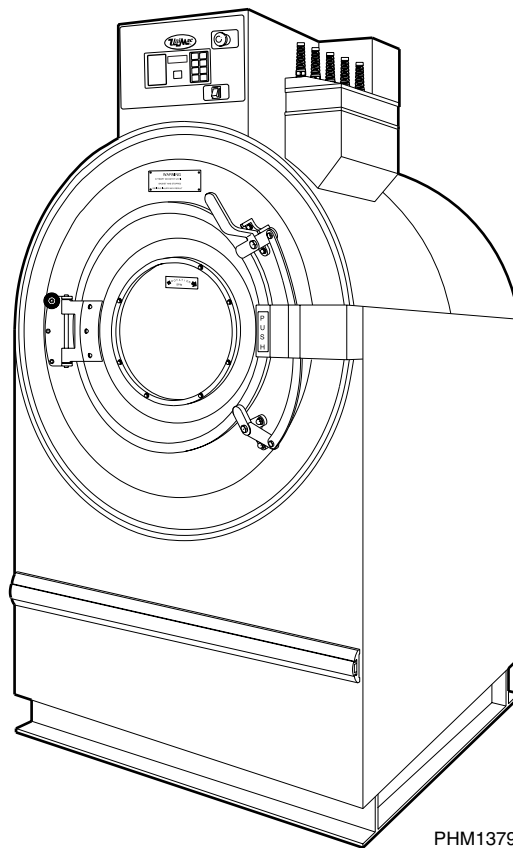


Washer-Extractors

UW Pocket Hardmount
B-Series Microcomputer
2 Speed

Models UW35B2 and UW60B2

NOTA: El manual en español aparece después del manual en inglés.



PHM1379C

— Operation/Maintenance —

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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.

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

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


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

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

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

	WARNING
<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	

	WARNING
<p>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.</p>	
SW014	

	CAUTION
<p>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.</p>	
SW020	

	WARNING
<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	

	CAUTION
<p>Be careful around the open door, particularly when loading from a level below the door. Impact with door edges can cause personal injury.</p>	
SW025	

Safety Information

Key to Symbols



The lightning flash and arrowhead within the triangle is a warning sign indicating the presence of dangerous voltage.



The exclamation point within the triangle is a warning sign indicating important instructions concerning the machine and possibly dangerous conditions.



This warning symbol indicates the presence of potentially dangerous drive mechanisms within the machine. Guards should always be in place when the machine is in operation.



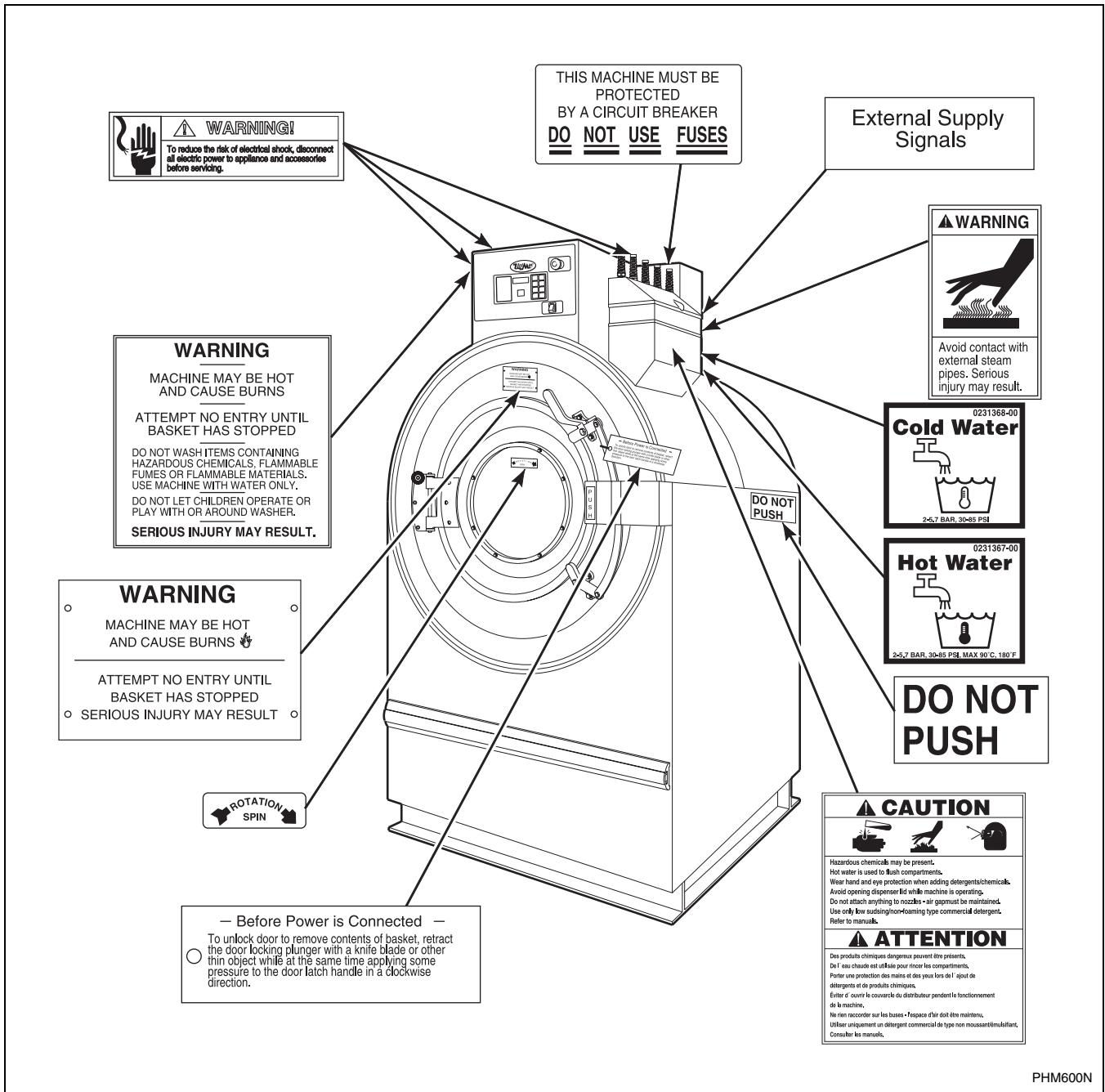
This warning symbol indicates the presence of possibly dangerous chemicals. Proper precautions should be taken when handling corrosive or caustic materials.



This warning symbol indicates the presence of hot surfaces that could cause serious burns. Stainless steel and steam lines can become extremely hot and should not be touched.



This warning symbol indicates the presence of possibly dangerous pinch-points. Moving mechanical parts can crush and/or sever body parts.



PHM600N

Figure 1

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.

Use manufacturer-authorized spare parts to avoid safety hazards.

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 manufacturer immediately.


Operator Safety

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

	WARNING
Never operate the machine with a bypassed or disconnected balance system. Operating the machine with severe out-of-balance loads could result in personal injury and serious equipment damage.	
SW039	

Safe Operating Environment

Safe operation requires an appropriate operating environment for both the operator and the machine. If questions regarding safety arise, contact the manufacturer 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 3280 feet (1000 m) 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.


	DANGER
<p>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.</p>	
SW002	

- *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. Refer to Installation manual.
- *Service/Maintenance Space.* Provide sufficient space to allow comfortable performance of service procedures and routine preventive maintenance.

Consult installation instructions for specific details.


	CAUTION
<p>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.</p>	
SW019	

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.

	WARNING
<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	

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.

Introduction

Model Identification

Information in this manual is applicable to these models:

UW35B2	UW60B2
--------	--------

Nameplate Location

The nameplate is located on the cage wrap (below plumbing bracket) and on top rear of the control module. Always provide the machine's serial number and model number when ordering parts or when seeking technical assistance. Refer to *Figure 2*.

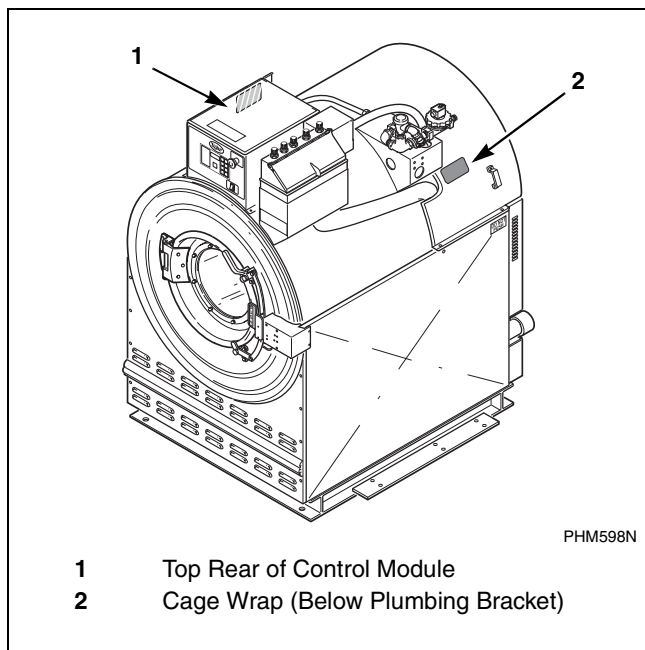


Figure 2

Replacement Parts

If literature or replacement parts are required, contact the source from which the washer-extractor was purchased or contact Alliance Laundry Systems LLC at (920) 748-3950 for the name of the nearest authorized parts distributor. A parts manual may be ordered by returning the reply card provided with each washer-extractor.

Customer Service

For technical assistance, contact your local distributor or call:

(920) 748-3121
Ripon, Wisconsin

A record of each washer-extractor is on file with the manufacturer. Always provide the machine's serial number and model number when ordering parts or when seeking technical assistance. Refer to *Figure 2*.

Introduction

Model Number Familiarization Guide	
Sample Model Number: UW35B2OU80001	
UW	Model Number Prefix
35	Washer-Extractor Capacity (pounds dry weight of laundry)
B	Type of Electrical Control
2	Washer-Extractor Speed Capabilities
O	Electrical Characteristics
U8	Design Series
0001	Option Identification (varies from machine to machine)

Model No.	UW35B2OU80001				
Serial No.	000000000000				
Voltage	200 – 240	Amps	14		
Circuit Breaker	20 Amps				
Hz	50 – 60	Wire	2/3	Phase	3
Max. Load	60 LB		27 KG	Max. Speed	813 RPM
Elec. Heating	N/A		Steam Press.	N/A PSI	0.0 BAR
Drawings:					
<p style="font-size: small;">ETL Listed Conforms To ANSI/UL Std. 1206, 3rd Ed Certified To CAN/CSA Std. C22.2 No.53-1968</p>					

EXAMPLE OF NAMEPLATE

PHM599N

Figure 3

Operation

Machine Familiarization Guide

The machine familiarization guide in *Figure 4* identifies major operational features of the washer-extractor.

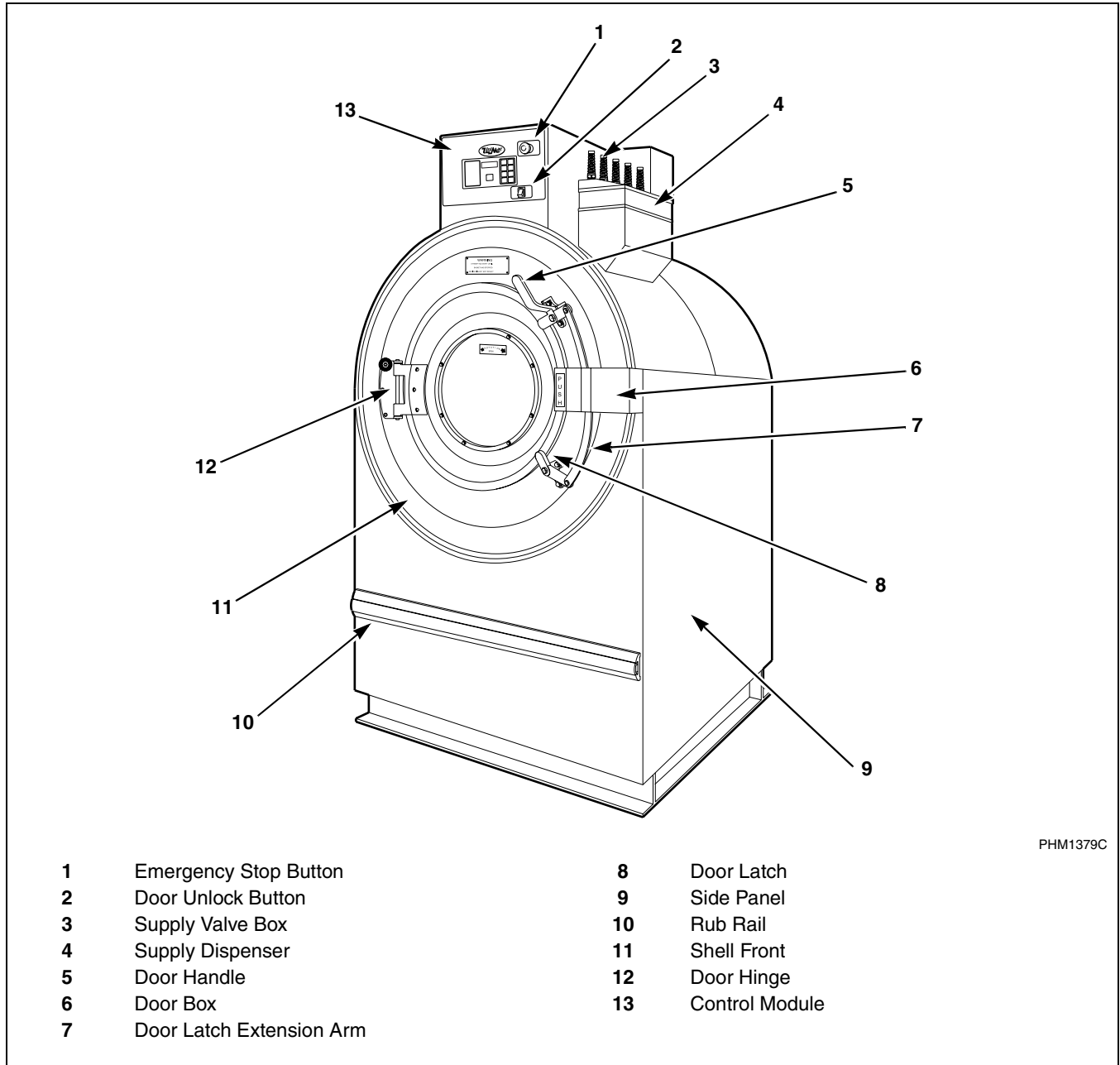


Figure 4

PHM1379C

Operation

Introduction

This control is composed of the *electronic control unit* and the *control fuse board*. Beyond this, there are wiring harnesses associated with the control. Only an authorized person should ever look inside the machine. Before accessing the control components, first TURN OFF POWER, then open the lid.

Electronic Control Unit

This portion of the control contains the “intelligence” – namely, the micro-controller and the miscellaneous components on the printed circuit (PC) board. The board has a metal cover, which MUST be in place at all times during machine operation. Operation of the machine without this cover installed will void the warranty.

The control unit monitors and responds to input, gives information about the status of the machine (which the control operates), and it monitors and responds to inputs from the user interface. The control provides signals to the control output unit, which in turn operates the components that control the machine functions. This is located behind the machine control panel.

Control Output Fuse Board

This portion of the control contains the power supply for the control unit, and also the switching devices that power the components in the machine, all of which are on the output PC board. The output board has a cover for back of hand protection. It must be in place at all times during machine operation. The switching devices are controlled by the control unit, and are solid state components which provide two important benefits: 1) elimination of all the problems associated with electromechanical switching (contact wear, arcing and electromagnetic interference, etc.) with subsequent increased component life, and 2) enhanced electrical isolation of the control unit and the AC switching components.

Harnessing

Wiring harnesses are modular – harnesses common to various configurations are similar, while those specific to a certain configuration can be added. There are harnesses for inputs to the control unit, for outputs from the control power/output unit to the machine components, and for the main incoming power to the control power/output unit.

Control Panel

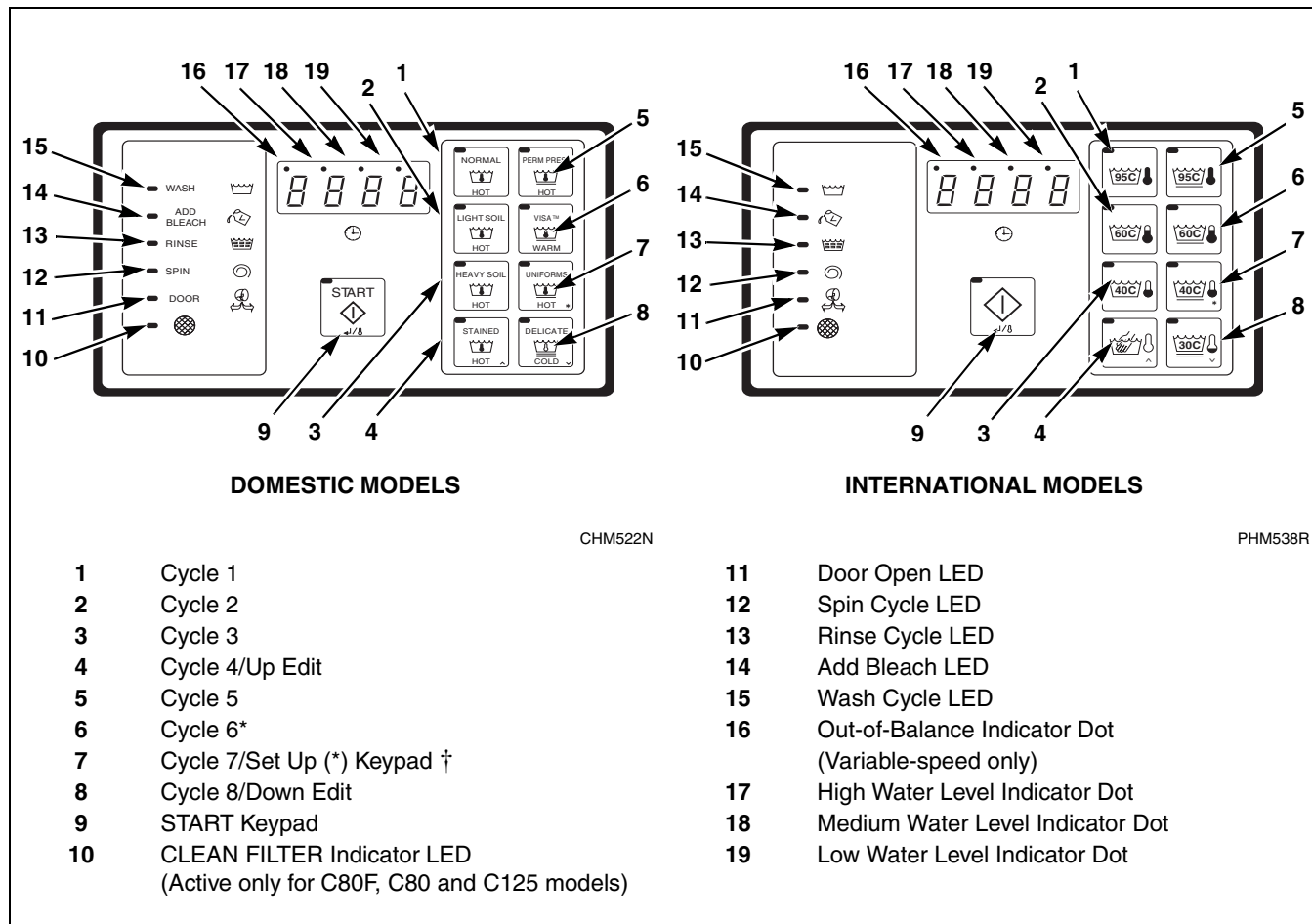


Figure 5

†Set Up (*) keypad is used in cycle programmings in program mode. Refer to *Programming Manual*.

Operation

Summary of Major Features

LED for Machine Functions	LED lights inform operator which machine function is active. DOOR LED lights to inform operator that the door can be opened or should be closed. The circle LED indicates that the filter needs cleaning.
Water Levels	Three (3) – Contacts from pressure switch (test cycle)
Main LED display	4 digit LED display counts down cycle time. Lights in LED display indicate out-of-balance conditions and, in test cycle, water level. Display shows “01” as the final spin time.
Cycle selection keypads	Eight (8) cycle select keypads with LED indicator to show selected cycle. LED lights will flash to prompt user to press a keypad.
START keypad	Press to start a cycle after cycle selection is made. LED light will flash to prompt user to press keypad.
Test Cycle with “Advance”	For troubleshooting. Advance rapidly through test cycle by pressing the UP keypad. Refer to PROGRAMMING manual.
Fill Temperatures	Cold, Hot, Warm
Supplies	Five (5) or Four (4) with extra fill value option.
Agitation Types	Normal or Gentle
Drain Options	Normally open gravity drain
Cycle Count	0 to 9999 cannot be reset – Rolls over after 9999
Rapid Advance Mode	Rapid Advance can be enabled or disabled. Enabled allows user to advance through a cycle. Refer to <i>Programming Manual</i> .

Table 1

Display Indicators

Table 2 lists the various displays and what they mean. The operator should become familiar with these machine displays.

Display	Meaning
tESt	Diagnostic test cycle selected or enabled
SPIn	Spin (extract) step
SUP1	Supply signal 1 (“S1” output), normally detergent
SUP2	Supply signal 2 (“S2” output), normally bleach
SUP3	Supply signal 3 (“S3” output), normally softener
SUP4	Supply signal 4
SUP5	Supply signal 5
SdLY	Spin coast (motor coasts after high speed extract)
CFIL	Cold Fill
HFIL	Hot Fill
bFIL	Warm Fill (cold + hot)
bLCH	Control will also light “add bleach” indicator
CY__	Cycle number (followed by a space and number 1 through highest cycle number)
norñ	Normal agitation selected
gEnt	Gentle (reduced) agitation selected
For	Wash speed forward (during test cycle)
rEv	Wash speed reverse (during test cycle)
LO	Low water level
nEd	Medium water level
HI	High water level
CEL	Display all temperatures in degrees Celsius
FAR	Display all temperatures in degrees Fahrenheit
__C	The first 3 digits are reserved for temperature reading, C indicates “degrees Celsius”

Table 2

Operation

Table 2 (Continued)

Display	Meaning
___F	The first 3 digits are reserved for temperature reading, F indicates “degrees Fahrenheit”
FILL	“Fill error” – machine did not fill to programmed water level within 10 minutes; also displays during Rapid Advance Mode
door	“Door” opened during cycle
USH1	“Wash 1” segment
USH2	“Wash 2” segment
USH3	“Wash 3” segment
USH4	“Wash 4” segment
rIn1	“Rinse 1” segment
rIn2	“Rinse 2” segment
rIn3	“Rinse 3” segment
rIn4	“Rinse 4” segment (final rinse)
donE	Cycle has concluded
drAI	Drain selected for segment; also indicates in drain step during 2 speed version test cycle or during Rapid Advance Mode
----	Flashes for a period of time (for safety) after power up while keeping outputs OFF
Erdn	Drain error or drain count error (will display in certain models)
ErFL	Fill error count (will display in certain models)
Adv	Machine set up for Rapid Advance
noAd	Machine is not set up for Rapid Advance
E Pr	The number of times power has been interrupted during a cycle
CyC	Cycle counter

Operating Instructions

1. When display shows “----,” washer-extractor is ready to be loaded with laundry.
2. Use left hand to press and hold the door unlock button located on the lower right front of the control panel. Refer to *Figure 6*.

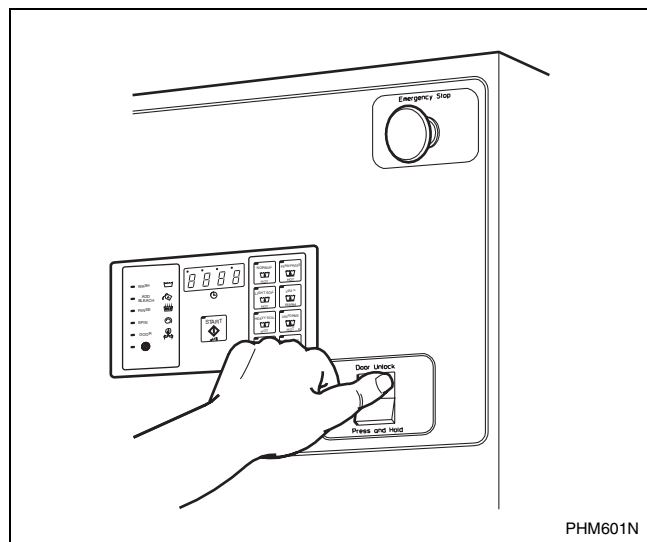


Figure 6

3. Use right hand to turn door handle clockwise and swing the door left to open. Refer to *Figure 7*.

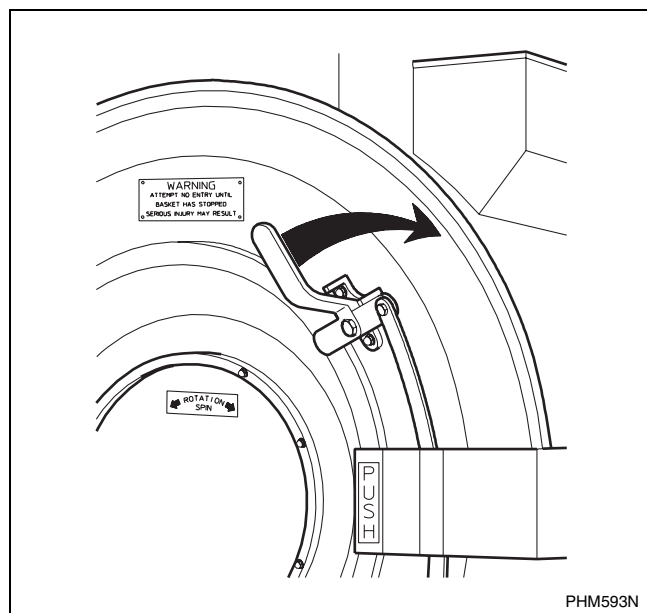


Figure 7

4. Load the washer-extractor to full capacity whenever possible, but do not exceed the rated dry-weight capacity of the machine if the fabric to be washed is quite dense, closely woven, and heavily soiled.

Overloading can result in an inferior wash. The operator may need to experiment to determine load size based on fabric content, soil content, and level of cleanliness required. Do not underload the machine. Underloading can result in premature bearing and sealing failure and out-of-balance situations.

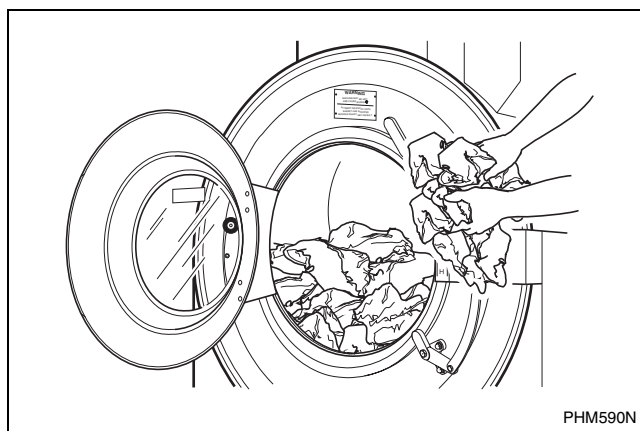



Figure 8

	WARNING
<p>Do not operate machine in a cycle with program keymode switch in program position. Program keymode switch must be in run position at all times, except when editing or programming cycle or setup information.</p>	
W528	

	WARNING
<p>Do not operate machine in a cycle or if spinning with program keymode switch in program position.</p>	
W529	

	CAUTION
<p>Be careful around the open door, particularly when loading from a level below the door. Impact with door edges can cause personal injury.</p>	
<small>SW025</small>	

NOTE: When washing items which may disintegrate or fragment, such as mop heads or sponges, use laundry nets to prevent drain blockage.

IMPORTANT: To prevent out-of-balance conditions, premature wear or damage to machine when using laundry nets, use several small nets in a load.

5. When loading is complete, make sure that all fabric is inside the basket.
6. Close and lock the door.
7. Dry supplies can be placed in the supply dispenser compartment cups prior to the start of each cycle. Be sure to return the supply dispenser compartment cups before the start of each cycle.
8. Liquid supplies can be injected directly into the supply dispenser by an external chemical supply system.

NOTE: Supply dispenser compartment cups must not be removed when an external chemical injection supply system is attached to the washer-extractor.


9. Select the desired cycle. The corresponding LED indicator for that cycle will light.
10. Press the Start keypad.


NOTE: The cycle number can be changed during the FIRST FILL ONLY by pressing another cycle select key.

11. At the conclusion of the cycle, the display will show 'doNE'. The door can be unlocked. At this point the washer-extractor may be unloaded.
12. When the door is opened, the display will revert to showing "----" and the default cycle.

Maintenance

Routine maintenance maximizes operating efficiency and minimizes downtime. The maintenance procedures described below will prolong the life of the machine and help prevent accidents.

	WARNING
Be careful when handling sheet-metal parts. Sharp edges can cause personal injury. Wear safety glasses and gloves, use the proper tools, and provide adequate lighting.	
SW035	

	CAUTION
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.	
SW019	

Daily, weekly, monthly, and quarterly checklists are provided at the end of this section. Laminate the checklists to preserve them for repeated copying. Operators and technicians are encouraged to add checks specific to their washer-extractor's particular application. Where possible, space is provided on the checklists for this purpose.

The following maintenance procedures must be performed regularly at the required intervals.

Daily

Beginning of Day

1. Inspect water inlet valve hose connections on the back of the washer-extractor for leaks.
2. Inspect steam hose connections for leaks (where applicable).
3. Verify that insulation is intact on all external wires and that all connections are secure. If bare wire is evident, call a service technician.

4. Check 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.

End of Day

1. Clean the door gasket of residual detergent and all foreign matter.
2. Clean automatic supply dispenser and lid inside and out with mild detergent. Rinse with clean water.
3. Clean washer's top, front, and side panels with mild detergent. Rinse with clean water.
4. Leave loading door open at the end of each day to allow moisture to evaporate.

NOTE: Unload the washer-extractor promptly after each completed cycle to prevent moisture buildup. Leave loading door open at the end of each completed cycle to allow moisture to evaporate.

Weekly

1. Check the washer-extractor for leaks.
 - a. Start an unloaded cycle to fill the washer-extractor.
 - b. Verify that door and door gasket do not leak.
 - c. Verify that the drain valve is operating and that the drain system is free from obstruction. If water does not leak out during the prewash segment, drain valve is closed and functioning properly.

Maintenance

Monthly

NOTE: Disconnect power to the washer-extractor at its source before performing the monthly maintenance procedures.

1. Each month OR after every 200 hours of operation, lubricate bearings of the UW60. Refer to *Figure 9* and *Figure 10*.

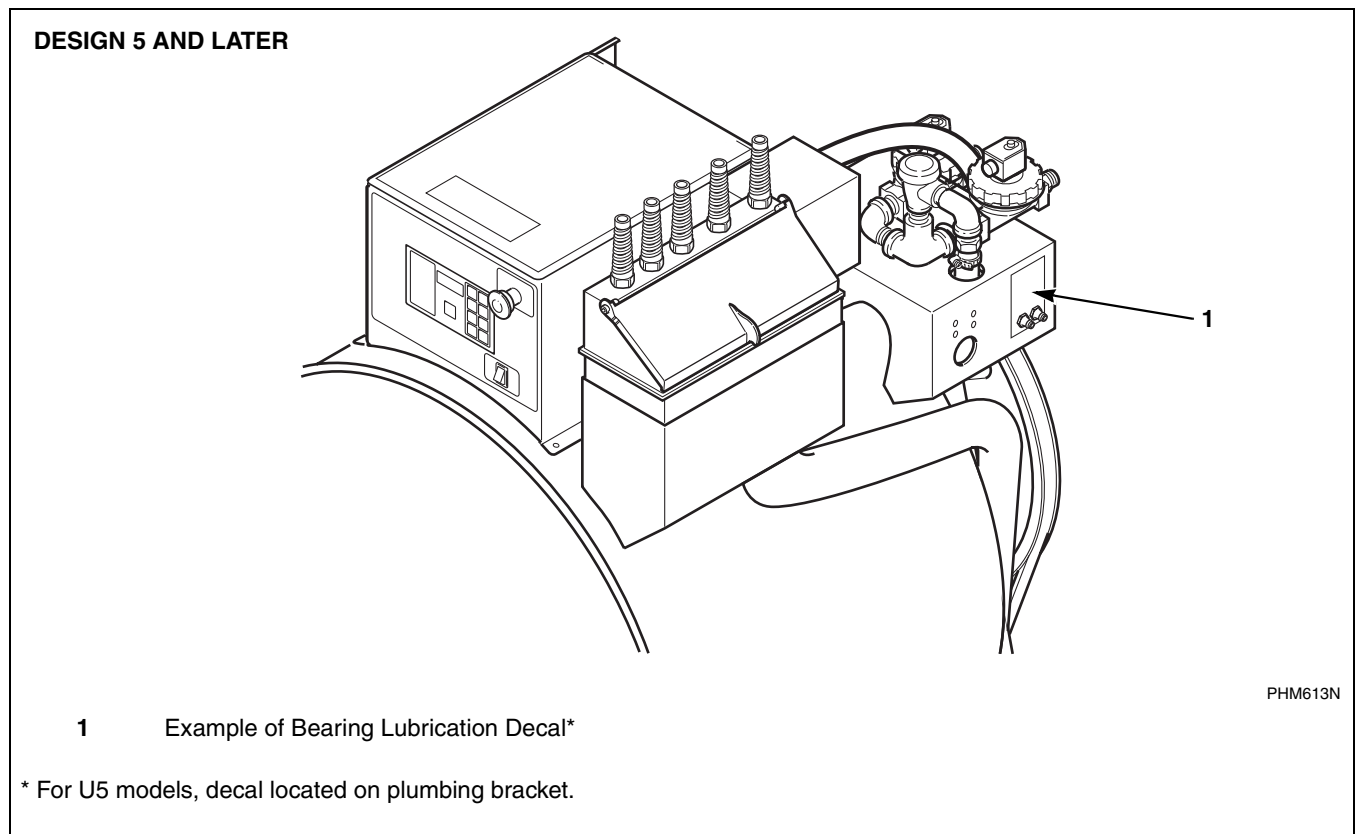


Figure 9

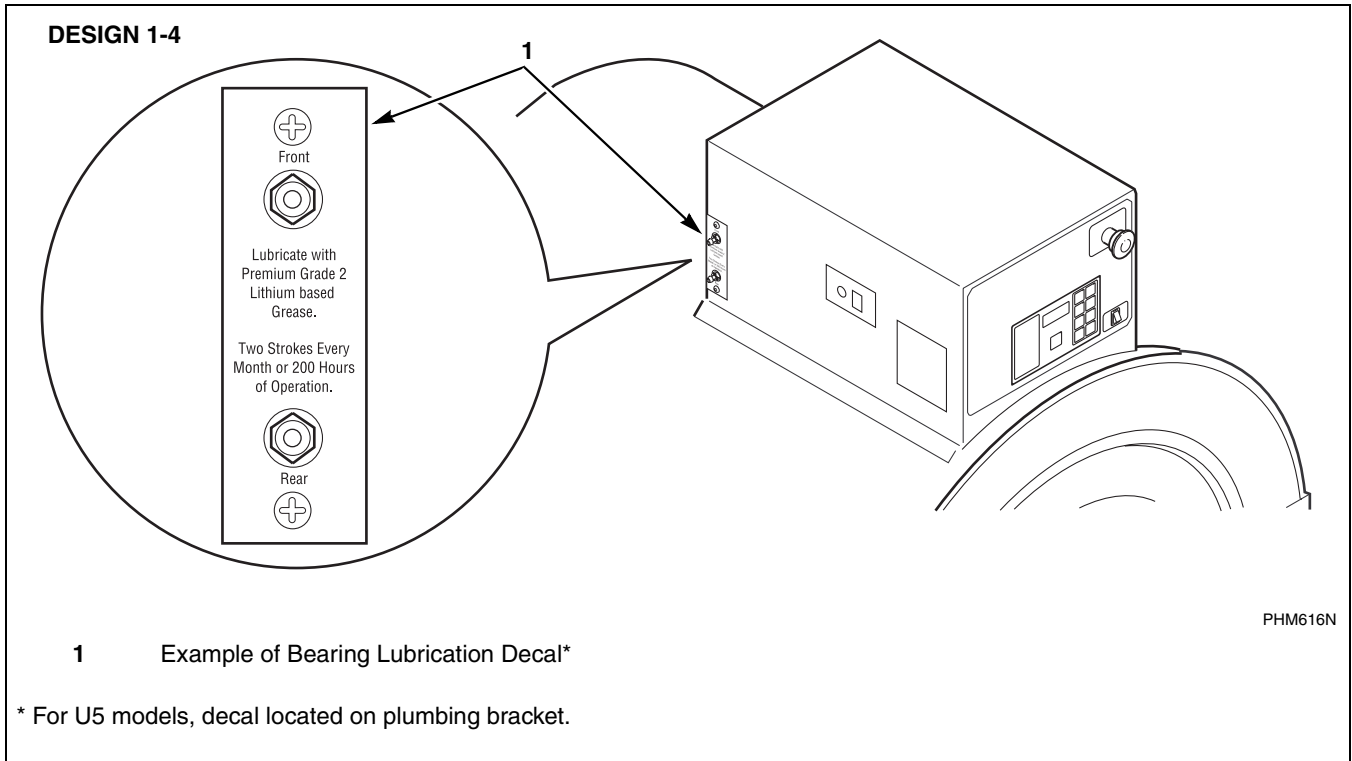


Figure 10

Maintenance

The grease must have the following characteristics:

- NLGI Grade 2
- Lithium-based
- Water-insoluble
- Anti-rusting
- Anti-oxidizing
- Mechanically stable

The grease must have adequate base oil viscosity with one of the following ratings:

- ISO VG 150 (135 – 165 cSt at 40°C or 709 – 871 SUS at 100°F)
- ISO VG 220 (198 – 242 cSt at 40°C or 1047 – 1283 SUS at 100°F)
- An SAE 40 rating is also acceptable as long as the cSt or SUS values are within the specified ranges.

Pump the grease gun slowly, permitting only 2 strokes.

NOTE: The UW35 2 speed bearings are permanently greased bearings and do not require lubrication.

- Use the following procedures to determine if V-belts require replacement or adjustment. Call a qualified service technician in either case.
 - Check V-belts for uneven wear and frayed edges.
 - After disconnecting power to the washer-extractor and removing all panels necessary for access to the drive belt, use one of the following methods to verify that V-belts are properly tensioned.

Tension Gauge. Increase spring tension to change belt span length. The UW 2 speed belt tension should be set according to the data listed in *Table 3*.

Model	Frequency	Tension Force (lbs*)
		Basket/Extract Motor
35	50 Hz	45 – 55
	60 Hz	40 – 50
60	50 Hz	70 – 90
	60 Hz	70 – 90

* Tolerance: ± 5 pounds
Set initial tension toward high end of these ranges.

Table 3

Deflection. Refer to *Figure 11*. Increase spring tension to change belt span length. Belt tension measurements should be taken as close to the center of the belt span as possible. For every inch of span length, the belt should deflect 1/64 inch (0.40 mm). Thus, a belt with span length of 50 inches should deflect 50/64 inch (19.84 mm). An initial (run-in) force should be used to set the belt tension. An operating (normal) force should be used after the washer-extractor has been operated for a few hours. Refer to *Table 4* for those values.

Model	Frequency	Force of Deflection (lbs)	
		Run-In	Normal
35	50 Hz	6	4
	60 Hz	5	3
60	50 Hz	7.125	4.75
	60 Hz	5.25	3.5

Table 4

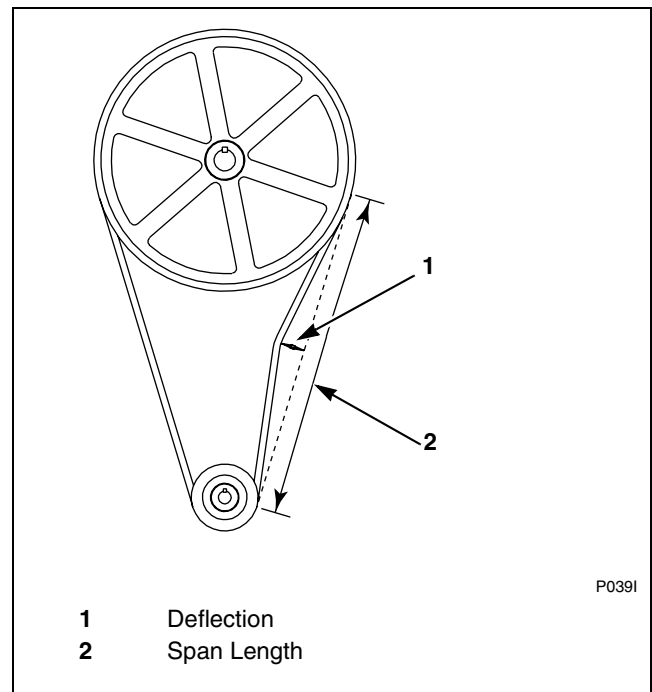


Figure 11

- Verify that V-belts are properly aligned by checking pulley alignment. Place a straightedge across both pulley faces. The straightedge should make contact with the pulleys in four places. Refer to *Figure 12*.

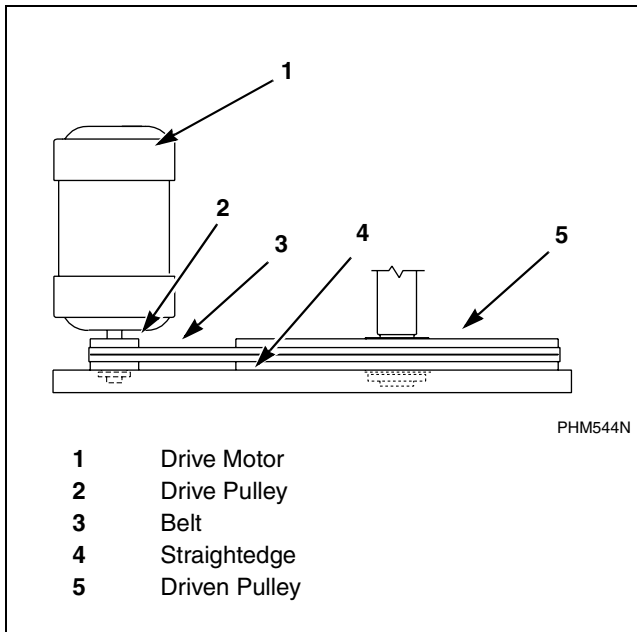


Figure 12

3. Remove back panel and check overflow hose and drain hose for leaks.
4. Unlock the hinged lid and check the supply dispenser hoses and hose connections.
5. Clean inlet hose filter screens:
 - a. Turn water off and allow valve to cool, if necessary.
 - b. Unscrew inlet hose and remove filter screen.
 - c. Clean with soapy water and reinstall. Replace if worn or damaged.
6. Remove back panel and check overflow hose and drain hose for leaks.
7. Tighten motor mounting bolt locknuts and bearing bolt locknuts, if necessary.
8. Use compressed air to clean lint from motor.
9. Clean interior of washer-extractor, both basket and shell, by wiping with a water-soaked sponge or cloth.
10. Use compressed air to ensure that all electrical components are free of moisture and dust.

Quarterly

NOTE: Disconnect power to the washer-extractor before performing the quarterly maintenance procedures.

1. Tighten door hinges and fasteners, if necessary.
2. Tighten anchor bolts, if necessary.
3. Verify that the drain motor shield is in place and secure.
4. Check all painted surfaces for bare metal. (Matching gray paint is available from the manufacturer.)
 - If bare metal is showing, paint with primer or solvent-based paint.
 - If rust appears, remove it with sandpaper or by chemical means. Then paint with primer or solvent-based paint.
5. Clean steam filter, where applicable.
 - a. Turn off steam supply and allow time for the valve to cool.
 - b. Unscrew nut.
 - c. Remove element and clean.
 - d. Replace element and nut.

Maintenance

Care of Stainless Steel

Maintain the natural beauty of stainless steel and prolong its service life by following these tips:

- Ordinary deposits of dirt and grease can be removed with detergent and water. The metal should be thoroughly rinsed and dried after washing. Periodic cleaning will help to maintain the bright surface appearance and prevent corrosion.
- Contact with dissimilar metals should be avoided whenever possible. This will help prevent galvanic corrosion when salty or acidic solutions are present.
- Salty or acidic solutions should not be allowed to evaporate and dry on stainless steel. They may cause corrosion. Ensure that the stainless steel is wiped clean of acidic solution residues.
- Deposits that adhere to the stainless steel should be removed, especially from crevices and corners. When using abrasive cleaners, always rub in the direction of the polish lines or “grain” of the stainless steel to avoid scratch marks. Never use ordinary steel wool or steel brushes on the stainless steel. Use stainless steel wool or soft non-metal bristle brushes.
- If the stainless steel appears to be rusting, the source of the rust may actually be an iron or steel part not made of stainless steel, such as a nail or screw. One remedy is to paint all carbon steel parts with a heavy protective coating. Stainless steel fasteners should be used whenever possible.
- Discolorations or heat tint from overheating may be removed by scouring with a powder or by employing special chemical solutions.
- Sanitizers or sterilizing solutions should not be left in stainless steel equipment for prolonged periods of time. They often contain chlorine, which may cause corrosion. The stainless steel should be cleaned and rinsed thoroughly of any solution containing chlorine.
- When an external chemical supply system is used, make certain that no siphoning of chemicals occurs when the washer-extractor is not in use. Highly concentrated chemicals can cause severe damage to stainless steel and other components within the washer-extractor. Damage of this kind is not covered by the manufacturer’s warranty. Locate the pump below the washer-extractor’s injection point to prevent siphoning of chemicals into the washer-extractor. Refer to the Installation manual.

Daily Preventive Maintenance Checklist

Machine _____ Operator _____	Week of: _____						
	Days						
Checks	1	2	3	4	5	6	7
Observe All Safety Warnings!							
Beginning of Day							
1. Inspect water inlet valve hose connections on the back of the washer-extractor for leaks.							
2. Inspect steam hose connections for leaks (where applicable).							
3. Verify that insulation is intact on all external wires and that all connections are secure.							
4. Check door lock and interlock before starting operation:							
a. Attempt to start the washer with door open.							
b. Close the door without locking it and attempt to start the washer.							
c. Close and lock the door, start a cycle, and attempt to open the door while the cycle is in progress.							
5.							
End of Day							
1. Clean the door gasket of all foreign matter.							
2. Clean automatic supply dispenser and lid.							
3. Clean the washer's top, front, and side panels.							
4. Leave loading door open at the end of each day to allow moisture to evaporate.							
5.							
6.							
<p>NOTE: Unload the washer-extractor promptly <i>after each completed cycle</i> to prevent moisture buildup.</p> <p>NOTE: Leave loading door open <i>after each completed cycle</i> to allow moisture to evaporate.</p>							

Maintenance

Weekly Preventive Maintenance Checklist

Machine _____ Operator _____	Month _____				
	Week Ending:				
Checks	/	/	/	/	/
Observe All Safety Warnings!					
1. Check the washer-extractor for leaks:					
a. Start an unloaded cycle to fill the washer-extractor.					
b. Verify that door and door gasket do not leak.					
c. Verify that the drain valve is operating.					
2.					
3.					
4.					
5.					
6.					
7.					

Monthly Preventive Maintenance Checklist

Machine _____ Operator _____	Month			
Checks				
Observe All Safety Warnings! Disconnect power to the washer-extractor before performing the monthly maintenance procedures.				
1. Each month OR after every 200 hours of operation, lubricate bearings.				
2. Determine if V-belts require replacement or adjustment:				
a. Check V-belts for uneven wear and frayed edges.				
b. Verify that V-belts are properly tensioned.				
c. Verify that V-belts are properly aligned.				
3. Remove back panel and check hoses for leaks.				
4. Unlock the hinged lid and check supply dispenser hoses and connections.				
5. Clean inlet hose filter screens. Replace if worn or damaged.				
6. Tighten motor mounting bolt locknuts and bearing bolt locknuts, if necessary.				
7. Use compressed air to clean lint from motor.				
8. Clean interior of washer-extractor, both basket and shell, by wiping with a water-soaked sponge or cloth.				
9. Use compressed air to clean moisture and dust from all electrical components.				
10.				
11.				
12.				
13.				
14.				

Maintenance

Quarterly Preventive Maintenance Checklist

Machine _____ Operator _____	Quarter			
Checks				
Observe All Safety Warnings! Disconnect power to the washer-extractor before performing the quarterly maintenance procedures.				
1. Tighten door hinges and fasteners, if necessary.				
2. Tighten anchor bolts, if necessary.				
3. Verify that the drain motor shield is in place and secure.				
4. Check all painted surfaces for bare metal. Repair, if necessary.				
5. Clean steam filter, if applicable.				
6.				
7.				
8.				
9.				
10.				
11.				