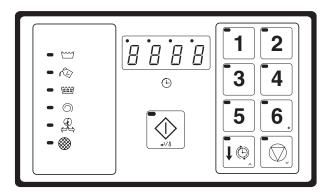
Washer-Extractors

Pocket Hardmount

A-Series Microcomputer Variable-Speed

UW35AV UW60AV UW80AV UW100AV UW125AV



CHM1766C

Keep These Instructions for Future Reference.

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



Part No. F232226R1 July 2009

Table of Contents

Safety Information	2
Explanation of Safety Messages	2
Important Safety Instructions	2
Programming	2
Entering Program Mode	4
Cycle and Error Count	4
Setup Mode	4
Programming Cycle Segments	5
Control Panel	
Options for Each Segment	7
To Edit an Entire Wash Cycle Formula	10
Agitation for the Cycle	
Wash 1 – Wash 5	10
Temperature Controlled Fill	
Rinse 1 – Rinse 6	11
Temperature Controlled Fill	12
Abnormal Conditions	13
Door Open During Operation	
Excessive Fill Time	13
Out of Balance	
Door Will Not Open	13
Excessive Drain Time	
Temperature Probe Sensor Problem	
Test Cycle	13
Domestic Cycle Charts Custom	
Cycles 1 - 24	16
International Cycle Charts Custom	
Cycles 31 - 46	18

© Copyright 2009, Alliance Laundry Systems LLC

All rights reserved. No part of the contents of this book may be reproduced or transmitted in any form or by any means without the expressed written consent of the publisher.

Safety Information

Explanation of Safety Messages

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



DANGER

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



WARNING

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



CAUTION

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

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

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

IMPORTANT: The word "NOTE" is used to communicate installation, operation, maintenance or servicing information that is important but not hazard related.

Important Safety Instructions



WARNING

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

W023

- 1. Read all instructions before using the washer.
- 2. Refer to the grounding instructions in the installation manual for the proper grounding of the washer.
- 3. Do not wash textiles that have been previously cleaned in, washed in, soaked in, or spotted with gasoline, kerosene, waxes, cooking oils, drycleaning solvents, or other flammable or explosive substances as they give off vapors that could ignite or explode.
- 4. Do not add gasoline, dry-cleaning solvents, or other flammable or explosive substances to the wash water. These substances give off vapors that could ignite or explode.
- 5. Under certain conditions, hydrogen gas may be produced in a hot water system that has not been used for two weeks or more. HYDROGEN GAS IS EXPLOSIVE. If the hot water system has not been used for such a period, before using a washing machine or combination washer-dryer, turn on all hot water faucets and let the water flow from each for several minutes. This will release any accumulated hydrogen gas. The gas is flammable; do not smoke or use an open flame during this time.
- 6. Do not allow children to play on or in the washer. Close supervision of children is necessary when the washer is used near children. This is a safety rule for all appliances.
- 7. Before the washer is removed from service or discarded, remove the door to the washing compartment.
- 8. Do not reach into the washer if the wash drum is moving.

- 9. Do not install or store the washer where it will be exposed to water and/or weather.
- 10. Do not tamper with the controls.
- 11. Do not repair or replace any part of the washer, or attempt any servicing unless specifically recommended in the user-maintenance instructions or in published user-repair instructions that the user understands and has the skills to carry out.
- 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.

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

Entering Program Mode

- 1. Remove top cover of control panel.
- 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 temperature.

Cycle and Error Count

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

- To read, enter Program Mode.
- Press START (enter) keypad. Display will show the cycle count.
- Press START (enter) keypad. 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 keypad repeatedly until display reverts to normal Program Mode ("0000" or a temperature).

Setup Mode

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 settings would not be changed.

NOTE: Enter Setup Mode through the Program Mode.

1. Press * keypad. 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. Change selection by pressing \land or \lor keypad.

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 keypad.
- 3. Select "HEAt" or "noHt". Change the selection by pressing the ∧ or ∨ keypad.

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.

- 4. Press START keypad to continue to the next step.
- 5. Select "AFIL" or "SUP5". For "SUP5", a fifth or sixth supply can be programmed in a cycle step. "AFIL" allows auxiliary fills to be programmed to low, medium or high water level in a cycle step.
- 6. Press START keypad.
- 7. Select "tFIL" or "ntFL." "tFIL" allows a temperature controlled fill to be programmed for any segment. Select "ntFL" to disable the feature.
- 8. Press START keypad.
- 9. Select "COOL" or "noCL." "COOL" enables an automatic cooldown feature allowing cold water to flush into wash before a drain if temperature is 140°F (60°C) or above. Select "noCL" to disable feature.
- 10. Press START keypad.
- 11. Select "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 ∨ keypad.
- 12. Press START keypad.
- 13. Select "Adv" or "noAd". "Adv" enables the rapid advance feature. Select "noAd" to disable the feature.
- 14. Press START keypad.

Programming Cycle Segments

The machine has 30 wash cycles available. 26 wash cycles are pre-programmed. All wash cycles may be edited as follows:

- 1. Enter programming mode. Refer to Entering Program Mode section.
- 2. Press "\" keypad to enter Program Mode.
- 3. Press the cycle number of the cycle to be edited.
- 4. Press the START keypad to move into the menu of options. Refer to *Figure 1*

NOTE: While cycle is running, pressing the START keypad shows the temperature. Pressing the START keypad again displays the cycle. Pressing the START keypad again returns display to time remaining.

Control Panel

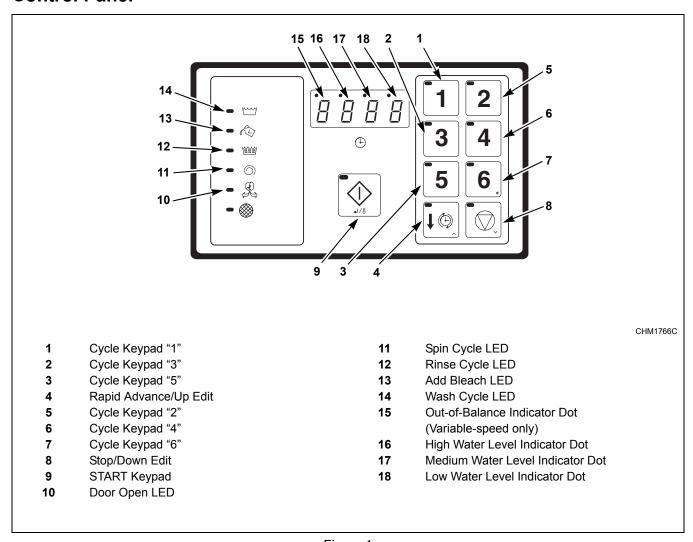


Figure 1

Cycle Number	Cycle Name
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
11	Table Napery Blends Colors
12	Table Napery Blends Whites
13	VISA Table Napery Colors
14	VISA Table Napery Whites
15	Rags Heavy Soil
16	Reclaim
21	Personals with Bleach
22	Personals No Bleach
23	Delicates Spreads Cold Water
24	Delicates Spreads Warm Water
25	Custom #1
26	Custom #2
31	Normal 90°C (Pre Wash)
32	Normal 90°C
33	Normal 60°C (Pre Wash)
34	Normal 60°C
35	Normal 40°C (Pre Wash)
36	Custom #3
41	Permanent Press 90°C (Pre Wash)
42	Permanent Press 90°C
43	Permanent Press 60°C (Pre Wash)
44	Permanent Press 60°C
45	Fine 40°C
46	Custom #4

Table 1

Options for Each Segment

Cycle Steps Available (NOTE: WASH, ADD BLEACH, RINSE and SPIN LEDs light ONLY when a cycle formula is in operation.)	Display	Setting Options for Cycle Steps
Wash 1-5 (displayed as "USH1"-"US	H5")	
Time for Agitation (excludes fill, drain,	AG1	0 or 2-30 minutes in agitation step (increases/decreases in
spin and heat)	AG2	one-minute increments). Refer to Table 4 for operation of
	AG3	each agitation segment
	AG4	
Fill valves (temperature)	CFIL	Cold, Hot or Both (warm) water fills or Auxiliary fill
	HFIL	
	bFIL	
	AFIL	
Fill water level control	LO	Low, Medium or High water level
	nEd	
	HI	
Supply	SUP0	SUP0 for No Supply or Supply 1-7 (Refer to Table 3 for
	SUP1	operation of each supply selection)
	SUP2	
	SUP3	
	SUP4	
	SUP5	
	SUP6	
	SUP7	
Heat (Models with heat or heat capability)	HEAt	00F (no heat for segment) or 75°F to 200°F
	noHt	00C (no heat for segment) or 25°C to 93°C
Drain (Final segment drains in stop	drAI	Drain or No Drain (if No Drain programmed, will skip spin
routine if No Drain is programmed)	nodr	segment associated with Drain segment)
Spin time	SPIn	00 for No Spin or 60-240 seconds (increases/decreases in
	tInE	one-second increments)
Rinse 1-5 (displayed as "rln1"-"rln5"	")	
Time for Agitation (excludes fill, drain,	AG1	0 or 2-30 minutes in agitation step (increases/decreases in
spin and heat)	AG2	one-minute increments). Refer to Table 4 for operation of
	AG3	each agitation segment
	AG4	
Fill valves (temperature)	CFIL	Cold, Hot or Both (warm) water fills or Auxiliary fill
	HFIL	
	bFIL	
	AFIL	
Fill water level control	LO	Low, Medium or High water level
	nEd	
	HI	

Table 2 (continued)

Table 2 (continued)

		·
Supply	SUP0	SUP0 for No Supply or Supply 1-7 (Refer to Table 3 for
	SUP1	operation of each supply selection)
	SUP2	
	SUP3	
	SUP4	
	SUP5	
	SUP6	
	SUP7	
Heat (Models with heat or heat capability)	HEAt	00F (no heat for segment) or 75°F to 200°F
	noHt	00C (no heat for segment) or 25°C to 93°C
Drain (Final segment drains in stop	drAI	Drain or No Drain (if No Drain programmed, will skip spin
routine if No Drain is programmed)	nodr	segment associated with Drain segment)
Spin time	SPIn	00 for No Spin or 60-240 seconds (increases/decreases in one-second increments)
Rinse 6 (displayed as "rln6")		
Time for Agitation (excludes fill, drain,	AG1	0 or 2-30 minutes in agitation step (increases/decreases in
spin and heat)	AG2	one-minute increments). Refer to Table 4 for operation of
	AG3	each agitation segment
	AG4	
Fill valves (temperature)	CFIL	Cold, Hot or Both (warm) water fills or Auxiliary fill
	HFIL	
	bFIL	
	AFIL	
Fill water level control	LO	Low, Medium or High water level
	nEd	
	HI	
Supply	SUP0	SUP0 for No Supply or Supply 1-7 (Refer to Table 3 for
	SUP1	operation of each supply selection)
	SUP2	
	SUP3	
	SUP4	
	SUP5	
	SUP6	
	SUP7	
Heat (Models with heat or heat capability)	HEAt	00F (no heat for segment) or 75°F to 200°F
	noHt	00C (no heat for segment) or 25°C to 93°C
Drain (Final segment drains in stop	drAI	
routine if No Drain is programmed)	nodr	
Spin Speed (displayed as SPn1-SPn	3)	
Spin time	SPIn	1-10 minutes (increases/decreases in one-minute increments)
	ı	

Table 2

NOTE: If the wash load becomes out of balance, the machine will attempt to balance the load. After three failed attempts the display will light the leftmost digit and a lower spin will be used to complete the cycle. Refer to Figure 2.

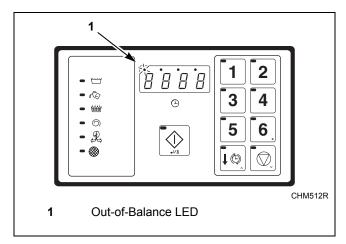


Figure 2

Supply Programmed	External Chemical Supply Signal*	Compartment Flushed*
SUP0	None	None
SUP1	Supply 1	Compartment 1
SUP2	Supply 2**	Compartment 2
SUP3	Supply 3	Compartment 3
SUP4	Supply 4	Compartment 4
SUP5	Supply 5***	Compartment 5***
SUP6	Supply 6***	Compartments 1 and 5***
SUP7	Supply 7	Compartments 3 and 4

Table 3

*NOTE: External chemical supply signals and any related flush valves will activate approximately 15 seconds after machine begins to fill with water. If programmed water level is reached prior to 15 seconds, no chemical supply signal will be activated.

**NOTE: ADD BLEACH LED lights if Supply 2 is the only supply programmed. If set up for "bEEP"(refer to SETUP Mode section), buzzer will sound on and off for the first eight seconds. The Supply 2 and ADD BLEACH LED remain on for 45 seconds or until the fill is complete, whichever comes first.

***NOTE: Selecting "AFIL" (auxiliary fill) in SETUP Mode will remove supply 5 and supply 6 as optional supply signals.

To Edit an Entire Wash Cycle Formula

Enter Program Mode. Refer to Entering Program Mode. Press the ∧ keypad until display shows "CY01".

Select the cycle by pressing the desired cycle number. Press START keypad to edit the cycle.

Agitation for the Cycle

With display showing "CYXX" (xx = cycle number), press the START keypad. Display shows "AG1", "AG2", "AG3" or "AG4". Refer to *Table 2* for a description on Agitation.

Display	Meaning
AG1	18 seconds forward, 3 seconds pause, 18 seconds reverse, 3 seconds pause and repeat for the programmed time
AG2	3 seconds forward, 27 seconds pause, 3 seconds reverse, 27 seconds pause and repeat for the programmed time
AG3	10 seconds forward, 20 seconds pause, 10 seconds reverse, 20 seconds pause and repeat for the programmed time
AG4	4 seconds forward, 56 seconds pause, 4 seconds reverse, 56 seconds pause and repeat for the programmed time

Table 4

Wash 1 - Wash 5

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 1-5). Press START keypad. Display shows agitation time during the step: "00" (skips segment) or 2-30 minutes. 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 \land or \lor keypad to alter the selection, or the START keypad to continue.

Display shows "CFIL", "HFIL", "bFIL" (for cold, hot, or warm [both]) or "AFIL". Press the \land or \lor keypad to alter the selection, or the START keypad to continue.

NOTE: Auxiliary Fill ("AFIL") possible only if configured for "AFIL" in Setup Mode. If configured, auxiliary fills can be programmed to low, medium or high water level in a cycle step.

Display shows "LO", "nEd", or "HI" for low, medium, or high water level, respectively. Press the \land or \lor keypad to alter the selection, or the START keypad to continue.

Display shows "SUP0", "SUP1", "SUP2", "SUP3", "SUP4", "SUP5", "SUP6", or "SUP7" indicating no supply, supply 1, supply 2, supply 3, supply 4, supply 5 (supply 1 and supply 2 together), supply 6, or supply 7 (supply 3 and supply 4 together). Press the \land or \lor keypad to alter the selection, or the START keypad to continue.

NOTE: "SUP5" and "SUP6" appear ONLY if control is configured for "SUP5" (spare mode 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 ("AFIL"), 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 the buzzer sounds while supply 2 is on.

Press the (\land) or (\lor) 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.

Temperature Controlled Fill

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 75°F to 200°F, or 00F (no heat for segment), or 25°C to 93°C, or 00C (no heat for segment).

Press the \land keypad to increase, or \lor keypad to decrease temperature in one-degree increments. The control will energize heat and pause cycle timing for up to 40 minutes until the programmed temperature is first reached.

NOTE: If temperature not reached after 40 minutes, control resumes cycle.

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

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 \land or \lor keypad. 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 60-240 seconds. Change the selection by pressing the \land or \lor keypad. Press START to continue.

Rinse 1 - Rinse 6

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 1-6). Press START keypad. Display shows the time for agitation during the step: "00" (skips segment) or 2-30 minutes. This is the time after the fill and before the drain and does not include spin time. Press the \land or \lor keypad to alter the selection, or the START keypad to continue.

Display shows "CFIL", "HFIL", "bFIL" (for cold, hot, warm [both]) or "AFIL". Press the \land or \lor keypad to alter the selection, or the START keypad to continue.

Display shows "LO", "nEd", or "HI" for low, medium, or high water level, respectively. Press the \land or \lor keypad to alter the selection, or the START keypad to continue.

Display shows "SUP0", "SUP1", "SUP2", "SUP3", "SUP4", "SUP5", "SUP6", or "SUP7" indicating no supply, supply 1, supply 2, supply 3, supply 4, supply 5 (supply 1 and supply 2 together), supply 6, or supply 7 (supply 3 and supply 4 together). Press the \land or \lor keypad to alter the selection, or the START keypad to continue.

NOTE: "SUP5" and "SUP6" appear ONLY if control is configured for "SUP5" (spare mode 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 ("AFIL"), 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.

If programmed for "SUP2", the ADD BLEACH indicator LED light turns on and the buzzer sounds while supply 2 is on.

Press the \land or \lor keypad to alter the selection or START keypad 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.

Temperature Controlled Fill

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 75°F to 200°F, or 00F (no heat for segment), or 25°C to 93°C, or 00C (no heat for segment).

Press the \land keypad to increase, or \lor keypad to decrease temperature. Temperature changes in one-degree increments. The control will energize heat and pause cycle timing for up to 40 minutes until the programmed temperature is first reached.

NOTE: If temperature not reached after 40 minutes, control resumes cycle.

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

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 ∨ keypad. 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 60-240 seconds IF you are in Rinse 1-5. If you are in Rinse 6, the time for spin will show 0 or 1-10 minutes. Change the selection by pressing the \land or \lor keypad. Press START to continue.

IMPORTANT: The spin time in Rinse 6 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 6 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 "0000" 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).

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

As indicated elsewhere in this definition, fill times exceeding 10 minutes cause the cycle to abort and the 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).

Out of Balance

If the machine goes out of balance, the machine will attempt to balance the load. After 3 failed attempts, the display will light the leftmost digit and a lower spin will be used to complete the cycle.

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 "Erdn" with buzzer sounding, the machine did not empty after 4 minutes 15 seconds in a drain step.

Temperature Probe Sensor Problem

If display shows "tSFL", the machine has a temperature sensor failure. This could mean the sensor is not connected or the sensor has failed.

Test Cycle

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

- Enter Program Mode.
- Press the \vee keypad. Display shows "tESt".
- Return the Program/Run switch to the right.
- Press START keypad. 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 or go to "bAl?" if variable-speed.

NOTE: For variable-speed models ONLY, display shows "bAl?". This is also a special factory test procedure. Ignore it and the machine will begin the test cycle after a few seconds.

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

Table 5 (Continued)

Table 4 (Continued)

Pause 5 seconds, then Reverse	Display shows 'rEv'							
wash speed – 60 seconds, pause several seconds before entering drain (next step)	Outputs: Motor operates wash speed reverse; drain closed							
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.							
	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".							
Spin: 2 minutes	Certain models display "SPIn" (keypad SPIN LED on) while other models display shows "HI 1" (keypad SPIN LED on)							
	Outputs: Spin (low spin for variable-speed – refer to motor chart below)							
Highest Spin speed (variable-speed models ONLY):	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) or "HI"							
2 minutes	Outputs: Highest spin speed selected (refer to motor chart below)							
Coast	Displays "SdLY" (spin delay coast)							
	Outputs: All off							
Stop routine	Display shows "01" (1 minute remaining). Agitates briefly then unlocks the door, shows "doNE" while sounding the buzzer 10 seconds; "doNE" shows for 20 more seconds. (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												
	Var	iable-Sp	Fixed Speed and 2 Speed Motor Outputs									
	STF	STR	RH	RM	RL	Fwd	Rev	Spin				
Motor off (no rotation)												
Wash speed forward	ON			ON		ON						
Wash speed reverse		ON		ON			ON					
Distribution (variable-speed ONLY)	ON		ON			NA	NA	NA				
Lowest spin (low spin speed "HI 1" for variable-speed)	ON			ON	ON			ON				
Medium spin ("HI 2" – variable-speed ONLY)	ON		ON	ON		NA	NA	NA				
Highest spin ("HI 3" – variable-speed ONLY)	ON		ON		ON	NA	NA	NA				

NA – Not Applicable

Domestic Cycle Charts Custom Cycles 1 - 24

Cycle Steps	Permanent Press Light Soil	Cotton Terrycloth Light Soil	Permanent Press Medium Soil	Cotton Terrycloth Medium Soil	Permanent Press Heavy Soil	Cotton Terrycloth Heavy Soil	Table Napery Blends Colors	Table Napery Blends Whites	VISA Table Napery Colors	VISA Table Napery Whites	Rags Heavy Soil	Reclaim	Personals with Bleach	Personals No Bleach	Delicates Spreads Cold Water	Delicates Spreads Warm (Both) Water
Cycle reference (display in Program Mode)	CY01	CY02	CY03	CY04	CY05	CY06	CY11	CY12	CY13	CY14	CY15	CY16	CY21	CY22	CY23	CY24
Agitation	Agl	Ag1	Ag1	Ag1	Ag1	Ag1	Ag1	Ag1	Ag1	Ag1	Agl	Ag1	Ag1	Agl	Ag1	Ag1
Wash 1 (WASH Indicator On)		•	•	•		•					•	•	•		•	
Time for agitation (minutes)	7	7	2	2	2	2	2	2	2	2	2	2	7	7	5	5
Fill Valves (temperature)	Hot	Hot	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Hot	Warm (Both)	Cold	Warm (Both)
Fill water level	Low	Low	High	High	High	High	High	High	High	High	High	High	Low	Low	High	High
Supply	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1
Heat (If enabled)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spin (only if preceded by 'drain') seconds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wash 2 (WASH Indicator On)				ı	I		1					I	ı			ı
Time for agitation (minutes)			6	6	7	7	9	9	12	12	10	12	7	7	2	2
Fill Valves (temperature)			Hot	Hot	Hot	Hot	Hot	Hot	Hot	Hot	Hot	Hot	Hot	Warm (Both)	Cold	Warm (Both)
Fill water level			Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	High	High	High
Supply			1	1	1	1	1	1	1	1	1	5	2	0	0	0
Heat (if enabled)			0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drain			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spin (only if preceded by 'drain') seconds			0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wash 3 (WASH Indicator On)		l														
Time for agitation (minutes)			7	7	7	7	2	7	2	2	6	12				
Fill Valves (temperature)			Hot	Hot	Hot	Hot	Warm (Both)	Hot		Warm (Both)	Hot	Hot				
Fill water level			Low	Low	Low	Low	High	Low	High	High	High	Low				
Supply			2	2	2	2	0	2	0	0	2	5				
Heat (if enabled)			0	0	0	0	0	0	0	0	0	0				
Drain			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Spin (only if preceded by 'drain') seconds			0	0	0	0	0	0	0	0	0	0				
Wash 4 (WASH Indicator On)				ı			1					ı	ı			<u>I</u>
Time for agitation (minutes)																
Fill Valves (temperature)																
Fill water level																
Supply																
Heat (if enabled)																
Drain																
Spin (only if preceded by 'drain') seconds																
Wash 5 (WASH Indicator On)		l .		l	l		I					l	l			<u> </u>
Time for agitation (minutes)																
Fill Valves (temperature)																
Fill water level																
Supply																
Heat (if enabled)																
Drain																
Spin (only if preceded by 'drain') seconds		-			-				-			 	 			-

Cycle Steps	Permanent Light Soil	Cotton Terrycloth Light Soil	Permanent Press Medium Soil	Cotton Terrycloth Medium Soil	Permanent Press Heavy Soil	Cotton Terrycloth Heavy Soil	Table Napery Blends Colors	Table Napery Blends Whites	VISA Table Napery Colors	VISA Table Napery Whites	Rags Heavy Soil	Reclaim	Personals with Bleach	Personals No Bleach	Delicates Spreads Cold Water	Delicates Spreads Warm (Both) Water
Cycle reference (display in Program Mode)	CY01	CY02	CY03	CY04	CY05	CY06	CY11	CY12	CY13	CY14	CY15	CY16	CY21	CY22	CY23	CY24
Agitation	Ag1	Ag1	Ag1	Ag1	Ag1	Agl	Ag1	Ag1	Ag1	Agl	Agl	Ag1	Ag1	Ag1	Ag1	Ag1
Rinse 1 (Rinse Indicator On)	•	•			•	•	•	•	•			•	•		•	•
Time for agitation (minutes)	2	2	2	2	2	2	2	2	2	2	2	4	2	2	2	2
Fill Valves (temperature)	Warm (Both)	Warm (Both)	Hot	Hot	Hot	Hot	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Hot	Warm (Both)	Warm (Both)	Warm (Both)	Cold	Warm (Both)
Fill water level	High	High	High	High	High	High	High	High	High	High	High	High	High	High	High	High
Supply	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heat (If enabled)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spin (only if preceded by 'drain') seconds	0	0	0	0	0	0	0	0	0	0	0	0	60	60	60	60
Rinse 2 (Rinse Indicator On)	· ·		Ů			Ü		· ·		v	-	v	- 00			00
Time for agitation (minutes)	2	2	2	2	2	2	2	2		l	2	2	2			
Fill Valves (temperature)	Warm (Both)	Warm (Both)		Warm (Both)		Warm (Both)		Warm (Both)		I	Warm (Both)		-			<u> </u>
Fill water level	High	High	High	High	High	High	High	High			High	High	High			
Supply	0	0	0	0	0	0	0	0 0	 		0 0	0	0			
Heat (if enabled)	0	0	0	0	0	0	0	0	 		0	0	0			
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			Yes	Yes	Yes			
Spin (only if preceded by 'drain') seconds	60	60	60	60	60	60	60	60			0	60	0			
	60	60	60	00	60	60	00	60			U	00	U			
Rinse 3 (Rinse Indicator On) Time for agitation (minutes)	1				1			1							1	1
Fill Valves (temperature)																
Fill water level																
Supply Heat (if smalled)																
Heat (if enabled)																
Drain Drain																
Spin (only if preceded by 'drain') seconds																
Rinse 4 (Rinse Indicator On)	1				1			1		1					1	1
Time for agitation (minutes)																
Fill Valves (temperature)																
Fill water level																
Supply																
Heat (if enabled)																
Drain																
Spin (only if preceded by 'drain') seconds																
Rinse 5 (Rinse Indicator On)																
Time for agitation (minutes)																
Fill Valves (temperature)																
Fill water level																
Supply																
Heat (if enabled)																
Drain																
Spin (only if preceded by 'drain') seconds																
Final Spin (Rinse Indicator On)																
Time for agitation (minutes)	4	4	4	4	5	4	4	4	4	4	4	4	4	4	4	4
Fill Valves (temperature)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Warm (Both)	Cold	Cold
Fill water level	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	High	High
Supply	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Heat (if enabled)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spin Speed	SPN3	SPN3	SPN3	SPN3	SPN3	SPN3	SPN3	SPN3	SPN1	SPN1	SPN3	SPN3	SPN1	SPN1	SPN1	SPN1
Spin (only if preceded by 'drain') minutes	01110	01110	5	0	5	01.10	51115	01110	51111	D	00	51.15	01111	U1111	51111	5

International Cycle Charts Custom Cycles 31 - 46

Cycle Steps	Normal 90°C (Pre Wash)	Normal 90°C	Normal 60°C (Pre Wash)	Normal 60°C	Normal 40°C (Pre Wash)	Permanent Press 90°C (Pre Wash)	Permanent Press 90°C	Permanent Press 60°C (Pre Wash)	Permanent Press 60°C	Fine 40°C	Custom #1	Custom #2	Custom #3	Custom #4
Cycle reference (display in Program Mode)	CY31	CY32	CY33	CY34	CY35	CY41	CY42	CY43	CY44	CY45	CY25	CY26	CY36	CY46
Agitation	Ag1	Agl	Ag1	Ag1	Ag1	Agl	Agl	Ag1	Ag1	Ag2				
Wash 1 (WASH Indicator On)	•	•	•											
Time for agitation (minutes)	8	10	8	10	6	8	10	8	10	6				
Fill Valves (temperature)	Cold	Hot	Cold	Hot	Cold	Cold	Hot	Cold	Hot	Cold				
Fill water level	High	Low	High	Low	High	High	Low	High	Low	High				
Supply	1	5	1	5	1	1	5	1	5	1				
Heat (if enabled)	40°	90°	40°	60°	40°	40°	90°	40°	60°	40°				
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Spin (only if preceded by 'drain') seconds	0	0	0	0	0	0	0	0	0	0				
Wash 2 (WASH Indicator On)	II.	I.	ı	l										
Time for agitation (minutes)	10	2	10	2	8	10	2	10	2	8				
Fill Valves (temperature)	Hot	Cold	Hot	Cold	Warm (Both)	Hot	Cold	Hot	Cold	Warm (Both)				
Fill water level	Low	Medium	Low	Medium	Low	Low	Medium	Low	Medium	Low				
Supply	2	0	2	0	2	2	0	2	0	2				
Heat (if enabled)	90°	0	60°	0	40°	90°	0	60°	0	40°				
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Spin (only if preceded by 'drain') seconds	0	60	0	60	0	0	60	0	60	0				
Wash 3 (WASH Indicator On)	1	ı	<u>l</u>	l						<u>l</u>		l	l	l
Time for agitation (minutes)	2		2		2	2		2		2				
Fill Valves (temperature)	Cold		Cold		Cold	Cold		Cold		Cold				
Fill water level	Medium		Medium		Medium	Medium		Medium		Medium				
Supply	0		0		0	0		0		0				
Heat (if enabled)	0		0		0	0		0		0				
Drain	Yes		Yes		Yes	Yes		Yes		Yes				
Spin (only if preceded by 'drain') seconds	60		60		60	60		60		60				
Wash 4 (WASH Indicator On)	1	I	l .		1			1	1	l .			l	l
Time for agitation (minutes)					1									
Fill Valves (temperature)														
Fill water level														
Supply														
Heat (if enabled)														
Drain														
Spin (only if preceded by 'drain') seconds														
Wash 5 (WASH Indicator On)	1	I	I	ı	1			1	1	I			l	I.
Time for agitation (minutes)														
Fill Valves (temperature)														
Fill water level														
Supply														
Heat (if enabled)														
Drain														
Spin (only if preceded by 'drain') seconds	 				 			 	 		1	1		

Cycle Steps	Normal 90°C (Pre Wash)	Normal 90°C	Normal 60°C (Pre Wash)	Normal 60°C	Normal 40°C (Pre Wash)	Permanent Press 90°C (Pre Wash)	Permanent Press 90°C	Permanent Press 60°C (Pre Wash)	Permanent Press 60°C	Fine 40°C	Custom #1	Custom #2	Custom #3	Custom #4
Cycle Reference (Display in Program Mode)	CY31	CY32	CY33	CY34	CY35	CY41	CY42	CY43	CY44	CY45	CY25	CY26	CY36	CY46
Agitation	Agl	Ag1	Agl	Ag1	Agl	Ag1	Ag1	Ag1	Ag1	Ag2				
Rinse 1 (Rinse Indicator On)											ı		l .	
Time for agitation (minutes)	2	2	2	2	2	2	2	2	2	2				
Fill Valves (temperature)	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold				
Fill water level	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium				
Supply	0	0	0	0	0	0	0	0	0	0				
Heat (if enabled)	0	0	0	0	0	0	0	0	0	0				
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Spin (only if preceded by 'drain') seconds	60	60	60	60	60	60	60	60	60	60				
Rinse 2 (Rinse Indicator On)	00	00	00	00	00	00	00	00	00	00				
Time for agitation (minutes)	2	2	2	2	2	2	2	2	2	2				
Fill Valves (temperature)	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold				
Fill water level	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium				
Supply	0	0	0	0	0	0	0	0	0	0				
Heat (if enabled)	0	0	0	0	0	0	0	0	0	0				
Drain														
Spin (only if preceded by 'drain') seconds	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				├──
	60	60	60	60	60	60	60	60	60	60				
Rinse 3 (Rinse Indicator On)		1	i	I				I		1	ı		1	
Time for agitation (minutes)														
Fill Valves (temperature)														
Fill water level														
Supply														lacksquare
Heat (if enabled)														lacksquare
Drain														
Spin (only if preceded by 'drain') seconds														<u>1</u>
Rinse 4 (Rinse Indicator On)														
Time for agitation (minutes)														
Fill Valves (temperature)														
Fill water level														
Supply														
Heat (if enabled)														
Drain														
Spin (only if preceded by 'drain') seconds														
Rinse 5 (Rinse Indicator On)														,
Time for agitation (minutes)														
Fill Valves (temperature)														
Fill water level														
Supply														
Heat (if enabled)														
Drain														
Spin (only if preceded by 'drain') seconds														
Final Spin (Rinse Indicator On)		ı	1	ı	1			ı			l		L	
Time for agitation (minutes)	2	2	2	2	2	2	2	2	2	2				
Fill Valves (temperature)	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold				\vdash
Fill water level	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium				
Supply	3	3	3	3	3	3	3	3	3	3				
Heat (if enabled)	0	0	0	0	0	0	0	0	0	0				
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				
Spin Speed	SPN3	SPN3	SPN3	SPN3	SPN3	Yes SPN3	SPN3	SPN3	SPN3	SPN3				
Spin (only if preceded by 'drain') minutes	2 2	2 2	2 2	2 SPN3	2 2	SPN3 2	2 2	2 SPN3	2 2	2 SPN3				
Sp (only it preceded by drain) initiates	2			l	T-1-1- 0 (6	l l		∠	2		l		l	