

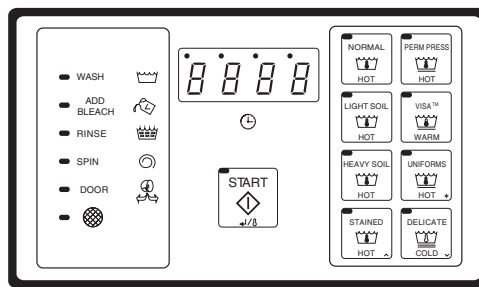
# Washer-Extractors

UW Pocket Hardmount  
B-Series Microcomputer  
2 Speed

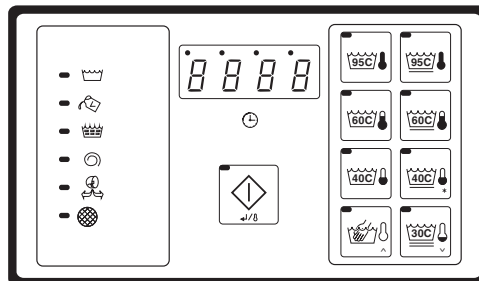
Models UW35B2 and UW60B2

Programming

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



DOMESTIC MODELS



INTERNATIONAL MODELS

PHM1392C



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# Safety Information

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

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

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


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

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

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

**IMPORTANT:** 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. ALWAYS disconnect the washer from electrical supply before attempting any service. Disconnect the power cord by grasping the plug, not the cord.
15. Install the washer according to the installation instructions. All connections for water, drain, electrical power and grounding must comply with local codes and be made by licensed personnel when required.
16. To reduce the risk of fire, textiles which have traces of any flammable substances such as vegetable oil, cooking oil, machine oil, flammable chemicals, thinner, 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.
17. Do not use fabric softeners or products to eliminate static unless recommended by the manufacturer of the fabric softener or product.
18. Keep washer in good condition. Bumping or dropping the washer can damage safety features. If this occurs, have washer checked by a qualified service person.
19. Replace worn power cords and/or loose plugs.
20. Be sure water connections have a shut-off valve and that fill hose connections are tight. CLOSE the shut-off valves at the end of each wash day.
21. Loading door MUST BE CLOSED any time the washer is to fill, tumble or spin. DO NOT bypass the loading door switch by permitting the washer to operate with the loading door open.
22. Always read and follow manufacturer's instructions on packages of laundry and cleaning aids. Heed all warnings or precautions. To reduce the risk of poisoning or chemical burns, keep them out of the reach of children at all times (preferably in a locked cabinet).
23. Always follow the fabric care instructions supplied by the textile manufacturer.
24. Never operate the washer with any guards and/or panels removed.
25. DO NOT operate the washer with missing or broken parts.
26. DO NOT bypass any safety devices.
27. Failure to install, maintain, and/or operate this washer according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

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

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

# Programming

**NOTE: The machines are factory-programmed with basic cycles to make the units operational without programming at the installation.**

## Entering Program Mode

1. Open control compartment lid.
2. Locate Program/Run switch on the computer board. (This is accessed through a cutout in the metal control unit cover.) This switch protrudes from the rear of the electronic control unit cover.
3. Flip switch to the left (as seen from the front of machine) to enter Program Mode.
4. Display will show a temperature.

## Determining Firmware ID Code

1. Turn on the main power source (circuit breaker or cut-off switch on wall).
2. Display will show Firmware ID code (i.e., “o2UC” and “ouUC” etc...).
3. Record Firmware ID Code for future reference.

## Programming

### Setup Mode (For Models With Firmware ID Code “o2HC”, “o2UC”, “ouHC” and “ouUC”)

**NOTE: In Setup Mode, certain machine functions can be configured. The settings in this mode are related to how the machine is equipped from the factory. Usually, these would not be changed in this field.**

**NOTE: Enter Setup Mode through the Program Mode.**

1. Press (\*) key. Display will show “FAr” or “CEL”.

**NOTE: This selects whether temperatures display in degrees Fahrenheit (F) or Celsius (C), if control is equipped with a temperature sensor. Press the (^) or (v) key to change.**

**NOTE: Changing degrees “FAr” or “CEL” only has an effect if the control has a temperature probe connected and/or heat capability.**

2. Press START key.
3. Model will display “HEAt” or “noHt”. Change the selection by pressing the (^) or (v) key.
4. Press START key to continue to the next step.

**NOTE: If set for “HEAt”, the control has heat capability enabled. The washer-extractor MUST have electric or steam heat, and a temperature probe. If display shows “noHt”, or if the message “HEAt” or “noHt” does NOT display, the control does NOT have heat capability.**

5. Certain models will display “EFIL” or “ESUP”. For these models, the control provides a spare output (for certain models). The spare output can be set up to control an extra fill valve (“EFIL”), with the ability to fill to a programmable water level (just as for regular fills), OR the spare output can be set up to control an extra chemical supply signal (“ESUP”).
6. Press START keypad.
7. Certain models display “bBEEP” (control sounds beeper during Add Bleach [Supply 2]) or “nobP” (control does NOT sound beeper during Add Bleach [Supply 2]). Change selection by pressing (^) or (v) keypad.
8. Press START keypad.

**NOTE: If “EFIL” or “ESUP” does NOT display, the extra fill capability is NOT present. If either message does display, change the selection by pressing the (^) or (v) key. Press START key to**

**return to Program Mode. Refer to “Programming Cycle Segments” section for additional information.**

9. “Adv” or “noAd” will display. If “Adv” is set, control will advance to the next step when up arrow keypad is pressed during a regular cycle. If “noAd” is set, control cannot advance during a regular cycle, but can advance during the factory test cycle when up arrow keypad is pressed.
10. Press START (enter) keypad to continue to next step.
11. “PtIM” or “EtIM” will display. “PtIM” means control will not display remaining time in a cycle. “EtIM” means control will display an estimated remaining time for a fill and drain. Press the up or down keypad to change “PtIM”/ “EtIM” selection.
12. Press START (enter) keypad to continue to the next step.

## Cycle and Error Count

1. To read, enter Program Mode. Refer to *Entering Program Mode*.
2. Press START (enter) keypad. Display shows “ErDn” (indicates Drain Error count).
3. Press START (enter) keypad. Display shows a number (2 or 3 digits) showing how many drain errors have occurred. This number can range from ‘00’ to ‘255’, and cannot be set to zero.
4. Press START (enter) keypad. Display shows “ErFL” (indicates Fill Error count).
5. Press START (enter) keypad. Display shows a number (2 or 3 digits) showing how many fill errors have occurred. This number can range from ‘00’ to ‘255’, and cannot be set to zero.
6. Press START (enter) keypad. Display shows “CYC” (indicates Cycle count).
7. Press START (enter) keypad. Displays show a number (up to 4 digits) showing how many complete cycles have been operated. This excludes cycles stopped because of an error.
8. Press START (enter) keypad.
9. If display does not show “E Pr”, control will revert to normal program mode.
10. If display shows “E Pr”, this is for factory reference regarding power interruption. Press START (enter) keypad. A number will display. Press START (enter) keypad. After a brief pause, the control will display normal program mode.



## Setup Mode (For Earlier Models)

**NOTE: In Setup Mode, certain machine functions can be configured. The settings in this mode are related to how the machine is equipped from the factory. Usually, these would not be changed in this field.**

**NOTE: Enter Setup Mode through the Program Mode.**

1. Press (\*) key. Display will show “FAR” or “CEL”.

**NOTE: This selects whether temperatures display in degrees Fahrenheit (F) or Celsius (C), if control is equipped with a temperature sensor. Press the (^) or (v) key to change.**

**NOTE: Changing degrees “FAR” or “CEL” only has an effect if the control has a temperature probe connected and/or heat capability.**

2. Press START key.
3. Model will display “HEAt” or “noHt”. Change the selection by pressing the (^) or (v) key.
4. Press START key to continue to the next step.

**NOTE: If set for “HEAt”, the control has heat capability enabled. The washer-extractor MUST have electric or steam heat, and a temperature probe. If display shows “noHt”, or if the message “HEAt” or “noHt” does NOT display, the control does NOT have heat capability.**

5. Certain models will display “EFIL” or “ESUP”. For these models, the control provides a spare output (for certain models). The spare output can be set up to control an extra fill valve (“EFIL”), with the ability to fill to a programmable water level (just as for regular fills), OR the spare output can be set up to control an extra chemical supply signal (“ESUP”).
6. Press START keypad.
7. Certain models display “bEEP” (control sounds beeper during Add Bleach [Supply 2]) or “nobP” (control does NOT sound beeper during Add Bleach [Supply 2]). Change selection by pressing (^) or (v) keypad.
8. Press START keypad.

**NOTE: If “EFIL” or “ESUP” does NOT display, the extra fill capability is NOT present. If either message does display, change the selection by pressing the (^) or (v) key. Press START key to return to Program Mode. Refer to “Programming Cycle Segments” section for additional information.**

## Cycle and Error Count

The control logs cycle count (total of all cycles completed).

- To read, enter Program Mode.
- Press START (enter) key. Display will show the cycle count.
- Press START (enter) key. Display will show certain error conditions that may have been recorded by the control.
- Read the information when consulting technical assistance as needed.
- Step through the error log by pressing START key repeatedly until display reverts to normal Program Mode (showing a temperature).

## Programming

### Programming Cycle Segments

The machine is preprogrammed with eight wash cycle formulas that can be edited.

To edit any of these cycles, enter Program Mode. In Program Mode, cycles are selected by number (1 through 8) as opposed to the Run Mode, where cycles are selected by pressing one of the eight corresponding keys. The keys must serve different functions in each mode because there are more functions than keys in Program Mode.

In Run Mode the top left key selects Cycle 1, the key directly below it selects Cycle 2, etc. *Figure 1* shows which key selects each cycle in Run Mode.

After entering Program Mode, display will show a temperature. Press the (^) key to enter Cycle Programming Mode. The display will reference cycles by number. Cycle 1 will show first. Use the (^) or (v) key to select cycle to be edited. Press START key to move into the following menu of options (starting at *Table 1*).

**NOTE: While cycle is running, pressing the START keypad shows the temperature. Pressing the START keypad again returns display to time remaining or displays temperature for several seconds, depending on version software.**

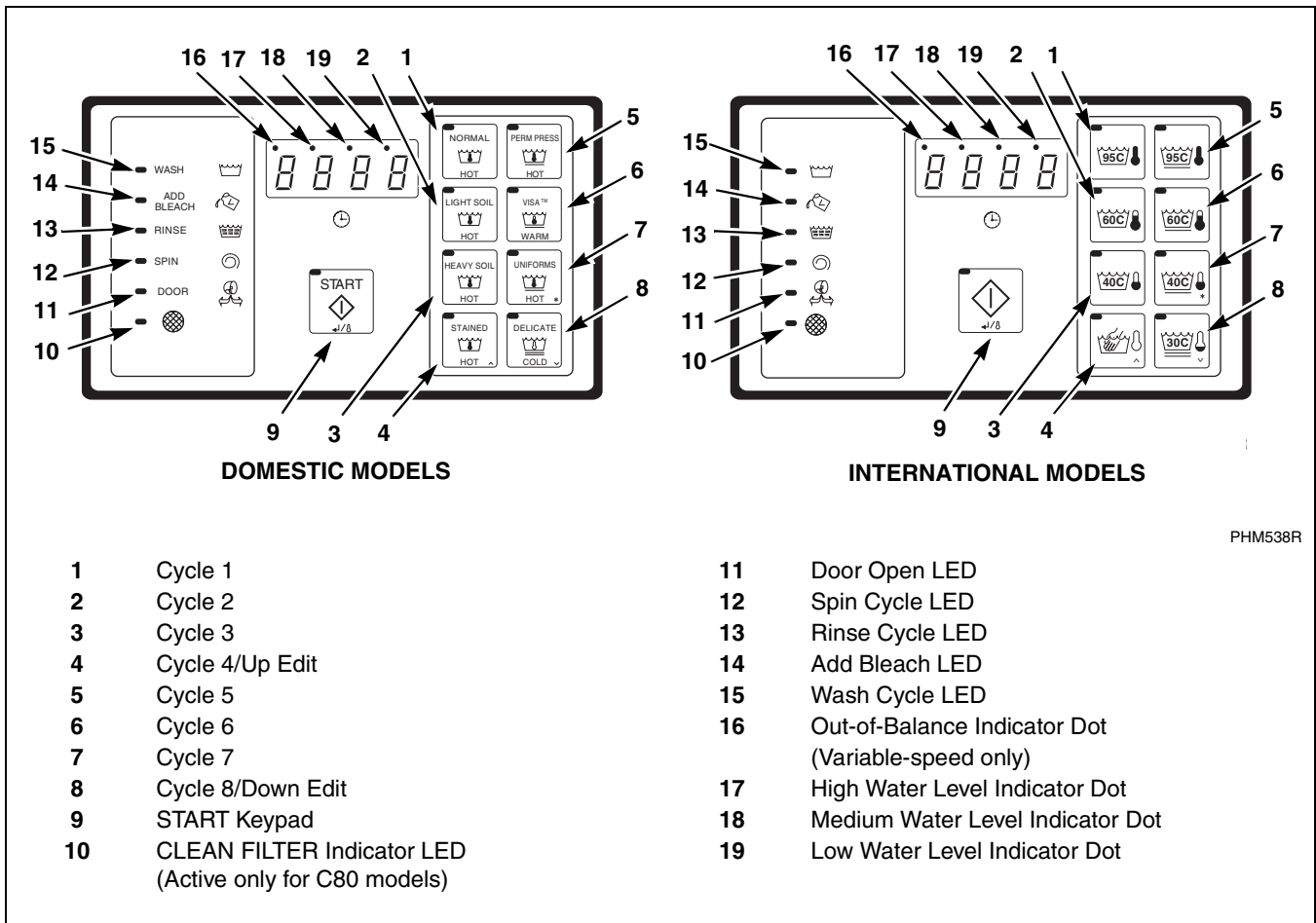


Figure 1

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## Options for Each Segment

Cycle Steps Available (NOTE: WASH, ADD BLEACH, RINSE, and SPIN LEDs light ONLY when a cycle formula is in operation.)	Setting Options for Cycle Steps (Press START key to advance to next row selection, (^) to increase a value or change, (v) to decrease a value or change, or (*) to save and exit.)
Agitation in effect for cycle	Normal† or Gentle†† agitation
<b>Wash 1 (displayed as “USH1”), lights WASH LED (during operation)</b>	
Time for agitation (excludes fill, drain, spin, heat)	0 or 2-30 minutes (one-minute increments)
Fill valves (temperature)	Cold, Hot, Warm (Cold & Hot) or “EFIL”†††
Fill water level control	Low, Medium, or High
Supply	None (0), 1, 2 (liquid bleach††††), 3, 4, 5†††††, 6 (1 and 2 together displays as “SUP6”), or 7††††† (Supply 4 and extra supply 5 together displays as “SUP7”).
Heat (appears ONLY for models with heat capability)	00F (no heat for segment), or 80°F to 205°F 00C (no heat for segment), or 27°C to 95°C
Drain (Select Drain or No Drain. Final segment drains in stop routine if No Drain is programmed.)	Drain or No Drain (if No Drain, skips the spin step which automatically sets that spin time = 0)
Spin time	0 or 30-240 seconds (one-second increments)
<b>Wash 2 (displayed as “USH2”), lights WASH LED (during operation)</b>	
Time for agitation (excludes fill, drain, spin, heat)	0 or 2-20 minutes (one-minute increments)
Fill valves (temperature)	Cold, Hot, Warm (Cold & Hot) or “EFIL”†††
Fill water level	Low, Medium, or High
Supply	None (0), 1, 2 (liquid bleach††††), 3, 4, 5†††††, 6 (1 and 2 together displays as “SUP6”), or 7††††† (Supply 4 and extra supply 5 together displays as “SUP7”).
Heat (appears ONLY for models with heat capability)	00F (no heat for segment), or 80°F to 205°F 00C (no heat for segment), or 27°C to 95°C
Drain (Select Drain or No Drain. Final segment drains in stop routine if No Drain is programmed.)	Drain or No Drain (if No Drain, skips the spin step which automatically sets that spin time = 0)
Spin time	0 or 30-240 seconds (one-second increments)

Table 1 (Continued)

- † Normal Agitation is 12 seconds forward, 3 seconds off, 12 seconds reverse, 3 seconds off, and repeat.
- †† Gentle Agitation is 3 seconds forward, 12 seconds off, 3 seconds reverse, 12 seconds off, and repeat.
- ††† Extra Fill (“EFIL”) possible only if configured for “EFIL” in Setup Mode.

- †††† ADD BLEACH LED lights if Supply 2 is the only supply programmed and if set up for “bEEP” (refer to Setup Mode section). ADD BLEACH LED and Supply 2 signal are on for up to 45 seconds, or until the programmed water level is reached, whichever occurs first. If “bEEP” is enabled, beeper begins beeping when Supply 2 comes on and beeps for 8 seconds.
- ††††† Appears only if “ESUP” (extra supply) configured in Setup Mode.

**Programming**

Table 1 (Continued)

Cycle Steps Available (NOTE: WASH, ADD BLEACH, RINSE, and SPIN LEDs light ONLY when a cycle formula is in operation.)	Setting Options for Cycle Steps (Press START key to advance to next row selection, (^) to increase a value or change, (v) to decrease a value or change, or (*) to save and exit.)
<b>Wash 3 (displayed as “USH3”), lights WASH LED (during operation)</b>	
Time for agitation (excludes fill, heat, drain, spin, heat)	0 or 2-15 minutes (one-minute increments)
Fill valves (temperature)	Cold, Hot, Warm (Cold & Hot) or “EFIL”†††
Fill water level	Low, Medium, or High
Supply	None (0), 1, 2 (liquid bleach††††), 3, 4, 5†††††, 6 (1 and 2 together displays as “SUP6”), or 7††††† (Supply 4 and extra supply 5 together displays as “SUP7”).
Heat (appears ONLY for models with heat capability)	00F (no heat for segment), or 80°F to 205°F 00C (no heat for segment), or 27°C to 95°C
Drain (Select Drain or No Drain. Final segment drains in stop routine if No Drain is programmed.)	Drain or No Drain (if No Drain, skips the spin step which automatically sets that spin time = 0)
Spin time	0 or 30-240 seconds (one-second increments)
<b>Wash 4 (displayed as “USH4”), lights WASH LED (during operation)</b>	
Time for agitation (excludes fill, heat, drain, spin, heat)	0 or 2-15 minutes (one-minute increments)
Fill valves (temperature)	Cold, Hot, Warm (Cold & Hot) or “EFIL”†††
Fill water level	Low, Medium, or High
Supply	None (0), 1, 2 (liquid bleach††††), 3, 4, 5†††††, 6 (1 and 2 together displays as “SUP6”), or 7††††† (Supply 4 and extra supply 5 together displays as “SUP7”).
Heat (appears ONLY for models with heat capability)	00F (no heat for segment), or 80°F to 205°F 00C (no heat for segment), or 27°C to 95°C
Drain (Select Drain or No Drain. Final segment drains in stop routine if No Drain is programmed.)	Drain or No Drain (if No Drain, skips the spin step which automatically sets that spin time = 0)
Spin time	0 or 30-240 seconds (one-second increments)

Table 1 (Continued)

- † Normal Agitation is 12 seconds forward, 3 seconds off, 12 seconds reverse, 3 seconds off, and repeat.
- †† Gentle Agitation is 3 seconds forward, 12 seconds off, 3 seconds reverse, 12 seconds off, and repeat.
- ††† Extra Fill (“EFIL”) possible only if configured for “EFIL” in Setup Mode.
- †††† ADD BLEACH LED lights if Supply 2 is the only supply programmed and if set up for “bEEP” (refer to Setup Mode section). ADD BLEACH LED and Supply 2 signal are on for up to 45 seconds, or until the programmed water level is reached, whichever occurs first. If “bEEP” is enabled, beeper begins beeping when Supply 2 comes on and beeps for 8 seconds.
- ††††† Appears only if “ESUP” (extra supply) configured in Setup Mode.

Table 1 (Continued)

<b>Cycle Steps Available</b> (NOTE: WASH, ADD BLEACH, RINSE, and SPIN LEDs light ONLY when a cycle formula is in operation.)	<b>Setting Options for Cycle Steps</b> (Press START key to advance to next row selection, (^) to increase a value or change, (v) to decrease a value or change, or (*) to save and exit.)
<b>Rinse 1 (displayed as “rn1”), lights RINSE LED (during operation)</b>	
Time for agitation (excludes fill, drain, spin, heat)	0 or 2-15 minutes (one-minute increments)
Fill valves (temperature)	Cold, Hot, Warm (Cold & Hot) or “EFIL”†††
Fill water level	Low, Medium, or High
Supply	None (0), 1, 2 (liquid bleach††††), 3, 4, 5†††††, 6 (1 and 2 together displays as “SUP6”), or 7††††† (Supply 4 and extra supply 5 together displays as “SUP7”).
Heat (appears ONLY for models with heat capability)	00F (no heat for segment), or 80°F to 205°F 00C (no heat for segment), or 27°C to 95°C
Drain (Select Drain or No Drain. Final segment drains in stop routine if No Drain is programmed.)	Drain or No Drain (if No Drain, skips the spin step which automatically sets that spin time = 0)
Spin time	0 or 30-240 seconds (one-second increments)
<b>Rinse 2 (displayed as “rn2”), lights RINSE LED (during operation)</b>	
Time for agitation (excludes fill, drain, spin, heat)	0 or 2-15 minutes (one-minute increments)
Fill valves (temperature)	Cold, Hot, Warm (Cold & Hot) or “EFIL”†††
Fill water level	Low, Medium, or High
Supply	None (0), 1, 2 (liquid bleach††††), 3, 4, 5†††††, 6 (1 and 2 together displays as “SUP6”), or 7††††† (Supply 4 and extra supply 5††††† together displays as “SUP7”).
Heat (appears ONLY for models with heat capability)	00F (no heat for segment), or 80°F to 205°F 00C (no heat for segment), or 27°C to 95°C
Drain (Select Drain or No Drain. Final segment drains in stop routine if No Drain is programmed.)	Drain or No Drain (if No Drain, skips the spin step which automatically sets that spin time = 0)
Spin time	0 or 30-240 seconds (one-second increments)

Table 1 (Continued)

- † Normal Agitation is 12 seconds forward, 3 seconds off, 12 seconds reverse, 3 seconds off, and repeat.
- †† Gentle Agitation is 3 seconds forward, 12 seconds off, 3 seconds reverse, 12 seconds off, and repeat.
- ††† Extra Fill (“EFIL”) possible only if configured for “EFIL” in Setup Mode.
- †††† ADD BLEACH LED lights if Supply 2 is the only supply programmed and if set up for “bEEP” (refer to Setup Mode section). ADD BLEACH LED and Supply 2 signal are on for up to 45 seconds, or until the programmed water level is reached, whichever occurs first. If “bEEP” is enabled, beeper begins beeping when Supply 2 comes on and beeps for 8 seconds.
- ††††† Appears only if “ESUP” (extra supply) configured in Setup Mode.

**Programming**

Table 1 (Continued)

<b>Cycle Steps Available</b> <b>(NOTE: WASH, ADD BLEACH, RINSE, and SPIN LEDs light ONLY when a cycle formula is in operation.)</b>	<b>Setting Options for Cycle Steps</b> <b>(Press START key to advance to next row selection, (^) to increase a value or change, (v) to decrease a value or change, or (*)to save and exit.)</b>
<b>Rinse 3 (displayed as “rln3”), lights RINSE LED (during operation)</b>	
Time for agitation (excludes fill, drain, spin, heat)	0 or 2-15 minutes (one-minute increments)
Fill valves (temperature)	Cold, Hot, Warm (Cold & Hot) or “EFIL”†††
Fill water level	Low, Medium, or High
Supply	None (0), 1, 2 (liquid bleach††††), 3, 4, 5†††††, 6 (1 and 2 together displays as “SUP6”), or 7††††† (Supply 4 and extra supply 5 together displays as “SUP7”).
Heat (appears ONLY for models with heat capability)	00F (no heat for segment), or 80°F to 205°F 00C (no heat for segment), or 27°C to 95°C
Drain (Select Drain or No Drain. Final segment drains in stop routine if No Drain is programmed.)	Drain or No Drain (if No Drain, skips the spin step which automatically sets that spin time = 0)
Spin time	0 or 30-240 seconds (one-second increments)
<b>Rinse 4 (displayed as “rln4”), lights RINSE LED (during operation)</b>	
Time for agitation (excludes fill, heat, drain, spin, heat)	0 or 2-15 minutes (one-minute increments)
Fill valves (temperature)	Cold, Hot, Warm (Cold & Hot) or “EFIL”†††
Fill water level	Low, Medium, or High
Supply	None (0), 1, 2 (liquid bleach††††), 3, 4, 5†††††, 6 (1 and 2 together displays as “SUP6”), or 7††††† (Supply 4 and extra supply 5 together displays as “SUP7”).
Heat (appears ONLY for models with heat capability)	00F (no heat for segment), or 80°F to 205°F 00C (no heat for segment), or 27°C to 95°C
Drain (Select Drain or No Drain. Final segment drains in stop routine if No Drain is programmed.)	Drain or No Drain (if No Drain, skips the spin step which automatically sets that spin time = 0)
Spin time	0 or 1-10 minutes (one-minute increments)

- † Normal Agitation is 12 seconds forward, 3 seconds off, 12 seconds reverse, 3 seconds off, and repeat.
- †† Gentle Agitation is 3 seconds forward, 12 seconds off, 3 seconds reverse, 12 seconds off, and repeat.
- ††† Extra Fill (“EFIL”) possible only if configured for “EFIL” in Setup Mode.

- †††† ADD BLEACH LED lights if Supply 2 is the only supply programmed and if set up for “bEEP” (refer to Setup Mode section). ADD BLEACH LED and Supply 2 signal are on for up to 45 seconds, or until the programmed water level is reached, whichever occurs first. If “bEEP” is enabled, beeper begins beeping when Supply 2 comes on and beeps for 8 seconds.
- ††††† Appears only if “ESUP” (extra supply) configured in Setup Mode.

## To Edit an Entire Wash Cycle Formula

Enter Program Mode. Press the (∧) key until display shows “CY01”.

Press the (∧) or (∨) key until cycle to be edited is displayed; then press START key to select the cycle desired. Refer to *Figure 1*, showing which cycle number corresponds to each key when in Run Mode.

### Agitation for the Cycle

With display showing “CY\_x” (x = cycle number), press the START key. Display shows either “norfl” (for normal agitation), or “GEnt” (for gentle agitation). Press the (∧) or (∨) key to alter the selection, or the START key to continue. Each cycle can be set up for Normal agitation (12 seconds forward, 3 seconds pause, 12 seconds reverse, 3 seconds pause, repeat) or Gentle agitation (3 seconds forward, 12 seconds pause, 3 seconds reverse, 12 seconds pause, repeat).

### Wash 1 – Wash 4

**NOTE: Programming a time other than “00” for Wash 1 will make the WASH indicator LED light while this step is running, but NOT in Program Mode.**

The main display shows “USH1” indicating you are in the Wash segment (number will reflect selected Wash segment 1-4), otherwise wash segments are identical. Press START key. Display shows agitation time during the step: “00” (skips segment) or 2-30 minutes. Wash 2 agitation’s time can be 2-20 minutes, 2-15 minutes for Wash 3 and Wash 4, or “00” to skip Wash 2, Wash 3, or Wash 4. This is the time after the fill and before the drain and does not include spin time or time to first reach a programmed temperature (if your machine is configured for heat). Press the (∧) or (∨) key to alter the selection, or the START key to continue.

Display shows “CFIL”, “HFIL”, “bFIL” (for cold, hot, or warm [both]) or “EFIL”. Press the (∧) or (∨) key to alter the selection, or the START key to continue.

**NOTE: Extra Fill (“EFIL”) possible only if configured for “EFIL” in Setup Mode. If configured, a third fill valve can be controlled.**

Display shows “LO”, “nEd”, or “HI” for low, medium, or high water level, respectively. Press the (∧) or (∨) key to alter the selection, or the START key to continue.

Display shows “SUP0”, “SUP1”, “SUP2”, “SUP3”, “SUP4”, “SUP5” (extra supply), “SUP6”, or “SUP7” (supply 4 and extra supply together), indicating no supply, supply 1, supply 2, supply 3, supply 4, supply 5 (extra supply), supply 6 (supply 1 and 2 together), or supply 7 (supply 4 and extra supply 5 together). Press the (∧) or (∨) key to alter the selection, or the START key to continue.

**NOTE: “SUP5” and “SUP7” appear ONLY if control is configured for “ESUP” (spare output set up to operate as an EXTRA supply signal for external chemical) in Setup Mode. If the alternate function for the spare output is selected (“EFIL”), the output will function as an additional fill valve signal with a programmable water level. In this case, extra supply function would NOT be available.**

**NOTE: If programmed for “SUP2”, the ADD BLEACH indicator LED light turns on and if set up for “bBEEP” (refer to *Setup Mode* section) the buzzer sounds for the first 8 seconds that supply 2 is on.**

Press the (∧) or (∨) key to alter the selection or START key to continue.

The washer-extractor has 5 supply compartments, designated as compartments 1, 2, 3, 4 and 5. Compartment 1 is farthest to the rear of machine. Moving toward the front of machine, compartments are ordered 2, 3, 4 and 5 (at the front of machine). Supply signals 1 through 5 correspond to compartments 1 through 5. Supply signals 1, 2, and 3 have dedicated water valves that flush compartments 1, 2 and 3 (along with the signal being available for external supplies). Supply signal 4 operates a valve that flushes compartment 4. The supply signal is available for external supply connection. This valve is connected so that it also flushes supply compartment 5 when the supply 4 signal is on. For example, if supply 4 signal is programmed, it will flush compartments 4 and 5. Supply 5 is available to operate an external supply.

**NOTE: For additional assistance, refer to installation instructions.**

## Programming

### Heated Models Only

Display shows temperature in degrees F or C. Display will show degrees F if configured for “FAR” in Setup Mode, or degrees C if configured for “CEL” in Setup Mode. Range is 80°F to 205°F, or 00F (no heat for segment), or 27°C to 95°C, or 00C (no heat for segment).

Press the (∧) key to increase, or (∨) key to decrease temperature in one-degree increments. The control will energize heat and pause cycle timing for up to 50 minutes until the programmed temperature is first reached.

**NOTE: If temperature not reached after 50 minutes, control resumes cycle.**

After cycle resumes, control will attempt to maintain programmed temperature if it senses water in the machine.

**NOTE: Temperature display applies ONLY if machine is configured for “HEAT” in Setup Mode. Machine must be equipped with electric or steam heat and a temperature sensor. If configured for “noHt” (no heat capability) in Setup Mode, temperature display does not appear in the segment. After temperature setting, control will skip to “drAI”/“nodr” or Spin Time, depending on version.**

If display shows “drAI”/“nodr” during segment programming, a drain step option can be selected. Select “drAI” for a drain step followed by an optional spin. Select “nodr” for no drain step. The machine will proceed directly to the next segment if “nodr”. Change the selection by pressing the (∧) or (∨) key. Press START to continue.

If “drAI” is selected (or if your model does not provide the option of selecting “drAI”/“nodr”), the display will show “SPIn” one second, “tInE” one second, and then the time for spin: “00” (no spin) or 30-240 seconds. Change the selection by pressing the (∧) or (∨) key. Press START to continue. Then enter the next segment (USH2, USH3, USH4 or after USH4, the “rIN1” segment). Refer to Rinse 1 – Rinse 4 section.

### Rinse 1 – Rinse 4

**NOTE: Programming a time other than “00” for this step will make the RINSE indicator LED light while this step is running, but not in Program Mode.**

The main display shows “rIN1” indicating you are in the Rinse segment (number will represent Rinse cycle selected 1-4). Press START key. Display shows the time for agitation during the step: “00” (skips segment) or 2-15 minutes. This is the time after the fill and before the drain and does not include spin time. Press the (∧) or (∨) key to alter the selection, or the START key to continue.

Display shows “CFIL”, “HFIL”, “bFIL” or “EFIL” for cold, hot, warm (both) or Extra Fill. Press the (∧) or (∨) key to alter the selection, or the START key to continue.

**NOTE: Extra Fill (“EFIL”) possible only if configured for “EFIL” in Setup Mode. If configured, a third valve can be controlled.**

Display shows “LO”, “nEd”, or “HI” for low, medium, or high water level, respectively. Press the (∧) or (∨) key to alter the selection, or the START key to continue.

Display shows “SUP0”, “SUP1”, “SUP2”, “SUP3”, “SUP4”, “SUP5” (extra supply), “SUP6”, or “SUP7” (supply 4 and extra supply together), indicating no supply, supply 1, supply 2, supply 3, supply 4, supply 5 (extra supply), supply 6 (supply 1 and 2 together), or supply 7 (supply 4 and extra supply 5 together). Press the (∧) or (∨) key to alter the selection, or the START key to continue.

**NOTE: “SUP5” and “SUP7” appear ONLY if control is configured for “ESUP” (spare output set up to operate as an EXTRA supply signal for external chemical) in Setup Mode. If the alternate function for the spare output is selected (“EFIL”), the output will function as an additional fill valve signal with a programmable water level. In this case, extra supply function would NOT be available.**

**NOTE: If programmed for “SUP2”, the ADD BLEACH indicator LED light turns on and if set up for “bBEEP” (refer to *Setup Mode* section) the buzzer sounds for the first 8 seconds that supply 2 is on.**

Press the (∧) or (∨) key to alter the selection or START key to continue.



The washer-extractor has 5 supply compartments, designated as compartments 1, 2, 3, 4 and 5. Compartment 1 is farthest to the rear of machine. Moving toward the front of machine, compartments are ordered 2, 3, 4 and 5 (at the front of machine). Supply signals 1 through 5 correspond to compartments 1 through 5. Supply signals 1, 2, and 3 have dedicated water valves that flush compartments 1, 2 and 3 (along with the signal being available for external supplies). Supply signal 4 operates a valve that flushes compartment 4. The supply signal is available for external supply connection. This valve is connected so that it also flushes supply compartment 5 when the supply 4 signal is on. For example, if supply 4 signal is programmed, it will flush compartments 4 and 5. Supply 5 is available to operate an external supply.

**NOTE: For additional assistance, refer to installation instructions.**

### Heated Models Only

Display shows temperature in degrees F or C. Display will show degrees F if configured for “FAR” in Setup Mode, or degrees C if configured for “CEL” in Setup Mode. Range is 80°F to 205°F, or 00F (no heat for segment), or 27°C to 95°C, or 00C (no heat for segment).

Press the (^) key to increase, or (v) key to decrease temperature. Temperature changes in one-degree increments. The control will energize heat and pause cycle timing for up to 50 minutes until the programmed temperature is first reached.

**NOTE: If temperature not reached after 50 minutes, control resumes cycle.**

After cycle resumes, control will attempt to maintain programmed temperature if it senses water in the machine.

**NOTE: Temperature display applies ONLY if machine is configured for “HEAT” in Setup Mode. Machine must be equipped with electric or steam heat and a temperature sensor. If configured for “noHt” (no heat capability) in Setup Mode, temperature display does not appear in the segment. After temperature setting, control will skip to “drAI”/“nodr” or Spin Time, depending on version.**

If display shows “drAI”/“nodr” during segment programming, a drain step option can be selected. Select “drAI” for a drain step followed by an optional spin. Select “nodr” for no drain step. The machine will proceed directly to the next segment if “nodr”. Change the selection by pressing the (^) or (v) key. Press START to continue.

If “drAI” is selected (or if your model does not provide the option of selecting “drAI”/“nodr”), the display will show “SPIn” one second, “tInE” one second, and then the time for spin: “00” (no spin) for 30-240 seconds IF you are in Rinse 1, 2, or 3. If you are in Rinse 4, the time for spin will show 0 or 1-10 minutes. Change the selection by pressing the (^) or (v) key. Press START to continue. Then enter the next segment (rIN2, rIN3, rIN4 or exit if rIN4 is complete).

**IMPORTANT: The spin time in Rinse 4 is programmed in minutes (0-10 minutes, in one-minute increments), while other spins are in seconds to allow for shorter times (such as 45 seconds). (Rinse 4 segment should usually be used as the final rinse, even where there may be fewer than four rinses. Program zero time for preceding rinses you wish to exclude.)**

Display shows a temperature. Exit Program Mode by moving the Program/Run switch back to the left as seen from the front of the machine.

**NOTE: The SPIN indicator LED will automatically light during the wash cycle when the last spin programmed in a cycle is operating (regardless of which segment).**

## Programming

### Abnormal Conditions

#### Door Open During Operation

If the control senses either a momentary or sustained open door while the machine is operating in a wash cycle, the control immediately attempts to halt rotation of the cylinder, and all outputs not required to effect rapid halting of the cylinder rotation de-energize immediately. The message “door” then displays as long as the condition persists. Regardless of the duration of the open door condition, once it is recognized by the control, the control aborts the cycle and goes to the stop routine if the door is closed (otherwise all outputs turn off and display shows “door”).

#### Excessive Fill Time

Fill times exceeding 10 minutes cause the cycle to abort. Display flashes “StOP”/“FILL” or “ErFL” and sounds the buzzer for ten seconds prior to entering the stop routine (display shows “01” minutes remaining while in the stop routine). The Fill Error Count will increase by one. **Refer to *Cycle and Error Count* section.**

#### Door Will Not Open

At the end of a cycle or at power up, before the control will allow the door to unlock, control checks for low, medium or high water level. Control allows the door to unlock only when machine is empty. If any water level is indicated, display shows “FULL” while keeping all outputs off. This condition could indicate a slow drain system or a mechanical blockage of the drain. Contact a qualified service technician about display on control.

#### Excessive Drain Time

If cycle aborts, with display flashing “Erdrn” with buzzer sounding, the machine did not empty after 4 minutes 15 seconds in a drain step.

#### Drain Error (For Models With Firmware ID Code “o2HC”, “o2UC”, “ouHC” and “ouUC”)

If machine has not drained within 4 minutes 15 seconds, display flashes “Erdrn”, time remaining, and beeper beeps. The beeper stops beeping after 30 seconds while display flashes “Erdrn” until machine empties. If machine empties, ending Drain Error condition, display stops flashing, beeper turns off, and remaining cycle time displays as the cycle resumes.

If machine does not empty, display continues flashing “Erdrn”. The drain error counter increases by one.

**Refer to *Cycle and Error Count*.**

### Temperature Probe Sensor Problem

If display shows “tSFL”, “-19c”, or “00F”, the machine has a temperature sensor failure. This could mean the sensor is not connected or the sensor has failed. If replacing the probe does not correct this, consult an authorized service person.

#### Frame Limit Switch Trip

If the display is flashing “baL/door”, the frame limit switch may have tripped during a high speed spin. This may be due to the door momentarily opening during the high speed spin. Contact a qualified service technician if this occurs.

## Rapid Advance (For Models With Firmware ID Code “o2HC”, “o2UC”, “ouHC” and “ouUC”)

**NOTE: Rapid Advance (“Adv”) possible only if configured for “Adv” in Setup mode. Refer to Setup Mode.**

### How to Rapid Advance During All Steps (Except First Fill Step)

1. Make sure Rapid Advance is enabled.
2. Press the advance (^) keypad to advance to desired step.
3. Display will show recalculated time remaining.

### How to Rapid Advance (During First Fill Step)

1. Make sure Rapid Advance is enabled.
2. While machine is filling with water, to advance to the next step, press START (enter) keypad to turn off the ability to change cycles.
3. Press the advance (^) keypad to advance to desired step.
4. Display will show recalculated time remaining.

**NOTE: If control is set up for ‘EtiM’, the remaining cycle time after using Rapid Advance step is calculated as if control was configured for ‘PtiM’. This is because any time estimations following advance would be inaccurate. After the cycle ends, and the advance mode is disabled, the next cycle display remaining cycle time based on the ‘EtiM’ configuration.**

### Agitation Step

Advance the cycle by pressing (^) keypad to skip to the drain step. Filling, supply flushing and other signals turn off. Cycle remaining time is recalculated as the total remaining time after the agitation.

### Drain Step

Advance the cycle by pressing (^) keypad to skip the drain step and the following spin step. The spin step is skipped because the drain step needs to be completed to balance the load. The next step after the spin begins. Cycle remaining is recalculated as the total remaining time after the drain and spin steps.

### Spin Step

Advance the cycle by pressing (^) keypad to skip the spin step. The next programmed step after the spin begins. Cycle remaining is recalculated as the total remaining time after the spin step.

### Test Cycle

The test cycle provides a convenient means of troubleshooting and testing all machine functions quickly.

- Enter Program Mode.
- Press the (v) key. Display shows “tEST”.
- Return the Program/Run switch to the right.
- Press START key. The door locks and the test mode starts.
- Display shows “SPC?”. This is a factory test procedure. Ignore it and the machine will advance into the test cycle after about five seconds.

## Permanent Diagnostic Test Cycle

<b>Control Test</b>	
Warm fill to low water level	Display flashes “bFIL”/“LO” (WASH LED on), no agitation
	<i>Outputs: Motor OFF, Drain closed, hot fill on, cold fill on</i>
Pause after reaching low water level	Display shows “LO” (no flashing), LOW water level dot ON, no agitation (keypad WASH LED on); pauses until operator presses (^) key
	<i>Outputs: Motor OFF, Drain closed</i>
Drain (can advance to next step by pressing (^) key here)	Display shows “drAI”, no agitation (keypad WASH LED on)
	<i>Outputs: Motor OFF, Drain open</i>
Cold fill to medium level	Display flashes “CFIL”/“nEd” (keypad WASH LED on), no agitation.
	<i>Outputs: Motor OFF, Drain closed, cold fill on</i>
Pause after reaching medium water level	Display shows “nEd” (no flashing), LOW and MEDIUM water level dots ON no agitation (keypad WASH LED on); pauses until operator presses (^) key
	<i>Outputs: Motor OFF, Drain closed</i>
Hot fill to high level	Display flashes “HFIL”/“HI” (keypad WASH LED on), no agitation.
	<i>Outputs: Motor OFF, Drain closed, hot fill on</i>
Pause after reaching high water level	Display shows “HI” (no flashing), LOW, MEDIUM, and HIGH water level dots ON, no agitation (keypad WASH LED on); pauses until operator presses (^) key
	<i>Outputs: Motor OFF, Drain closed</i>
Heat to 110°F (45°C) <b>SKIPS THIS STEP</b> if machine does not have heat capability (“noHt” selected in Setup Mode)	Display flashes “HEAt” and the temperature inside the machine while agitating in forward and reverse; continues until temperature reaches 104°F (40°C), then advances to next step. (keypad WASH LED on)
	<i>Outputs: Motor alternates forward 12 seconds, off 3, reverse 12 seconds, off 3 seconds and repeats; Drain closed; Heat ON UNTIL 104°F (40°C) reached</i>
Extra supply / fill spare – 5 seconds (depends on setup)	Display flashes ‘ESUP’ / ‘EFIL’ (keypad WASH LED on)
	<i>Outputs: Motor alternates forward 12 seconds, off 3, reverse 12 seconds, off 3 seconds and repeats; Drain closed; ‘AF’ output ON.</i>
Supply 1: 5 seconds (Heat signal also on (IF at least low water level – verifies output even if not heated model)	Display shows ‘SUP1’ (keypad WASH LED on)
	<i>Outputs: Motor alternates forward 12 seconds, off 3, reverse 12 seconds, off 3 seconds and repeats; Drain closed; Supply 1 ON, HT ON, cold fill ON</i>
Supply 2: 5 seconds (Heat on also)	Display shows ‘SUP2’ (keypad ADD BLEACH LED on)
	<i>Outputs: Motor alternates forward 12 seconds, off 3, reverse 12 seconds, off 3 seconds and repeats; Drain closed; Supply 2 ON, HT ON, cold fill ON</i>
Supply 3: 5 seconds (Heat on also)	Display shows ‘SUP3’ (keypad RINSE LED on)
	<i>Outputs: Motor alternates forward 12 seconds, off 3, reverse 12 seconds, off 3 seconds and repeats; Drain closed; Supply 3 ON, HT ON, cold fill ON</i>
Supply 4: 5 seconds	Display shows ‘SUP4’ (keypad RINSE LED on)
	<i>Outputs: Motor alternates forward 12 seconds, off 3, reverse 12 seconds, off 3 seconds and repeats; Drain closed; Supply 4 ON, cold fill ON</i>
Pause 5 seconds, then Forward wash speed – 60 seconds	Display shows ‘For’
	<i>Outputs: Motor operates wash speed forward; drain closed</i>

Table 2 (Continued)

Table 2 (Continued)

Pause 5 seconds, then Reverse wash speed – 60 seconds, pause several seconds before entering drain (next step)	Display shows ‘rEv’
	<i>Outputs: Motor operates wash speed reverse; drain closed</i>
Drain (cannot advance to spin here)	For 2 speed models: Display flashes “drAI”/“For” (keypad RINSE LED on) For variable-speed models: Display flashes “drAI”/“For” while operating in low speed forward; then flashes “drAI”/“dISt” while operating at distribution speed. If balance fails, repeats the “drAI”/“For” then “drAI”/“dISt” sequence above and balance indicator is on during “drAI”/“For” message (rebalance attempt). Tries up to 10 times in TEST cycle, then aborts test cycle.
	<i>Outputs: Drain closed for first part of step (less than 20 seconds), then drain off. 2 speed models: Wash speed forward Variable-speed: Forward during “drAI”/“For”; distribution during “drAI”/“dISt”.</i>
Spin: 3 minutes	For 2 speed models: display shows “SPIn” (keypad SPIN LED on) For variable-speed models: display shows “HI 1” (keypad SPIN LED on)
	<i>Outputs: Spin (low spin for variable-speed – refer to motor chart below)</i>
Highest Spin speed (variable-speed models ONLY): 2 minutes	For 2 speed models: this step is skipped, goes to coast (the next step) For variable-speed models: display shows “HI 2” (keypad SPIN LED on)
	<i>Outputs: Highest spin speed selected (refer to motor chart below)</i>
Coast	Displays “SdLY” (spin delay coast)
	<i>Outputs: All off</i>
Stop routine	Display shows “01” (1 minute remaining). Agitates briefly then unlocks the door, shows “doNE” while sounding the buzzer 10 seconds; “doNE” shows until door is opened (DOOR LED on while showing “doNE”, meaning “door ready to open”).

**NOTE: ON appears ONLY where motor control outputs are on (otherwise they are off). Outputs referenced are on control unit fuse board. Outputs are as labeled on the fuse board.**

Motor Speed Chart			
	2 Speed Motor Outputs		
	Fwd	Rev	Spin
Motor off (no rotation)			
Wash speed forward	ON		
Wash speed reverse		ON	
Distribution (variable-speed ONLY)	NA	NA	NA
Spin (low spin speed “HI 1” for variable-speed)			ON
Highest spin (“HI 2” – variable-speed ONLY)	NA	NA	NA

NA – Not Applicable

**Programming**

**Cycle Charts for Domestic OPL Models Built After April 2005  
(Displays P-F5)**

Displays P-F5 after power is applied to machine when START (enter) keypad is pressed while display shows “- - -”.

<b>Cycle Steps</b>	<b>Normal Hot</b>	<b>Light Soil Hot</b>	<b>Heavy Soil Hot</b>	<b>Stained Hot</b>	<b>Perm Press Hot</b>	<b>Visa® Warm</b>	<b>Uniforms</b>	<b>Delicate Cold</b>
Cycle reference (display in program mode)	CY01	CY02	CY03	CY04	CY05	CY06	CY07	CY08
Agitation in effect for cycle	12/3/12 Normal	12/3/12 Normal	12/3/12 Normal	12/3/12 Normal	12/3/12 Normal	12/3/12 Normal	12/3/12 Normal	3/12/3 Gentle
Wash 1 (WASH indicator)								
Time for agitation (min)	6	6	2	10	7	2	2	5
Fill valves (temperature)	Hot	Hot	Warm (Both)	Hot	Hot	Warm (Both)	Warm (Both)	Cold
Fill water level	Low	Low	High	Low	Low	High	High	High
Supply	1	1	0	1 & 2	1	0	1	1
Heat (if enabled)	0	0	0	0	0	0	0	0
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spin (only if 'drain') seconds	0	0	0	0	0	0	0	0
Wash 2 (WASH indicator)								
Time for agitation	6		7	10	4	12	6	
Fill valves (temperature)	Hot		Hot	Hot	Hot	Warm (Both)	Warm (Both)	
Fill water level	Low		Low	Low	High	Low	High	
Supply	2		1	1 & 2	2	1	0	
Heat (if enabled)	0		0	0	0	0	0	
Drain	Yes		Yes	Yes	Yes	Yes	Yes	
Spin (only if 'drain') seconds	0		0	0	0	0	0	
Wash 3 (WASH indicator)								
Time for agitation			7			7		
Fill valves (temperature)			Hot			Warm (Both)		
Fill water level			Low			Low		
Supply			2			2		
Heat (if enabled)			0			0		
Drain			Yes			Yes		
Spin (only if 'drain') seconds			0			0		

Table 3 (Continued)

Table 3 (Continued)

Cycle Steps	Normal Hot	Light Soil Hot	Heavy Soil Hot	Stained Hot	Perm Press Hot	Visa® Warm	Uniforms	Delicate Cold
Wash 4 (WASH indicator)								
Time for agitation								
Fill valves (temperature)								
Fill water level								
Supply								
Heat (if enabled)								
Drain								
Spin (only if 'drain') seconds								
Rinse 1 (RINSE indicator)								
Time for agitation	2	2	2	2	4	2	2	2
Fill valves (temperature)	Hot	Warm (Both)	Hot	Warm (Both)	Hot	Warm (Both)	Warm (Both)	Cold
Fill water level	High	High	High	High	High	High	High	High
Supply	0	0	0	0	0	0	0	0
Heat (if enabled)	0	0	0	0	0	0	0	0
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spin (only if 'drain') seconds	0	0	0	0	0	0	0	0
Rinse 2 (RINSE indicator)								
Time for agitation	2	2	2	2	2	2	2	2
Fill valves (temperature)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Cold
Fill water level	High	High	High	High	High	High	High	High
Supply	0	0	0	0	0	0	0	0
Heat (if enabled)	0	0	0	0	0	0	0	0
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spin (only if 'drain') seconds	60	60	60	60	60	60	60	0
Rinse 3 (RINSE indicator)								
Time for agitation (min)								
Fill valves (temperature)								
Fill water level								
Supply								
Heat (if enabled)								
Drain								
Spin (only if 'drain') seconds								

Table 3 (Continued)

## Programming

Table 3 (Continued)

<b>Cycle Steps</b>	<b>Normal Hot</b>	<b>Light Soil Hot</b>	<b>Heavy Soil Hot</b>	<b>Stained Hot</b>	<b>Perm Press Hot</b>	<b>Visa® Warm</b>	<b>Uniforms</b>	<b>Delicate Cold</b>
Rinse 4 (RINSE indicator)								
Time for agitation	4	4	4	4	4	4	4	2
Fill valves (temperature)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Cold
Fill water level	Low	Low	Low	Low	Low	Low	Low	Low
Supply	3	3	3	3	3	3	3	3
Heat (if enabled)	0	0	0	0	0	0	0	0
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spin (only if 'drain') minutes	6	6	6	6	4	4	4	4



## Cycle Charts for Domestic OPL Models Built Prior to April 2005 (Displays P-F1)

Displays P-F1 after power is applied to machine when START (enter) keypad is pressed while display shows “- - -”.

Cycle Steps	Normal Hot	Light Soil Hot	Heavy Soil Hot	Stained Hot	Perm Press Hot	Visa® Warm	Uniforms	Delicate Cold
Cycle reference (display in program mode)	CY01	CY02	CY03	CY04	CY05	CY06	CY07	CY08
Agitation in effect for cycle	12/3/12 Normal	12/3/12 Normal	12/3/12 Normal	12/3/12 Normal	12/3/12 Normal	12/3/12 Normal	12/3/12 Normal	3/12/3 Gentle
Wash 1 (WASH indicator)								
Time for agitation (min)	2	7	2	4	7	2	2	5
Fill valves (temperature)	Both	Both	Both	Cold	Hot	Both	Both	Cold
Fill water level	High	Low	High	Med	Low	High	High	High
Supply	0	2	0	1	2	0	0	1
Heat (if enabled)	0	0	0	0	0	0	0	0
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spin (only if 'drain') seconds	0	0	0	0	0	0	0	0
Wash 2 (WASH indicator)								
Time for agitation	7	2	7	9	2	7	7	
Fill valves (temperature)	Hot	Hot	Hot	Hot	Hot	Both	Hot	
Fill water level	Low	High	Low	Low	High	Low	Low	
Supply	2	0	1	1	0	1	2	
Heat (if enabled)	0	0	0	0	0	0	0	
Drain	No	Yes	Yes	Yes	Yes	Yes	Yes	
Spin (only if 'drain') seconds	0	0	0	0	0	0	0	
Wash 3 (WASH indicator)								
Time for agitation	2		6	9		7		
Fill valves (temperature)	Hot		Hot	Hot		Both		
Fill water level	High		Low	Low		Low		
Supply	0		2	2		2		
Heat (if enabled)	0		0	0		2		
Drain	Yes		No	No		No		
Spin (only if 'drain') seconds	0		0	0		0		

Table 4

## Programming

Table 4 (Continued)

Cycle Steps	Normal Hot	Light Soil Hot	Heavy Soil Hot	Stained Hot	Perm Press Hot	Visa® Warm	Uniforms	Delicate Cold
Wash 4 (WASH indicator)								
Time for agitation			2	4		2		
Fill valves (temperature)			Hot	Hot		Both		
Fill water level			High	High		High		
Supply			0	0		0		
Heat (if enabled)			0	0		0		
Drain			Yes	Yes		Yes		
Spin (only if 'drain') seconds			0	0		0		
Rinse 1 (RINSE indicator)								
Time for agitation	4	4	4	4	4	2	4	
Fill valves (temperature)	Hot	Hot	Hot	Hot	Hot	Both	Both	
Fill water level	High	High	High	High	High	High	High	
Supply	0	0	0	0	0	0	0	
Heat (if enabled)	0	0	0	0	0	0	0	
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Spin (only if 'drain') seconds	0	0	0	0	0	0	0	
Rinse 2 (RINSE indicator)								
Time for agitation	2	2	2	2	2	2	2	2
Fill valves (temperature)	Both	Both	Both	Both	Both	Both	Both	Cold
Fill water level	High	High	Med	Med	High	High	High	High
Supply	0	0	0	0	0	0	0	0
Heat (if enabled)	0	0	0	0	0	0	0	0
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spin (only if 'drain') seconds	60	60	60	0	60	60	60	60
Agitation in effect for cycle								
Rinse 3 (RINSE indicator)								
Time for agitation (min)				2				
Fill valves (temperature)				Both				
Fill water level				Med				
Supply				0				
Heat (if enabled)				0				
Drain				Yes				
Spin (only if 'drain') seconds				60				

Table 4 (Continued)

Table 4 (Continued)

<b>Cycle Steps</b>	<b>Normal Hot</b>	<b>Light Soil Hot</b>	<b>Heavy Soil Hot</b>	<b>Stained Hot</b>	<b>Perm Press Hot</b>	<b>Visa® Warm</b>	<b>Uniforms</b>	<b>Delicate Cold</b>
Rinse 4 (RINSE indicator)								
Time for agitation	4	4	3	3	4	4	4	2
Fill valves (temperature)	Both	Both	Both	Both	Both	Both	Both	Cold
Fill water level	Low	Low	Low	Low	Low	Low	Low	High
Supply	3	3	3	3	3	0	3	3
Heat (if enabled)	0	0	0	0	0	0	0	0
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spin (only if 'drain') minutes	6	6	6	6	4	3	4	4

**Programming**

**Cycle Charts for International OPL**

<b>Cycle Steps</b>	<b>Normal 95°C</b>	<b>Normal 60°C</b>	<b>Normal 40°C</b>	<b>Gentle Cold</b>	<b>Perm Press 95°C</b>	<b>Perm Press 60°C</b>	<b>Perm Press 40°C</b>	<b>Gentle 30°C</b>
Agitation in effect for cycle	12/3/12 Normal	12/3/12 Normal	12/3/12 Normal	3/12/3 Gentle	12/3/12 Normal	12/3/12 Normal	3/12/3 Gentle	3/12/3 Gentle
Wash 1 (WASH indicator)								
Time for agitation (min)	2	2	2	2	2	2	2	2
Fill valves (temperature)	Both	Both	Both	Cold	Both	Both	Both	Cold
Fill water level	Low	Low	Low	High	Low	Low	Low	High
Supply	1	1	1	1	1	1	1	1
Heat (if enabled)	40c	40c	40c	0	40c	40c	40c	0
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spin (only if 'drain') seconds	0	0	0	0	0	0	0	0
Wash 2 (WASH indicator)								
Time for agitation	6	6	6		6	6	6	3
Fill valves (temperature)	Hot	Both	Both		Hot	Both	Both	Cold
Fill water level	Low	Low	Low		Low	Low	Low	High
Supply	2	2	2		2	2	2	2
Heat (if enabled)	95c	60c	40c		95c	60c	40c	30c
Drain	No	No	No		No	No	No	Yes
Spin (only if 'drain') seconds	0	0	0		0	0	0	0
Wash 3 (WASH indicator)								
Time for agitation	2	2	2		2	2	2	
Fill valves (temperature)	Cold	Cold	Cold		Cold	Cold	Cold	
Fill water level	High	High	High		High	High	High	
Supply	0	0	0		0	0	0	
Heat (if enabled)	No	No	No		No	No	No	
Drain	Yes	Yes	Yes		Yes	Yes	Yes	
Spin (only if 'drain') seconds	0	0	0		0	0	0	

Table 5 (Continued)

Table 5 (Continued)

Cycle Steps	Normal 95°C	Normal 60°C	Normal 40°C	Gentle Cold	Perm Press 95°C	Perm Press 60°C	Perm Press 40°C	Gentle 30°C
Wash 4 (WASH indicator)								
Time for agitation								
Fill valves (temperature)								
Fill water level								
Supply								
Heat								
Drain								
Spin (only if 'drain') seconds								
Rinse 1 (RINSE indicator)								
Time for agitation								
Fill valves (temperature)								
Fill water level								
Supply								
Heat								
Drain								
Spin (only if 'drain') seconds								
Rinse 2 (RINSE indicator)								
Time for agitation	2	2	2		2	2	2	2
Fill valves (temperature)	Cold	Cold	Cold		Cold	Cold	Cold	Cold
Fill water level	High	High	High		High	High	High	High
Supply	0	0	0		0	0	0	0
Heat								
Drain	Yes	Yes	Yes		Yes	Yes	Yes	Yes
Spin (only if 'drain') seconds	0	0	0		0	0	0	0

Table 5 (Continued)

## Programming

Table 5 (Continued)

Cycle Steps	Normal 95°C	Normal 60°C	Normal 40°C	Gentle Cold	Perm Press 95°C	Perm Press 60°C	Perm Press 40°C	Gentle 30°C
Rinse 3 (RINSE indicator)								
Time for agitation (min)	2	2	2	2	2	2	2	2
Fill valves (temperature)	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold
Fill water level	High	High	High	High	High	High	High	High
Supply	0	0	0	0	0	0	0	0
Heat (if enabled)	No	No	No	No	No	No	No	No
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spin (only if 'drain') seconds	60	60	60	60	60	60	60	60
Rinse 4 (RINSE indicator)								
Time for agitation	3	3	3	3	3	3	3	3
Fill valves (temperature)	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold
Fill water level	High	High	High	High	High	High	High	High
Supply	3	3	3	3	3	3	3	3
Heat (if enabled)	No	No	No	No	No	No	No	No
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spin (only if 'drain') minutes	5	5	5	2	3	3	3	2
Approximate Total Minutes (Fills, drains each average ~ 1 minute, rounded to nearest minute) (*)	37	37	37	18	35	35	35	27

(\*) Heat time not included. Exact times may differ slightly.