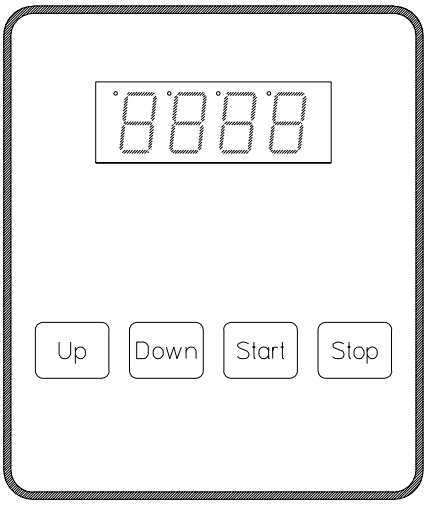
Washer-Extractors

Pocket Hardmount

Variable-Speed
V-Series Microcomputer

Refer to Page 9 for Model Identifiction

Programming



PHM199R

Keep These Instructions for Future Reference.
(If this machine changes ownership, this manual must accompany machine.)

Alliance Laundry Systems

www.comlaundry.com

Part No. F232182R1
March 2006

Table of Contents

Safety

Anyone operating or servicing this machine must follow the safety rules in this manual. Particular attention must be paid to the **CAUTION**, **WARNING**, and **DANGER** blocks which appear throughout the manual.

CAUTION

Be careful around the open door, particularly when loading from a level below the door. Impact with door edges can cause personal injury.

SW025

WARNING

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

SW005

The following warnings are general examples that apply to this machine. Warnings specific to a particular operation will appear in the manual with the discussion of that operation.

DANGER

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

SW001

WARNING

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.

SW004

CAUTION

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.

SW020

WARNING

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

SW014

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.

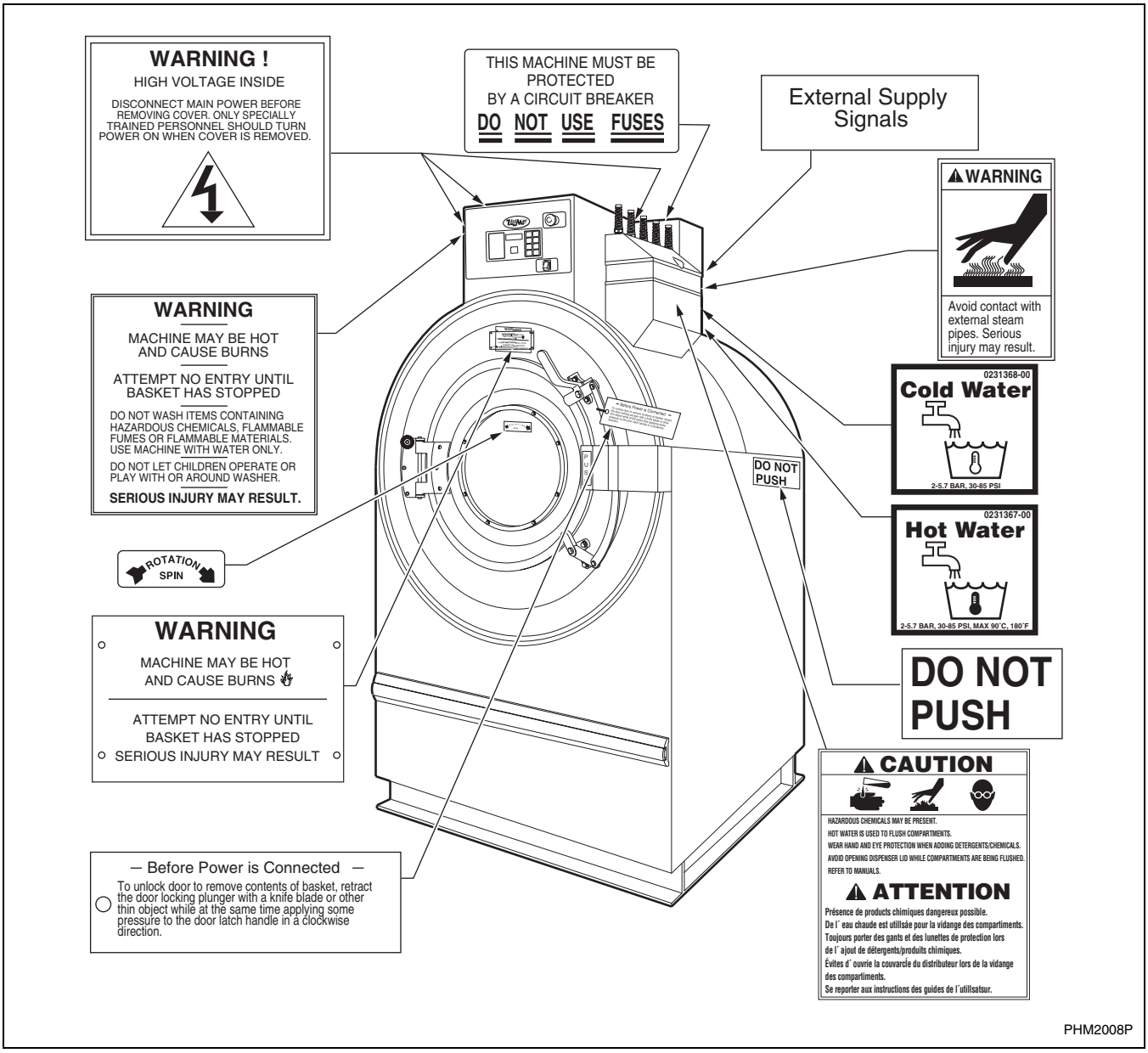


Figure 1

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.

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

Use factory-authorized spare parts to avoid safety hazards.

Operator Safety

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 factory immediately.

Environmental Conditions

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

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

  Water pressure switches are affected by increases and decreases in temperature. Every 25°F (10°C) change in temperature will have a 1% effect on the water level.
- *Humidity.* Relative humidity above 90% may cause the machine's electronics or motors to malfunction or may trip the ground fault interrupter. Corrosion problems may occur on some metal components in the machine.

  If the relative humidity is below 30%, belts and rubber hoses may eventually develop dry rot. This condition can result in hose leaks, which may cause safety hazards external to the machine in conjunction with adjacent electrical equipment.
- *Ventilation*. The need for make-up air openings for such laundry room accessories as dryers, ironers, or water heaters 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 meters) above sea level, pay special attention to water levels and electronic settings (particularly temperature) or desired results may not be achieved.
- *Chemicals*. Keep stainless steel surfaces free of chemical residues.

DANGER

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, naptha, etc. Doing so could result in serious personal injury and/or damage to the machine.

SW002

- *Water Damage*. Do not spray the machine with water. Short circuiting and serious damage may result.

Machine Location

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

  This is especially important in connection with machines equipped with an AC inverter drive.

Consult installation instructions for specific details.

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

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.
- *Compressed Air.* For machines requiring compressed air service, best performance will be realized if air is provided at a pressure of 80 – 100 psi (5.4 – 6.7 bar).
- *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

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.

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.

AC Inverter Drive

Machines equipped with the AC inverter drive require special attention with regard to the operating environment.

- An especially dusty or linty environment will require more frequent cleaning of the AC inverter drive cooling fan filter and of the AC inverter drive itself.
- Power line fluctuations from sources such as uninterruptible power supplies (UPS) can adversely affect machines equipped with the AC inverter drive. Proper suppression devices should be utilized on the incoming power to the machine to avoid problems.
- A clean power supply free from voltage spikes and surges is absolutely essential for machines equipped with the AC inverter drive. Nonlinear inconsistencies (peaks and valleys) in the power supply can cause the AC inverter drive to generate nuisance errors.

  If voltage is above 240 Volt for 200 Volt installations or above 480 Volt for 400 Volt installations, a buckboost transformer is required.
- Sufficient space to perform service procedures and routine preventive maintenance is especially important for machines equipped with the AC inverter drive.

Misuse

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

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

Introduction

Model Identification

Information in this manual is applicable to these models:

UW35VV*
UW60VV*
UW80VV*
UW100VV*
UW125VV*

* This manual appliesto models with U7 or U8 in the 8th and 9th or 9th and 10th positions in the model number (e.g., UW60VVXU70001).

This manual is designed as a guide to programming the pocket hardmount washer-extractor equipped with the V-computer and AC inverter drive.

The manuals, installation instructions, and wiring diagrams which accompany the machine have been included with the machine at no charge. Additional copies are available at a nominal charge.

NOTE: Read this manual thoroughly before attempting to program the microcomputer.

NOTE: Do not use this manual in conjunction with earlier model computer-controlled machines. Do not use technical literature intended for earlier models when operating this machine.

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

Customer Service

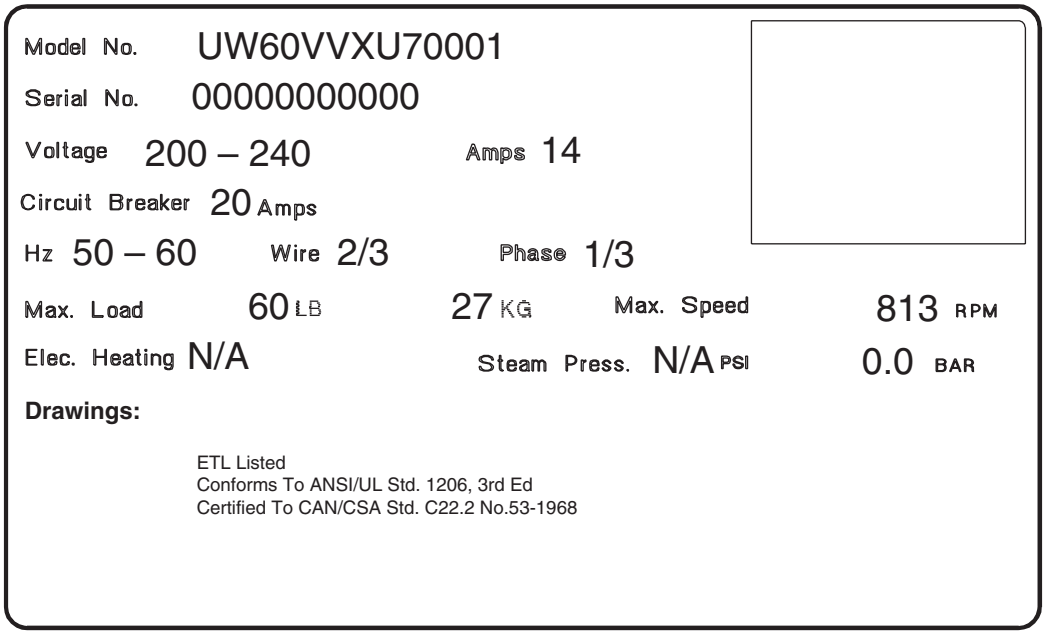
If literature or replacement parts are required, contact the source from which the machine was purchased or contact Alliance Laundry Systems LLC at (920) 748-3950 for the name and address of the nearest authorized parts distributor.

For technical assistance, call any of the following numbers:

(920) 748-3121
Ripon, Wisconsin
www.comlaundry.com

A record of each machine is on file with the manufacturer. Always provide the machine's serial number and model number when ordering parts or when seeking technical assistance.

Model Number Familiarization Guide	
Sample Model Number: **UW60VVXU70001**	
UW	Model Number Prefix
60	Washer-Extractor Capacity (pounds dry weight of laundry)
V	Type of Electrical Control
V	Washer-Extractor Speed Capabilities
X	Electrical Characteristics
7	Design Series
0001	Option Identification (varies from machine to machine)



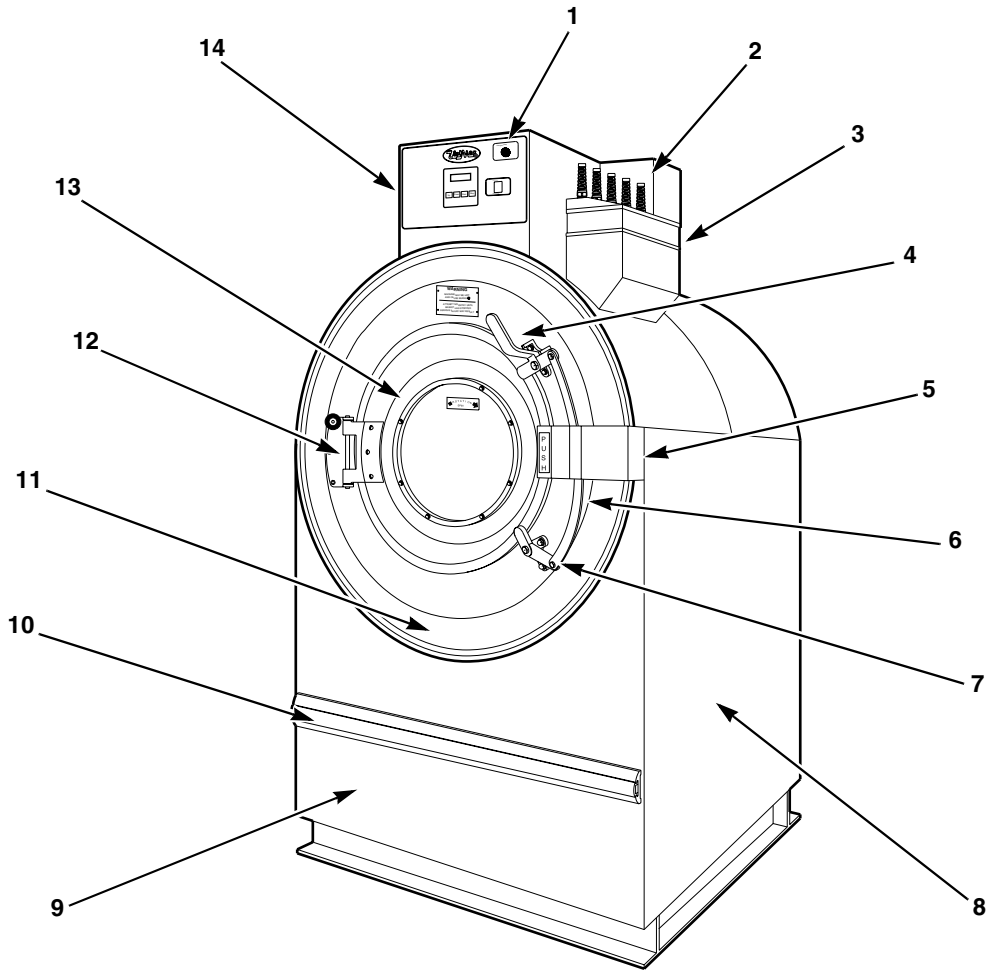
EXAMPLE OF NAMEPLATE

PHM628N

Figure 2

Machine Familiarization Guide

The machine familiarization guide in *Figure 3* identifies the major operational features of the machine.



1	Emergency Stop Button	**8**	Side Panel
2	Supply Valve Box	**9**	Front Panel
3	Supply Dispenser	**10**	Rub Rail
4	Door Handle	**11**	Shell Front
5	Door Box	**12**	Door Hinge
6	Door Latch Extension Arm	**13**	Door
7	Door Latch	**14**	Control Module

Figure 3

Notes

Programming

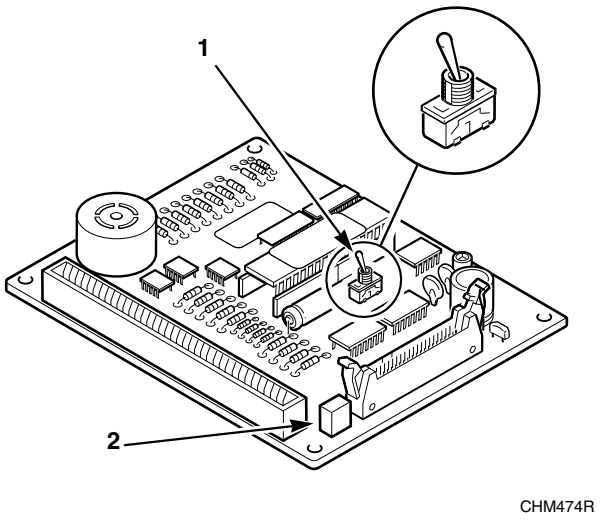
The V-computer board is inside the control module. Near the center of the board is a small toggle switch: this is the Run/Program Mode switch.

WARNING

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

SW005

The Run/Program switch is normally in the *down* (Run Mode) position. To enter Program Mode, flip the switch to the *up* position. The display will now show the current temperature in the sump.



CHM474R

1	Run/Program Mode Switch
2	Temperature Calibration Screw

Figure 4

Since the keypad operates in a slightly different fashion when in Program Mode, pay careful attention to the programming instructions provided in this manual.

Key Functions in Program Mode

Up – The Up key is used to increase cycle numbers (1 through 30) and other numerical values such as times or temperatures (when creating wash formulas).

Down – The Down key is used to decrease cycle numbers (1 through 30) and other numerical values such as times or temperatures (when creating wash formulas).

Start – The Start key acts as an enter key in Program Mode. Use this key to enter data and move to the next function in the cycle.

Stop – The Stop key saves all data and terminates the programming procedure. If it is the first key pressed in Program Mode, the computer enters Setup Mode. The Stop key can be pressed again to exit Setup Mode and return to Program Mode.

Setup Mode

Setup options are programmable options that are in effect for all wash formulas. These options include:

- Degrees displayed in Fahrenheit or Celsius
- Auxiliary heat enabled or disabled
- Supply 5 or Auxiliary fill
- Temperature-controlled fill enabled or disabled
- Automatic cool-down enabled or disabled

NOTE: These options can be read or changed *only* in Setup Mode.

To enter Setup Mode, press the Stop key while the display is showing the temperature in the sump. Once in Setup Mode, use the Up or Down key to change the selected option. Use the Start key to accept the selected option and move on to the next one. Press the Stop key to exit Setup Mode.

Degrees Displayed in Fahrenheit or Celsius

This setup option affects the programming and display of all temperatures. If "FAr" is selected, all temperatures will display in Fahrenheit. If "CEL" is selected, all temperatures will display in Celsius. Acceptable ranges for programmable temperatures are 75° – 200°F or 25° – 93°C.

Procedure for Temperature Calibration

1. Ensure that the V-Computer has no input power applied.
2. Mount an accurate temperature sensor probe (part of temperature calibration equipment) in the bottom of the machine basket. Make sure the wires for the probe exit the top of the door to ensure the door gasket does not leak.
3. Close door and ensure that the door is locked.
4. Open machine top cover and remove control component cover(s), if necessary, to gain access to the V-Computer and output control board.

NOTE: For more accurate calibration proceed with steps 5-9. For a quick estimated calibration skip to step 10.

WARNING

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

SW005

5. Note wire connections on the output control board for the AC Drive control. Some machines will have six wires connected to "STF," "STR," "RH," "RM," "RL," and "COM" individually or a single connector labeled "J11-1." Remove these wires or connector to ensure the basket will not rotate. Also remove the input power to the drive.

NOTE: If this step is not followed, damage can occur to the calibration temperature probe.

WARNING

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

SW012

6. Restore input power to the machine.
7. Wait until machine message displays "CY" followed by a two-digit cycle number (01 – 30).
8. Program one of the unused cycles to Fill to High Level using both of the water inlet valves. Select a time limit that would be sufficient to complete the calibration procedure.
9. When machine has completed the Fill to High Level, press and hold the Up key to display the machine temperature. Make sure that the V-Computer is in the correct temperature unit (deg F or C). Refer to ***Setup Mode*** section of manual to change.
10. Using a flat bladed screwdriver, turn the machine temperature calibration screw until the displayed temperature of the machine and the temperature of the temperature calibration equipment are accurate to the nearest degree (refer to *Figure 4)*.
11. When the temperatures match, calibration is completed.
12. Remove power from the machine input.
13. Reconnect any wires/connectors/fuses that were removed, making sure they are installed exactly as they were removed.
14. Reinstall all machine protective covers.
15. Remove the temperature calibration probe from the bottom of the machine basket.
16. Restore input power to machine.
17. Machine is now ready for use.

Auxiliary Heat

Heat is a dedicated output of the V-computer, which controls an optional heat source. If “noHt” is selected, the heat output will never energize during a cycle (except briefly in the test cycle to ensure that the output functions properly), regardless of programmed temperature settings. If “HEAt” is selected, the output will energize during a cycle if the three following conditions are true:

- A nonzero heat temperature is programmed.
- The computer senses that the present temperature is below the programmed target temperature.
- There is at least a low water level in the machine.

NOTE: Do not enable the auxiliary heat setup option and disable the temperature-controlled fill option on machines not equipped with auxiliary heat. The machine will pause for 40 minutes during any cycle segment where the fill water temperature does not equal or exceed the programmed value of the heat step.

Supply 5 or Auxiliary Fill

If “SUP5” is selected, the output labeled AF on the solid state output board can be used to control a fifth supply signal. This setup option must be selected to program an “SUP5” or an “SUP6” (supply 1 and supply 5 combined) in a cycle step.

If “AFIL” is selected, the output labeled AF can be used to control an auxiliary fill valve. Auxiliary fills can be programmed to low, medium, or high water level. This setup option must be selected to program an “AFIL” in a cycle step.

Temperature-Controlled Fill

If “tFIL” is selected, a temperature-controlled fill can be programmed for any segment. This setup option must be selected to program a “tFIL” in a cycle step. If “ntFL” is selected, this feature is disabled.

Automatic Cool-Down

If “CooL” is selected, the automatic cool-down feature is enabled. If the wash solution is 140°F (60°C) or higher when a cycle step calls for a drain, the washing action will continue and the cold water valve will begin flushing cold water into the wash solution. Once the wash solution temperature drops below 140°F (60°C), the drains open and the cycle continues as programmed. If “noCL” is selected, this feature is disabled.

Cycle Count

To display the current cycle count, press the Start key while the display is showing the temperature in the sump. The display will show a two-digit number indicating how many cycles have been run to completion (cycles which were stopped in progress are not counted). Press the Start key to return to Program Mode without resetting the count. Press the Up or Down key to reset the count to zero and return to Program Mode.

Cycle Programming

To edit an existing cycle or create a new cycle, press the Up key while the display is showing the temperature in the sump. The display will show “CY01.” Press the Up or Down key until the desired cycle number is displayed. Press the Start key to begin editing the selected cycle.

Cycle Options

Cycle options are programmable options that are in effect for the duration of the selected wash cycle. These options include:

- Agitation action
- Agitation speed (defaults to normal wash speed regardless of setting)
- Recirculation pump enabled or disabled (for possible future application)

NOTE: Cycle option settings are unique to the cycle for which they are programmed.

Use the Up or Down key to change the selected option. Use the Start key to accept the selected option and move on to the next one.

Agitation Action

The programmer may choose among four agitation actions. Refer to *Table 1*.

Agitation Action Options		
Display	**Description**	**Percentage**
Ag 1	27 seconds forward, 3 seconds pause, 27 seconds reverse, 3 seconds pause	90%
Ag 2	10 seconds forward, 20 seconds pause, 10 seconds reverse, 20 seconds pause	33%
Ag 3	3 seconds forward, 27 seconds pause, 3 seconds reverse, 27 seconds pause	10%
Ag 4	4 seconds forward, 56 seconds pause, 4 seconds reverse, 56 seconds pause	6.7%

Table 1

The selected agitation applies to the *entire* cycle. It is possible to progam a different agitation action for each of the 30 cycles. When “Ag 3” or “Ag 4” is in effect, there is *no* agitation during the fill.

Agitation Speed

If “AgSn” or “AgSL” is selected, the machine will default to normal wash speed regardless of the setting.

Recirculation Pump

This cycle option setting is intended to be used with a possible future recirculation application. Selecting either “nPnP” or “PUnP” will have no bearing on the wash cycle. However, the “nPnP” setting is recommended to prevent the corresponding output on the output board from energizing.

Press the Start key after selecting this last cycle option setting to begin editing the cycle segments.

Segment Programming

All cycle programs (“CY01” – “CY30”) can be customized within a preset program structure. Each cycle program consists of eleven program segments. Refer to *Table 2*.

Cycle Program Segments	
Segment	**Display**
PreWash	PrE
Wash	UASH
Fill 1	FIL1
Fill 2	FIL2
Fill 3	FIL3
Fill 4	FIL4
Fill 5	FIL5
Fill 6	FIL6
Fill 7	FIL7
Fill 8	FIL8
Fill 9	FIL9

Table 2

When modifying a cycle, a time must be entered for each segment. To skip a segment or spin, set the time to "00" and press the Start key. *Table 3* gives the time parameters for each segment and spin, as well as the allowable temperature range.

Time and Temperature Parameters		
Function	**Minimum**	**Maximum**
PreWash	2 minutes	30 minutes
Wash	2 minutes	20 minutes
Fill 1	2 minutes	15 minutes
Fill 2	2 minutes	15 minutes
Fill 3	2 minutes	15 minutes
Fill 4	2 minutes	15 minutes
Fill 5	2 minutes	15 minutes
Fill 6	2 minutes	15 minutes
Fill 7	2 minutes	15 minutes
Fill 8	2 minutes	15 minutes
Fill 9	2 minutes	15 minutes
Intermediate Spin*	30 seconds	240 seconds
Final Spin**	1 minute	10 minutes
Temperature	75°F (25°C)	200°F (93°C)
* Programmed with wash segment through Fill 8. ** Programmed with Fill 9.		

Table 3

NOTE: Spin times in cycle segments 1 – 10 are entered in seconds (30 to 240), and time for final spin in segment 11 is entered in minutes (1 to 10).

1. Press the Up key until the computer display shows the segment to be edited. Press the Start key.
2. Use the Up or Down key to select the desired segment time. Set this value to zero to skip the segment. Press the Start key.

NOTE: The computer does not count down the remaining cycle time during fills, drains, cool-down, or prior to first achieving the programmed heat temperature when heating. The computer resumes counting down cycle time once the programmed fill level is reached, when the machine has drained, and after a programmed heat temperature is reached.

3. If the temperature-controlled fill setup option is enabled, the display will show "tFIL." Press the Start key.
4. Use the Up or Down key to select the desired fill temperature. Refer to *Table 4* for fill options.

Fill Temperature Options	
Display	**Fill Type**
CFIL	Cold Fill
HFIL	Hot Fill
bFIL	Warm Fill
AFIL	Auxiliary Fill*
*This is available only if the "SUP5"/"AFIL" setup option is set to "AFIL."	

Table 4

If the temperature-controlled fill setup option is enabled and a target temperature is set, the selected fill valve(s) will energize for the first three seconds of the segment fill. The computer will then begin operating the fill valves in an attempt to reach the target temperature. Press the Start key.

5. Use the Up or Down key to select the desired fill level. Refer to *Table 5*.

Water Level Options	
Display	**Fill Level**
Lo	Low Level
nEd	Medium Level
HI	High Level

Table 5

6. Press the Start key.
7. Use the Up or Down key to select the desired supply option. Refer to *Table 6*.

Supply Options	
Display	**Supply**
SUP0	No Supply
SUP1	Supply 1
SUP2	Supply 2
SUP3	Supply 3
SUP4	Supply 4
SUP5	Supply 5*
SUP6	Supply 1 and 5*
SUP7	Supply 3 and 4
*This is available only if the "SUP5"/"AFIL" setup option is set to "SUP5."	

Table 6

8. Press the Start key.
9. If the temperature-controlled fill or the auxiliary heat setup option is enabled, use the Up or Down key to select the desired segment temperature. To disable auxiliary heat and temperature-controlled fill for this segment, set this value to zero. Press the Start key.

NOTE: If the temperature-controlled fill setup option is enabled and an auxiliary fill has been selected for the segment, the segment temperature should be set to zero. Otherwise, the auxiliary fill valve will enable for only three seconds at the beginning of the fill before the computer begins using the hot and cold fill valves to reach the programmed temperature.

10. Use the Up or Down key to select the desired drain option. If "drAI" is selected, the machine will drain after the segment time has elapsed. If "nodr" is selected, the machine will not drain and the spin step will be skipped entirely. Press the Start key.

NOTE: The drain step in the final segment (Fill 9) cannot be skipped.

11. For final "FIL9" spin only, use the Up or Down key to select the desired spin speed. Refer to *Table 7*.

Spin Options	
Display	**Spin Speed**
SPn1	Low Spin
SPn2	Medium Spin
SPn3	High Spin

Table 7

12. Press the Start key.
13. Use the Up or Down key to select the desired spin time. Set this value to zero to skip the spin step. Press the Start key. The display will now show the identifier for the next program segment (or return to the temperature display if the edited segment is the Fill 9 segment).

NOTE: Every intermediate spin is followed by a 25 second coast-down period, which occurs during the fill step for the following segment.

14. Press the Stop key at any time to complete the cycle programming procedure.

Test Cycle

1. Verify that the Run/Program Mode toggle switch is in the Run position.
2. Press the Up or Down key until the display alternately flashes “tESt” and “CYC,” indicating that the test cycle is selected.
3. Press the Start key to begin the test cycle.

NOTE: If “bAL?” or “SPC?” appear on display, ignore it; computer will proceed automatically.

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

The test cycle is as follows:

a. Once the Start key is pressed, the door interlock is de-energized (preventing the door from being opened), the drain valve closes, the cylinder begins agitating at wash speed, and both water inlet valves are energized. The display alternately flashes “bFIL” and “Lo” (both hot and cold fill valves on, filling to low level).

b. When the water level switch indicates that low water level has been reached, the water fill valves shut off and the dot above and to the immediate left of the fourth digit of the display lights.

c. The cold water fill valve is energized. The display alternately flashes “CFIL” and “nEd” (cold fill valve on, filling to medium water level).

d. When the water level switch indicates that medium water level has been reached, the cold water fill valve shuts off and the dot above and to the immediate left of the third digit of the display lights.

e. The hot water fill valve is energized. The display alternately flashes “HFIL” and “HI” (hot fill valve on, filling to high water level).

f. When the water level switch indicates that high water level has been reached, the hot water fill valve shuts off and the dot above and to the immediate left of the second digit of the display lights.

g. The auxiliary heat output is energized, provided that the water level switch indicates that at least low water level is present. The cold water fill valve is energized. The supply 1 output is energized for five seconds. The display alternately flashes “SUP1” and “HEAt” (supply 1 output on, auxiliary heat output on).

h. The supply 2 output is energized for five seconds. The display alternately flashes “SUP2” and “HEAt” (supply 2 output on, auxiliary heat output on).

i. The supply 3 output is energized for five seconds. The display alternately flashes “SUP3” and “HEAt” (supply 3 output on, auxiliary heat output on).

j. The auxiliary heat output is turned off. The supply 4 output is energized for five seconds. The display shows “SUP4” (supply 4 output on).

k. The supply 5/auxiliary fill output energizes for five seconds. If the “SUP5”/“AFIL” setup option is set to “SUP5,” the display shows “SUP5” (supply 5/auxiliary fill output on). If the “SUP5”/“AFIL” setup option is set to “AFIL,” the display shows “AFIL” (supply 5/auxiliary fill output on).

l. The cold water fill valve turns off. The recirculation pump output is energized for ten seconds, provided that the water level switch indicates that at least low water level is present. The display shows “PUnP” (recirculation pump output on).

m. The motor rotates counterclockwise (in reverse) at normal wash speed for 60 seconds. The display alternately flashes “SLo” and “rEv” (normal wash speed, counterclockwise).

n. The motor rotates clockwise (forward) at normal wash speed for 60 seconds. The display alternately flashes “SLo” and “For” (normal wash speed, clockwise).

o. The motor rotates counterclockwise (in reverse) at normal wash speed for 60 seconds. The display alternately flashes “norn” and “rEv” (normal wash speed, counterclockwise).

p. The motor rotates clockwise (forward) at normal wash speed for 60 seconds. The display alternately flashes “norn” and “For”.

q. The display begins alternately flashing “drAI” and “For” (drain step, cylinder rotating at wash speed). The motor continues to rotate clockwise (forward) at normal wash speed for several seconds.

r. The motor accelerates to distribution speed. The display alternately flashes “drAI” and “dISt” (drain step, cylinder rotating at distribution speed).

s. The drain opens between 15 and 27 seconds into the drain step. The water level indicator lights on the display will begin to go out, one by one, as the machine drains past each water level.

t. The computer does not monitor the balance signal from the AC inverter drive.

u. The cylinder accelerates to low spin speed. The display shows “SPn1” (cylinder rotating at low spin speed). The basket rotates at low spin speed for 60 seconds.

v. The cylinder accelerates to medium spin speed. The display shows “SPn2” (cylinder rotating at medium spin speed). The basket rotates at medium spin speed for 60 seconds.

w. The cylinder accelerates to high spin speed. The display shows “SPn3” (cylinder rotating at high spin speed). The basket rotates at high spin speed for 60 seconds.

x. All outputs are turned off for roughly 90 seconds. The display shows “SdLY” (spin coast delay).

y. The computer performs the normal stop routine.

The door interlock is energized (allowing the door to be opened), provided that the water level switch indicates that water has fallen below low level and that the AC drive indicates that the motor has stopped.

Cycle Segment Charts

Segment 1 (PreWash)	
Display	**Instructions**
	Use Up or Down key to change. Press Start key to enter or advance.
PrE	
00 or 02 to 30	Select segment time: 02 to 30 minutes (00 to skip segment).
tFIL	Indicates temperature fill is enabled.*
HFIL, CFIL, bFIL, or AFIL	Select “HFIL” (hot fill), “CFIL” (cold fill), “bFIL” (warm fill), or “AFIL” (auxiliary fill).**
Lo, nEd, or HI	Select fill level: “Lo” (low), “nEd” (medium), or “HI” (high) water level.
SUP0 – SUP7	Select supply 0 – 7 (0 for no supply).***
00°F, 75° – 200°F 00°C, 25° – 93°C	Select temperature: 75° to 200°F or 25° to 93°C (00 for no heat).†
drAI or nodr	Select drain option: “drAI” (drain), “nodr” (no drain).‡
SPIn (flashed for one second)	
tInE (flashed for one second)	
00 or 30 to 240	Select time for spin: 30 to 240 seconds (00 for no spin).
* This is displayed only if temperature-controlled fills are enabled in the setup options and if the heat temperature is set to a value other than “00.” ** “AFIL” can be selected only if the “SUP5”/“AFIL” setup option is set to “AFIL.” ***“SUP5” and “SUP6” can be selected only if the “SUP5”/“AFIL” setup option is set to “SUP5.” † This value is not available when temperature-controlled fill and auxiliary heat setup options are disabled. ‡ If “nodr” is selected, the computer skips the spin step and goes on to the next segment.	

Segment 2 (Wash)	
Display	**Instructions**
	Use Up or Down key to change. Press Start key to enter or advance.
UASH	
00 or 02 to 20	Select segment time: 02 to 20 minutes (00 to skip segment).
tFIL	Indicates temperature fill is enabled.*
HFIL, CFIL, bFIL, or AFIL	Select “HFIL” (hot fill), “CFIL” (cold fill), “bFIL” (warm fill), or “AFIL” (auxiliary fill).**
Lo, nEd, or HI	Select fill level: “Lo” (low), “nEd” (medium), or “HI” (high) water level.
SUP0 – SUP7	Select supply 0 – 7 (0 for no supply).***
00°F, 75° – 200°F 00°C, 25° – 93°C	Select temperature: 75° to 200°F or 25° to 93°C (00 for no heat).†
drAI or nodr	Select drain option: “drAI” (drain), “nodr” (no drain).‡
SPIn (flashed for one second)	
tInE (flashed for one second)	
00 or 30 to 240	Select time for spin: 30 to 240 seconds (00 for no spin).
* This is displayed only if temperature-controlled fills are enabled in the setup options and if the heat temperature is set to a value other than “00.” ** “AFIL” can be selected only if the “SUP5”/“AFIL” setup option is set to “AFIL.” ***“SUP5” and “SUP6” can be selected only if the “SUP5”/“AFIL” setup option is set to “SUP5.” † This value is not available when temperature-controlled fill and auxiliary heat setup options are disabled. ‡ If “nodr” is selected, the computer skips the spin step and goes on to the next segment.	

Segments 3 – 10 (Fills 1 – 8)	
Display	**Instructions**
	Use Up or Down key to change. Press Start key to enter or advance.
FIL1, FIL2, FIL3, FIL4, FIL5, FIL6, FIL7, or FIL8	
00 or 02 to 15	Select segment time: 02 to 15 minutes (00 to skip segment).
tFIL	Indicates temperature fill is enabled.*
HFIL, CFIL, bFIL, or AFIL	Select “HFIL” (hot fill), “CFIL” (cold fill), “bFIL” (warm fill), or “AFIL” (auxiliary fill).**
Lo, nEd, or HI	Select fill level: “Lo” (low), “nEd” (medium), or “HI” (high) water level.
SUP0 – SUP7	Select supply 0 – 7 (0 for no supply).***
00°F, 75° – 200°F 00°C, 25° – 93°C	Select temperature: 75° to 200°F or 25° to 93°C (00 for no heat).†
drAI or nodr	Select drain option: “drAI” (drain), “nodr” (no drain).‡
SPIn (flashed for one second)	
tInE (flashed for one second)	
00 or 30 to 240	Select time for spin: 30 to 240 seconds (00 for no spin).
* This is displayed only if temperature-controlled fills are enabled in the setup options and if the heat temperature is set to a value other than “00.” ** “AFIL” can be selected only if the “SUP5”/“AFIL” setup option is set to “AFIL.” *** “SUP5” and “SUP6” can be selected only if the “SUP5”/“AFIL” setup option is set to “SUP5.” † This value is not available when temperature-controlled fill and auxiliary heat setup options are disabled. ‡ If “nodr” is selected, the computer skips the spin step and goes on to the next segment.	

Segment 11 (Fill 9)	
Display	**Instructions**
	Use Up or Down key to change. Press Start key to enter or advance.
FIL9	
00 or 02 to 15	Select segment time: 02 to 15 minutes (00 to skip segment).
tFIL	Indicates temperature fill is enabled.*
HFIL, CFIL, bFIL, or AFIL	Select “HFIL” (hot fill), “CFIL” (cold fill), “bFIL” (warm fill), or “AFIL” (auxiliary fill).**
Lo, nEd, or HI	Select fill level: “Lo” (low), “nEd” (medium), or “HI” (high) water level.
SUP0 – SUP7	Select supply 0 – 7 (0 for no supply).***
00°F, 75° – 200°F 00°C, 25° – 93°C	Select temperature: 75° to 200°F or 25° to 93°C (00 for no heat).†
drAI or nodr	Select drain option: “drAI” (drain), “nodr” (no drain).
SPn1, SPn2, or SPn3	Select spin speed: “SPn1” (low), “SPn2” (medium), or “SPn3” (high).
SPIn (flashed for one second)	
tInE (flashed for one second)	
00 or 01 to 10	Select time for spin: 1 to 10 minutes (00 for no spin).
* This is displayed only if temperature-controlled fills are enabled in the setup options and if the heat temperature is set to a value other than “00.” ** “AFIL” can be selected only if the “SUP5”/“AFIL” setup option is set to “AFIL.” ***“SUP5” and “SUP6” can be selected only if the “SUP5”/“AFIL” setup option is set to “SUP5.” † This value is not available when temperature-controlled fill and auxiliary heat setup options are disabled.	

V-Computer Cycle Charts

V-Computer Standard OPL Cycles								
Program	1 Permanent Press Light Soil	2 Cotton Terrycloth Light Soil	3 Permanent Press Medium Soil	4 Cotton Terrycloth Medium Soil	5 Permanent Press Heavy Soil	6 Cotton Terrycloth Heavy Soil	7 Table Napery Blends Colors	8 Table Napery Blends Whites
Agitation	Ag 1	Ag 1	Ag 1	Ag 1	Ag 1	Ag 1	Ag 1	Ag 1
Wash Speed	AgSn	AgSn	AgSn	AgSn	AgSn	AgSn	AgSn	AgSn
Pump	nPnP	nPnP	nPnP	nPnP	nPnP	nPnP	nPnP	nPnP
PreWash								
Time (Min)	0	0	2	2	2	2	2	2
Water	---	---	Warm	Warm	Warm	Warm	Warm	Warm
Level	---	---	High	High	High	High	High	High
Supply	---	---	0	0	0	0	0	0
Temp (F)	---	---	0	0	0	0	0	0
Drain	---	---	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI
Spin (Sec)	---	---	0	0	0	0	0	0
Wash								
Time (Min)	7	7	7	7	6	6	9	9
Water	Hot	Hot	Hot	Hot	Hot	Hot	Hot	Hot
Level	Low	Low	Low	Low	Low	Low	Low	Low
Supply	1	1	1	1	1	1	1	1
Temp (F)	0	0	0	0	0	0	0	0
Drain	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI
Spin (Sec)	0	0	0	0	0	0	0	0
Fill 1								
Time (Min)	4	4	7	7	7	7	4	7
Water	Hot	Hot	Hot	Hot	Hot	Hot	Hot	Hot
Level	High	High	Low	Low	Low	Low	High	Low
Supply	0	0	2	2	1	1	0	2
Temp (F)	0	0	0	0	0	0	0	0
Drain	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI
Spin (Sec)	0	0	0	0	0	0	0	0
Fill 2								
Time (Min)	2	2	4	4	7	7	2	4
Water	Warm	Warm	Hot	Hot	Hot	Hot	Warm	Hot
Level	High	High	High	High	Low	Low	High	High
Supply	0	0	0	0	2	2	0	0
Temp (F)	0	0	0	0	0	0	0	0
Drain	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI
Spin (Sec)	30	60	0	0	0	0	30	0
Fill 3								
Time (Min)	4	0	2	2	4	4	4	2
Water	Warm	---	Warm	Warm	Hot	Hot	Warm	Warm
Level	Low	---	High	High	High	High	Low	High
Supply	3	---	0	0	0	0	3	0
Temp (F)	0	---	0	0	0	0	0	0
Drain	DrAI	---	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI
Spin (Sec)	240	---	30	0	60	0	240	30

V-Computer Standard OPL Cycles (Continued)								
Program	1 Permanent Press Light Soil	2 Cotton Terrycloth Light Soil	3 Permanent Press Medium Soil	4 Cotton Terrycloth Medium Soil	5 Permanent Press Heavy Soil	6 Cotton Terrycloth Heavy Soil	7 Table Napery Blends Colors	8 Table Napery Blends Whites
Fill 4								
Time (Min)	0	0	4	0	2	2	0	4
Water	---	---	Warm	---	Warm	Warm	---	Warm
Level	---	---	Low	---	High	High	---	Low
Supply	---	---	3	---	0	0	---	3
Temp (F)	---	---	0	---	0	0	---	0
Drain	---	---	DrAI	---	DrAI	DrAI	---	DrAI
Spin (Sec)	---	---	240	---	30	30	---	240
Fill 5								
Time (Min)	0	0	0	0	4	0	0	0
Water	---	---	---	---	Warm	---	---	---
Level	---	---	---	---	Low	---	---	---
Supply	---	---	---	---	3	---	---	---
Temp (F)	---	---	---	---	0	---	---	---
Drain	---	---	---	---	DrAI	---	---	---
Spin (Sec)	---	---	---	---	240	---	---	---
Fill 6								
Time (Min)	0	0	0	0	0	0	0	0
Water	---	---	---	---	---	---	---	---
Level	---	---	---	---	---	---	---	---
Supply	---	---	---	---	---	---	---	---
Temp (F)	---	---	---	---	---	---	---	---
Drain	---	---	---	---	---	---	---	---
Spin (Sec)	---	---	---	---	---	---	---	---
Fill 7								
Time (Min)	0	0	0	0	0	0	0	0
Water	---	---	---	---	---	---	---	---
Level	---	---	---	---	---	---	---	---
Supply	---	---	---	---	---	---	---	---
Temp (F)	---	---	---	---	---	---	---	---
Drain	---	---	---	---	---	---	---	---
Spin (Sec)	---	---	---	---	---	---	---	---
Fill 8								
Time (Min)	0	0	0	0	0	0	0	0
Water	---	---	---	---	---	---	---	---
Level	---	---	---	---	---	---	---	---
Supply	---	---	---	---	---	---	---	---
Temp (F)	---	---	---	---	---	---	---	---
Drain	---	---	---	---	---	---	---	---
Spin (Sec)	---	---	---	---	---	---	---	---
Fill 9								
Time (Min)	0	4	0	4	0	4	0	0
Water	---	Warm	---	Warm	---	Warm	---	---
Level	---	Low	---	Low	---	Low	---	---
Supply	---	3	---	3	---	3	---	---
Temp (F)	---	0	---	0	---	0	---	---
Drain	---	---	---	DrAI	---	DrAI	---	---
Spin	---	SPn3	---	SPn3	---	SPn3	---	---
Spin (Min)	---	5	---	5	---	5	---	---

V-Computer Standard OPL Cycles (Continued)								
Program	9 VISA Table Napery Colors	10 VISA Table Napery Whites	11 Rags Heavy Soil	12 Reclaim	13 Personals with Bleach	14 Personals no Bleach	15 Delicates Spreads Cold Water	16 Delicates Spreads Warm Water
Agitation	Ag 1	Ag 1	Ag 1	Ag 1	Ag 1	Ag 1	Ag 1	Ag 1
Wash Speed	AgSn	AgSn	AgSn	AgSn	AgSn	AgSn	AgSn	AgSn
Pump	nPnP	nPnP	nPnP	nPnP	nPnP	nPnP	nPnP	nPnP
PreWash								
Time (Min)	2	2	2	2	2	2	0	0
Water	Warm	Warm	Warm	Hot	Warm	Warm	---	---
Level	High	High	High	High	High	High	---	---
Supply	0	0	1	1	1	0	---	---
Temp (F)	0	0	0	0	0	0	---	---
Drain	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	---	---
Spin (Sec)	0	0	0	0	0	0	---	---
Wash								
Time (Min)	10	10	10	6	7	7	5	7
Water	Hot	Hot	Hot	Hot	Hot	Hot	Cold	Warm
Level	Low	Low	Low	Low	Low	Low	High	High
Supply	1	1	1	1	2	1	1	1
Temp (F)	0	0	0	0	0	0	0	0
Drain	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI
Spin (Sec)	0	0	0	0	0	0	0	0
Fill 1								
Time (Min)	6	6	6	12	2	2	4	4
Water	Hot	Hot	Hot	Hot	Warm	Warm	Cold	Warm
Level	Low	Low	Low	Low	High	High	High	High
Supply	1	1	2	2	0	0	0	0
Temp (F)	0	0	0	0	0	0	0	0
Drain	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI
Spin (Sec)	0	0	0	0	0	0	0	0
Fill 2								
Time (Min)	4	4	4	4	2	2	2	2
Water	Hot	Hot	Hot	Hot	Warm	Warm	Cold	Warm
Level	High	High	High	High	High	High	High	High
Supply	0	0	2	0	0	0	0	0
Temp (F)	0	0	0	0	0	0	0	0
Drain	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI
Spin (Sec)	0	0	0	0	30	30	30	30
Fill 3								
Time (Min)	2	2	2	2	4	4	4	4
Water	Warm	Warm	Warm	Warm	Warm	Warm	Cold	Warm
Level	High	High	High	High	Low	Low	High	High
Supply	0	0	0	0	3	3	3	3
Temp (F)	0	0	0	0	0	0	0	0
Drain	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI
Spin (Sec)	0	0	0	0	240	240	240	240

V-Computer Standard OPL Cycles (Continued)								
Program	9 VISA Table Napery Colors	10 VISA Table Napery Whites	11 Rags Heavy Soil	12 Reclaim	13 Personals with Bleach	14 Personals no Bleach	15 Delicates Spreads Cold Water	16 Delicates Spreads Warm Water
Fill 4								
Time (Min)	2	2	2	2	0	0	0	0
Water	Cold	Cold	Warm	Warm	---	---	---	---
Level	High	High	High	High	---	---	---	---
Supply	0	0	0	0	---	---	---	---
Temp (F)	0	0	0	0	---	---	---	---
Drain	DrAI	DrAI	DrAI	DrAI	---	---	---	---
Spin (Sec)	30	30	60	30	---	---	---	---
Fill 5								
Time (Min)	4	4	4	4	0	0	0	0
Water	Cold	Cold	Warm	Warm	---	---	---	---
Level	Low	Low	High	Low	---	---	---	---
Supply	3	3	0	3	---	---	---	---
Temp (F)	0	0	0	0	---	---	---	---
Drain	DrAI	DrAI	DrAI	DrAI	---	---	---	---
Spin (Sec)	240	240	60	240	---	---	---	---
Fill 6								
Time (Min)	0	0	0	0	0	0	0	0
Water	---	---	---	---	---	---	---	---
Level	---	---	---	---	---	---	---	---
Supply	---	---	---	---	---	---	---	---
Temp (F)	---	---	---	---	---	---	---	---
Drain	---	---	---	---	---	---	---	---
Spin (Sec)	---	---	---	---	---	---	---	---
Fill 7								
Time (Min)	0	0	0	0	0	0	0	0
Water	---	---	---	---	---	---	---	---
Level	---	---	---	---	---	---	---	---
Supply	---	---	---	---	---	---	---	---
Temp (F)	---	---	---	---	---	---	---	---
Drain	---	---	---	---	---	---	---	---
Spin (Sec)	---	---	---	---	---	---	---	---
Fill 8								
Time (Min)	0	0	0	0	0	0	0	0
Water	---	---	---	---	---	---	---	---
Level	---	---	---	---	---	---	---	---
Supply	---	---	---	---	---	---	---	---
Temp (F)	---	---	---	---	---	---	---	---
Drain	---	---	---	---	---	---	---	---
Spin (Sec)	---	---	---	---	---	---	---	---
Fill 9								
Time (Min)	0	0	4	0	0	0	0	0
Water	---	---	Warm	---	---	---	---	---
Level	---	---	Low	---	---	---	---	---
Supply	---	---	3	---	---	---	---	---
Temp (F)	---	---	0	---	---	---	---	---
Drain	---	---	DrAI	---	---	---	---	---
Spin	---	---	SPn3	---	---	---	---	---
Spin (Min)	---	---	6	---	---	---	---	---

NOTE: Preprogrammed cycles 17 – 20 are blank.

V-Computer Export OPL Cycles										
Program	21 Normal 90°C (PreWash)	22 Normal 90°C	23 Normal 60°C (PreWash)	24 Normal 60°C	25 Normal 40°C (PreWash)	26 Permanent Press 90°C (PreWash)	27 Permanent Press 90°C	28 Permanent Press 60°C (PreWash)	29 Permanent Press 60°C	30 Fine 40°C
Agitation	Ag 1	Ag 1	Ag 1	Ag 1	Ag 1	Ag 1	Ag 1	Ag 1	Ag 1	Ag 2
Wash Speed	AgSn	AgSn	AgSn	AgSn	AgSn	AgSn	AgSn	AgSn	AgSn	AgSn
Pump	nPnP	nPnP	nPnP	nPnP	nPnP	nPnP	nPnP	nPnP	nPnP	nPnP
PreWash										
Time (Min)	8	0	8	0	6	8	0	8	0	6
Water	Cold	---	Cold	---	Cold	Cold	---	Cold	---	Cold
Level	High	---	High	---	High	High	---	High	---	High
Supply	1	---	1	---	1	1	---	1	---	1
Temp (C)	40°	---	40°	---	40°	40°	---	40°	---	40°
Drain	DrAI	---	DrAI	---	DrAI	DrAI	---	DrAI	---	DrAI
Spin (Sec)	0	---	0	---	0	0	---	0	---	0
Wash										
Time (Min)	10	10	10	10	8	10	10	10	10	8
Water	Hot	Hot	Hot	Hot	Both	Hot	Hot	Hot	Hot	Both
Level	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Supply	2	2	2	2	2	2	2	2	2	2
Temp (C)	90°	90°	60°	60°	40°	90°	90°	60°	60°	40°
Drain	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI
Spin (Sec)	0	0	0	0	0	0	0	0	0	0
Fill 1										
Time (Min)	0	0	0	0	0	0	0	0	0	0
Water	---	---	---	---	---	---	---	---	---	---
Level	---	---	---	---	---	---	---	---	---	---
Supply	---	---	---	---	---	---	---	---	---	---
Temp (C)	---	---	---	---	---	---	---	---	---	---
Drain	---	---	---	---	---	---	---	---	---	---
Spin (Sec)	---	---	---	---	---	---	---	---	---	---
Fill 2										
Time (Min)	0	0	0	0	0	0	0	0	0	0
Water	---	---	---	---	---	---	---	---	---	---
Level	---	---	---	---	---	---	---	---	---	---
Supply	---	---	---	---	---	---	---	---	---	---
Temp (C)	---	---	---	---	---	---	---	---	---	---
Drain	---	---	---	---	---	---	---	---	---	---
Spin (Sec)	---	---	---	---	---	---	---	---	---	---
Fill 3										
Time (Min)	2	2	2	2	2	2	2	2	2	2
Water	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold
Level	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Supply	0	0	0	0	0	0	0	0	0	0
Temp (C)	0	0	0	0	0	0	0	0	0	0
Drain	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI
Spin (Sec)	30	30	30	30	30	30	30	30	30	30

V-Computer Export OPL Cycles (Continued)										
Program	21 Normal 90°C (PreWash)	22 Normal 90°C	23 Normal 60°C (PreWash)	24 Normal 60°C	25 Normal 40°C (PreWash)	26 Permanent Press 90°C (PreWash)	27 Permanent Press 90°C	28 Permanent Press 60°C (PreWash)	29 Permanent Press 60°C	30 Fine 40°C
Fill 4										
Time (Min)	2	2	2	2	2	2	2	2	2	2
Water	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold
Level	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Supply	0	0	0	0	0	0	0	0	0	0
Temp (C)	0	0	0	0	0	0	0	0	0	0
Drain	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI
Spin (Sec)	30	30	30	30	30	30	30	30	30	30
Fill 5										
Time (Min)	2	2	2	2	2	2	2	2	2	2
Water	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold
Level	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Supply	0	0	0	0	0	0	0	0	0	0
Temp (C)	0	0	0	0	0	0	0	0	0	0
Drain	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI	DrAI
Spin (Sec)	30	30	30	30	30	30	30	30	30	30
Fill 6										
Time (Min)	0	0	0	0	0	0	0	0	0	0
Water	---	---	---	---	---	---	---	---	---	---
Level	---	---	---	---	---	---	---	---	---	---
Supply	---	---	---	---	---	---	---	---	---	---
Temp (C)	---	---	---	---	---	---	---	---	---	---
Drain	---	---	---	---	---	---	---	---	---	---
Spin (Sec)	---	---	---	---	---	---	---	---	---	---
Fill 7										
Time (Min)	0	0	0	0	0	0	0	0	0	0
Water	---	---	---	---	---	---	---	---	---	---
Level	---	---	---	---	---	---	---	---	---	---
Supply	---	---	---	---	---	---	---	---	---	---
Temp (C)	---	---	---	---	---	---	---	---	---	---
Drain	---	---	---	---	---	---	---	---	---	---
Spin (Sec)	---	---	---	---	---	---	---	---	---	---
Fill 8										
Time (Min)	0	0	0	0	0	0	0	0	0	0
Water	---	---	---	---	---	---	---	---	---	---
Level	---	---	---	---	---	---	---	---	---	---
Supply	---	---	---	---	---	---	---	---	---	---
Temp (C)	---	---	---	---	---	---	---	---	---	---
Drain	---	---	---	---	---	---	---	---	---	---
Spin (Sec)	---	---	---	---	---	---	---	---	---	---
Fill 9										
Time (Min)	2	2	2	2	2	2	2	2	2	2
Water	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold
Level	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Supply	3	3	3	3	3	3	3	3	3	3
Temp (C)	0	0	0	0	0	0	0	0	0	0
Spin	SPn3	SPn3	SPn3	SPn3	SPn3	SPn3	SPn3	SPn3	SPn3	SPn2
Spin (Min)	6	6	6	6	6	2	2	2	2	2

Cycle Programming Worksheet

Program		PreWash		Wash	
Title		Time (Min)		Time (Min)	
		Water		Water	
		Level		Level	
Cycle		Supply		Supply	
Agitation		Temp		Temp	
Wash Speed		Drain		Drain	
Pump		Spin (Sec)		Spin (Sec)	
Fill 1		**Fill 2**		**Fill 3**	
Time (Min)		Time (Min)		Time (Min)	
Water		Water		Water	
Level		Level		Level	
Supply		Supply		Supply	
Temp		Temp		Temp	
Drain		Drain		Drain	
Spin (Sec)		Spin (Sec)		Spin (Sec)	
Fill 4		**Fill 5**		**Fill 6**	
Time (Min)		Time (Min)		Time (Min)	
Water		Water		Water	
Level		Level		Level	
Supply		Supply		Supply	
Temp		Temp		Temp	
Drain		Drain		Drain	
Spin (Sec)		Spin (Sec)		Spin (Sec)	
Fill 7		**Fill 8**		**Fill 9**	
Time (Min)		Time (Min)		Time (Min)	
Water		Water		Water	
Level		Level		Level	
Supply		Supply		Supply	
Temp		Temp		Temp	
Drain		Drain		Spin	
Spin (Sec)		Spin (Sec)		Spin (Min)	