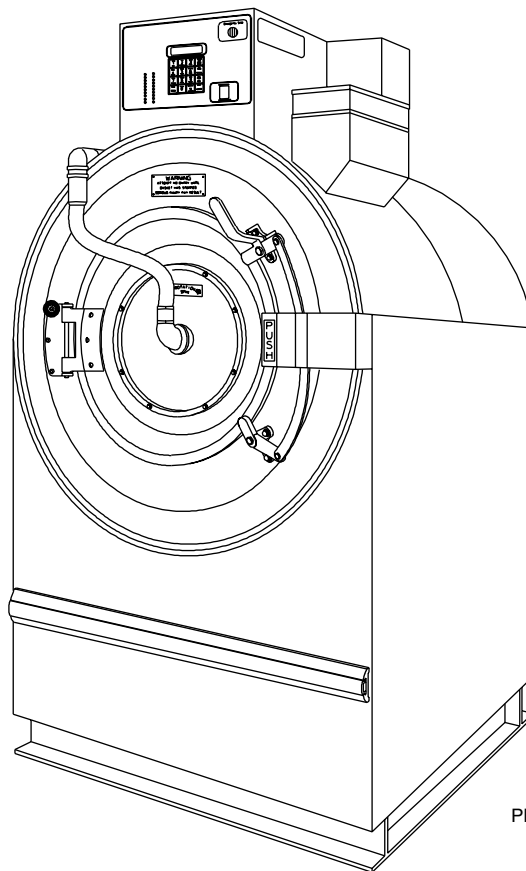


# Washer-Extractors

Pocket Hardmount  
WE-4, WE-5 Control  
UW50P4

— Installation/Maintenance —



PHM516N

**Keep These Instructions for Future Reference.**

(If this machine changes ownership, this manual must accompany machine.)



[www.comlaundry.com](http://www.comlaundry.com)

Part No. F232160  
September 2002



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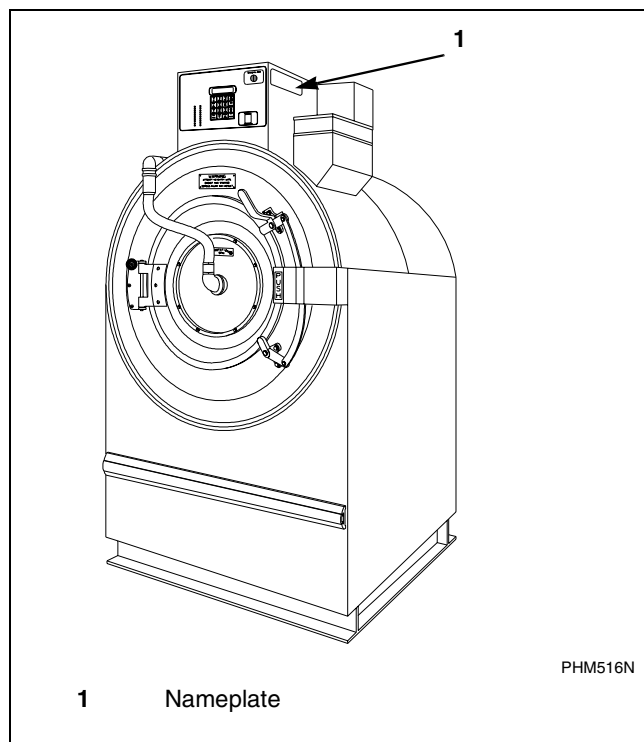
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# Introduction

## Nameplate Location

The nameplate is located at the top of the machine. Always provide the machine's serial number and model number when ordering parts or when seeking technical assistance.



## Replacement Parts

If literature or replacement parts are required, contact the source from which the machine was purchased or contact Alliance Laundry Systems at (920) 748-3950 for the name and address of the nearest authorized parts distributor.

## Customer Service

For technical assistance, call any of the following numbers:

(850) 718-1025

(850) 718-1026

Marianna, Florida U.S.A.

(920) 748-3121

Ripon, Wisconsin U.S.A.


## Uncrating


All UW 50 pound washer-extractors are carefully tested, inspected and adjusted in our plant before crating and are shipped fully assembled. Upon uncrating, inspect carefully to determine whether there has been any damage incurred in shipping. If so, IMMEDIATELY notify the carrier. Do not remove the wood base until the machine has been put adjacent to the place that it will occupy. DO NOT attempt to move the machine by pushing on sides. Always use a pry bar or other device at the bottom of the machine.




# Safety Information

Precautionary statements (“DANGER,” “WARNING,” and “CAUTION”), followed by specific instructions, are found in this manual and on machine decals. These precautions are intended for the personal safety of the operator, user, servicer, and those maintaining the machine.

	<b>DANGER</b>
<b>DANGER indicates the presence of a hazard that will cause severe personal injury, death, or substantial property damage if the danger is ignored.</b>	

	<b>WARNING</b>
<b>WARNING indicates the presence of a hazard that can cause severe personal injury, death, or substantial property damage if the warning is ignored.</b>	


	<b>CAUTION</b>
<b>CAUTION indicates the presence of a hazard that will or can cause minor personal injury or property damage if the caution is ignored.</b>	

Additional precautionary statements (“IMPORTANT” and “NOTE”) are followed by specific instructions.

**IMPORTANT:** The word “IMPORTANT” is used to inform the reader of specific procedures where minor machine damage will occur if the procedure is not followed.

**NOTE:** The word “NOTE” is used to communicate installation, operation, maintenance or servicing information that is important but not hazard related.

## Important Safety Instructions

	<b>WARNING</b>
<b>To reduce the risk of fire, electric shock, serious injury or death to persons when using your washer, follow these basic precautions:</b>	
W023E	

1. Read all instructions before using the washer.
2. Refer to the GROUNDING INSTRUCTIONS in the INSTALLATION manual for the proper grounding of the washer.
3. Do not wash textiles that have been previously cleaned in, washed in, soaked in, or spotted with gasoline, dry-cleaning solvents, or other flammable or explosive substances as they give off vapors that could ignite or explode.
4. Do not add gasoline, dry-cleaning solvents, or other flammable or explosive substances to the wash water. These substances give off vapors that could ignite or explode.
5. Under certain conditions, hydrogen gas may be produced in a hot water system that has not been used for two weeks or more. HYDROGEN GAS IS EXPLOSIVE. If the hot water system has not been used for such a period, before using a washing machine or combination washer-dryer, turn on all hot water faucets and let the water flow from each for several minutes. This will release any accumulated hydrogen gas. The gas is flammable, do not smoke or use an open flame during this time.
6. Do not allow children to play on or in the washer. Close supervision of children is necessary when the washer is used near children. This is a safety rule for all appliances.
7. Before the washer is removed from service or discarded, remove the door to the washing compartment.
8. Do not reach into the washer if the wash drum is moving.

## Safety Information

9. Do not install or store the washer where it will be exposed to water and/or weather.
10. Do not tamper with the controls.
11. Do not repair or replace any part of the washer, or attempt any servicing unless specifically recommended in the user-maintenance instructions or in published user-repair instructions that the user understands and has the skills to carry out.
12. To reduce the risk of an electric shock or fire, DO NOT use an extension cord or an adapter to connect the washer to the electrical power source.
13. Use washer only for its intended purpose, washing textiles.
14. ALWAYS disconnect the washer from electrical supply before attempting any service. Disconnect the power cord by grasping the plug, not the cord.
15. Install the washer according to the INSTALLATION INSTRUCTIONS. All connections for water, drain, electrical power and grounding must comply with local codes and be made by licensed personnel when required.
16. To reduce the risk of fire, textiles which have traces of any flammable substances such as vegetable oil, cooking oil, machine oil, flammable chemicals, thinner or anything containing wax or chemicals such as in mops and cleaning cloths, must not be put into the washer. These flammable substances may cause the fabric to catch on fire by itself.
17. Do not use fabric softeners or products to eliminate static unless recommended by the manufacturer of the fabric softener or product.
18. Keep washer in good condition. Bumping or dropping the washer can damage safety features. If this occurs, have washer checked by a qualified service person.
19. Replace worn power cords and/or loose plugs.
20. Be sure water connections have a shut-off valve and that fill hose connections are tight. CLOSE the shut-off valves at the end of each wash day.
21. Loading door MUST BE CLOSED any time the washer is to fill, tumble or spin. DO NOT bypass the loading door switch by permitting the washer to operate with the loading door open.
22. Always read and follow manufacturer's instructions on packages of laundry and cleaning aids. Heed all warnings or precautions. To reduce the risk of poisoning or chemical burns, keep them out of the reach of children at all times (preferably in a locked cabinet).
23. Always follow the fabric care instructions supplied by the textile manufacturer.
24. Never operate the washer with any guards and/or panels removed.
25. DO NOT operate the washer with missing or broken parts.
26. DO NOT bypass any safety devices.
27. Failure to install, maintain, and/or operate this washer according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

**NOTE: The WARNINGS and IMPORTANT SAFETY INSTRUCTIONS appearing in this manual are not meant to cover all possible conditions and situations that may occur. Common sense, caution and care must be exercised when installing, maintaining, or operating the washer.**

Any problems or conditions not understood should be reported to the dealer, distributor, service agent or the manufacturer.



# Installation

## Familiarization Guide

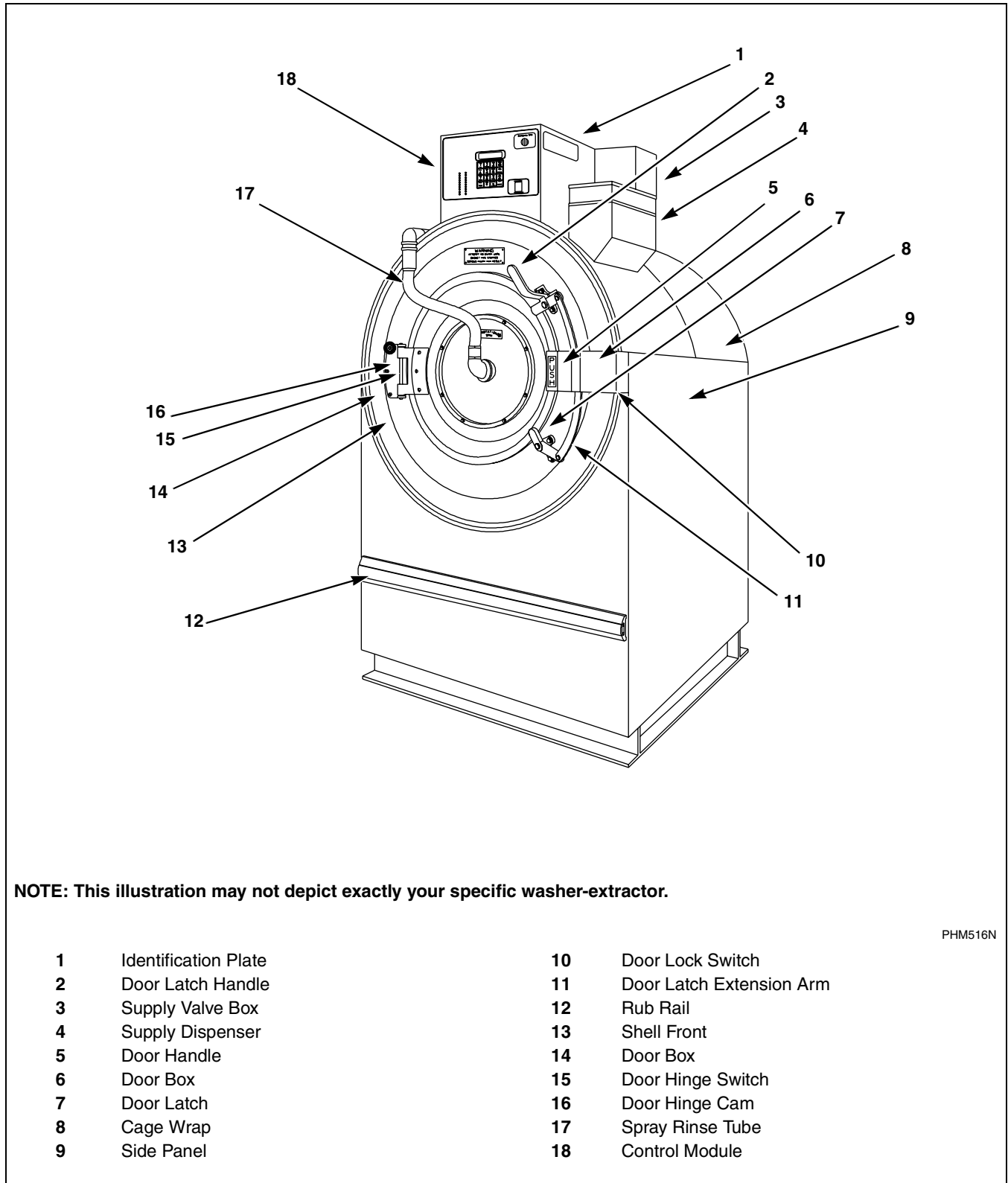


Figure 1

## Installation

### Specifications and Dimensions

<b>Specifications</b>		
Dry Weight Capacity		50 lbs. (22.7 kg)
Cylinder Size		32 in. x 18 in. (813 mm x 557 mm)
Shaft and Bearing Size		2-1/16 in.
Cylinder Volume		8.4 cu. ft. (0.24 m <sup>3</sup> )
Wash-Reversing Speed		47 RPM
Net Weight		1100 lbs. (498.3 kg)
Overall Width		36 in. (914 mm)
Overall Height		63 in. (1600 mm)
Overall Depth		40 in. (1016 mm)
Average Water Consumption per Cycle		110 gal. (416 l)
<b>Motor Options</b>		
2 Speed	One 2 Speed Motor 3 HP 208-240 3 Phase	60 Hz (2.24 kW)
	Spray Flush-Drain Speed	47 RPM
	Spray Rinse-Drain Speed	465 RPM
	Extract Speed	465 RPM
	G Force During Final Extraction	98 Gs
3 Speed	One 3 Speed Motor 2.7 HP 208-240 3 Phase	60 Hz (2.01 kW)
	Spray Flush-Drain Speed	47 RPM
	Spray Rinse-Drain Speed	265 RPM
	Extract Speed	525 RPM
	G Force During Final Extraction	125 Gs
4 Speed	Two 2 Speed Motors 0.6 HP and 3.5 HP 208-240 3 Phase	60 Hz (2.61 kW)
	Spray Flush-Drain Speed	75 RPM
	Spray Rinse-Drain Speed	350 RPM
	Extract Speed	700 RPM
	G Force During Final Extraction	222 Gs

**NOTE: 4 speed – high extract machines come equipped with heavier frame construction and special installation requirements.**

Electrical 208-240/60/3, 4 wire with 120 Volt Control must pass Factory Mutual Systems, CSA, ANSI and National Electrical Code.

Consult Electrical Code for local requirements. Manufacturer recommends only three-phase circuit breakers for three-phase machines.

## **Dimensional Clearances**

It is important to allow a minimum of 24 inches at the rear of the machine and 18 inches at the side for periodic maintenance, inspection and adjustment. IF two or more washer-extractors are to be used, they should be spaced at least 18 inches apart so that mounting bolts can be tightened properly and walk-through space for maintenance is available.

**NOTE: The dimensions shown here are for planning purposes only. They are approximate and subject to normal manufacturing tolerances. If exact dimensions are required for construction purposes, contact the distributor or the manufacturer. We reserve the right to make changes at any time without notice.**

A qualified professional engineer should be consulted to determine local conditions prior to installation.

# Installation

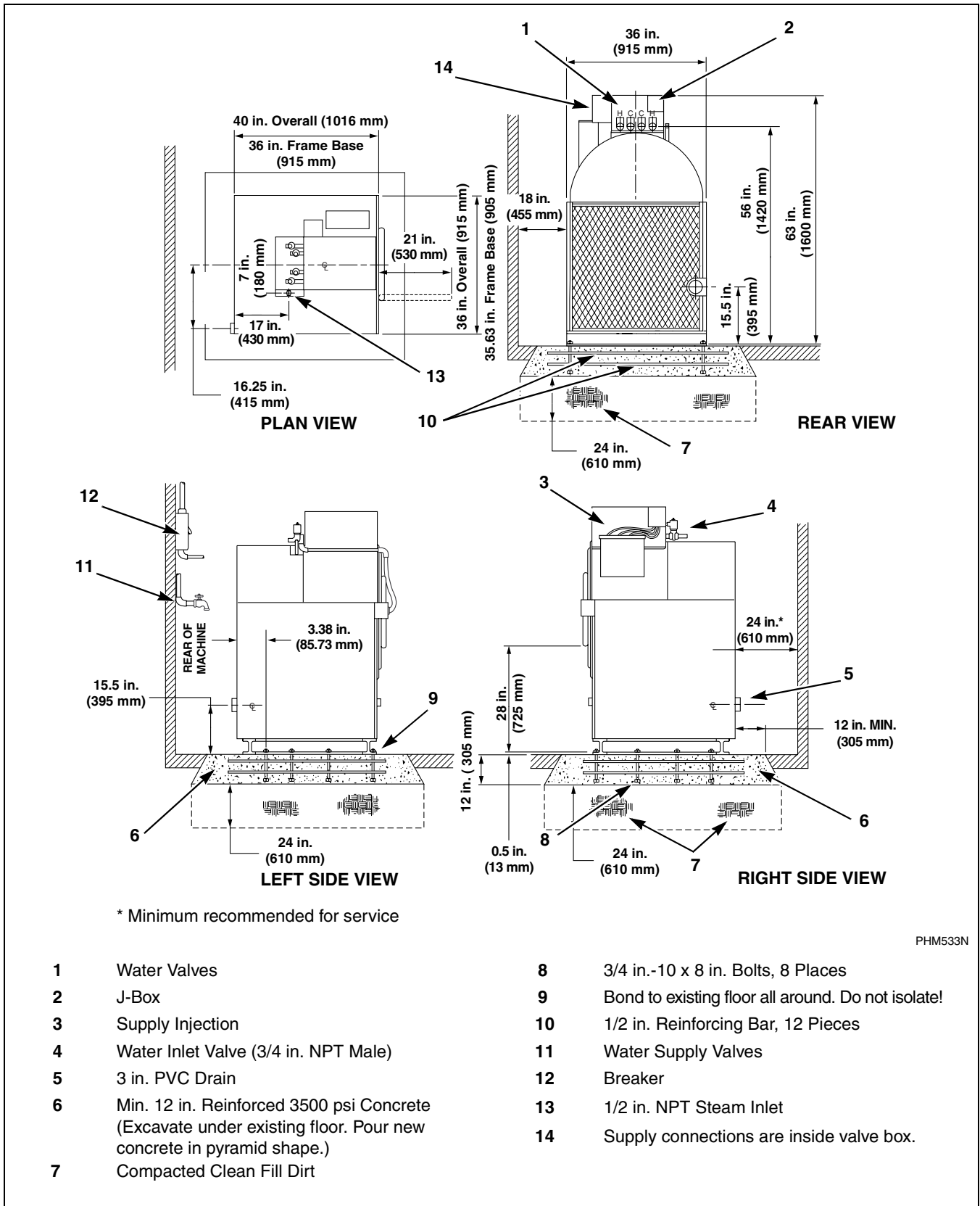


Figure 2

## Machine Foundation

A satisfactory foundation and proper installation are absolutely necessary for the UW50 due to its high extract speed. Eight 3/4 inch bolts, 8 inches long, are furnished with each machine and should be imbedded in a reinforced concrete floor which is a minimum of 12 inches thick. The threaded end of the bolts should extend about 2 inches above the surface. Refer to *Figure 3*. The location of these bolts is shown in *Figure 4*. Set machine over bolts and shim the machine so that it sits level; then grout between the floor and the base of the machine, leaving a small opening for water drainage at the rear of the machine. After grout has cured, place lockwashers and nuts on bolts and tighten securely. **DO NOT DISTORT MACHINE BY BOLTING DOWN ON AN UNEVEN FLOOR SURFACE.** It will be necessary to retighten the bolts after the machine has run for a short period of time under load.

If the existing floor is not reinforced concrete a minimum of 12 inches thick over solid base, it will be necessary to cut a hole through existing concrete floor approximately 5 feet square and excavate to a depth of 36 inches from top of existing floor. Refill with 24 inches of WELL compacted clean fill dirt topped with 12 inches of good concrete reinforced with a reinforcing wire, and bond existing floor at the sides, front and back. A bolt locator fixture, made of reinforcing rod which may be imbedded in the concrete, is available as an option.

**NOTE: Locate bolts and grout as stated above. Failure to follow these instructions may void the warranty. THIS MACHINE SHOULD NOT BE INSTALLED ON A WOODEN FLOOR OR ABOVE GROUND LEVEL.**

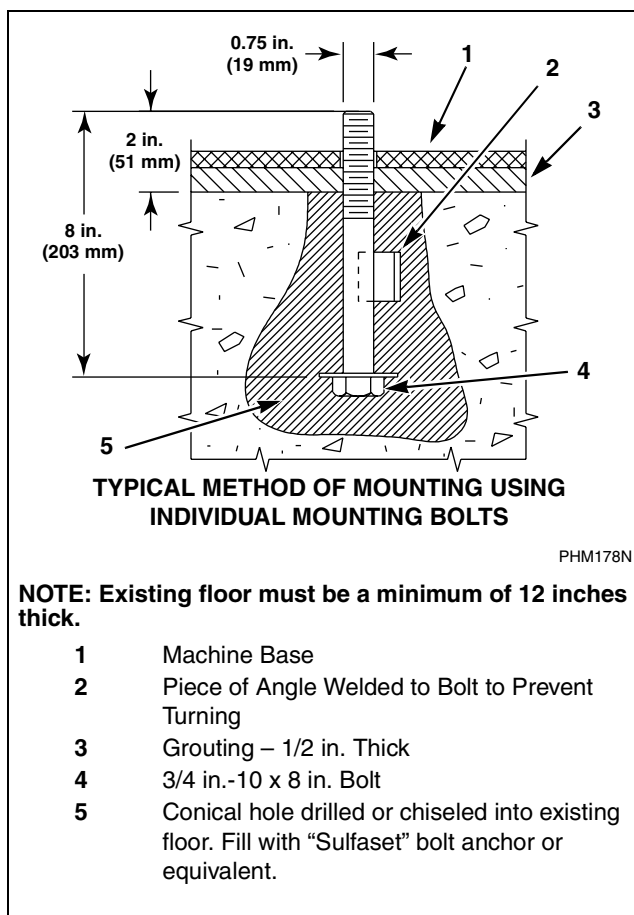


Figure 3

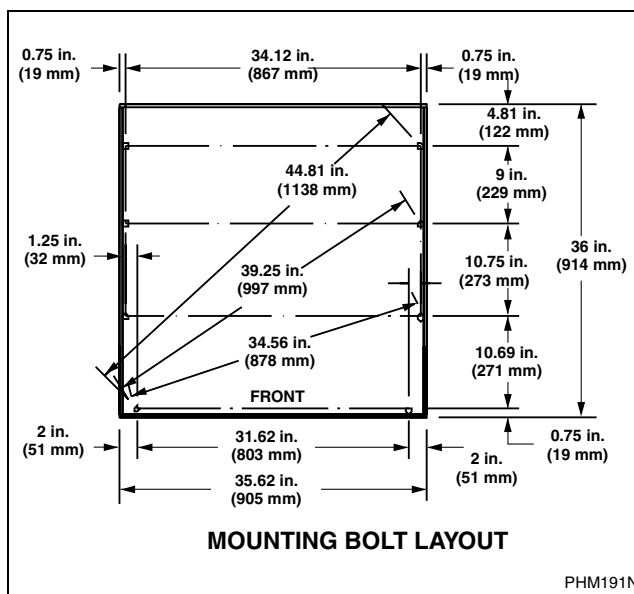


Figure 4

## Installation

### Mechanical Installation

Use factory rebar base frame. Frame may be placed during initial floor construction or in a hole dug in existing floor. Frame can be used for pad mounting. A form to provide the raised pad will be necessary. Pad must be 12 inches thick and bonded to existing floor.

**NOTE: Mounting on a pad will increase overall machine height by 12 inches.**

1. Cut out a 5 feet x 5 feet x 12 inch thick hole in concrete floor.
2. Install mounting bolt in the concrete with threads extending 2 inches above concrete.
3. Raise and level machine 1/2 inch off the floor on three points by using spacer.
4. Fill the space between machine base and concrete with machinery grout the full width of all frame members. Leave a small opening for water drainage at the rear of machine.

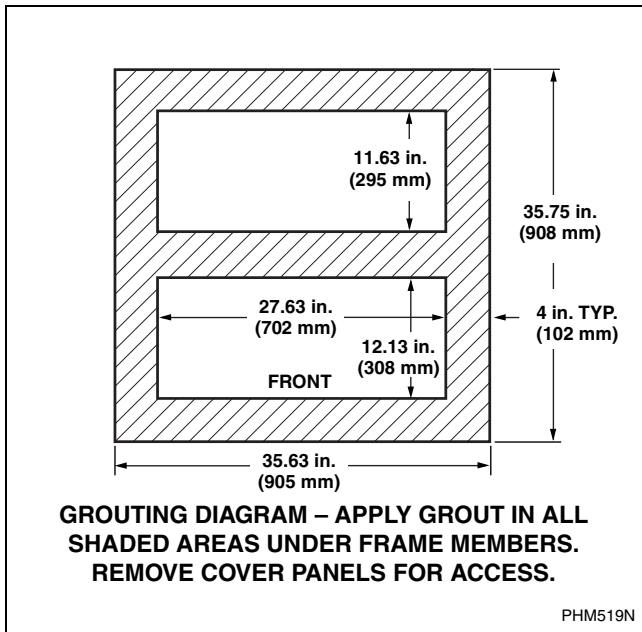


Figure 5

5. After grout has hardened, place the lockwashers and nuts on the bolts and tighten the base firmly to the floor. Check and retighten as necessary.

### Drain Connection

The UW50 drainage is by gravity. At the rear of the machine, on a centerline 15-1/2 inches from the floor, is a 3 inch PVC pipe connection. In addition, a 12 inch length of rubber hose and two hose clamps are packed with the machine to simplify making the connection to the drain line.

In order to achieve proper drainage for your UW50, refer to *Table 1*. The stub must be at least 3 inch pipe with only slight turn for a short distance until large pipe size is reached.

If proper drain line size is not available or practical, a surge tank of some sort would be required. A surge tank would also be used in conjunction with a sump pump where gravity drainage is not feasible.

Water and Drain Line Requirements		
Number of UW50s	Pipe Sizes (Cold and Hot)	Minimum Drain Sizes
1	3/4 in.	3 in.
2	1-1/4 in.	4 in.
3	1-1/2 in.	5 in.
4	1-1/2 in.	5 in.
5	2 in.	6 in.
6	2 in.	6 in.

Table 1

## Water Connection

An adequate water supply, both hot and cold, is necessary. The water pressure should be minimum of 40 psi. (The lower the water pressure, the longer the fill time and complete cycle time.) Your UW50 has a total of four hose connections. All four 1/2 inch hoses are furnished. Each pair of hoses is connected to a hot and to a cold water faucet with a 3/4 inch hose bib. Two hoses are used for the spray rinse cycle, and two are used for the fill water lines.

Therefore, each machine requires incoming water connections as follows:

4 – 1/2 faucets with 3/4 inch hose bib connected to two 1/2 inch hot water lines and two 1/2 inch cold water lines.


Each of the above hoses should have a screen washer installed to keep rust and other particles out of the solenoid valves. These connections should be supplied by a hot water line of at least 3/4 inch size and a cold water line of at least 3/4 inch size for one UW50. Installation of additional washers will require proportionately larger water lines. If the water line “hammers” due to valves closing quickly and high pressure, suitable air cushions should be installed in the line. In cases where water pressure is above 60 psi, we recommend that flexible copper tubing be used in place of the furnished rubber hoses.

## Wiring

The UW50 washer-extractor is available for 4 wire 208 V or 230 V, 60 cycle, 3 phase operation only. Service breaker should be 30 amps for each machine. The control voltage is 115 V. The electrical characteristics of each machine are stamped on the specification plate along with the model number and serial number of the machine.

This information should be included with any order for parts so that the correct part can be furnished. This specification plate is located on the upper right side of the control box above the soap chute. If a Delta supply system is used, the high leg should be connected to the red wire in the terminal box. **ROTATION SHOULD BE CLOCKWISE IN SPIN.** If three-phase service is not available, and a Roto Phase or other phase adder is used, the artificial leg must be connected to the red lead. To change direction of rotation, interchange the black and blue leads. Installation shall conform with local codes or, in absence of local codes, with the National Electric Code ANSI/NFPA No. 70-1981.

The frame of the machine should be connected to a permanent ground such as a metal cold water pipe.

	<b>WARNING</b>
<p><b>Be absolutely certain that a ground wire from a proper earth ground is connected to the green chassis ground lead provided in the J-Box. Without proper grounding, personal injury from shock may occur and machine malfunctions may be evident. NOTE: Computer models MUST have a proper ground to prevent computer malfunctions.</b></p>	
W452	

## Installation

### NOTES:

1. 208/240 3 Phase 4 Wire Standard
2. 208/240 3 Phase 3 Wire Optional
3. 440/480 3 Phase 3 Wire Optional
4. 380/415 3 Phase 4 Wire Optional

Provide 3 phase circuit breakers.

Electrical connections are made to the J-Box.

Machine Net Weight = 1250 lbs.

**USE ALL FLEXIBLE CONNECTIONS ONLY!**

Information subject to change without notice.

Machine must be properly grounded.

Installation shall conform with local codes and/or the National Electrical Code.

Do not use fuses.

### Plumbing Specs

Minimum Drain Size = 3 inches

Minimum supply size = 3/4 inch

Hot and Cold

Minimum Water Pressure = 40 psi

Maximum Stream Pressure = 120 psi

Drain lines must be vented.

Average Gals./Cycle = 110

Provide 30 Amp circuit breaker disconnect for 208/240 3 phase machine.

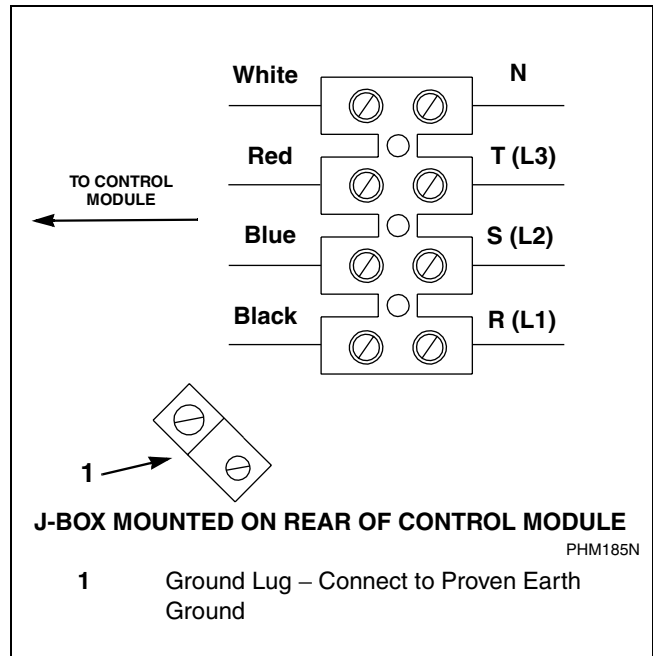


Figure 6

Electrical connections are made at the J-Box located on the rear of the control module. The machine must be connected to the electrical supply shown on the identification plate attached to the side of the control module.

For personal safety and proper operation, the machine must be grounded as per state and local codes. In the absence of these codes, grounding must conform with National Electric Code article 250-95. The ground connection may be to a proven earth ground at the location service panel and/or to a grounded metal cold water pipe.

Do not connect the ground to the neutral (N – white wire) leg at the terminal strip. If the machine is intended for 4 wire service, a neutral leg must be provided by the power company. Do not connect the neutral leg to the ground lug.

If a Delta Supply System is used, the high leg must be connected to the red wire (L3) at the terminal strip. If three-phase service is not available and a Roto-Phase or other phase adder is used, the artificial leg must be connected to the red wire (L3).

Improper connections will result in equipment damage and will void the warranty. It is your responsibility to have all electrical connections made by a properly licensed and competent electrician to assure that the electrical installation is adequate. Improper installation will result in voiding the warranty.



## Perma Automatic Lubricant Injector

The Perma injector consists of a cylinder containing a pressure generator and a piston which, in response to the pressure generator, pushes the pre-packed lubricant into the bearing.

The pressure generator is a rubber bladder containing an electrolytic solution and a sealed plastic tube containing a galvanic strip of specially treated metal. When the Perma injector is installed, the plastic tube is broken by the activating screw, exposing the galvanic strip to the electrolytic solution. This results in an electro-chemical reaction within the bladder which produces a gas. As the bladder expands with the production of the gas, it pushes against the piston which in turn pushes the lubricant out of the injector and into the bearing. When all of the lubricant has been expelled into the bearing over the life of the particular Perma unit installed, it is thrown away and a similar unit installed and activated. The Perma unit is non-refillable.

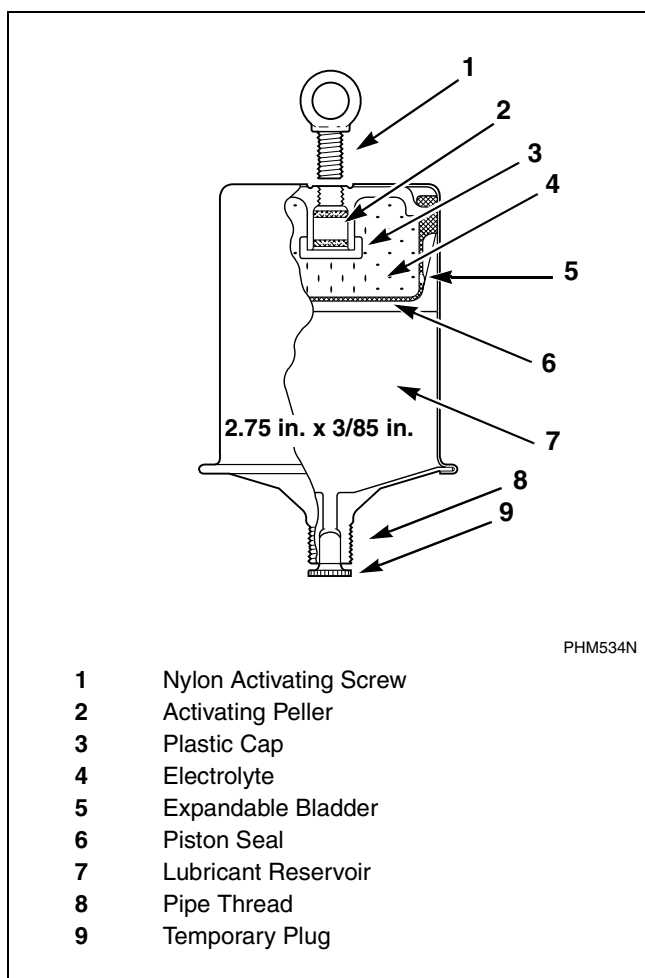


Figure 7

## Visual Safety Check

As the Perma nears the end of its effective life, an internal metal ring becomes clearly visible through the clear plastic cap, indicating that the Perma should be replaced.

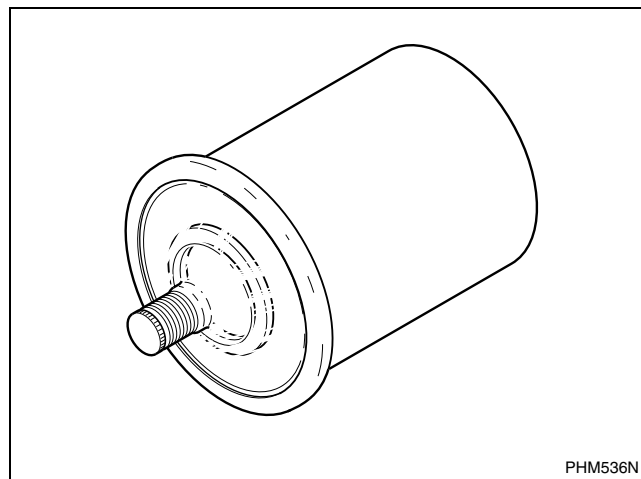


Figure 8

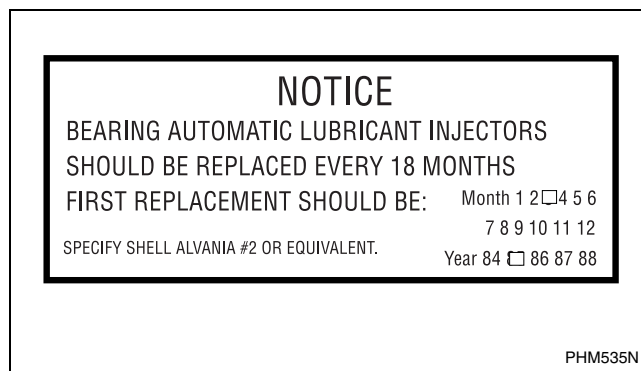


Figure 9

A decal similar to the one shown in *Figure 9* is attached to the UW control module. The decal indicates the required replacement date for the automatic injectors originally supplied on your machine. The replacement date is punched out on the decal. On the example shown above, the replacement date is during the third month of 1985.

## Installation

### Installation Instructions

**To activate lubricator:** Using a screwdriver or other object, tighten activating screw until plastic ring top breaks away from screw body. This will ensure proper seal of screw and pressure chamber; it is also a safety feature to prevent removal of screw.

**Mounting:** All fittings or grease lines should be precharged using hand grease gun on first installation of Perma lubricators. This step need not be repeated when replacing Perma.

Perma lubricators are made with a 1/4 inch NPT. In cases where grease fittings have a smaller or larger thread size, use standard plumbing adapters.

Perma lubricators require about 30 hours to develop operating pressure. In those applications where completely uninterrupted lubrication is required, Perma should be activated in advance of installation.

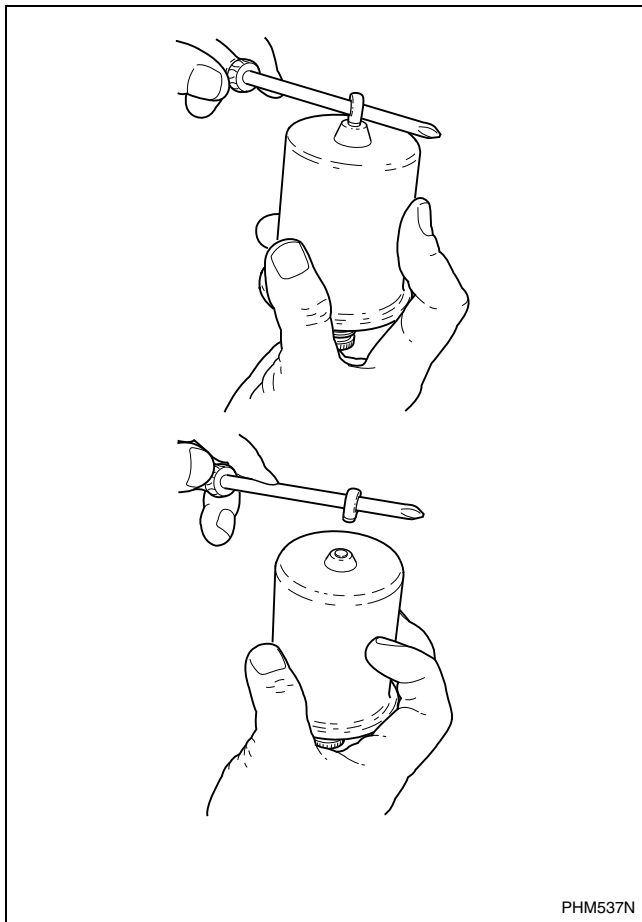


Figure 10



### CAUTION

**Contains Potassium Hydroxide (caustic) under pressure. Do not open, puncture or remove activating screw. In case of accidental breakage and exposure of liquid to skin or eyes flush with water for 15 minutes. If exposed to eyes, contact physician after flushing with water. Do not expose to temperatures over 150°F (83°C).**

W453

# External Supply Connections

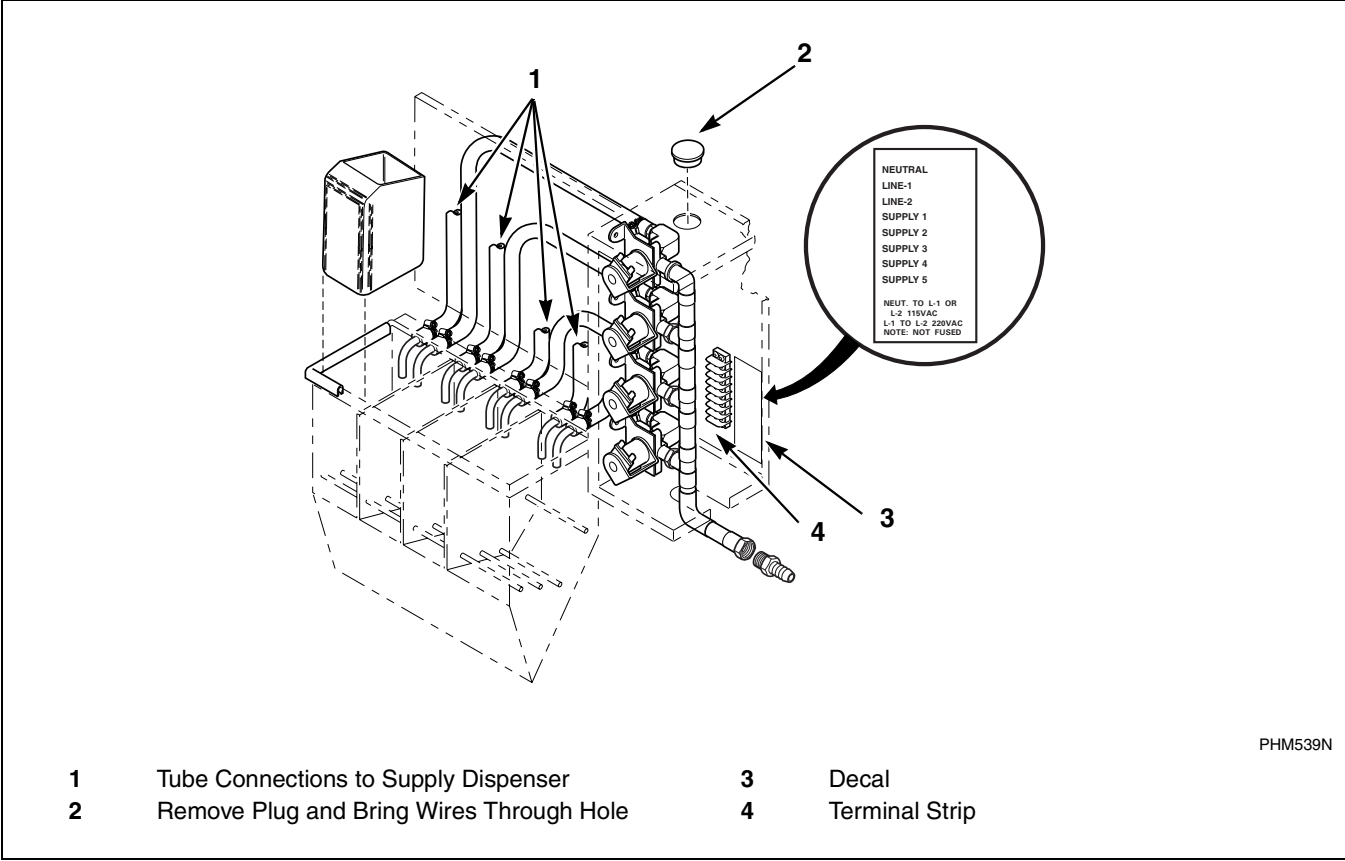


Figure 11



# Maintenance

## Daily:

1. Wipe door gasket and front of machine with damp cloth to remove soap buildup and sand particles.
2. Leave door open overnight.
3. Wipe off outside of machine with damp cloth and then with furniture polish.
4. Check door interlock system.


## Weekly:

1. Check belt tension and tighten if necessary.
2. Check hold-down bolts and tighten if necessary.

## Monthly:

Recheck belt tension.

**IMPORTANT: Regular inspection and prompt repair of all safety devices, such as door locks, brakes, interlocks, and guards, is essential to safety of operating personnel. Removal or bypassing of any safety device should not be permitted.**

	<b>WARNING</b>
<b>NEVER insert hands or objects into basket until it has completely stopped. Doing so could result in serious injury.</b>	
SW012	

## Components

**Bearings:** Bearing bolt torque on the UW50 should be 197 ft-lbs on the front bearing and 140 ft-lbs on the rear. Bolts should have hardened flat washers under the head as well as under the locknuts. Bearings have a special interference fit to bearing housings and are not just “off the shelf” bearings.

**Lubrication:** The UW50 has automatic lubrication devices installed on the bearings. These devices have the approximate date of replacement marked on them (approximately 18 months from date of activation). If lubrication is done manually, take care not to overlubricate the bearings. Two or three shots or strokes with a grease gun should be ample. A blown bearing seal is more destructive than no added lubricant. The grease installed at the factory is Shell Alvania EP2. Any similar grease may be used.

**Drain Valve:** Pinch type drain valves are simple and effective as well as dependable. Proper adjustment of these valves is important for quiet, cool operation.

When adjusting these valves, be sure that the rubber pinch hose passes through the center of the pinch clamp guides. Do not stretch the rubber tight between mounting clamps, and do not allow too much slack between clamps. The bottom bar should be adjusted to parallel the bottom plate of the valve. Tension should not be sufficient to cause the solenoid to hum. Some water may be allowed to pass through (about 2 or 3 cups per minute) since the water level will not be affected.

**NOTE: Remember, some of the water coming out of the drain line will be due to splash out the overflow, not leaking of the drain valve.**

**Spray Rinse System:** The spray rinse system is provided with a vacuum breaker (anti-syphon valve) to prevent contamination of the water supply in case of main failure, etc. This device requires a pressure differential of at least 5 pounds between incoming water and water leaving the spray system.

In cases where local water pressure is low or becomes low periodically due to undersized supply lines, the anti-syphon device may spit water out the top. This is not desirable. Water service needs to be improved. The problem is most likely to occur when only one spray water valve is open, such as during a hot fill or a cold fill operation.

**Water Level:** The water level in the washer is controlled by one or two water level diaphragm switches. In the case of two levels, the switch mounted lower in the control box controls the low level. Each switch has two adjusting screws – one in the center of the unit and one offset toward the side. **DO NOT** adjust the offset screw.

The center screw adjusts the water level and is electrically “hot” when the power is on the controls, so use an insulated screwdriver to adjust it. To raise the water level, turn the screw clockwise (tighten); to lower the water level, turn the screw counterclockwise (loosen). Do not tighten or loosen this screw too far or it will stay in the empty or full position and not function properly.

The water level should be set when there is no load in the washer. The level can be seen during the pause between forward and reverse basket movement. If the level is set too high, the water will run out the overflow and never shut off. If the level is set too low, the switch will not return to the empty position after the drain is opened.

## Maintenance

**Shaft Seal:** The UW50 has face type seals (mechanical) which allow for shaft movement greater than that allowed by lip type seals. The sealing is accomplished by a spring loaded carbon-phenolic seal (fixed), that is pressed against a ceramic surface on a flanged brass collar (movable) attached to the basket shaft. Factory preset spring pressure maintains contact between the two surfaces.

If contact is lost for any reason (such as lint strings getting in between or loosening of the brass collar), the seal will leak. To reestablish contact between the seal parts, it is necessary to move the brass collar toward the rear of the machine. This can be done either by loosening the three collar screws and wiggling the collar back on the shaft or by loosening the bearing set screws on the shaft and sliding the basket and shaft, with the collar attached, toward the rear until contact is made.

Extra linty or stringy items should only be washed in laundry nets to prevent fouling the seal.