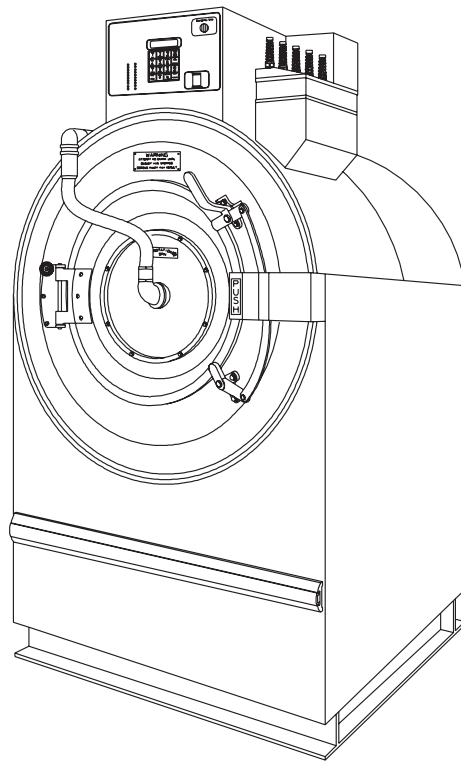


# Washer-Extractors

UW Pocket Hardmount  
2 Speed

Installation



P0291

Para bajar una copia de estas instrucciones en español, visite [www.comlaundry.com](http://www.comlaundry.com).

**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. F232085R6  
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# Introduction

## Model Identification


UW35B2	UW35P2	UW60B2	UW60P2
UW35M2	UW35S2	UW60M2	UW60S2





# Safety Information

## Explanation of Safety Messages

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>	
W023	

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, kerosene, waxes, cooking oils, 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. Never wash machine parts or automotive parts in the machine. This could result in serious damage to the basket.
15. ALWAYS disconnect the washer from electrical supply before attempting any service. Disconnect the power cord by grasping the plug, not the cord.
16. 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.
17. 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, etc., 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.
18. Do not use fabric softeners or products to eliminate static unless recommended by the manufacturer of the fabric softener or product.
19. 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.
20. Replace worn power cords and/or loose plugs.
21. 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.
22. 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.
23. 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).
24. Always follow the fabric care instructions supplied by the textile manufacturer.
25. Never operate the washer with any guards and/or panels removed.
26. DO NOT operate the washer with missing or broken parts.
27. DO NOT bypass any safety devices.
28. 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.





	<b>WARNING</b>
<p><b>Dangerous voltages are present in the electrical control box(es) and at the motor terminals. Only qualified personnel familiar with electrical test procedures, test equipment, and safety precautions should attempt adjustments and troubleshooting. Disconnect power from the machine before removing the control box cover, and before attempting any service procedures.</b></p>	
SW005	

Warnings are general examples that apply to this machine. Warnings specific to a particular installation or maintenance procedure will appear in the manual with the discussion of that procedure.

	<b>DANGER</b>
<p><b>Death or serious injury can result if children become trapped in the machine. Do not allow children to play on or around this machine. Do not leave children unattended while the machine door is open.</b></p>	
SW001	

	<b>WARNING</b>
<p><b>This machine must be installed, adjusted, and serviced by qualified electrical maintenance personnel familiar with the construction and operation of this type of machinery. They must also be familiar with the potential hazards involved. Failure to observe this warning may result in personal injury and/or equipment damage, and may void the warranty.</b></p>	
SW004	

	<b>CAUTION</b>
<p><b>Ensure that the machine is installed on a level floor of sufficient strength and that the recommended clearances for inspection and maintenance are provided. Never allow the inspection and maintenance space to be blocked.</b></p>	
SW020	

	<b>WARNING</b>
<p><b>Never touch internal or external steam pipes, connections, or components. These surfaces can be extremely hot and will cause severe burns. The steam must be turned off and the pipe, connections, and components allowed to cool before the pipe can be touched.</b></p>	
SW014	

## **Safety Information**

### **Safety Decals**

Safety decals appear at crucial locations on the machine. Failure to maintain legible safety decals could result in injury to the operator or service technician.

To provide personal safety and keep the machine in proper working order, follow all maintenance and safety procedures presented in this manual. If questions regarding safety arise, contact the factory immediately.

Use factory-authorized spare parts to avoid safety hazards.

## Operator Safety

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


To ensure the safety of machine operators, the following maintenance checks must be performed daily:

1. Prior to operating the machine, verify that all warning signs are present and legible. Missing or illegible signs must be replaced immediately. Make certain that spares are available.
2. Check door interlock before starting operation of the machine:
  - a. Attempt to start the machine with the door open. The machine should not start with the door open.
  - b. Close the door without locking it and attempt to start the machine. The machine should not start with the door unlocked.
  - c. Close and lock the door and start a cycle. Attempt to open the door while the cycle is in progress. The door should not open.

If the door lock and interlock are not functioning properly, call a service technician.

3. Do not attempt to operate the machine if any of the following conditions are present:
  - a. The door does not remain securely locked during the entire cycle.
  - b. Excessively high water level is evident.
  - c. Machine is not connected to a properly grounded circuit.

Do not bypass any safety devices in the machine.

	<b>WARNING</b>
<p><b>Never operate the machine with a bypassed or disconnected out-of-balance switch. Operating the machine with severe out-of-balance loads could result in personal injury and serious equipment damage.</b></p>	
SW010	

## Safe Operating Environment

Safe operation requires an appropriate operating environment for both the operator and the machine. If questions regarding safety arise, contact the factory immediately.

### Environmental Conditions

- **Ambient Temperature.** Water in the machine will freeze at temperatures of 32°F (0°C) or below.


Temperatures above 120°F (50°C) will result in more frequent motor overheating and, in some cases, malfunction or premature damage to solid state devices that are used in some models. Special cooling devices may be necessary.

Water pressure switches are affected by increases and decreases in temperature. Every 25°F (10°C) change in temperature will have a 1% effect on the water level.

- **Humidity.** Relative humidity above 90% may cause the machine's electronics or motors to malfunction or may trip the ground fault interrupter. Corrosion problems may occur on some metal components in the machine.

If the relative humidity is below 30%, belts and rubber hoses may eventually develop dry rot. This condition can result in hose leaks, which may cause safety hazards external to the machine in conjunction with adjacent electrical equipment.

- **Ventilation.** The need for make-up air openings for such laundry room accessories as dryers, ironers, water heaters, etc., must be evaluated periodically. Louvers, screens, or other separating devices may reduce the available air opening significantly.
- **Radio Frequency Emissions.** A filter is available for machines in installations where floor space is shared with equipment sensitive to radio frequency emissions.
- **Elevation.** If the machine is to be operated at elevations of over 3,280 feet (1,000 meters) above sea level, pay special attention to water levels and electronic settings (particularly temperature) or desired results may not be achieved.
- **Chemicals.** Keep stainless steel surfaces free of chemical residues.


	<b>DANGER</b>
<p><b>Do not place volatile or flammable fluids in any machine. Do not clean the machine with volatile or flammable fluids such as acetone, lacquer thinners, enamel reducers, carbon tetrachloride, gasoline, benzene, naphtha, etc. Doing so could result in serious personal injury and/or damage to the machine.</b></p>	
<small>SW002</small>	

- **Water Damage.** Do not spray the machine with water. Short circuiting and serious damage may result. Repair immediately all seepage due to worn or damaged gaskets, etc.

### Machine Location

- **Foundation.** The concrete floor must be of sufficient strength and thickness to handle the floor loads generated by the high extract speeds of the machine.
- **Service/Maintenance Space.** Provide sufficient space to allow comfortable performance of service procedures and routine preventive maintenance.

Consult installation instructions for specific details.


	<b>CAUTION</b>
<p><b>Replace all panels that are removed to perform service and maintenance procedures. Do not operate the machine with missing guards or with broken or missing parts. Do not bypass any safety devices.</b></p>	
<small>SW019</small>	

### Input and Output Services

- **Water Pressure.** Best performance will be realized if water is provided at a pressure of 30-85 psi (2.0-5.7 bar). Although the machine will function properly at lower pressure, increased fill times will occur. Water pressure higher than 100 psi (6.7 bar) may result in damage to machine plumbing. Component failure(s) and personal injury could result.
- **Steam Heat (Optional) Pressure.** Best performance will be realized if steam is provided at a pressure of 30-80 psi (2.0-5.4 bar). Steam pressure higher than 125 psi (8.5 bar) may result in damage to steam components and may cause personal injury.

For machines equipped with optional steam heat, install piping in accordance with approved commercial steam practices. Failure to install the supplied steam filter may void the warranty.

- **Drainage System.** Provide drain lines or troughs large enough to accommodate the total number of gallons that could be dumped if all machines on the site drained at the same time from the highest attainable level. If troughs are used, they should be covered to support light foot traffic.
- **Power.** For personal safety and for proper operation, the machine must be grounded in accordance with state and local codes. The ground connection must be to a proven earth ground, not to conduit or water pipes. Do not use fuses in place of the circuit breaker. An easy-access cutoff switch should also be provided.

	<b>WARNING</b>
<p><b>Ensure that a ground wire from a proven earth ground is connected to the ground lug near the input power block on this machine. Without proper grounding, personal injury from electric shock could occur and machine malfunctions may be evident.</b></p>	
<small>SW008</small>	

Always disconnect power and water supplies before a service technician performs any service procedure. Where applicable, steam and/or compressed air supplies should also be disconnected before service is performed.

### Misuse

Never use this machine for any purpose other than washing fabric.

- Never wash petroleum-soaked rags in the machine. This could result in an explosion.
- Never wash machine parts or automotive parts in the machine. This could result in serious damage to the basket.
- Never allow children to play on or around this machine. Death or serious injury can result if children become trapped in the machine. Do not leave children unattended while the machine door is open. These cautions apply to animals as well.

# Installation

This manual is designed as a guide to the installation and maintenance of the UW35 and UW60 2 speed rigid-mount washer-extractor.

All information, illustrations, and specifications contained in this manual are based on the latest product information available at the time of printing. We reserve the right to make changes at any time without notice.

## Machine Overview

The design of the washer-extractor emphasizes performance reliability and long service life. The cylinder, shell, and main body panels are fabricated of stainless steel. The washer-extractor is mounted on a welded base frame which supports the bearings, cylinder, and shell.

Electrical controls for the washer-extractor are housed in a separate enclosure located on the top of the machine. The controls are accessed by removing the top cover from the control module.

One 2 speed motor drives the cylinder via a V-drive system. The cylinder is supported via the shaft by two bearings. The UW35 uses two ball bearing sets held in place by a cast-iron housing that is bolted to the A-frame. The UW60 uses two flange-mounted, spherical roller bearings bolted to the A-frame.

On the UW60, a balance switch is installed between the faces of the A-frame to signal the controls to slow the machine when a severely out-of-balance load occurs during extract.

The cylinder is constructed with lifters or ribs that lift the laundry from the bath solution when the cylinder rotates at slow speed and then allow the laundry to tumble back into the bath. This mechanical action accomplishes the washing function. The cylinder is perforated, allowing the water to drain from within during the wash and extract steps.

The spray rinse feature (available only on S and P computers) consists of a fiber-reinforced clear hose connected to the center of the door glass and to both a hot and cold water inlet valve. A hemispherically-shaped spray nozzle inside the door glass produces a fan-action water spray which disperses rinse water throughout the load.

Water enters the machine through electromechanical water valves. Vacuum breakers are installed in the water-inlet plumbing to prevent backflow of water.

A motorized drain valve holds water in the machine during the wash, soak, and rinse steps. The drain valve is normally open, which means that it closes only when power is applied, thus allowing the machine to drain in the event of a power failure.

A door-lock system prevents opening of the stainless steel door when a cycle is in progress. It also prevents operation of the machine when the door is open. The doorbox contains the door-lock microswitch, door-closed magnetic switch, and the door unlock solenoid.

The UW35 shaft seal assembly includes two lip seals integrated into the cast-iron bearing housing. Each seal has two lips which make contact with a polished sleeve mounted to the shaft.

The UW60 shaft seal assembly includes a brass collar held in place on the cylinder shaft with set screws. The collar has a flange with a ceramic ring which makes contact with a spring-loaded carbon face seal enclosed in a nylon housing mounted on the rear of the shell. The collar contains two internal O-rings which maintain contact with the cylinder shaft.

The polypropylene supply dispenser is mounted on the right side of the washer-extractor, viewed from the front. The dispenser has five supply compartments, numbered 1–5, starting from the rear of the machine. The compartments hold plastic supply cups that are used for either liquid or dry supplies. A nozzle flushes supplies from the cups with water for the time programmed in the cycle.

Liquid supplies can be injected directly into the cups by a customer-supplied external chemical supply system. Five hose strain reliefs on top of the supply dispenser facilitate connection to an external supply system. A terminal strip inside a compartment attached to the left side of the control module, viewed from the rear of the washer-extractor, provides connection points for external supply signals. On all P and B models this terminal strip is located on the rear of the module.

## Installation

### Delivery Inspection

Upon delivery, visually inspect crate, protective cover, and unit for any visible shipping damage. If the crate, protective cover, or unit are damaged or signs of possible damage are evident, have the carrier note the condition on the shipping papers before the shipping receipt is signed, or advise the carrier of the condition as soon as it is discovered.

Remove the crate and protective cover as soon after delivery as possible. If any damage is discovered upon removal of the crate and/or protective cover, advise the carrier and file a written claim immediately.

### Customer Service

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

For technical assistance, call:

(920) 748-3121  
Ripon, Wisconsin

### Serial Plate Location

A record of each machine is on file with the manufacturer. The serial number decal is located at the rear of the machine. *Figure 1* shows the location of the serial number on the decal. Always provide the machine's serial number and model number when ordering parts or when seeking technical assistance.

For the UWP2 models, the serial number decal is located on the left side of the control module toward the rear.

Model Number Familiarization Guide	
Sample Model Number: <b>UW60P2OU70001</b>	
<b>UW</b>	Model Number Prefix
<b>60</b>	Washer-Extractor Capacity (pounds dry weight)
<b>P (S) (M) (B)</b>	Type of Electrical Control P = WE-6 Computer S = 12 Cycle Computer M = Mechanical Timer B = Millenium Computer
<b>2</b>	Washer-Extractor Speed Capabilities 2 = 2 Speeds
<b>O</b>	Electrical Characteristics Refer to Table 8.
<b>U7</b>	Design Series
<b>0001</b>	Option Identification (varies from machine to machine)

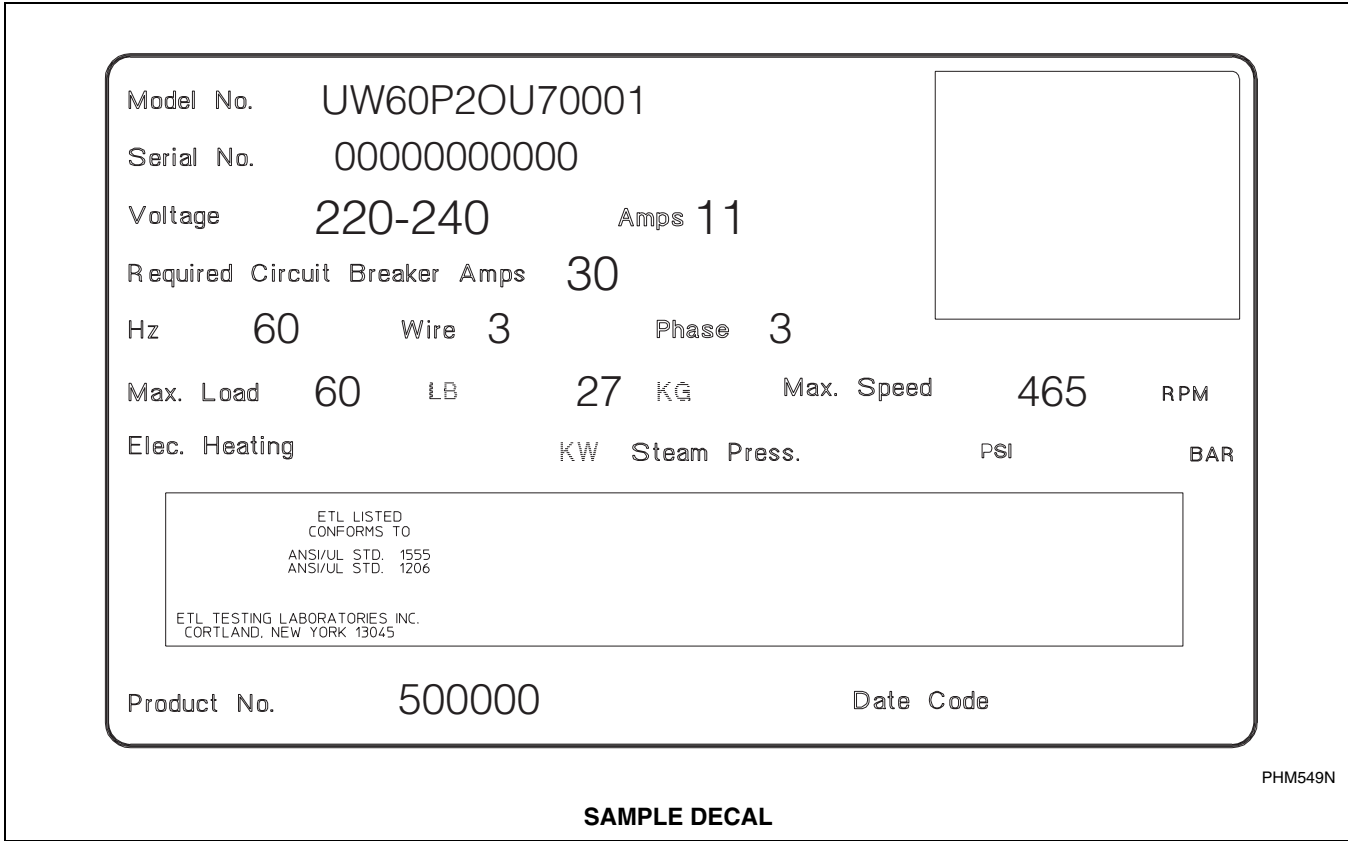


Figure 1

## Installation

<b>UW 2 Speed Pocket Hardmount Models</b>			
<b>Specifications</b>	<b>UW35</b>	<b>UW60</b>	
<b>Overall Dimensions</b>			
Overall width, in. (mm)	32-1/2 (826)	36-5/8 (930)	
Overall height, in. (mm)	55-1/2 (1410)	64-1/2 (1638)	
Overall depth, in. (mm)	38-1/4 (972)	45 (1143)	
<b>Weight and Shipping Information</b>			
Net weight, lb (kg)	750 (341)	1136 (515)	
Basket/shaft weight, lb (kg)	74 (34)	200 (92)	
Domestic shipping weight, lb (kg)	810 (367)	1175 (533)	
Domestic shipping volume, ft <sup>3</sup> (m <sup>3</sup> )	66 (1.9)	84 (2.4)	
Domestic shipping dimensions W x D x H, in. (mm)	38 x 47 x 64 (970 x 1200 x 1630)	40 x 49 x 74-1/2 (1016 x 1245 x 1892)	
Export shipping weight, lb (kg)	910 (413)	1300 (590)	
Export shipping volume, ft <sup>3</sup> (m <sup>3</sup> )	78 (2.2)	96 (2.7)	
Export shipping dimensions W x D x H, in. (mm)	41 x 50 x 65-1/2 (1050 x 1280 x 1670)	43 x 52-1/8 x 74-1/2 (1092 x 1324 x 1892)	
<b>Wash Cylinder Information</b>			
Cylinder diameter, in. (mm)	26-1/4 (667)	32 (813)	
Cylinder depth, in. (mm)	18-3/8 (467)	20 (508)	
Cylinder volume, ft <sup>3</sup> (l)	5.76 (163)	9.31 (264)	
Perforation size, in. (mm)	3/16 (4.8)	3/16 (4.8)	
Perforation open area, %	18	22	
<b>Door Opening Information</b>			
Door opening size, in. (mm)	14-11/32 (364)	17-1/2 (445)	
Height of door bottom above floor, in. (mm)	23-3/4 (603)	28-1/4 (718)	
<b>Water Consumption*</b>			
Average water consumption per cycle, gal (l)	HOT	45 (170)	61 (231)
	COLD	24 (91)	29 (110)
Average hot water used per hour, gal (l)	78 (295)	102 (386)	
<b>Power Consumption</b>			
Average power used per cycle, kW-hr	0.3	0.47	
Average HVAC load, Btu/hr (kcal/hr)	600 (151)	875 (220)	

Table 1



<b>UW 2 Speed Pocket Hardmount Models</b>			
<b>Specifications</b>		<b>UW35</b>	<b>UW60</b>
<b>Drive Train Information</b>			
Number of motors in drive train		1	1
Wash/reverse motor power, hp (kW)		0.4 (0.3)	0.6 (0.5)
High extract motor power, hp (kW)		1.8 (1.3)	3.0 (2.2)
<b>Cylinder Speeds / Centrifugal Force Data</b>			
Wash/reverse speed, rpm/g		50 / 0.95	44 / 0.88
Distribution speed, rpm/g		–	–
High extract speed, rpm/g		504 / 95	465 / 98
<b>Balance Detection</b>			
Vibration safety switch installed		N/A	STD
Safety switch gap setting, in. (mm)		N/A	0.008-0.010 (0.20-0.25)
<b>Direct Steam Heating (Optional)</b>			
Steam inlet connection size, in. (mm)		1/2 (13)	1/2 (13)
Number of steam inlets		1	1
Steam required to raise bath temperature 10°F, lb (10°C, kg)	LOW	2.1 (1.5)	3.3 (2.4)
	MED	2.3 (1.7)	3.7 (2.6)
	HIGH	2.7 (1.9)	4.1 (2.9)
Average consumption per cycle, BHP (kg/hr)		1.4 (21.4)	2.1 (33.4)
<b>Electrical Heating (Optional)</b>			
Total electrical heating capacity, kW		15.6	25.2
Number of electrical heating elements		6	6
Electrical heating element size, kW		2.6	4.2
Time required to raise bath temperature 10°F, min (10°C, min)	LOW	2.4 (3.6)	2.4 (3.7)
	MED	2.7 (4.1)	2.7 (4.1)
	HIGH	3.1 (4.7)	3.0 (4.6)
* For P and S control only. M and B control have no spray rinse.			

Table 1 (Continued)

**Installation**

**Machine Dimensions**

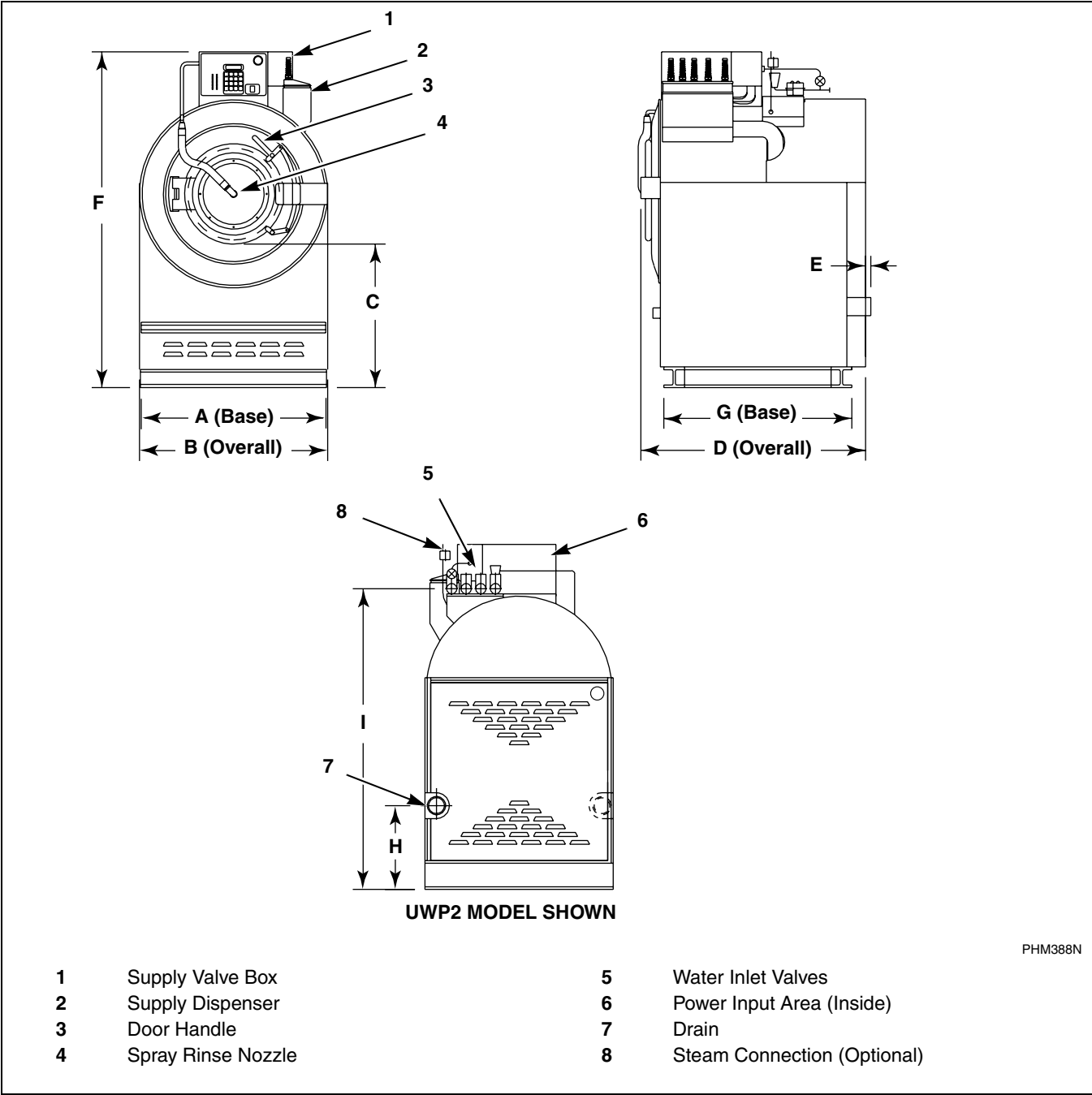
**Dimensional Clearances**

Allow a minimum of 24 inches (60 cm) at the rear and 18 inches (45 cm) at the sides for maintenance, inspection, and adjustment. Allow at least 18 inches (45 cm) between machines in multiple installations. Machine dimensions are indicated in *Figure 2* and specified in *Table 2*.

**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 manufacturer. We reserve the right to make changes at any time without notice.**

UW 2 Speed Pocket Hardmount Machine Dimensions (refer to <i>Figure 2</i> )				
Dimensions	35		60	
	in.	mm	in.	mm
A	30-1/8	765	35-5/8	905
B*	32-1/2	826	36-5/8	930
C	23-3/4	603	28-1/4	718
D	38-1/4	972	45	1143
E	1/2	13	1	25
F	55-1/2	1410	64-1/2	1638
G	30-1/2	775	36	914
H	8	203	15-1/2	394
I	43-7/8	1114	55	1397
* Overhang dimensions for the optional starch dispenser are as follows: UW35, 3-7/8 inches (9.86 cm); UW60, 1-3/4 inches (4.45 cm).				

Table 2



PHM388N

Figure 2


## Installation

### Machine Foundation

A proper foundation is absolutely necessary for UW 2 speed washer-extractors because of the high extract speed and the G-forces exerted.

Do not mount on wooden floors, above ground level, or over basements. Installation must be “slab on grade” or equal.

Thoroughness of detail must be stressed with all foundation work to ensure a stable unit installation, eliminating possibilities of excessive vibration during extract.

	<b>CAUTION</b>
<p><b>Ensure that the machine is installed on a level floor of sufficient strength and that the recommended clearances for inspection and maintenance are provided. Never allow the inspection and maintenance space to be blocked.</b></p>	
SW020	

The washer-extractor must be anchored to a smooth level surface so that the entire base of the machine is supported and rests on the mounting surface. (Do not support the washer-extractor on only four points.)

A concrete base designed to elevate the washer-extractor to a comfortable and more accessible height for loading and unloading laundry may be used. Care must be exercised in the design of such a base due to the force exerted by the machine during extract. This base must be adequately tied in to the existing floor with rebar.

Static and dynamic loads on the floor or foundation are shown in *Table 3*. This table can be used as a reference when designing floors and foundations.

<b>UW 2 Speed Pocket Hardmount Floor Load Data</b>		
	<b>35</b>	<b>60</b>
Static floor load, lbs (kN)	1174 (5.2)	1678 (7.5)
Static pressure, lbs/ft <sup>2</sup> (kN/m <sup>2</sup> )	184 (8.8)	188 (9.0)
Dynamic floor load, lbs (kN)	663 (3.0)	1179 (5.2)
Dynamic pressure, lbs/ft <sup>2</sup> (kN/m <sup>2</sup> )	104 (5.0)	132 (6.3)
Dynamic load frequency, Hz	8.4	7.75
Maximum vertical load, lbs (kN)*	1448 (6.4)	2375 (10.6)
Minimum vertical load, lbs (kN)*	122 (0.5)	17 (0.08)
Base moment, lb/ft (kN/m)	1712 (2.3)	3709 (5.0)
* Acting in the downward direction against the floor.		

Table 3

## Mechanical Installation

### Mounting Bolt Installation

A bolt kit is available as an option. The UW35 uses 5/8-11 x 6 inch bolts; the UW60 uses 3/4-10 x 8 inch bolts. The bolts should be embedded in a 3500 psi minimum reinforced concrete floor that is a minimum of 6 inches (15 cm) thick. For mounting bolt layouts for both machines, refer to *Figures 3* and *4*. (The front of the washer-extractor is the bottom of the diagram.)

**NOTE: Make sure that all provided mounting bolts are used to mount the machine to the floor.**



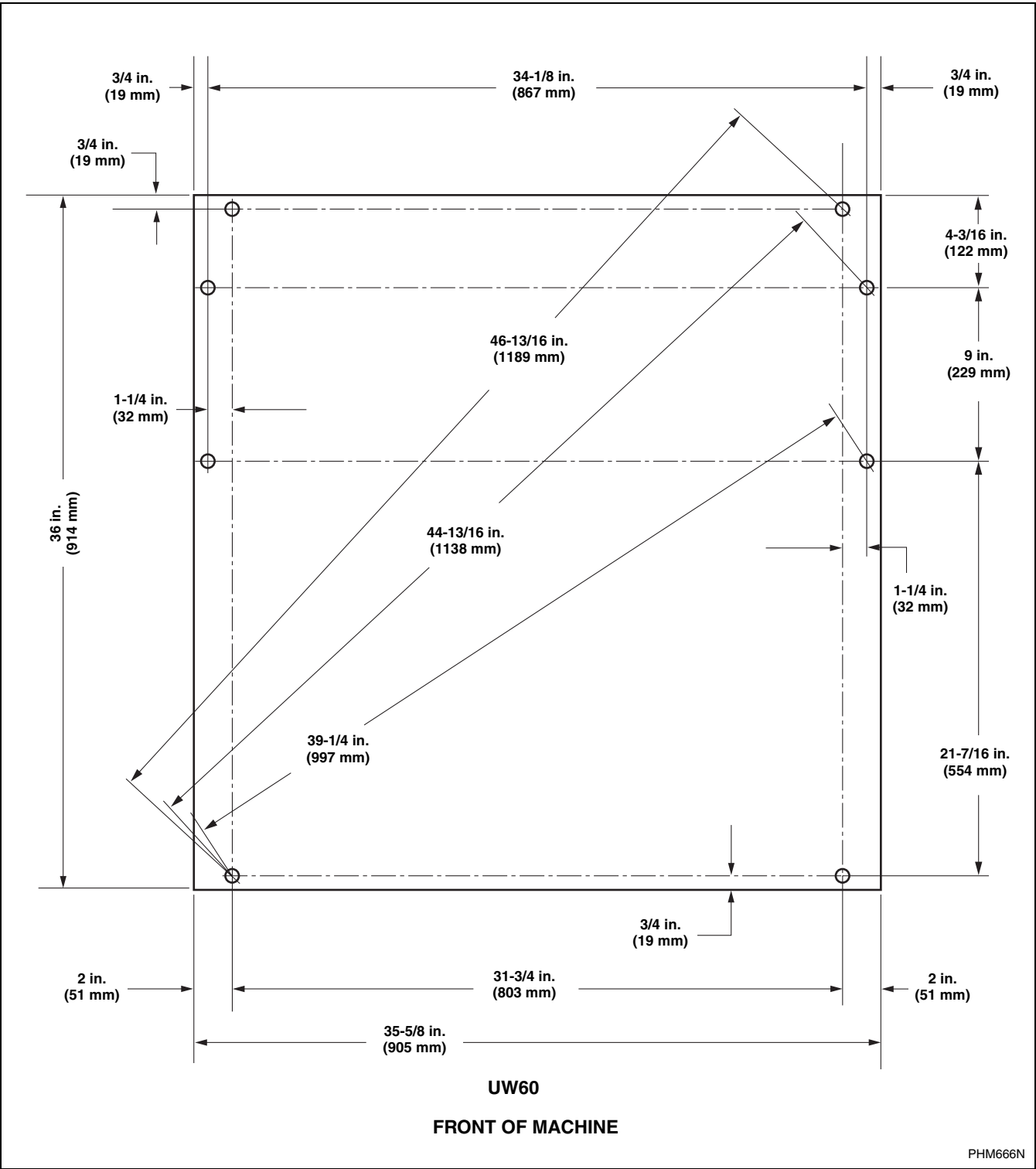


Figure 4

## Installation

The threaded end of the bolts should extend 2 inches (5 cm) above the surface of the floor.

Refer to *Figure 5* for a typical installation of individual mounting bolts on a UW60.

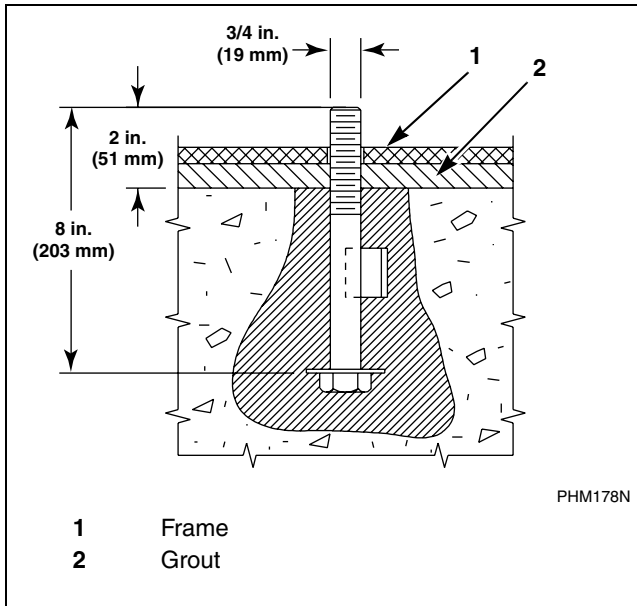


Figure 5

A bolt-locator fixture or rebar frame is available as an option. This rigid welded assembly made of reinforcing rod and mounting bolts is designed to be embedded in concrete. Refer to *Figure 6*.

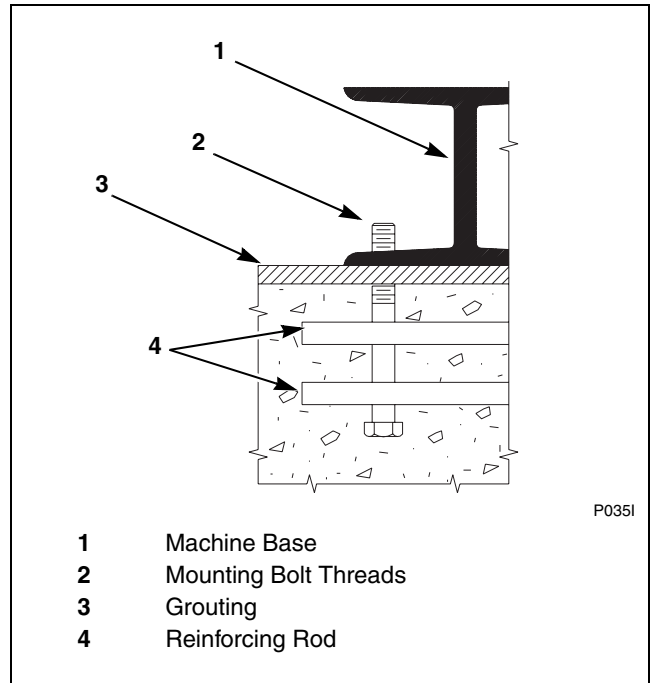


Figure 6

If the existing floor is not reinforced concrete at least 6 inches (15 cm) thick over a solid foundation, cut a hole approximately 5 feet square through the existing floor. Excavate to a depth of 6 inches (15 cm) from the top of the existing floor. Produce a pyramid-shaped hole by excavating the bottom of the hole to a width 6 inches (15 cm) wider on each side than the width of the top of the hole. Fill with 6 inches of reinforced concrete. Embed the mounting bolts or base frame as the concrete is poured. Ensure that the bolt threads extend 2 inches (5 cm) above floor level.

**NOTE: Concrete should be poured at least 12 inches (30 cm) under the existing floor on all four sides and tied in with rebar.**



After the concrete has cured, proceed as follows:

1. Place the washer-extractor adjacent to the foundation. Do not attempt to move the machine by pushing on the sides. Always insert a pry bar or other device under the bottom frame of the machine to move it.
2. Remove the wood skid by unscrewing the carriage bolts holding the skid to the bottom frame of the washer-extractor.
3. Place the washer-extractor carefully over the anchor bolts. Never attempt to lift the machine by the door handle or by pushing on the cover panels.
4. Raise and level the washer-extractor 1/2 inch (1.3 cm) off the floor on three points, using spacers such as nut fasteners.
5. Fill the space between the washer-extractor base and the floor with a good quality non-shrinking machinery grout to ensure a stable installation. Grout completely under all frame members. (Remove front panel and rear panel to gain access to **all** frame members.) Refer to *Figures 7 and 8*. Force grout under machine base until all voids are filled.

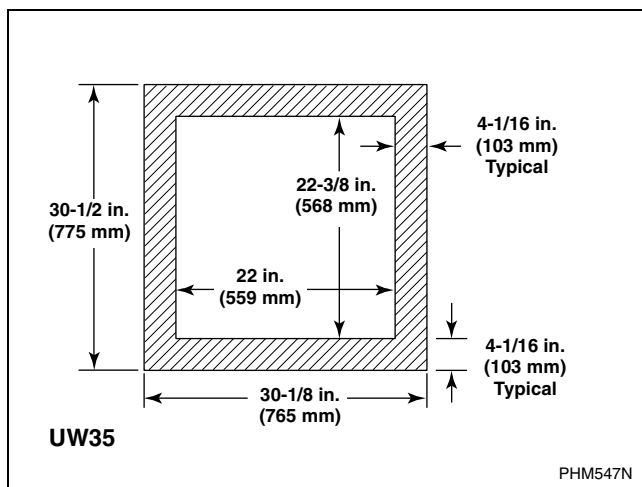


Figure 7

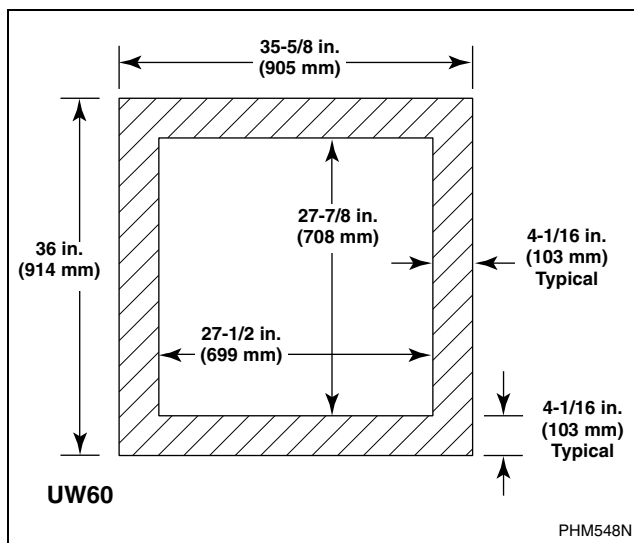


Figure 8

6. Remove the spacers carefully, allowing the machine to settle into the wet grout.
7. Before grout sets completely, make a drain opening in the rear of the washer-extractor grouting with a stiff piece of wire. This opening should be approximately 1/2 inch (13 mm) wide to allow any surface water build-up under the base of the machine to drain away. **Do not omit this step.**
8. Position the mounting bolt washers and locknuts on the anchor bolts and fingertighten locknuts to machine base.
9. After the grout is completely dry, tighten the locknuts by even increments – one after the other – until all are tightened evenly and the washer-extractor is fastened securely to the floor.

**NOTE: Check and retighten the locknuts after five to ten days of operation and every month thereafter.**

## Installation

### Drain Connection

A drain system of adequate capacity is essential to washer-extractor performance. Ideally, the water should empty through a vented pipe directly into a sump or floor drain. *Figures 9 and 10* show drain line and drain trough configurations.

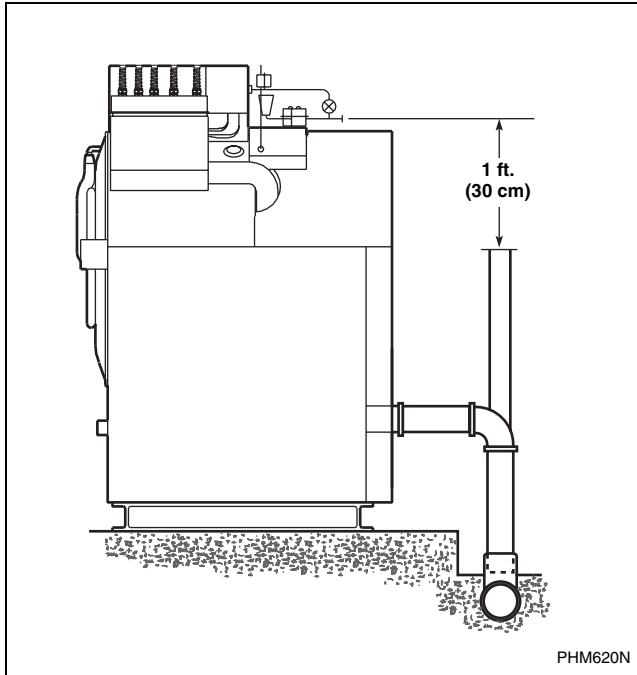


Figure 9

A flexible connection must be made to a vented drain system to prevent an air lock and to prevent siphoning.

**IMPORTANT: Washer-extractor must be installed in accordance with all local codes and ordinances.**

**IMPORTANT: The top of the vent must be 1 foot (30 cm) lower than the bottom of the dispenser.**

If proper drain size is not available or practical, a surge tank is required. A surge tank in conjunction with a sump pump should be used when gravity drainage is not possible, such as in below-ground-level installations.

Before any deviation from specified installation procedures is attempted, the customer or installer should contact the distributor.

Increasing the drain hose length, installing elbows, or causing bends will decrease drain flow rate and increase drain times, impairing washer-extractor performance.

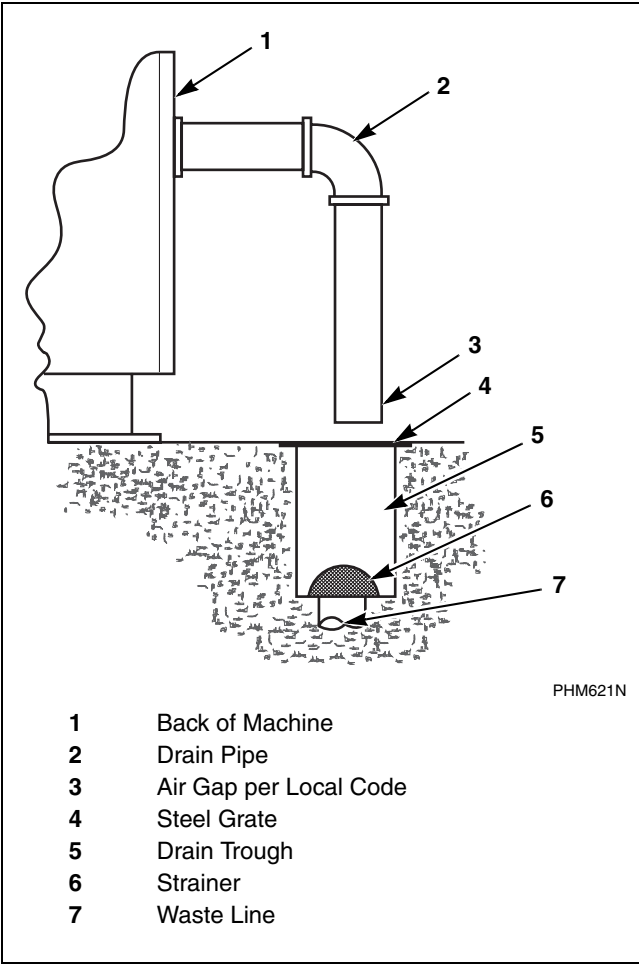


Figure 10

Refer to *Table 4* for capacity-specific drain information.

Installation of additional washer-extractors will require proportionately larger drain connections. Refer to *Table 5*.

UW 2 Speed Pocket Hardmount Drain Information		
	35	60
Drain connection size, I.D., in. (mm)	2-3/8 (60)	3 (76)
Number of drain outlets	1	1
Drain flow capacity, gal/min (l/min)	35 (132)	64 (242)
Recommended drain pit size, ft <sup>3</sup> (l)	5 (142)	6 (170)

Table 4

UW 2 Speed Pocket Hardmount Drain Line Sizing Minimum Drain I.D. in. (mm)		
Number of Machines	35	60
1	3 (76.2)	3 (76.2)
2	3 (76.2)	4 (102)
3	3-1/2 (89)	6 (152)
4	4 (102)	6 (152)

Table 5

**Installation**

**Water Connection**

UW 2 Speed Pocket Hardmount Water Supply Information		
Water inlet connection size, in. (mm)	3/4 (19)	
Number of water inlets (standard)	4*	
Recommended pressure psi (bar)	30 – 85 (2 – 5.7)	
Inlet flow capacity, gal/min (l/min) (80 psi)	35	28 (106)
	60	39 (148)
*M and B models have two connections.		

Table 6

Connections should be supplied by hot and cold water lines of at least the sizes shown in *Table 7*. Installation of additional machines will require proportionately larger water lines. Refer to *Table 7*.

To connect water service to machine with rubber hoses, use the following procedure:

1. Before installing hoses, flush the water system for at least two minutes.
2. Check filters in the washer-extractor’s inlet hoses for proper fit and cleanliness before connecting.
3. Hang the hoses in a large loop; do not allow them to kink.

If additional hose lengths are needed, use flexible hoses with screen filters. Each hose should have a screen filter installed to keep rust and other foreign particles out of the water inlet valves.

Pressure of 30-85 psi (2-5.7 bar) provides best performance. Although the washer-extractor will function properly at lower pressures, increased fill times will occur. Refer to *Table 6*.

UW 2 Speed Pocket Hardmount Water Supply Line Sizing			
	Number of Machines	Supply Line Size in. (mm)	
		Main	Hot/Cold
<b>35</b>	1	1 (25)	3/4 (19)
	2	1-1/2 (38)	1 (25)
	3	2 (50)	1-1/4 (32)
	4	2 (50)	1-1/2 (38)
<b>60</b>	1	1-1/4 (32)	1 (25)
	2	2 (50)	1-1/4 (32)
	3	2 (50)	1-1/2 (38)
	4	2-1/2 (64)	2 (50)

Table 7

Suitable air cushions should be installed in supply lines to prevent “hammering.” Refer to .

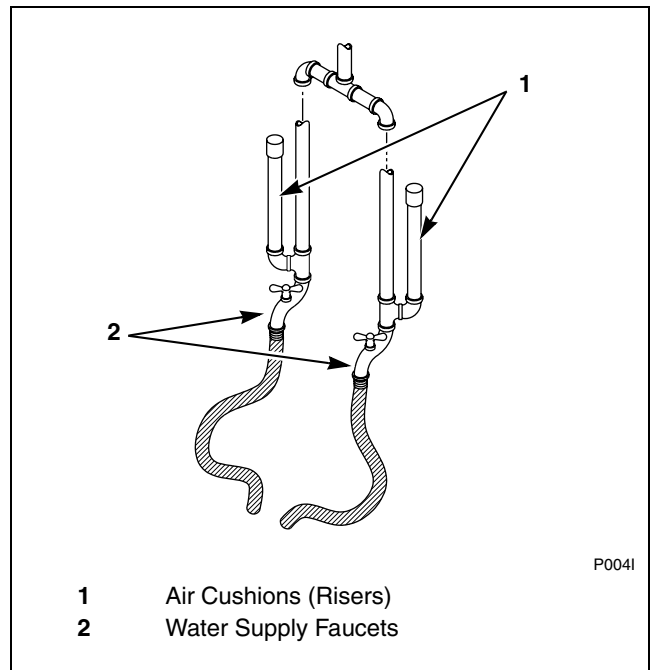





Figure 11

## Electrical Installation

**IMPORTANT:** Electrical ratings are subject to change. Refer to serial decal for electrical ratings information specific to your machine.

	<b>WARNING</b>
<p>This machine must be installed, adjusted, and serviced by qualified electrical maintenance personnel familiar with the construction and operation of this type of machinery. They must also be familiar with the potential hazards involved. Failure to observe this warning may result in personal injury and/or equipment damage, and may void the warranty.</p>	
SW004	

	<b>WARNING</b>
<p>Dangerous voltages are present in the electrical control box(es) and at the motor terminals. Only qualified personnel familiar with electrical test procedures, test equipment, and safety precautions should attempt adjustments and troubleshooting. Disconnect power from the machine before removing the control box cover, and before attempting any service procedures.</p>	
SW005	

	<b>WARNING</b>
<p>Ensure that a ground wire from a proven earth ground is connected to the ground lug near the input power block on this machine. Without proper grounding, personal injury from electric shock could occur and machine malfunctions may be evident.</p>	
SW008	

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

**IMPORTANT: Alliance Laundry Systems warranty does not cover compounds that fail as a result of improper input voltage.**

**NOTE: Do NOT use fuses in place of a circuit breaker.**

The washer-extractor should be connected to an individual branch circuit not shared with lighting or other equipment.

The connection should be shielded in a liquid-tight or approved flexible conduit with proper conductors of correct size installed in accordance with the National Electric Code or other applicable codes. The connection must be made by a qualified electrician using the wiring diagram provided with the washer-extractor.

Use wire sizes indicated in the Electrical Specifications chart for runs up to 50 feet (15.24 m). Use next larger size for runs of 50 to 100 feet (15.24 to 30.48 m). Use 2 sizes larger for runs greater than 100 feet (30.48 m).

For personal safety and for proper operation, the washer-extractor must be grounded in accordance with state and local codes. If such codes are not available, grounding must conform with the National Electric Code or other applicable codes. The ground connection must be made to a proven earth ground, not to conduit or water pipes.

## Installation

Do not connect the ground to the neutral (N-white wire) leg at the power input block terminal strip. Refer to *Figure 12*.

If a delta supply system is used, the high leg **must** be connected to L3 (red wire) at the power input block. If three-phase service is not available and a phase adder is used, the artificial leg **must** be connected to L3. Refer to *Figure 12*.

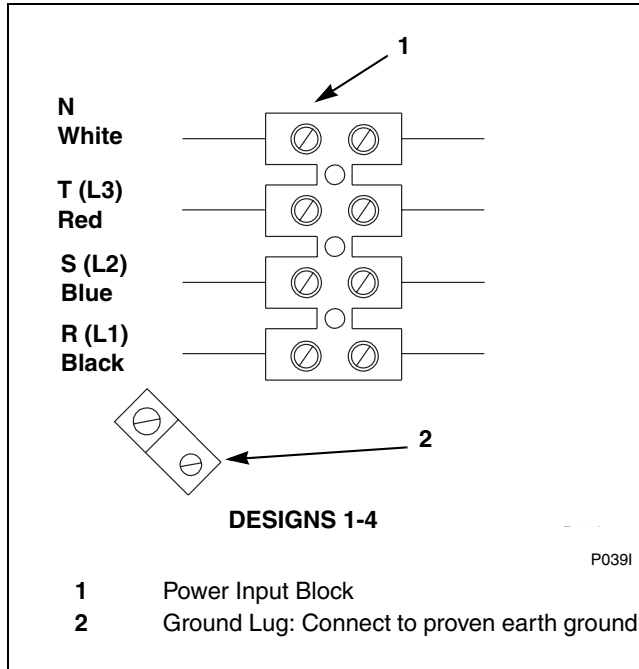


Figure 12

Refer to *Figure 13* for the terminal strip for Design 5.

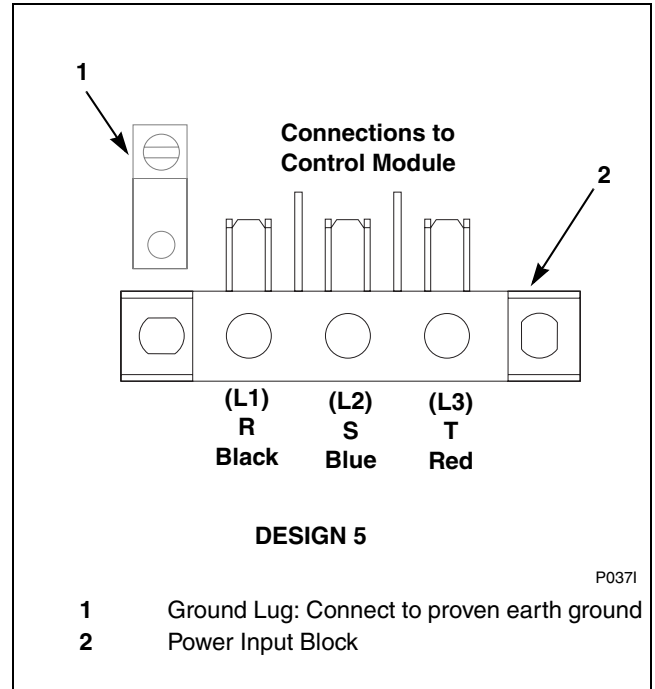


Figure 13

UW 2 Speed Pocket Hardmount Electrical Specifications													
	Voltage Designation					Standard				Electric Heat			
	Code	Voltage	Cycle	Phase	Wire	Full Load Amps	Breaker	AWG	mm <sup>2</sup>	Full Load Amps	Breaker	AWG	mm <sup>2</sup>
<b>35</b>	D	220-240	50	3	3	7	20	12	3x4	38	50	6	3x16
	F*	440-480	60	3	3	5	15	14	3x2.5	25	30	10	3x6
	G	440	50	3	3	5	15	14	3x2.5	25	30	10	3x6
	H	380	60	3	3	5	15	14	3x2.5	20	25	10	3x6
	M	550-575	60	3	3	5	15	14	3x2.5	Not available in this voltage.			
	O*	208-240	60	3	3	7	20	12	3x4	38	50	6	3x16
	S	380	50	3	3	5	15	14	3x2.5	20	25	10	3x6
	W	380-415	50	3	3	5	15	14	3x2.5	22	30	10	3x6
	Y*	208-240	60	1	2	12	25	10	2x6	Not available in this voltage.			
<b>60</b>	D	220-240	50	3	3	11	30	10	3x6	66	80	3	3x30
	F*	440-480	60	3	3	7	25	10	3x6	33	40	8	3x10
	G	440	50	3	3	7	25	10	3x6	30	40	8	3x10
	H	380	60	3	3	7	25	10	3x6	26	35	8	3x10
	M	550-575	60	3	3	7	25	10	3x6	Not available in this voltage.			
	O*	208-240	60	3	3	11	30	10	3x6	66	80	3	3x30
	S	380	50	3	3	7	25	10	3x6	26	35	8	3x10
	W	380-415	50	3	3	7	25	10	3x6	33	40	8	3x10

**NOTE: Wire sizes shown are for copper, THHN, 90° conductor per NEC article 310.**

Table 8

\* Active voltages only

## Installation

### Steam Requirements

#### Steam Heat Option Only

The optional steam connection is located at the upper right corner panel, as seen from the rear.



### WARNING

**Never touch internal or external steam pipes, connections, or components. These surfaces can be extremely hot and will cause severe burns. The steam must be turned off and the pipe, connections, and components allowed to cool before the pipe can be touched.**

SW014

For washer-extractors equipped with optional steam heat, install piping in accordance with approved commercial steam practices. Steam requirements are shown in *Table 9*.


<b>UW 2 Speed Pocket Hardmount Steam Supply Information</b>	
Steam inlet connection, in. (mm)	1/2 (DN13) 12.7
Number of steam inlets	1
Recommended pressure, psi (bar)	30 – 80 (2.0 – 5.4)
Maximum pressure, psi (bar)	80 (5.4)

Table 9

**NOTE: Failure to install the supplied steam filter may void the warranty.**



## Chemical Injection Supply System

	<h3>WARNING</h3>
<p><b>Wear eye and hand protection when handling chemicals; always avoid direct contact with raw chemicals. Read the manufacturer's directions for accidental contact before handling chemicals. Ensure an eye-rinse facility and an emergency shower are within easy reach. Check at regular intervals for chemical leaks.</b></p>	
<small>SW016</small>	

Undiluted chemical dripping can damage the washer-extractor. Therefore, all chemical supply dispenser pumps should be mounted below the washer's injection point. All dispenser tubing should also run below the injection point. Loops do not prevent drips if these instructions are not followed. Failure to follow these instructions could damage the machine and void the warranty. *Figure 14* shows a typical chemical injection supply system.

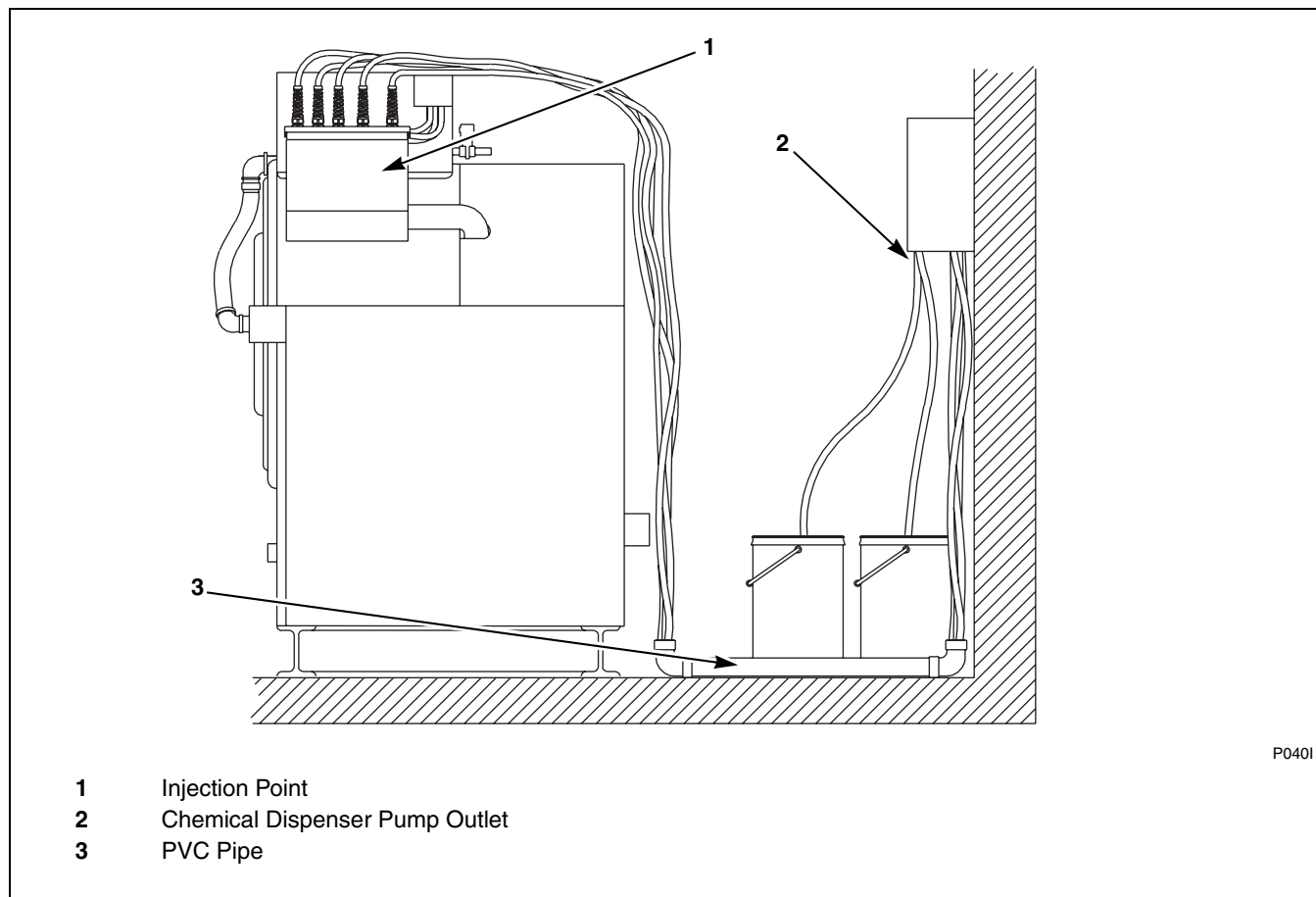


Figure 14

**Installation**

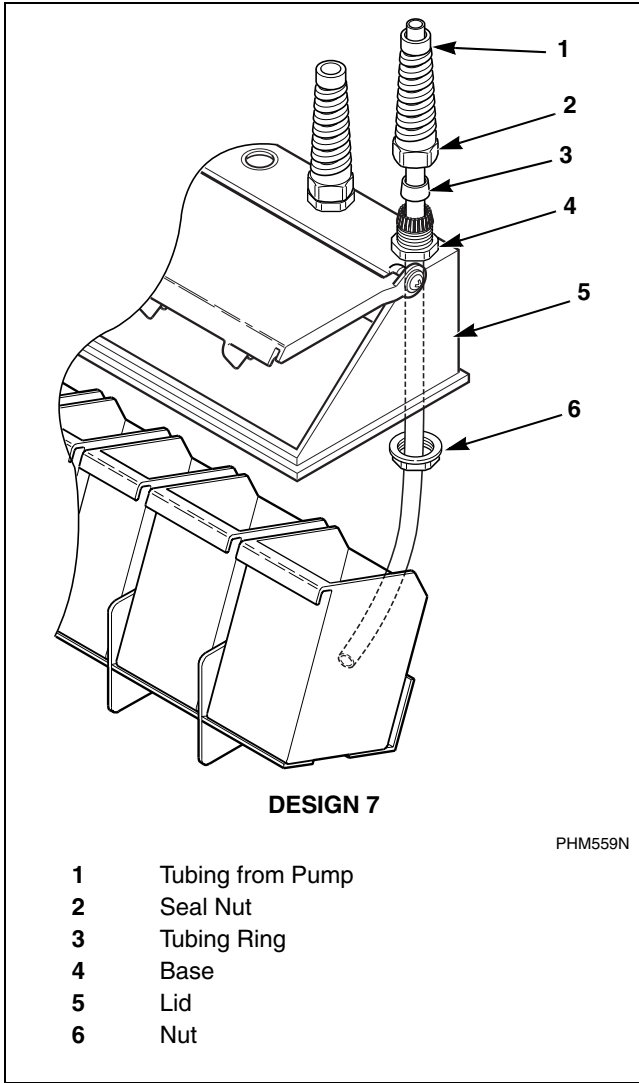


Figure 15

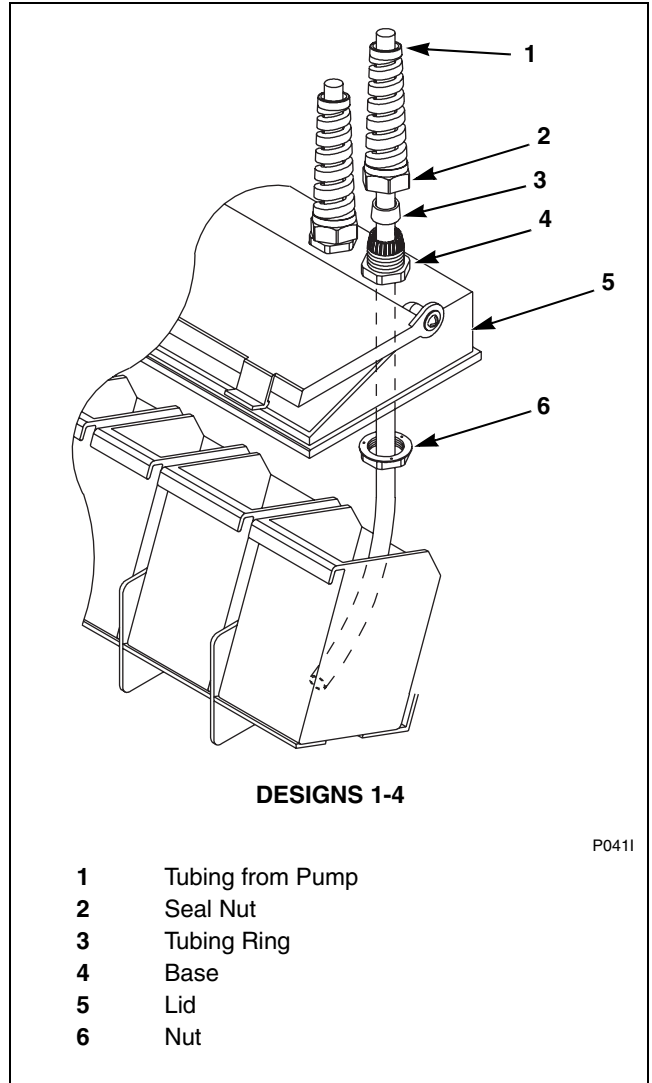


Figure 16

## Connecting External Liquid Supplies to the Washer-Extractor

1. Remove plugs from base. Refer to *Figure 15*. Plugs are assembled inside the tubing ring.
2. Install strain reliefs, included in the seal nut.
3. Insert tubes through base. Do not remove cups. Tube should extend into the plastic cup, with the exception of the softener tube, which should be routed to the outside of the cup.
4. Tighten the seal nut to prevent tubing from escaping the assembly.

The UW 2 speed washer-extractor has a polypropylene supply dispenser with five supply compartments. Refer to *Figure 17*.

Do not attempt to make chemical injection electrical connections to points other than those provided specifically for that purpose by the factory.

Chemical Injection Supply System	
Number of dry supply compartments	5
Number of liquid supply connections	5
Liquid supply connection size, in. (mm)	5/8 (15.9)

# Installation

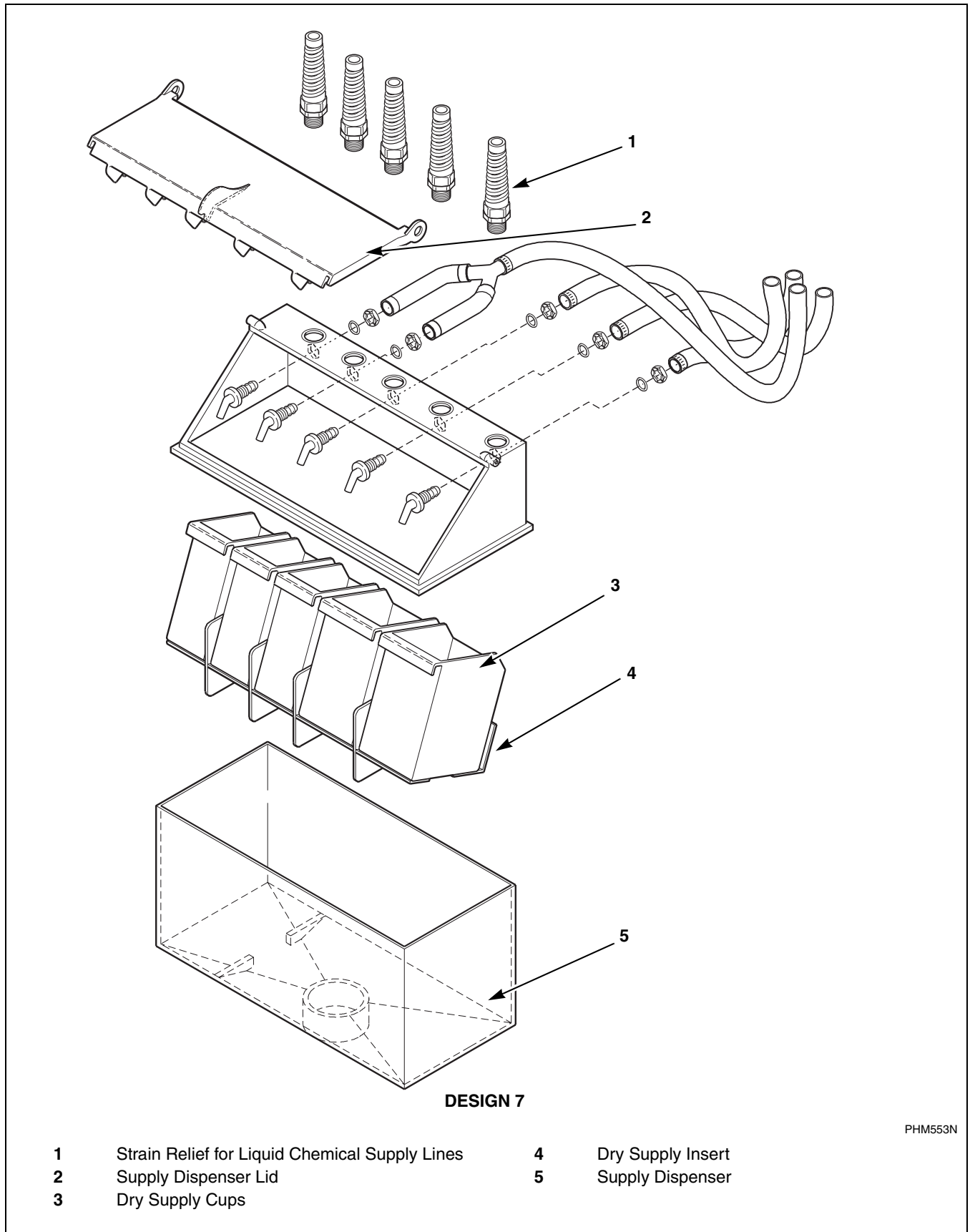


Figure 17

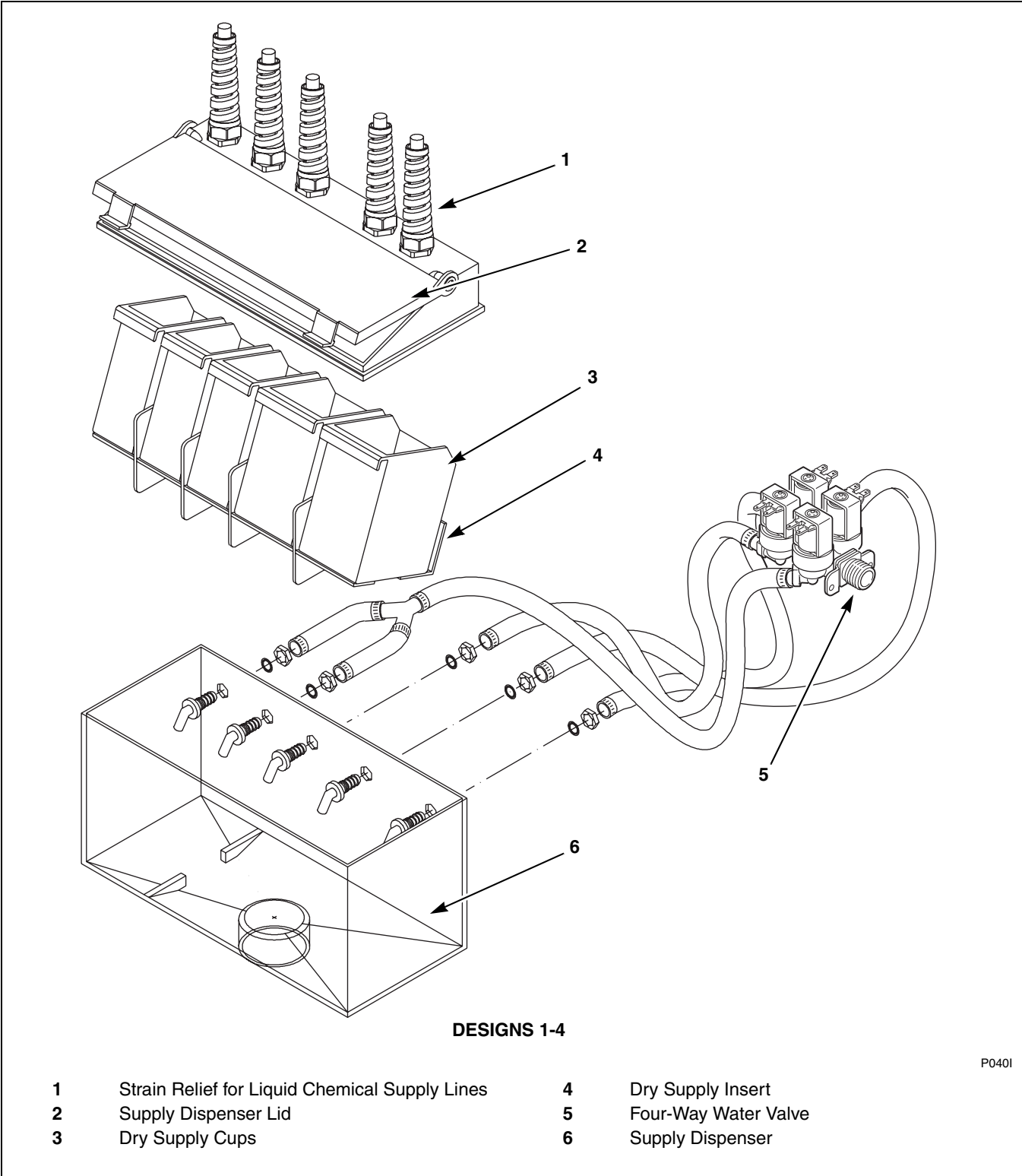


Figure 18


## Installation

On U4 and earlier model units, a stainless steel box at the right rear of the control module houses a terminal strip which furnishes supply output signals for the chemical injection supply pumps. Refer to *Figure 19* for an example of a typical terminal strip decal.

On U5 and later model units, the terminal strip that furnishes the supply output signal for the chemicals injection and supply is located inside the control module at the rear. Access is through the rear panel of the module.

Terminals Supply 1 through Supply 5 provide 120 VAC or 240 VAC fused at 500 mA. (Refer to the decal at the external supply terminal strip to determine whether the washer-extractor provides 120 VAC or 240 VAC, as well as other pertinent information.) These terminals may be used to provide signals to the chemical injection supply system but must not be used to provide power to the actual pump. Do not attempt to increase fuse rating as this may cause damage to the washer-extractor's circuitry.

**Any injection system pump which requires 110 VAC must be powered by a separate external power source.**

	<b>CAUTION</b>
<p><b>Attempting to obtain 110VAC by using L1 or L2 with the common may damage laundry machine circuitry and/or the chemical injection system. Using a 240VAC power wire in the washer-extractor and an earth ground to obtain 110VAC could cause microprocessor problems.</b></p>	
<small>SW028</small>	

Consult the chemical injection supply system instructions for operational details.

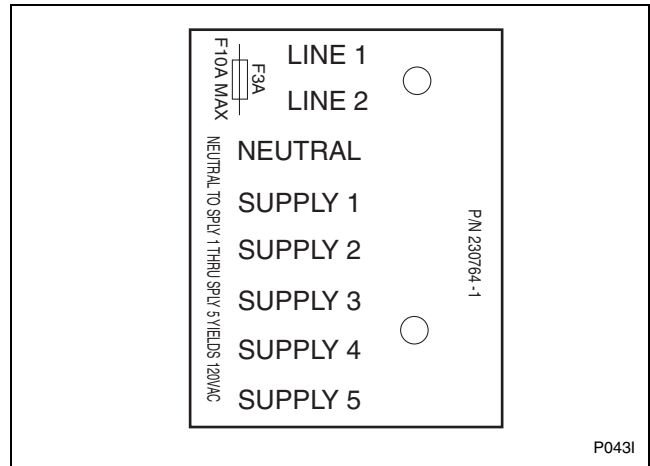


Figure 19

## Control Function Test

The washer-extractor should be cleaned after the installation is complete. A function test should then be executed on the unloaded machine:

1. Check the power supply for such characteristics as correct voltage, phase, and cycles to be certain they are correct for the washer-extractor.
2. Open manual shut-off valves to the washer-extractor.

**NOTE: If the washer-extractor is equipped with the WE-6 microcomputer, press the emergency stop button at this point in the procedure.**

3. Apply power to the washer-extractor.

**NOTE: If the washer-extractor is equipped with the WE-6 microcomputer, release the emergency stop button at this point in the procedure by pulling the button sharply.**

4. Check the door interlock before starting operation:
  - a. Attempt to start the washer with the door open. The washer should not start with the door open.
  - b. Close the door without locking it and attempt to start the washer. The washer should not start with the door unlocked.
  - c. Close and lock the door and start a cycle. Attempt to open the door while the cycle is in progress. The door should not open.

If the door lock and interlock are not functioning properly, call a service technician.

5. Run a full test cycle:
  - a. For washer-extractors equipped with the WE-6 microcomputer, select Cycle 01 by pressing key 0 and key 1 on the keypad. Then press the Start key.  
  
Run the complete cycle, checking operation of all functions.

- b. For washer-extractors equipped with the S-series microcomputer, select an appropriate cycle from the 12 cycles listed in the S-series Operation/Programming manual F232087.

Run the complete cycle, checking operation of all functions.

As an alternative, a test cycle is available for the S-series microcomputer. To access the test cycle, verify that the RUN/PROGRAM mode toggle switch is in the RUN position. Press the Up or Down key until the display alternately flashes "CHEC" and "CYC," indicating that the test cycle is selected. Press the Start key to begin the test cycle.

**NOTE: Pressing the Start key while the test cycle is in progress will prompt the computer to advance to the next step in the test cycle. Drain steps may *not* be skipped.**

- c. For washer-extractors equipped with the mechanical timer, select any of the four cycles listed on the control module decal by pressing the corresponding button.

Run the complete cycle, checking operation of all functions.

6. Cylinder rotation must be clockwise in the extract step. If rotation is not clockwise in the extract step, disconnect power. A qualified electrician must reverse any two leads between the mains contactor and the motor.

