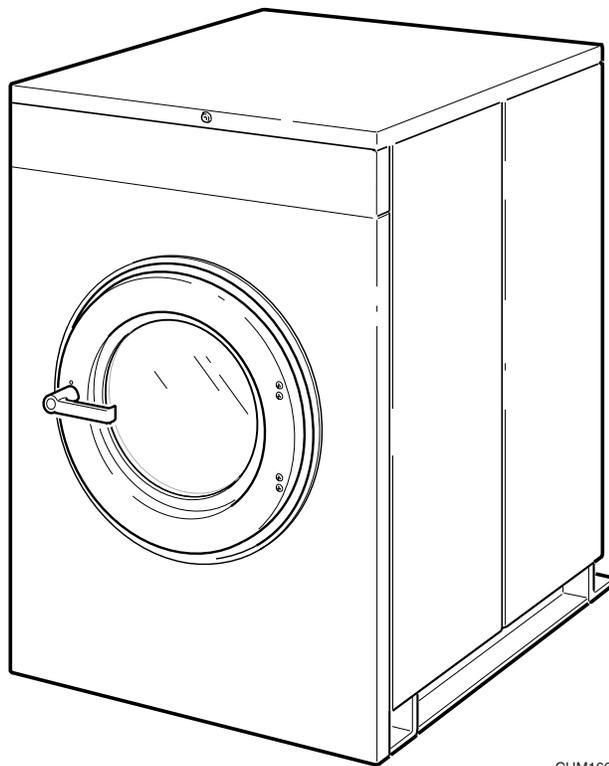


Washer-Extractors

Cabinet Hardmount Mechanical Timer
Coin and OPL Models

Refer to page 6 for Model Identification



CHM166C

— Operation/Maintenance —

Keep These Instructions for Future Reference.

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



www.comlaundry.com

Part No. F232134R5
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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.
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. If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent.
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>	
<small>SW004</small>	

IMPORTANT: Ensure that the recommended clearances for inspection and maintenance are provided. Never allow the inspection and maintenance space to be blocked.

	WARNING
<p>Install the machine on a level floor of sufficient strength. Failure to do so may result in conditions which can produce serious injury, death and/or property damage.</p>	
<small>W703</small>	

	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>	

	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>	
<small>SW014</small>	

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 manufacturer immediately.

Use manufacturer-authorized spare parts to avoid safety hazards.

Operator Safety

	WARNING
<p>NEVER insert hands or objects into basket until it has completely stopped. Doing so could result in serious injury.</p> <p style="text-align: right;"><small>SW012</small></p>	

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
<p>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.</p> <p style="text-align: right;"><small>SW039</small></p>	

Introduction

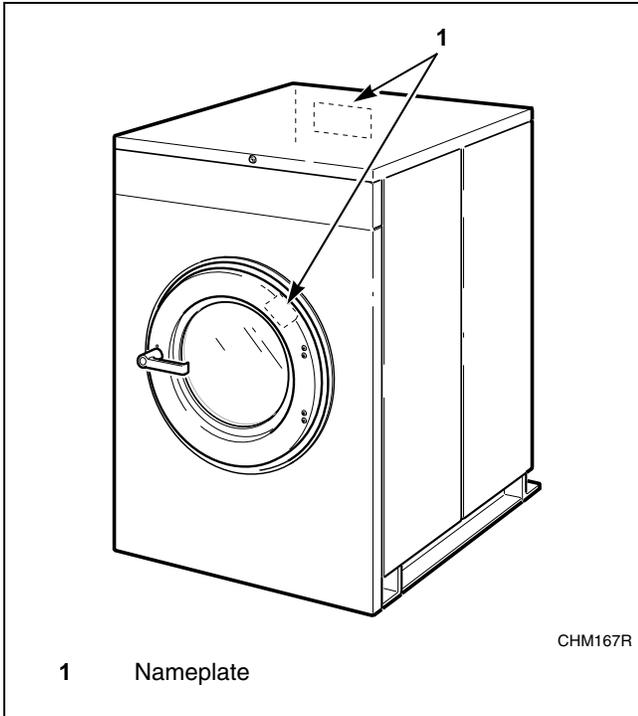
Model Identification

Information in this manual is applicable to these models:

HC18MC2	HC35MDX	NC27MD2	SC27MH2	SC50MV3	UC27MD2
HC18MD2	HC35MH2	NC27MDX	SC27MN2	SC50MX2	UC27MN2
HC18MDX	HC35MN2	NC27MX2	SC27MV2	SC50MY2	UC27MX2
HC18MH2	HC35MV2	NC35MD2	SC27MX2	SC60MD2	UC30ML2
HC18MN2	HC35MX2	NC35MDX	SC30MD2	SC60ML2	UC30MN2
HC18MV2	HC40MD2	NC35MX2	SC30ML2	SC60MN2	UC30MX2
HC18MX2	HC40ML2	NC50MD2	SC30MN2	SC60MX2	UC35MC2
HC20MD2	HC40MN2	NC50MDX	SC30MX2	SC60MY2	UC35MC3
HC20ML2	HC40MX2	NC50MX2	SC30MY2	SC80MC3	UC35MD2
HC20MN2	HC40MY2	SC18MC2	SC35MC2	SC80MD3	UC35MD3
HC20MX2	HC50MC2	SC18MC3	SC35MC3	SC80MH3	UC35MH2
HC20MY2	HC50MD2	SC18MD2	SC35MD2	SC80MN3	UC35MH3
HC25MC2	HC50MH2	SC18MD3	SC35MD3	SC80MV3	UC35MN2
HC25MD2	HC50ML2	SC18MH2	SC35MH2	UC18MC2	UC35MN3
HC25MDX	HC50MN2	SC18MH3	SC35MH3	UC18MC3	UC35MV2
HC25MH2	HC50MV2	SC18MN2	SC35MN2	UC18MD2	UC35MV3
HC25ML2	HC50MX2	SC18MN3	SC35MN3	UC18MD3	UC35MX2
HC25MN2	HC50MY2	SC18MV2	SC35MV2	UC18MH2	UC40MN2
HC25MV2	HC60MD2	SC18MV3	SC35MV3	UC18MH3	UC50MC2
HC25MX2	HC60ML2	SC18MX2	SC35MX2	UC18MN2	UC50MC3
HC25MY2	HC60MN2	SC20MD2	SC40MD2	UC18MN3	UC50MD2
HC27MC2	HC60MX2	SC20ML2	SC40ML2	UC18MV2	UC50MD3
HC27MD2	HC60MY2	SC20MN2	SC40MN2	UC18MV3	UC50MH2
HC27MDX	HC80MC3	SC20MX2	SC40MX2	UC18MX2	UC50MH3
HC27MH2	HC80MD2	SC20MY2	SC40MY2	UC20MD2	UC50MN2
HC27MN2	HC80MD3	SC25MC2	SC50MC2	UC20ML2	UC50MN3
HC27MV2	HC80MH3	SC25MD2	SC50MC3	UC20MN2	UC50MV2
HC27MX2	HC80MN3	SC25MH2	SC50MD2	UC20MX2	UC50MV3
HC30MD2	HC80MV3	SC25ML2	SC50MD3	UC25MC2	UC50MX2
HC30ML2	NC18MD2	SC25MN2	SC50MH2	UC25MD2	UC60MN2
HC30MN2	NC18MDX	SC25MV2	SC50MH3	UC25MH2	UC80MC3
HC30MX2	NC18MX2	SC25MX2	SC50ML2	UC25MN2	UC80MD3
HC30MY2	NC25MD2	SC25MY2	SC50MN2	UC25MV2	UC80MH3
HC35MC2	NC25MDX	SC27MC2	SC50MN3	UC25MX2	UC80MN3
HC35MD2	NC25MX2	SC27MD2	SC50MV2	UC27MC2	UC80MV3

Nameplate Location

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



Replacement Parts

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

Customer Service

For technical assistance, call:

(920) 748-3121
Ripon, Wisconsin U.S.A.

Introduction

Model Number Familiarization Guide	
Sample Model Number: *C60MX20060001	
C	Model Number Prefix
60	Washer-Extractor Capacity (pounds dry weight of laundry)
M	Type of Electrical Control
X	Actuation (X = Prep for coin)
2	Washer-Extractor Speed Capability (2 = 2 speed)
O	Electrical Characteristics
U6	Design Series
0001	Option Identification (varies from machine to machine)

* Denotes Brand

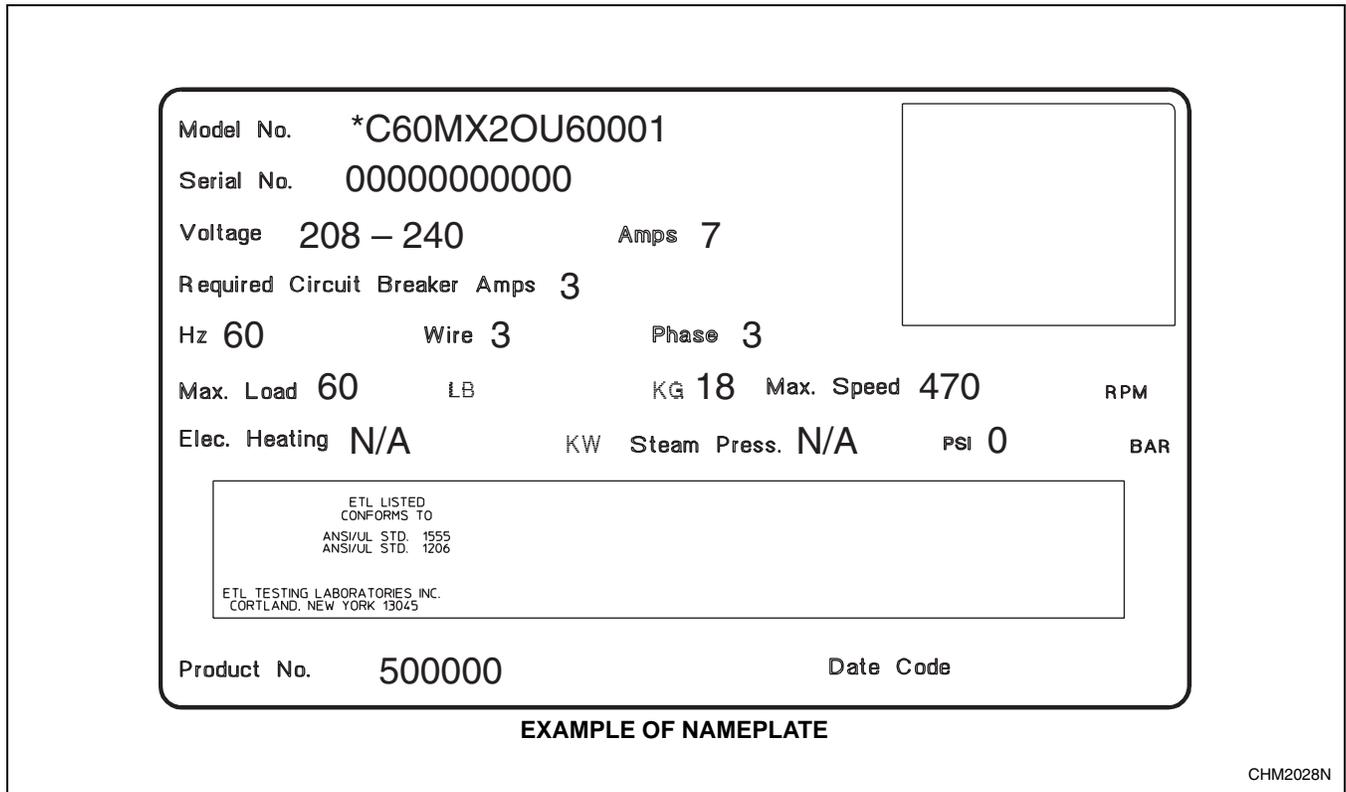


Figure 1

Communications

Central Pay System

(Central Pay System Models Only)

The models are usually designated by the “Prep for Central Pay” option. The control will accept communications with the central pay system in order to perform vending transactions to pay for cycles.

For detailed information on the Central Pay System Communications, refer to the manufacturer.

Card Reader

(Card Reader Models Only)

The models are usually designated by the “Prep for Card Reader” option. The control will accept communications with a Card Reader in order to perform vending transactions when a card is inserted to pay for cycles. The Card Reader can also allow the owner to program and collect audit information.

For detailed information on the Card Reader Communications, refer to the manufacturer.

Operation

Control Panel

Figure 2 shows the control panel for mechanical timer-controlled machines.

The ON indicator light shows when a cycle is started and will stay lit until cycle is complete.

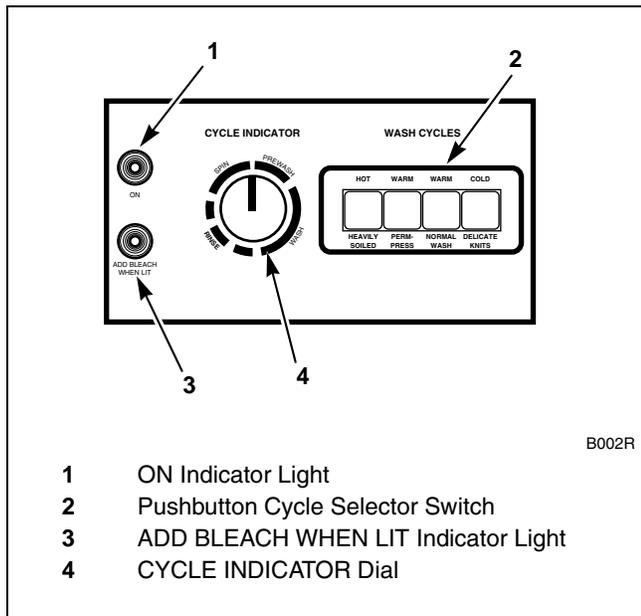


Figure 2

The ADD BLEACH WHEN LIT indicator light indicates, when lit, appropriate time to add bleach.

The CYCLE INDICATOR dial displays current cycle step.

The depressed pushbutton on the cycle selector switch indicates currently selected cycle.

Operating Instructions

1. Turn on the main power source (circuit breaker).
For non-coin models: Turn on the On/Off switch on the front panel to the On position. Refer to Figure 4.
2. Push button and turn handle clockwise to open. Refer to Figure 3.

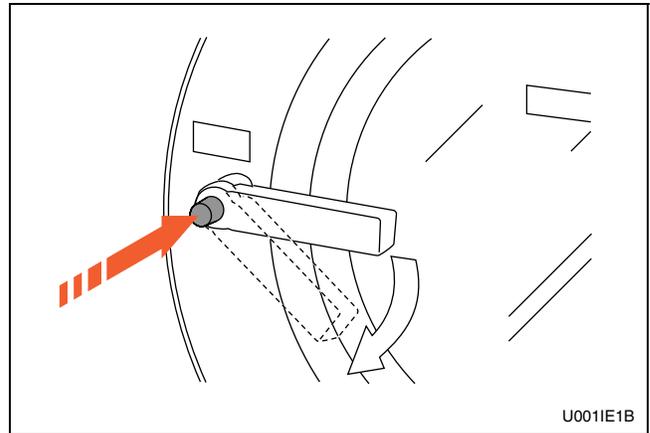


Figure 3

For non-coin models: Press and hold the DOOR UNLOCK button on the left side of the control panel while performing the above step. Refer to Figure 3 and Figure 4.

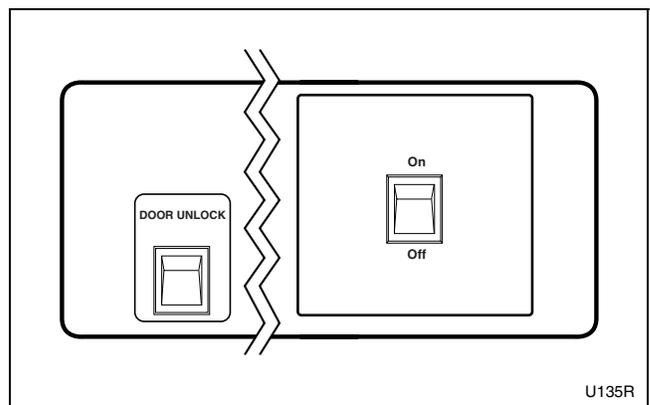


Figure 4

3. Load to capacity whenever possible. DO NOT OVERLOAD. Refer to *Figure 5*.

NOTE: Underloading can cause out-of-balance conditions that can shorten machine life.

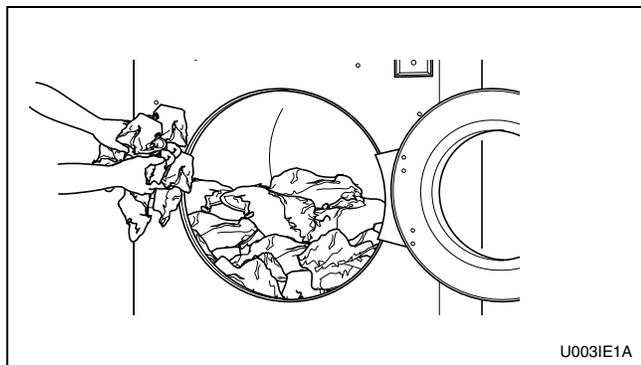


Figure 5

4. Close door and turn handle counterclockwise until button pops out. Refer to *Figure 6*.

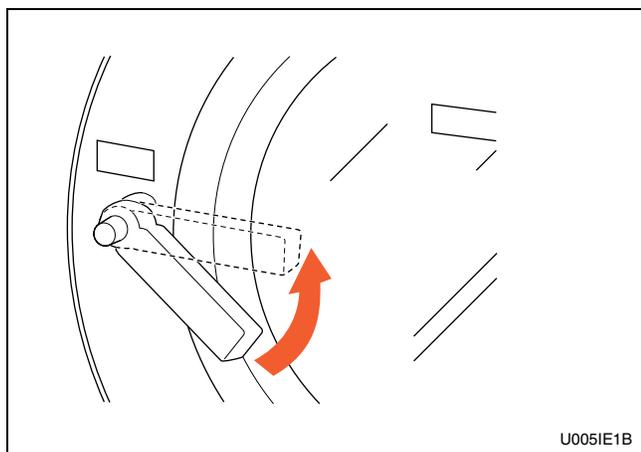


Figure 6

5. Select wash cycle. Refer to *Figure 7*.

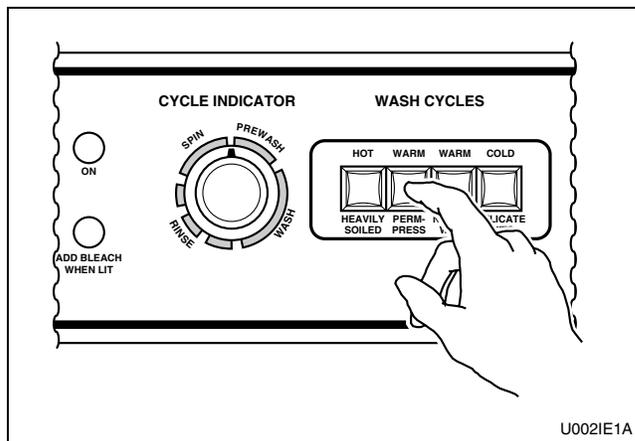


Figure 7

6. At start of cycle, add liquid and/or powder supplies to supply dispenser. Refer to *Figure 8*.
 - a. Add detergent to container 1.
 - b. Add softener to container 3.

For non-coin models: Liquid supplies may be injected directly into the supply dispenser by an external chemical supply dispenser. Refer to Installation and Programming Manuals.

	WARNING
<p>To avoid personal injury, recommended inlet water temperature should be no higher than 125° Fahrenheit (51° Celsius).</p>	
W709	

Operation

7. If the machine is a coin operated unit, insert required number of coins to start machine. Refer to *Figure 8*.
8. If the machine is a card operated unit, insert and remove card. Contact the card reader manufacturer for details.
9. If the machine is interfaced with a central/remote pay console, make payment and select the machine. Contact the pay system manufacturer for more details.

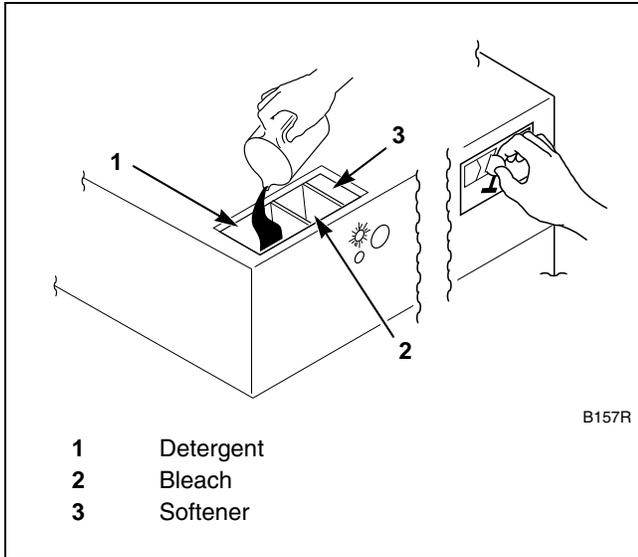


Figure 8

For non-coin models: Press the Start button. Refer to *Figure 9*.

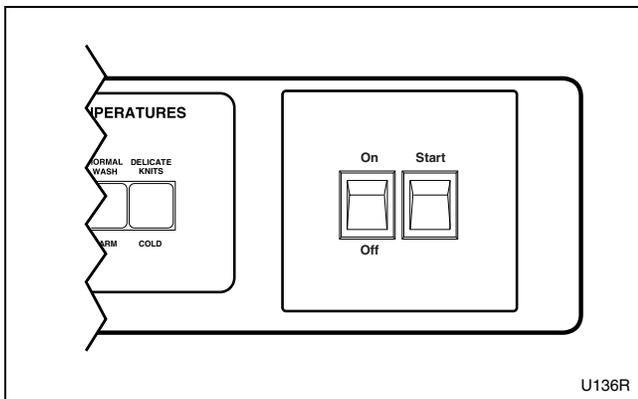


Figure 9

10. Add bleach to container 2 when ADD BLEACH WHEN LIT is illuminated. Refer to *Figure 10*.

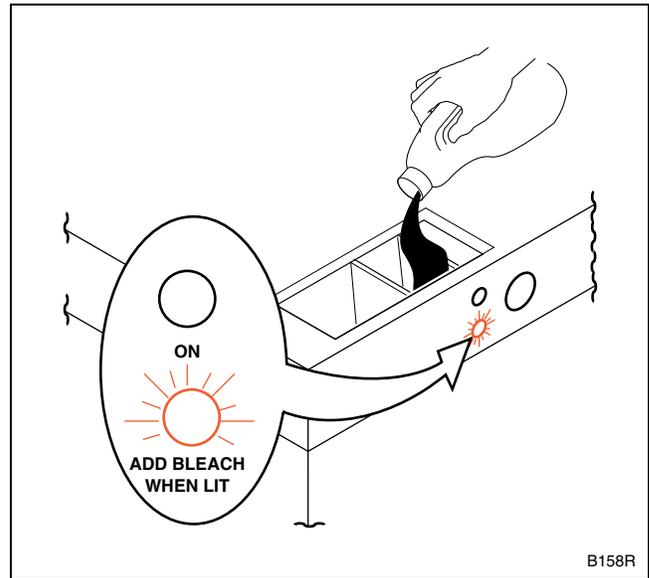


Figure 10

Supply Dispenser

A terminal strip in the input power junction box provides control signals for an external chemical supply system on OPL models.

Supply Signal Output Times (OPL models)

Output	Time
1	Prewash Fill
2	When ADD BLEACH WHEN LIT is illuminated
3	Rinse 3 Fill
4	When ADD BLEACH WHEN LIT is illuminated

Supply Dispenser Flush Times

Container	Time
1	Every Fill
2	Wash Fill
3	Rinse 3 Fill

Mechanical Timer Cycles

Step	Time (Min.)*	Water Level	Program Water Temperature			
			Hot	Warm	Warm	Cold
Prewash	2	High	Warm	Warm	Cold	Cold
Drain	1					
Supply 1						
Wash	4	Low	Hot	Warm	Warm	Cold
Drain	1					
Extract	0.5					
Supply 1						
Supply 2			Cold	Cold	Cold	Cold
Rinse 1	1.5	High	Cold	Cold	Cold	Cold
Drain	1					
Extract	0.5					
Supply 1						
Rinse 2	1.5	High	Cold	Cold	Cold	Cold
Drain	1					
Extract	0.5					
Supply 1						
Rinse 3	1.5	High	Cold	Cold	Cold	Cold
Drain	1					
Extract	4					
Shakeout	0.5					
Supply 1						
Supply 3						

* Cycle times are for the factory-preset jumper configuration. See Programming Manual for information.

Maintenance

	WARNING
<p>Sharp edges can cause personal injury. Wear safety glasses and gloves, use proper tools and provide lighting when handling sheet metal parts.</p>	
<small>W366R1</small>	

IMPORTANT: 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.

Daily

IMPORTANT: Door lock should be checked daily to ensure proper operation. Also check that all safety and instruction labels are on the machine. Any missing or illegible safety instructions labels should be replaced immediately.

Beginning of Day

1. Inspect water inlet valve hose connections on the back of the machine for leaks.
2. Inspect steam hose connections for leaks (where applicable).

3. Check door interlock before starting operation:

- 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.

End of Day

1. Clean the door gasket of residual detergent and all foreign matter.
2. Clean between the door gasket and the door glass with a damp cloth.
3. Clean automatic supply dispenser lid and general area. Flush dispenser with clean water.
4. Clean the machine's top, front and side panels with mild detergent. Thoroughly rinse and dry all surfaces after cleaning them.
5. Leave loading door open at the end of each day to allow moisture to evaporate.

NOTE: Unload the machine promptly *after each completed cycle* to prevent moisture buildup. Leave loading door open *after each completed cycle* to allow moisture to evaporate.

Weekly

1. Check the machine for leaks.
 - a. Start an unloaded cycle to fill the machine.
 - 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 first wash segment, the drain valve is closed and functioning properly.

Monthly

NOTE: Disconnect power to the machine at its source before performing the monthly maintenance procedures.

1. Use the following procedures to determine if V-belt(s) require replacement or adjustment. Call a qualified service technician in either case.
 - a. Check V-belt(s) for uneven wear and frayed edges.
 - b. For groove-pulley drive systems, verify alignment by placing a straightedge across both pulley faces. The straightedge should make contact with the pulleys in four places. Refer to *Figure 11*.

- c. For flat-pulley drive systems, verify allowable distance of belt from edge of pulley. Refer to *Table 1* below.

Flat-Pulley Alignment	
Model	Allowable Distance from Edge
20	.09 in. (2 mm)
25	.09 in. (2 mm)
30	.09 in. (2 mm)
40	.09 in. (2 mm)
50 – 60	.38 in. (10 mm)

Table 1

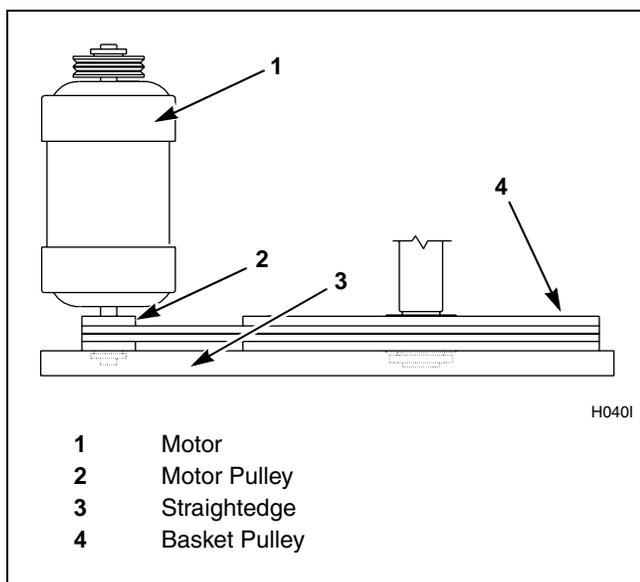


Figure 11

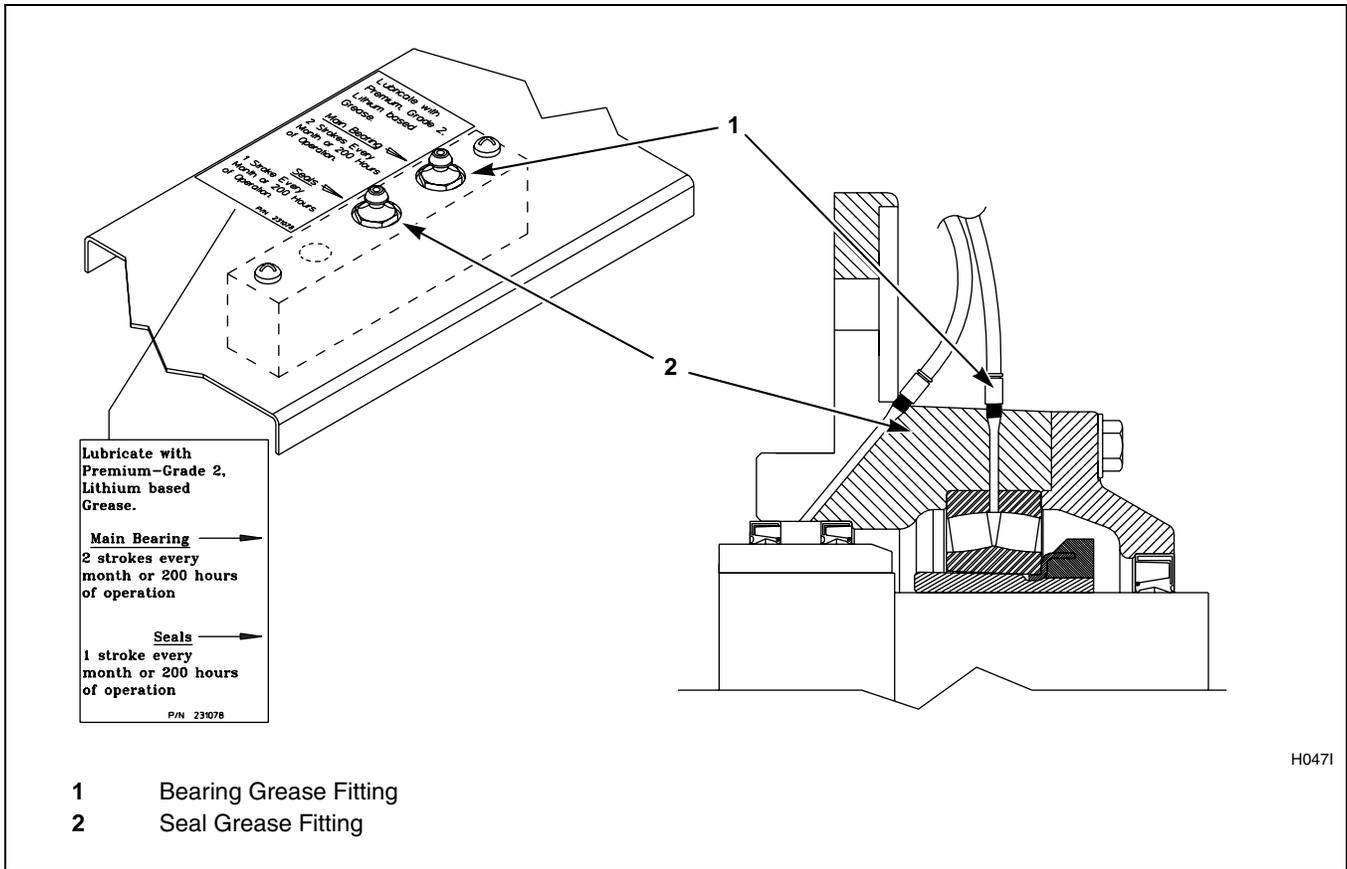


Figure 12

2. **For 80 pound capacity models only**, lubricate bearings and seals each month OR after every 200 hours of operation. Refer to *Figure 12*.
 - a. Use a premium-grade lithium-based #2 grease. Never mix two types of grease, such as petroleum and silicone.
 - b. Pump the grease gun slowly, permitting only the following number of strokes:
 - Bearing grease fitting, 2 strokes
 - Seal grease fitting, 1 stroke

NOTE: Do not pump the grease gun until grease comes out of the bearing housing. This can result in overlubrication, causing damage to bearings and seals.

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. Tighten motor mounting bolt locknuts and bearing bolt locknuts. Check to see that the pin is in place.

7. Use compressed air to clean lint from motor.
8. Clean interior of machine, both basket and shell, by wiping with a water-soaked sponge or cloth.
9. Use compressed air to clean all electrical components of moisture and dust.
10. Verify the insulation is intact on all external wires and that all connections are secure. If bare wire is evident, call a service technician.

Quarterly

NOTE: Disconnect power to the machine at its source before performing the quarterly maintenance procedures.

1. Tighten door hinges and fasteners, if necessary.
2. Using a Teflon-based spray lube, lubricate the door lock by applying the spray to the door lock pin while turning the door handle.
3. Tighten anchor bolts, if necessary.
4. Verify that the drain motor shield is in place and secure, if so equipped.
5. Check all painted surfaces for exposed metal. (Matching 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 and then paint with primer or solvent-based paint.
6. Clean customer-supplied steam filter, where applicable. Refer to *Figure 13*.
 - a. Turn off steam supply and allow time for the valve to cool.
 - b. Unscrew Cap.
 - c. Remove Element and clean.
 - d. Replace Element and Cap.

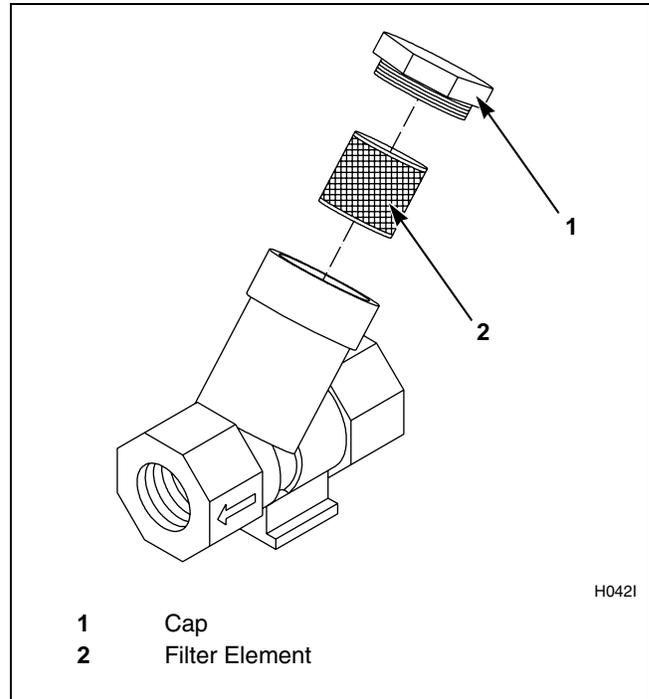


Figure 13

7. Check the bearing mounting bolts to make sure they are torqued properly. Refer to *Table 2* for specifications.

Machine Capacity	Bearing	Torque
18-25	All	75 ft.-lbs.
27-60	All	105 ft.-lbs.
80	Front	200 ft.-lbs.
80	Rear	97 ft.-lbs.

Table 2

Maintenance

Care of Stainless Steel

- Remove dirt and grease with detergent and water. Thoroughly rinse and dry after washing.
- Avoid contact with dissimilar metals to prevent galvanic corrosion when salty or acidic solutions are present.
- Do not allow salty or acidic solutions to evaporate and dry on stainless steel. Wipe clean of any residues.
- Rub in the direction of the polish lines or “grain” of the stainless steel to avoid scratch marks when using abrasive cleaners. Use stainless steel wool or soft, non-metal bristle brushes. Do not use ordinary steel wool or steel brushes.
- Remove discoloration or heat tint from overheating by scouring with a powder or by employing special chemical solutions.
- Do not leave sanitizers or sterilizing solutions on stainless steel equipment for prolonged periods of time.
- When an external chemical supply is used, ensure 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 of the machine. 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 machine.
- 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. Tip: Paint all carbon steel parts with a heavy protective coating. Stainless steel fasteners should be used whenever possible.