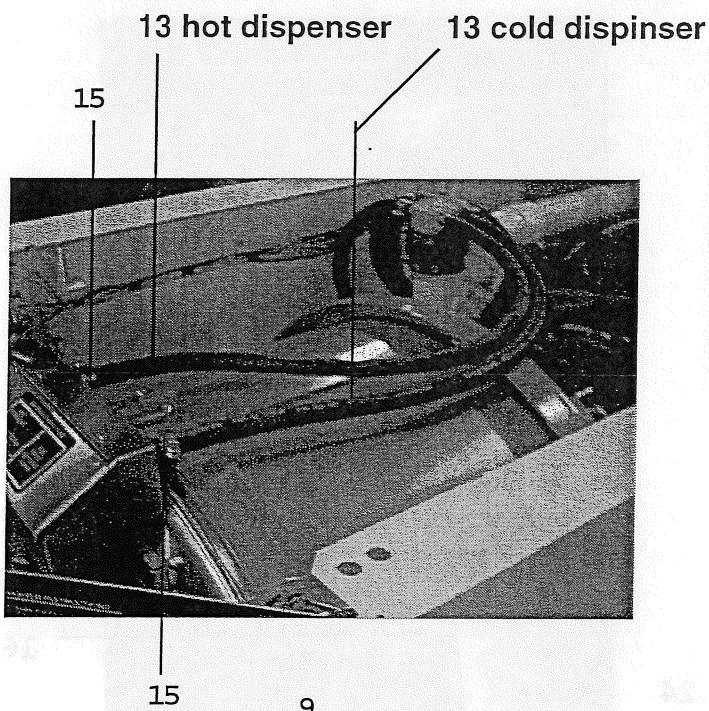
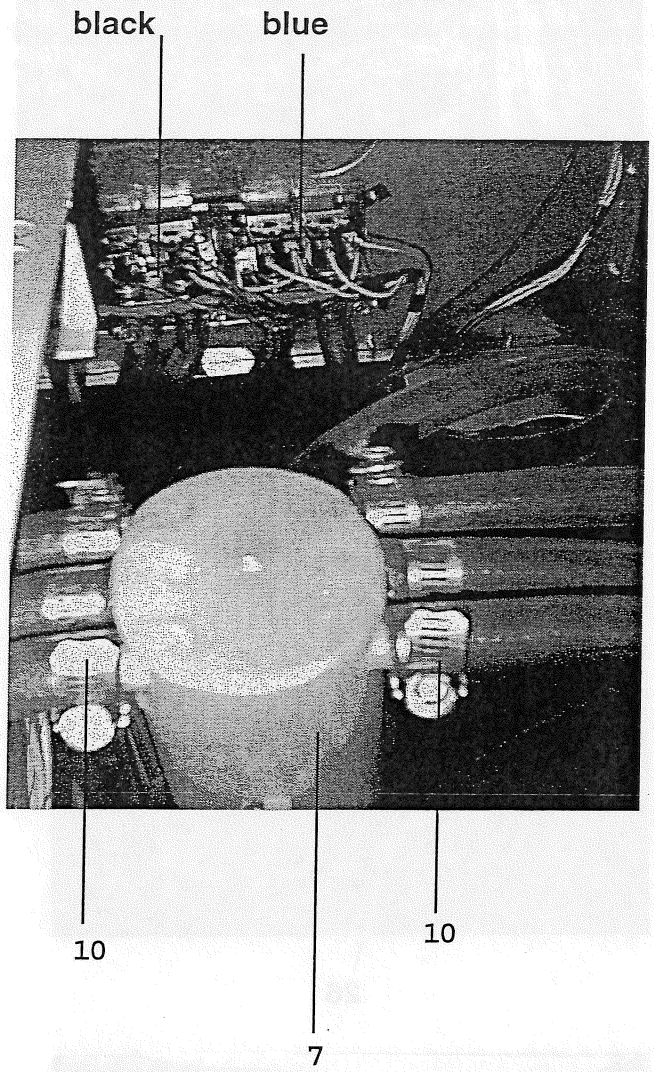
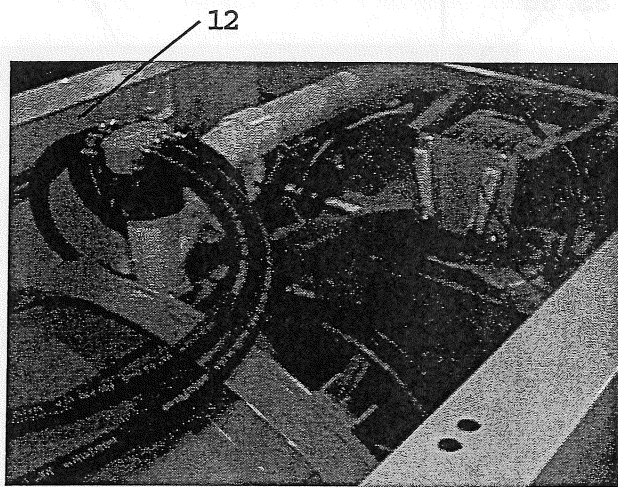
28 & 31



# OPL WASHERFRONT CABINET AND CONTROL PANEL GROUP AFTER SERIAL NUMBER #448723

| Key | Part Number  | Description  | Model<br>WSTD 25 |
|-----|--------------|--|------------------|
| 1   | 9989-485-002 | Panel, Side ( Right)- White                        | 1                |
| 1   | 9989-486-002 | Panel, Side ( Left ) - White                       | 1                |
| *   | 9545-018-023 | Screw, (Side Panel to Base) .....                  | 8                |
| *   | 9982-318-001 | Plate Nut Assembly Welded 1/4-20 .....             | 8                |
| *   | 8502-624-003 | Label, Door Opening .....                          | 1                |
| 5   | 9412-105-001 | Nameplate Dexter W/D (one piece) lower .....       | 1                |
| 6   |              | .....  |                  |
| 7   |              | .....  |                  |
| *   | 9051-053-001 | Bumper Loading Door .....                          | 1                |
| *   | 8640-412-005 | Nut keps 8-32 .....                                | 1                |
| 10  | 9989-484-001 | Panel Assembly, Front OPL .....                    | 1                |
| 11  | 9545-008-020 | Screw Front panel mounting torx head .....         | 8                |
| 12  | 8641-582-019 | Lockwasher Int. Tooth .....                        | 8                |
| 13  | 8640-399-001 | Nut, Spring .....                                  | 8                |
| 15  | 9807-087-001 | Front Soap Dispenser complete assembly .....       | 1                |
| 16  | 8502-687-001 | Label Dispenser washer/dryer .....                 | 1                |
| 17  | 8640-413-006 | Nuts Hexelastic 10-32 SS .....                     | 6                |
| *   | 9355-001-001 | Locator Panel .....                                | 1                |
| 19  | 9987-104-001 | Lid Assembly soap dispenser .....                  | 1                |
| *   | 8640-430-001 | Nut 10-32 selfclenching .....                      | 2                |
| *   | 9545-012-017 | Screw 10-32x1/2 SS .....                           | 2                |
| 22  | 9206-422-001 | Gasket Mounts between soap box and tub front ..... | 1                |
| 23  | 9574-252-002 | Siphon Tube inside soap box for softner .....      | 1                |
| 24  | 9539-474-004 | Switch, Red--OFF/ON .....                          | 1                |
| 25  | 9539-474-005 | Switch, White--ADVANCE/START .....                 | 1                |
| 26  | 9539-474-006 | Switch, Blue--PAUSE/RUN .....                      | 1                |
| 27  | 9539-471-001 | Switch, Rotary Selector .....                      | 1                |
| 28  | 9539-479-009 | Switch, Push-button (temperature selector) .....   | 1                |
| 29  | 9307-176-001 | Knob, Control .....                                | 1                |
| *   | 9545-044-004 | Screw, 6-32 x 1/4" .....                           | 2                |
| *   | 9412-122-001 | Nameplate Dexter W/D .....                         | 1                |
| 32  | 9538-165-001 | Spacer .....                                       | 2                |
| 33  | 8640-412-003 | Nut, Switch mounting .....                         | 2                |
| 34  | 3310-042-001 | Light, Pilot, Green .....                          | 1                |
| 35  | 3310-041-001 | Light, Cycle Control .....                         | 1                |
| 36  | 9206-100-001 | Gasket, Light .....                                | 2                |
| *   | 9029-071-001 | Bracket Pressure Switchmounting .....              | 1                |
| 40  | 9985-178-001 | Bracket Assembly Solenoid Mounting .....           | 1                |
| 41  | 9922-011-009 | Door Locking Solenoid Assembly .....               | 1                |
| 42  | 8527-120-001 | Decal Label Controls Temp side .....               | 1                |
| 43  | 8527-118-001 | Decal Label Manual Control Start Switches .....    | 1                |





# OPL WATER INLET GROUP

MODEL  
WSTD 25

| Key | Part Number  | Description                                |    |
|-----|--------------|--|----|
| 1   | 9379-183-003 | Valve, Water Inlet[blue] .....             | 1  |
| 1   | 9379-183-004 | Vavle, Water Inlet [black] .....           | 1  |
| 2   | 9452-691-001 | Plate Water valve mounting .....           | 1  |
| 3   | 9545-008-026 | Screw, #10Bx1/2 .....                      | 4  |
| 4   | 9565-003-001 | Strainer Inlet Hose .....                  | 2  |
| 5   | 9545-008-026 | Screw, Valve Mtg .....                     | 4  |
| 6   | 8640-399-009 | Nut, Spring .....                          | 4  |
| 7   | 9610-001-002 | Vacuum Breaker .....                       | 1  |
| 9   | 9242-462-001 | Hose, Vacuum Breaker to Injector .....     | 1  |
| 10  | 8654-117-009 | Clamp, Vacuum Breaker End .....            | 2  |
| 12  | 9242-453-008 | Hose, Vac. Brkr. to Water Valves 26" ..... | 3  |
| 13  | 9242-453-021 | Hose, Vac. Brkr. to Wash Disp 31" .....    | 2  |
| 14  | 8654-117-009 | Clamp, Hose .....                          | 2  |
| 15  | 8654-117-015 | Clamp, Hose .....                          | 12 |
| 16  | 9883-008-001 | Injector Ass'y P V C .....                 | 1  |
| 17  | 9242-463-005 | Hose Overflow,Suds Top .....               | 1  |
| 18  | 9242-449-004 | Hose, Overflow .....                       | 1  |
| 19  | 9242-462-001 | Injector To Tub Hose .....                 | 1  |

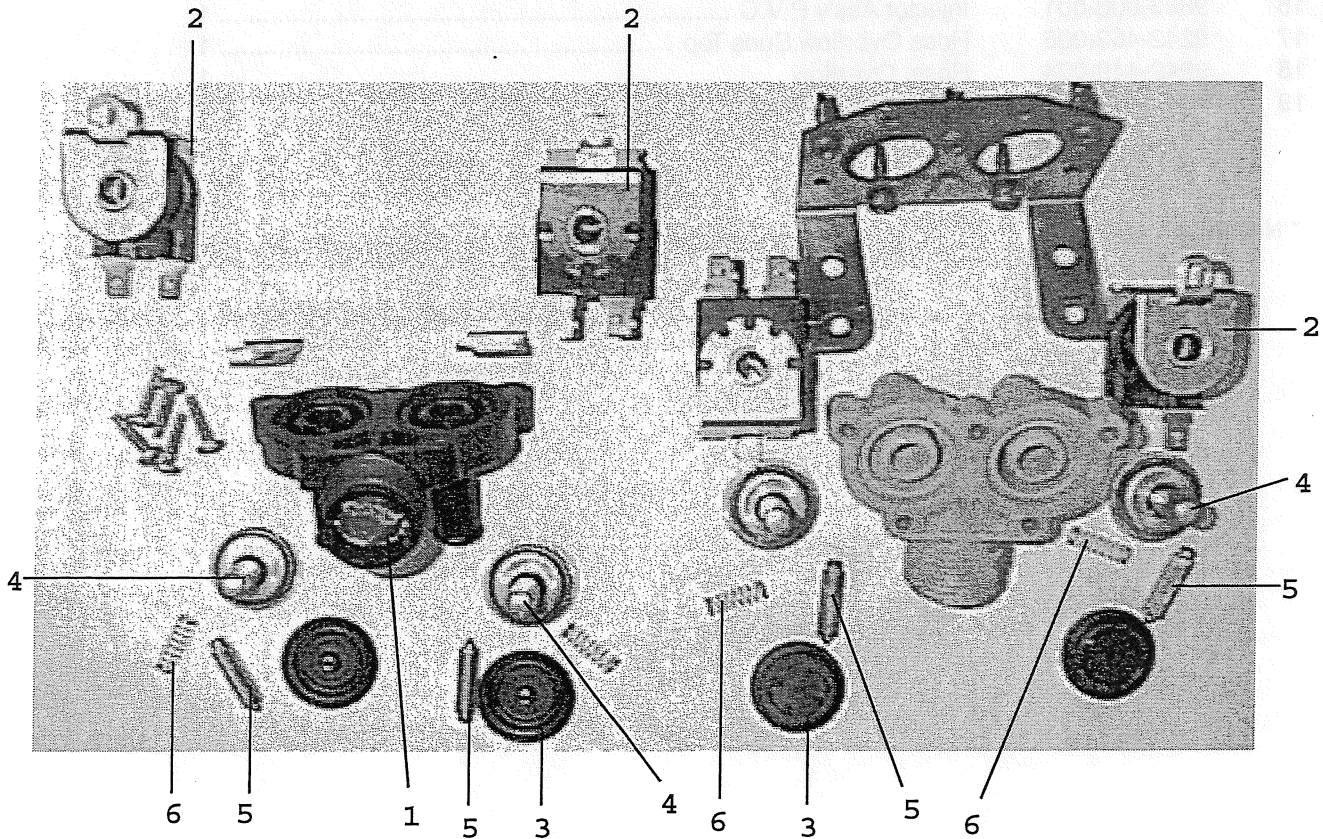
\* Not Illustrated

# OPL WATER INLET VALVE BREAKDOWN

MODEL  
WSTD 25

| Key | Part Number  | Description                                    |          |
|-----|--------------|--|----------|
| *   | 9379-183-003 | Valve, Water Inlet Blue (includes #1 thru #6)  | 1        |
| *   | 9379-183-004 | Valve, Water Inlet Black (includes #1 thru #6) | 1        |
| 1   | 9555-056-001 | Screen, Inlet                                  | 2        |
| 2   | 9089-017-001 | Coil Assy., 120 V                              | 2        |
| 3   | 9118-049-001 | Diaphragm                                      | 2        |
| *   | 9118-049-002 | Diaphragm ( chemical resistant)                | optional |
| 4   | 9211-021-002 | Guide, Solenoid                                | 2        |
| 5   | 9015-008-001 | Armature                                       | 2        |
| 6   | 9534-298-001 | Spring, Armature                               | 2        |
| *   | 9545-008-026 | Screw, Valve Mtg                               | 2        |

\* Not Illustrated



## OPL WASHER TERMINAL BLOCKS

| Key | Part Number  | Description                          |   |
|-----|--------------|--------------------------------------|---|
| *   | 9897-033-002 | Terminal Block, power .....          | 1 |
| *   | 9558-025-001 | Terminal Marker Strip Power .....    | 1 |
| *   | 9897-034-001 | Terminal Block Assembly Power .....  | 1 |
| *   | 9545-045-007 | Screw .....                          | 2 |
| *   | 8652-130-037 | Terminal Grounding .....             | 1 |
| *   | 9558-027-001 | Strip Terminal Marker .....          | 1 |
| *   | 9897-032-002 | Terminal Block, Injector .....       | 1 |
| *   | 9558-028-001 | Terminal Marker Strip Injector ..... | 1 |

## OPL WASHER LABELS

| Key | Part Number  | Description                                   |   |
|-----|--------------|---|---|
| *   | 8502-624-003 | Label, Warning Door Opening .....             | 1 |
| *   | 8502-614-005 | Label, High Voltage .....                     | 1 |
| *   | 8502-647-001 | Label, Connections- Injector .....            | 1 |
| *   | 8502-649-001 | Label, Connections- Electrical .....          | 1 |
| *   | 8502-619-004 | Label, Fusing & Installation .....            | 1 |
| *   | 8502-639-001 | Label, Warning .....                          | 1 |
| *   | 8502-646-001 | Label, Insturction Dispenser .....            | 1 |
| *   | 8502-653-001 | Label, Installer Instructions .....           | 1 |
| *   | 8502-666-001 | Label, Injector assembly .....                | 1 |
| *   | 8507-268-001 | Instructions Chemical hose installation ..... | 1 |
| *   | 9345-907-001 | Schematic .....                               | 1 |
| *   | 9345-783-002 | Wiring Label Main Timer Chart .....           | 1 |
| *   | 9345-906-001 | Wirng Diagram .....                           | 1 |
| *   | 8507-301-001 | Warranty card OPL DEXTER .....                | 1 |
| *   | 8511-001-002 | Label Quality .....                           | 1 |
| *   | 8502-687-001 | Label Dispenser, Washer/Dryer .....           | 1 |
| *   | 8514-044-001 | Owners Booklet .....                          | 1 |
| *   | 8527-118-001 | Decal Manual ontrol OPL W/D .....             | 1 |
| *   | 8527-120-001 | Decal Controls OPL W/D .....                  | 1 |
| *   | 9412-105-001 | Nameplate Dexter W/D Lower .....              | 1 |

## OPL WASHER WIRING HARNESS GROUP

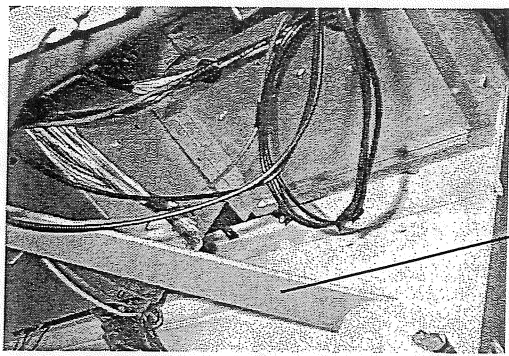
| Key | Part Number  | Description                                      |   |
|-----|--------------|--|---|
| *   | 9627-747-002 | Wiring Harness, Power Term Blk .....             | 1 |
| *   | 9627-779-001 | Wiring Harness, Main Extender .....              | 1 |
| *   | 9627-694-001 | Wiring Harness, Control .....                    | 1 |
| *   | 9627-692-002 | Wiring Harness, Main OPL .....                   | 1 |
| *   | 9627-808-001 | Wiring Harness, VFD Control Shield ( BLU ) ..... | 1 |
| *   | 9627-691-002 | Wiring Harness Injector Control .....            | 1 |
| *   | 9627-811-001 | Wiring Harness Control to VFD .....              | 1 |
| *   | 9627-683-001 | Wiring Harness Drain Valve .....                 | 1 |
| *   | 9627-780-001 | Wiring Harness Extender Thermo .....             | 1 |
| *   | 9627-812-001 | Wiring Harness Front Extender .....              | 1 |

\* Not Illustrated

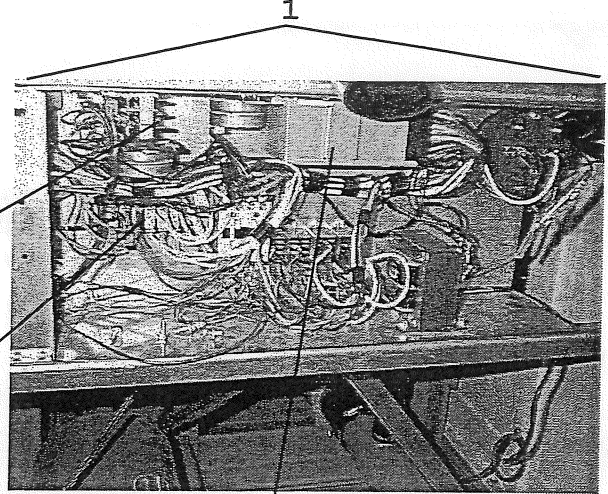
# OPL WASHER ELECTRICAL COMPONENTS COMPARTMENT

| Key | Part Number                        | Description .....                       |    |
|-----|------------------------------------|---|----|
| 1   | 9839-013-001                       | Trough Assy, Controls Mtg .....         | 1  |
| *   | 9003-265-001                       | Angle Support Control Trough .....      | 1  |
| *   | 9545-008-026                       | Screw 10B x 1/2 .....                   | 2  |
| *   | 9545-008-026                       | Screw, Trough Sides .....               | 2  |
| *   | 9545-008-026                       | Screw, Trough Bracket .....             | 2  |
| 2   | 5192-285-001                       | Relay, small ice cube type .....        | 4  |
| *   | 9545-031-003                       | Screw 6Bx3/8 .....                      | 8  |
| 3   | 5192-295-004                       | Relay, Spin .....                       | 1  |
| *   | 5192-286-009                       | Relay, Wash .....                       | 1  |
| *   | 9545-008-026                       | Screw, Mtg wash and spin relay .....    | 2  |
| *   | 8641-582-006                       | Lockwasher .....                        | 1  |
| *   | 8653-074-001                       | Connector .....                         | 1  |
| 5   | 9571-361-004                       | Timer, Program .....                    | 1  |
|     | (VERIFY PART NUMBER ON TIMER BODY) |   |    |
| *   | 9376-295-004                       | Motor, Timer Main Drive .....           | 1  |
| *   | 9376-286-004                       | Motor, Timer Rapid Advance .....        | 1  |
| *   | 9545-012-001                       | Screw, Timer Mtg 10-32x5/16 .....       | 2  |
| *   | 9107-067-001                       | Dial, Decal,Timer .....                 | 1  |
| *   | 9307-176-001                       | Knob, Timer (w/set screws) .....        | 1  |
| *   | 9538-157-006                       | Spacer Plastic over timer shaft .....   | 1  |
| 6   | 9571-360-001                       | Timer, Reversing .....                  | 1  |
| *   | 9545-044-004                       | Screw, Reversing Timer 6-32 x 1/4 ..... | 2  |
| 8   | 9897-034-001                       | Terminal Block Assy, 12 Lug .....       | 1  |
| *   | 9545-045-007                       | Screw, Mtg .....                        | 2  |
| *   | 9558-027-001                       | Strip, Terminal Marker .....            | 1  |
| 10  | 9539-490-001                       | Switch, Pressure .....                  | 1  |
|     | 9029-071-001                       | Bracket Mounting Pressure Switch .....  | 1  |
| *   | 9545-045-001                       | Screw, Mtg 8Bx1/4 .....                 | 2  |
| *   | 9545-031-003                       | Screw 6Bx3/8 .....                      | 4  |
| 21  | 5198-211-004                       | Circuit Breaker, 1.5 amp .....          | 1  |
| 23  | 8711-004-001                       | Transformer, Control .....              | 1  |
| *   | 9545-008-026                       | Screw .....                             | 2  |
| *   | 8641-582-006                       | Lockwasher .....                        | 2  |
| *   | 9985-176-001                       | Bracket Assembly--Drive Mounting .....  | 1  |
| *   | 9029-119-002                       | VFD Drive Mounting Bracket .....        | 1  |
| 24  | 9375-002-007                       | Drive, Magnatek .....                   | 1  |
| *   | 9545-008-026                       | Screw 10Bx1/2 .....                     | 10 |
| *   | 8640-413-002                       | Nut, Hex .....                          | 4  |
| 25  | 9483-004-002                       | Resistor, Braking (200 ohms) .....      | 3  |
| *   | 8220-001-418                       | Wiring Harness Assembly Black .....     | 2  |
| *   | 9545-008-026                       | Screw 10Bx1/2 .....                     | 2  |
| *   | 9897-033-002                       | Terminal Block Power .....              | 1  |
| *   | 9545-031-010                       | Screw 6ABx3/4 .....                     | 2  |
| *   | 8652-130-037                       | Terminal Grounding .....                | 1  |
| *   | 8639-621-007                       | Screw 10-32x1/2 Green .....             | 1  |
| *   | 8641-582-006                       | Lockwasher Ext. 10 .....                | 1  |

\* Not Illustrated



angle support

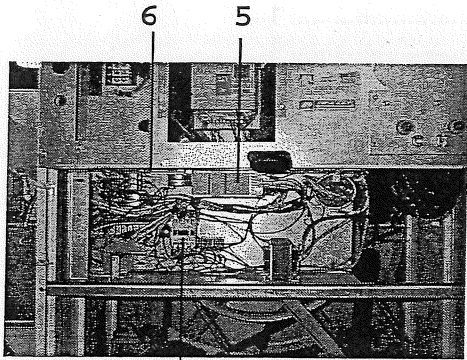


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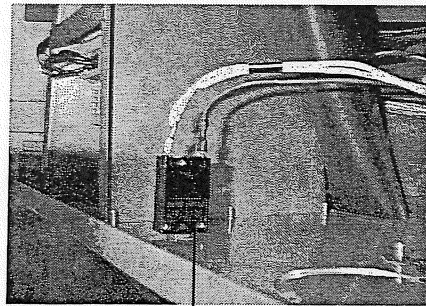
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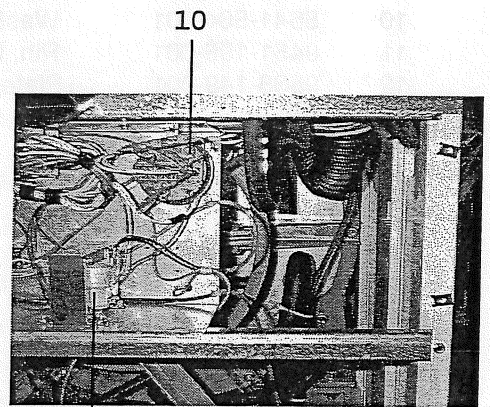


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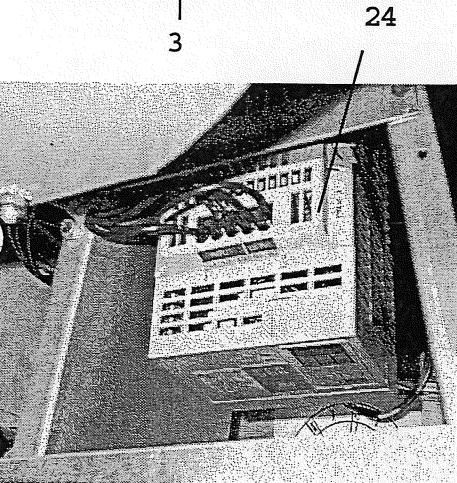
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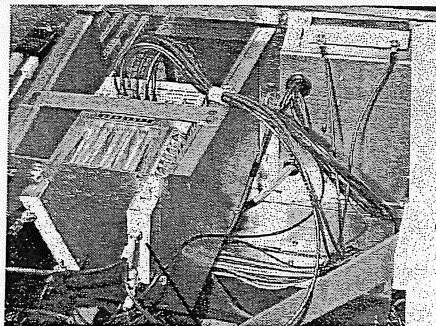


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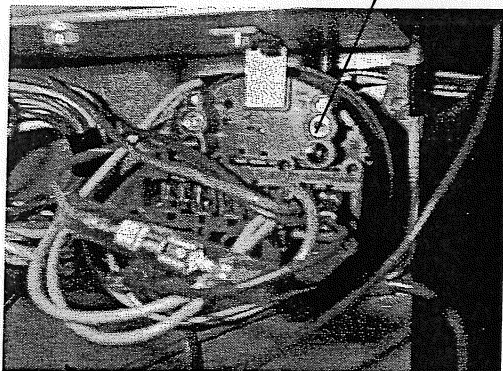
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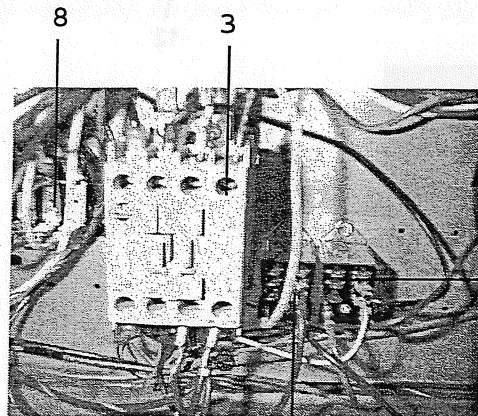


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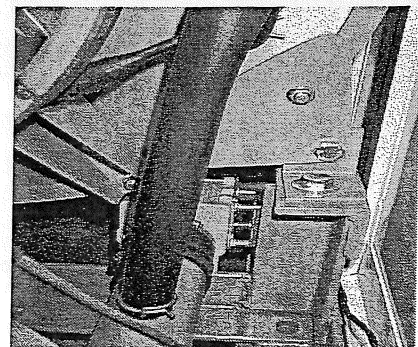
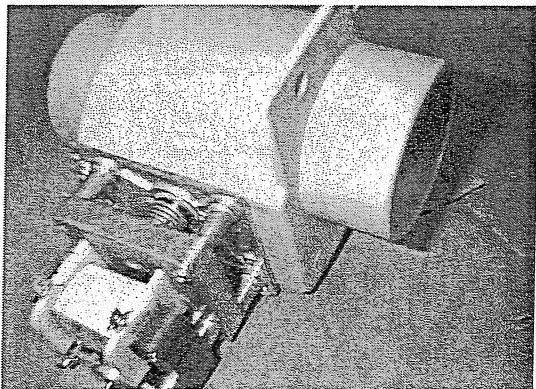
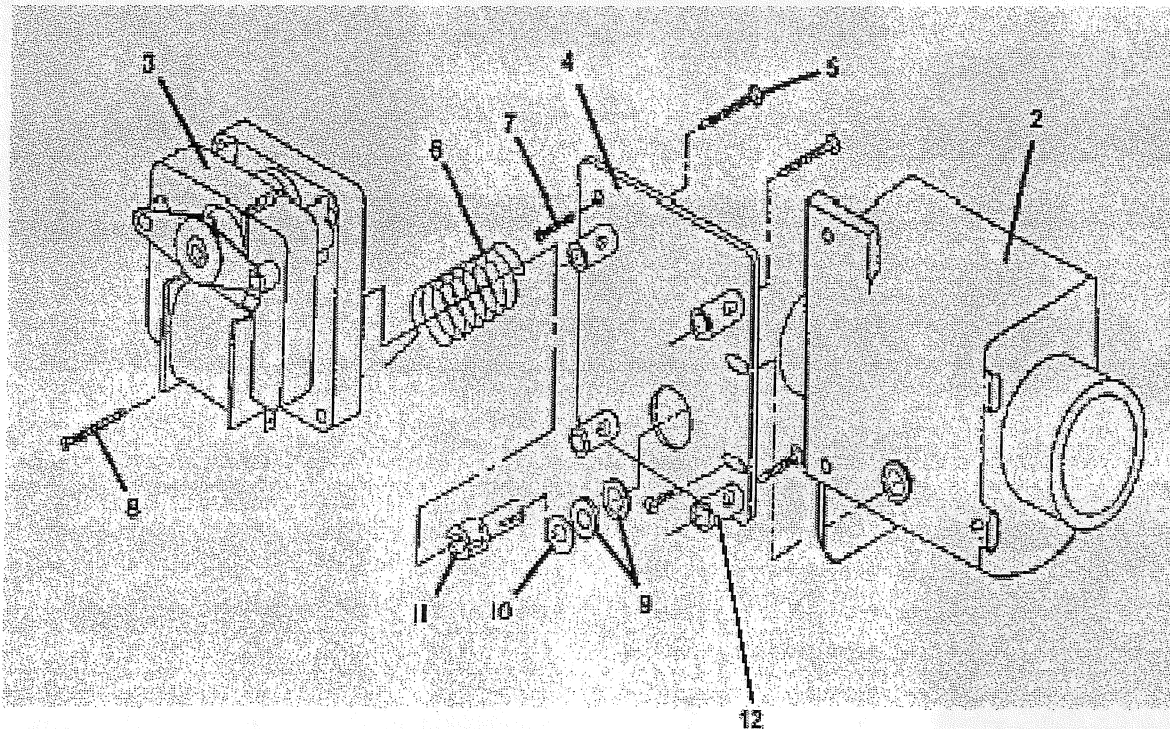
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2

2

# OPL DRAIN VALVE GROUP

| Key | Part Number  | Description  |   |
|-----|--------------|--|---|
|     | 9379-187-001 | Valve, Drain (includes #2 thru #11)                        | 1 |
| 2   | 9064-070-001 | Body, Valve (w/ball)                                       | 1 |
| 3   | 9914-137-001 | Motor & Gear Train   | 1 |
| 4   | 9452-538-001 | Plate, Motor Mtg   | 1 |
| 5   | 8639-994-001 | Screw  | 3 |
| 6   | 9534-339-001 | Spring, Drive  | 1 |
| 7   | 9545-054-001 | Screw  | 2 |
| 8   | 9545-054-002 | Screw  | 1 |
| 9   | 9532-134-001 | Seal, V Packer   | 2 |
| 10  | 8641-584-001 | Washer   | 1 |
| 11  | 9451-196-001 | Pin, Main Drive  | 1 |
| 12  | 9538-149-001 | Plate , ( spacers needed for replacement motor mtg. plate) | 4 |



# STACK WASHER/DRYER PREVENTIVE MAINTENANCE(PM) REQUIREMENTS

**MAKE SURE ALL POWER IS DISCONNECTED BEFORE  
MAKING CHECKS INSIDE MACHINES.**

## DAILY DRYER

1. Clean lint screen with soft brush and check for rips or tears.  
Replace as necessary

## DAILY WASHER

1. Check if door remains securely locked during the entire cycle.
2. Clean the front panel at top around soap dispenser.
3. Clean the soap dispenser and soap lid.
4. Check the drain for leaking and proper draining.
5. Check the water connections for leak.
6. Check door seal for foreign material.
7. Leave the loading door open to aerate the washer when not in use.

## MONTHLY DRYER

1. Clean lint from motor end bells and dryer controls area.
2. Clean lint from lint screen compartment.
3. Clean lint accumulation from top and all around area above burner housing.

**FAILURE TO KEEP THIS SECTION OF DRYER FREE FROM LINT CAN CREATE A FIRE HAZARD.**

## QUARTERLY WASHERS

1. Check drive belt for wear and proper tension.
2. Clean lint and other foreign material from around drive motor.
3. Remove water inlet hose filter screens and clean or replace as necessary.
4. Check all electrical components for moisture and wipe away any foreign debris.

## SEMI-ANNUALLY DRYER

1. Check V-belts for cracks, wear, fraying, or looseness.
2. Check tightness of all fasteners holding parts to any support channel.
3. Clean all lint accumulation from front panel, lint screen and around burner housing.
4. Place a few drops of light oil on top and bottom pivots of the door hinge.
5. Inspect door glass gasket for excessive wear.
6. Clean lint accumulation from primary air ports in burners.
7. Check intermediate drive pulley bushings for excessive wear.

## ANNUALLY WASHER

1. Clean and remove lint and foreign debris from outside cover of VFD with a dry clean rag or dry brush.
2. Inspect all wire connections especially at relays, terminal connections and circuit boards for tightness.
3. Inspect and check tightness of mounting bolts that mount washer frames to floor and the dryer to the washer.

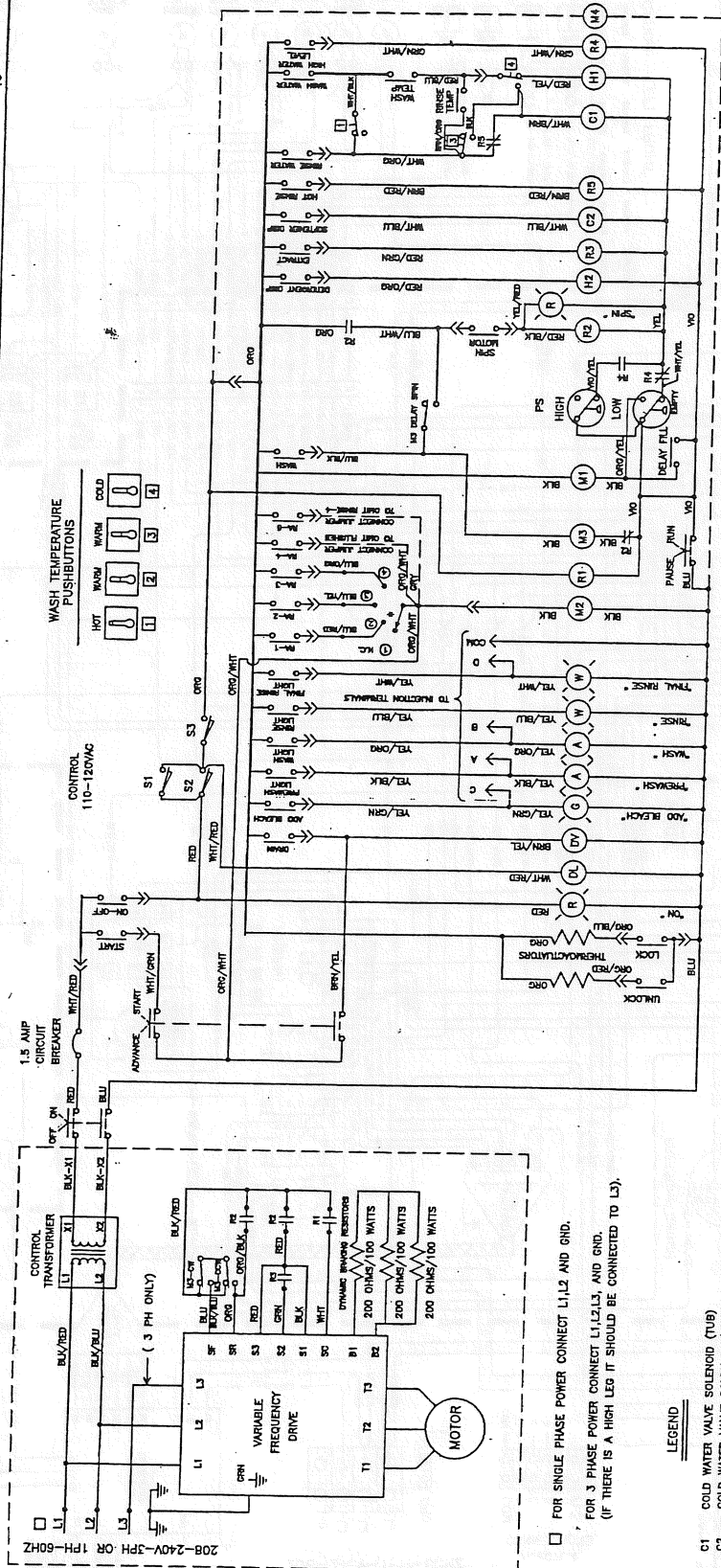
## ANNUALLY DRYER

1. Remove, inspect and clean main burner orifices of obstructions or dirt and also primary air ports in burners.
2. Grease bearings at intermediate drive pulley with grease fitting.
3. Remove and inspect exhaust ducting of any lint accumulation in exhaust system all the way out to exit walls or roof.
4. Check tumbler shaft retaining nut for 125 Ft. Lb. torque\*.

\* **PLEASE NOTE THAT WE HAVE EXTENDED THE TIME BETWEEN CHECKS AFTER SERIAL NUMBER #149253 AND WHEN YOUR NEXT QUARTERLY SCHEDULED PM CHECK IS DUE YOU MAY INSTALL LOCKTITE # 271 ACROSS THREADS AND TIGHTEN TO 150 FT.LBS. AND THIS WILL THEN EXTEND YOUR NEXT PM CHECK TIME TO ANNUALLY.**



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15



NOTE: FLUSHES CAN BE OMITTED BY CONNECTING RA-4 JUMPER. RINSE-4 CAN BE OMITTED BY CONNECTING RA-5 JUMPER. CHANGE NUMBER OF RINSES LISTED ABOVE.

\* CYCLE SELECTOR SWITCH  
 (2) FLUSHES, WASH, (5) RINSES, SPIN  
 (2) FLUSHES, WASH, (4) RINSES, SPIN  
 (1) FLUSH, WASH, (5) RINSES, SPIN  
 (1) FLUSH, WASH, (4) RINSES, SPIN

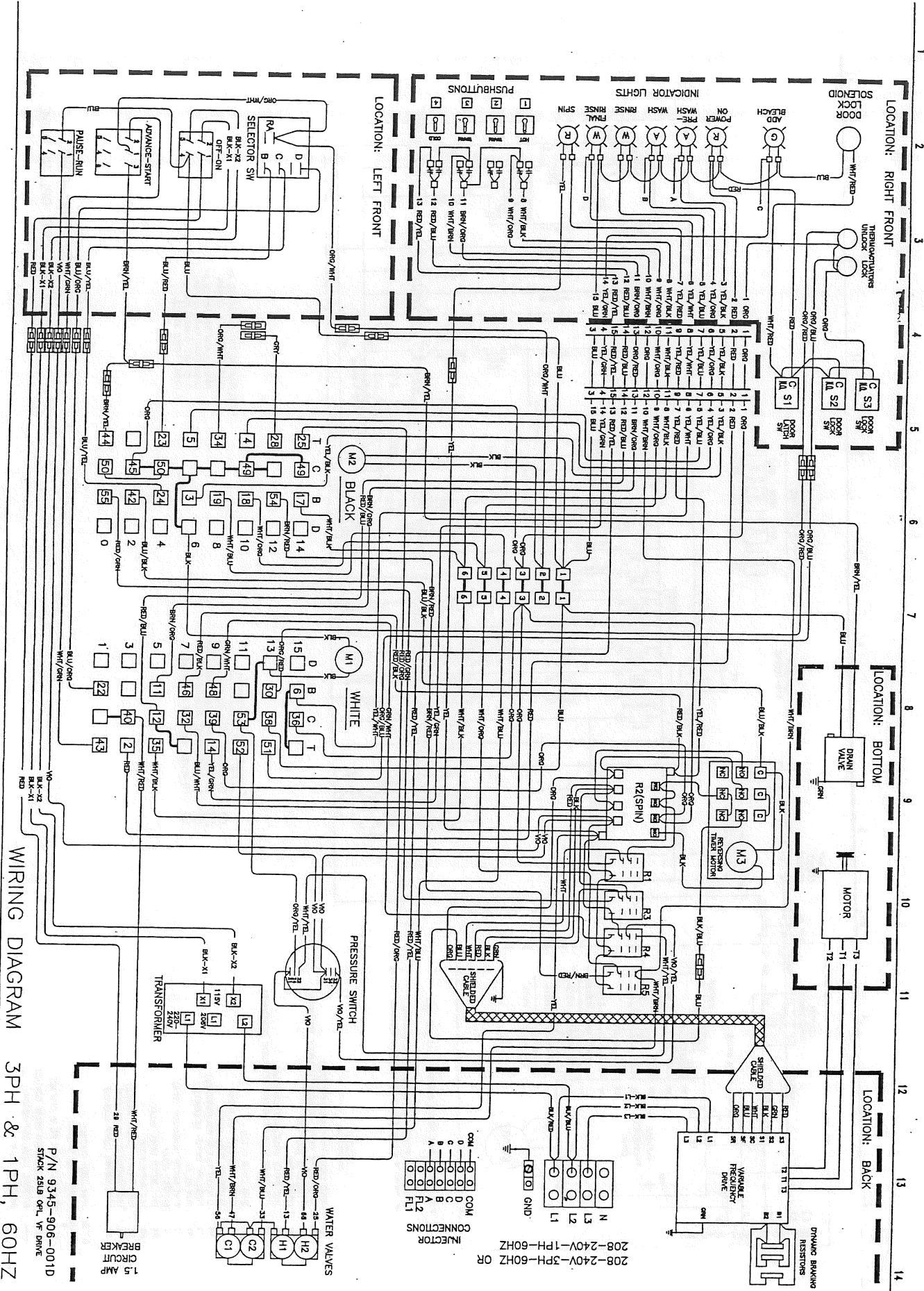
□ FOR SINGLE PHASE POWER CONNECT L1,L2 AND GND.  
 FOR 3 PHASE POWER CONNECT L1,L2,L3, AND GND.  
 (IF THERE IS A HIGH LEG IT SHOULD BE CONNECTED TO L3).

LEGEND

- C1 COLD WATER VALVE SOLENOID (TUB)
- C2 COLD WATER VALVE SOLENOID (SOFTENER DISPENSER)
- DL DOOR LOCK SOLENOID
- DY DRINK VALVE
- H1 HOT WATER VALVE SOLENOID (TUB)
- H2 HOT WATER VALVE SOLENOID (DETERGENT DISPENSER)
- M1 MAIN TIMER MOTOR
- M2 RAPID ADVANCE TIMER MOTOR
- M3 REVERSING TIMER MOTOR
- M4 ELAPSED TIME METER (OPTIONAL)
- PS PRESSURE SWITCH (2 LEVEL)
- R1 RUN RELAY
- R2 SPIN MOTOR CONTACTOR (C/W)
- R3 EXTRACT RELAY
- R4 HIGH WATER LEVEL RELAY
- R5 HOT RINSE RELAY
- S1 DOOR SWITCH (DOOR LATCHED)
- S2 DOOR SWITCH (DOOR LOCKED)
- S3 LOCK SWITCH (DOOR LOCKED)
- MAIN TIMER CONTACT
- PUSHBUTTON CONTACT
- || NORMALLY OPEN RELAY CONTACT
- ⊥ NORMALLY CLOSED RELAY CONTACT
- ⊏ INTERNAL TIMER CONNECTION
- ⊠ INDICATOR LIGHT

P/N 9345-907-001C  
 STACK 25LB, OPL, VF DRIVE

WIRING SCHEMATIC 3PH OR 1PH, 60HZ



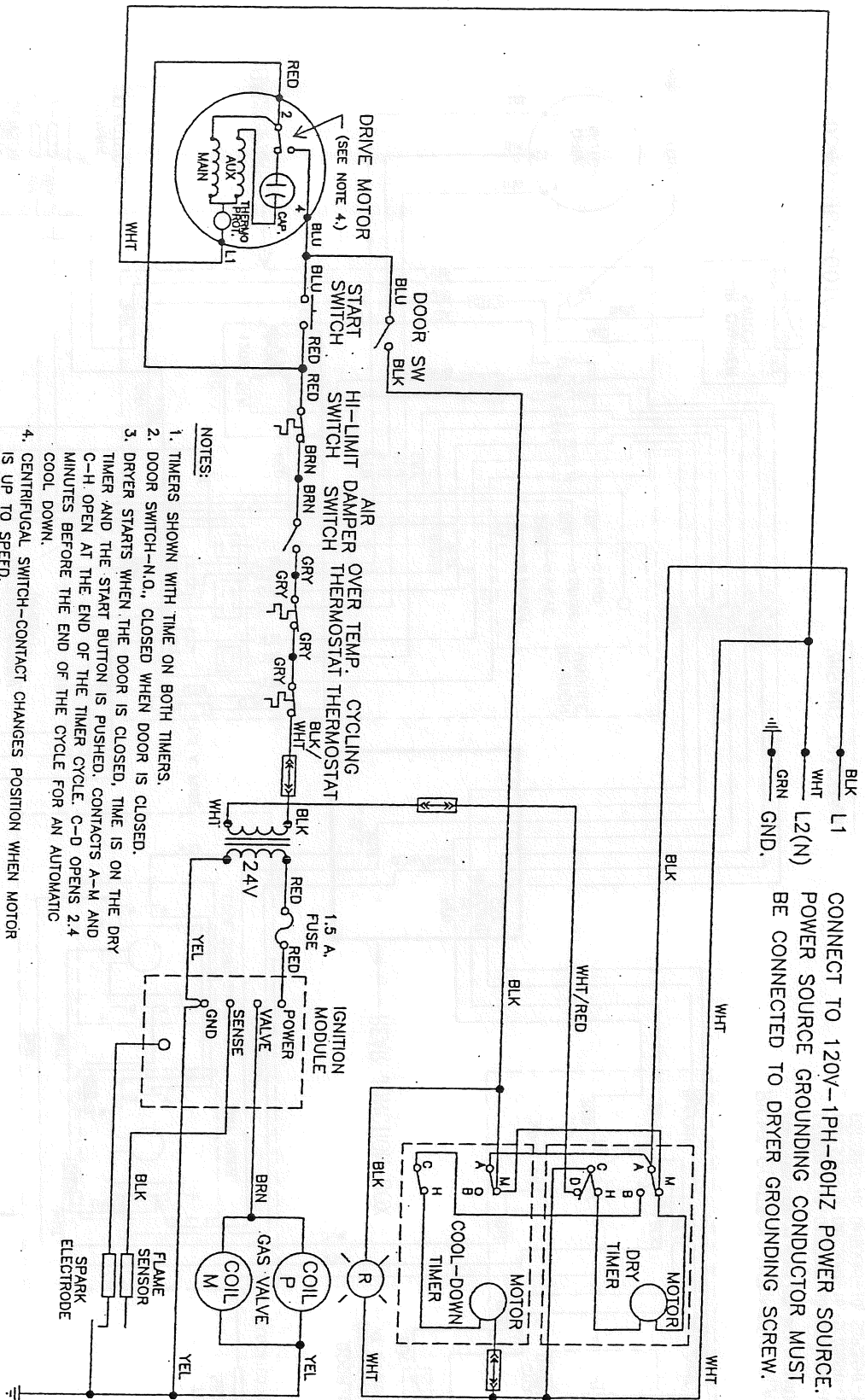
WIRING DIAGRAM 3PH & 1PH, 60HZ

P/N 9345-906-001D  
 STACK 2518 ORL, YF DRIVE

9345-900-001C

SCHEMATIC

1. TIMERS SHOWN WITH TIME ON BOTH TIMERS.
2. DOOR SWITCH-N.O., CLOSED WHEN DOOR IS CLOSED.
3. DRYER STARTS WHEN THE DOOR IS CLOSED, TIME IS ON THE DRY TIMER AND THE START BUTTON IS PUSHED. CONTACTS A-M AND C-H OPEN AT THE END OF THE TIMER CYCLE. C-D OPENS 2.4 MINUTES BEFORE THE END OF THE CYCLE FOR AN AUTOMATIC COOL DOWN.
4. CENTRIFUGAL SWITCH-CONTACT CHANGES POSITION WHEN MOTOR IS UP TO SPEED.
5. REFER TO OWNER'S MANUAL FOR DESCRIPTION OF OPERATION AND REQUIREMENTS FOR HEATING CIRCUIT.



CONNECT TO 120V-1PH-60HZ POWER SOURCE.  
POWER SOURCE GROUNDING CONDUCTOR MUST  
BE CONNECTED TO DRYER GROUNDING SCREW.

- DSTD30HT-10, DATD30HT-10, SCTD55HT-14
- DSTC30HT-10, DATC30HT-10, SCTC55HT-14
- DSTG30HT-10, DATG30HT-10, SCTG55HT-14

**THE DEXTER COMPANY**  
FAIRFIELD, IOWA

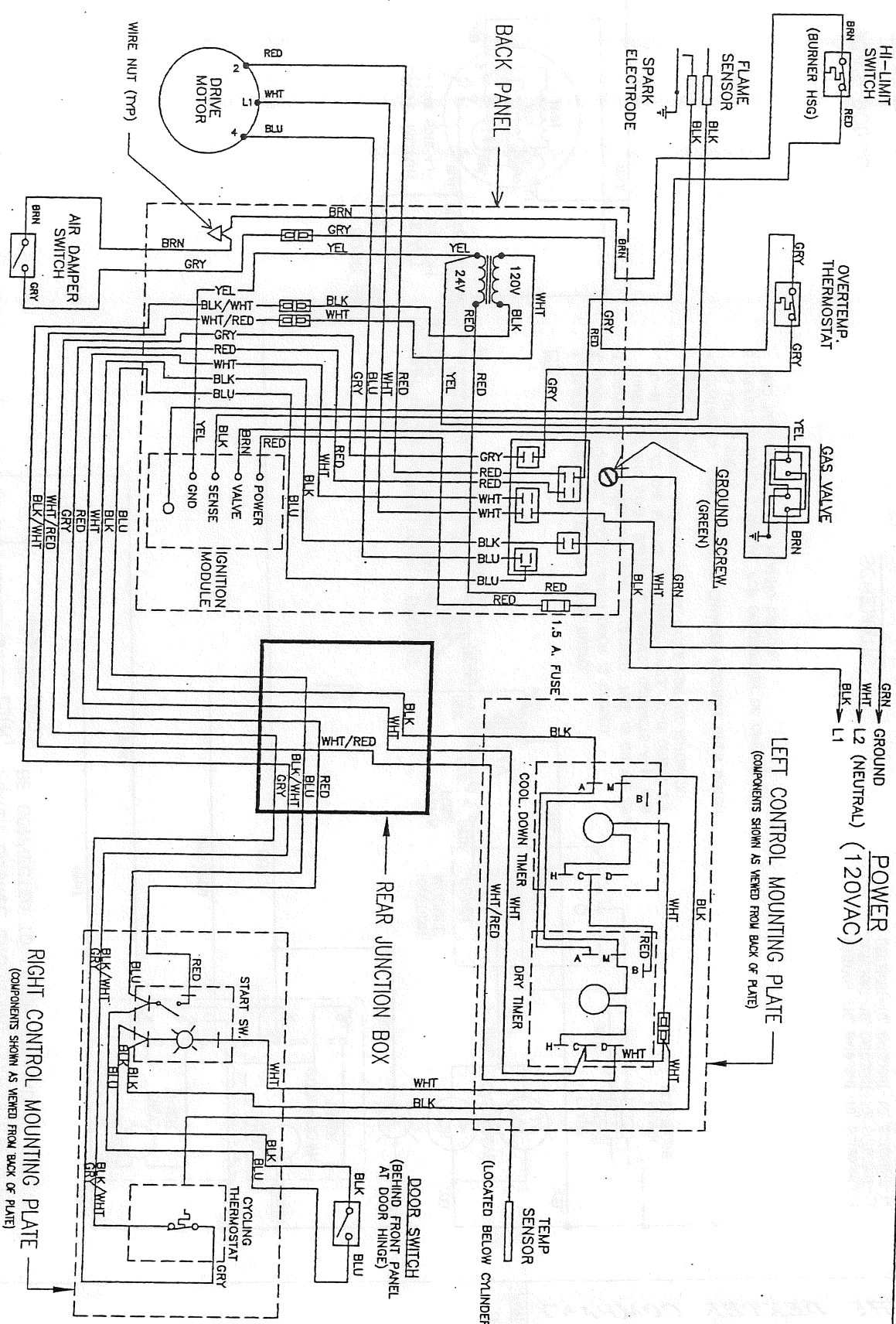
PART NO. 9345-900-001  
JUL 13 2000

|         |          |   |      |
|---------|----------|---|------|
| NAME    |          | SCHEMATIC - STACK WSHR/DRYR (DRYER), OPL  |      |
| MODEL   |          | DSTD30HT-10, DATD30HT-10, SCTD55HT-14, DSTC30HT-10, DATC30HT-10, SCTC55HT-14, DSTG30HT-10, DATG30HT-10, SCTG55HT-14 |      |
| USED ON |          |   |      |
| DRAWN   | BC       | CHECKED   | APP. |
| DATE    | 11/18/99 | SIZE  | B    |
| SCALE   | FULL     | DWG. NO.  |      |

9345-900

9345-901-001C

WIRING DIAGRAM



RIGHT CONTROL MOUNTING PLATE  
 (COMPONENTS SHOWN AS VIEWED FROM BACK OF PLATE)

DSTD30HT-10, DATD30HT-10, SCTD55HT-14  
 DSTC30HT-10, DATC30HT-10, SCTC55HT-14  
 DSTG30HT-10, DATG30HT-10, SCTG55HT-14

THE DEXTER COMPANY  
 FAIRFIELD, IOWA

|          |   |
|----------|---|
| NAME     | WIRING DIAGRAM-STACK WSHR/DRYR (DRYER), OPL   |
| MODEL    | DSTD30HT-10, DATD30HT-10, SCTD55HT-14, DSTC30HT-10, DATC30HT-10, SCTC55HT-14, DSTG30HT-10, DATG30HT-10, SCTG55HT-14 |
| USED ON  |   |
| DRAWN    | BC  |
| CHECKED  |   |
| APP.     |   |
| DWG. NO. |   |
| DATE     | 11/18/99  |

PART NO. 9345-901-  
 AUG 2 2000

