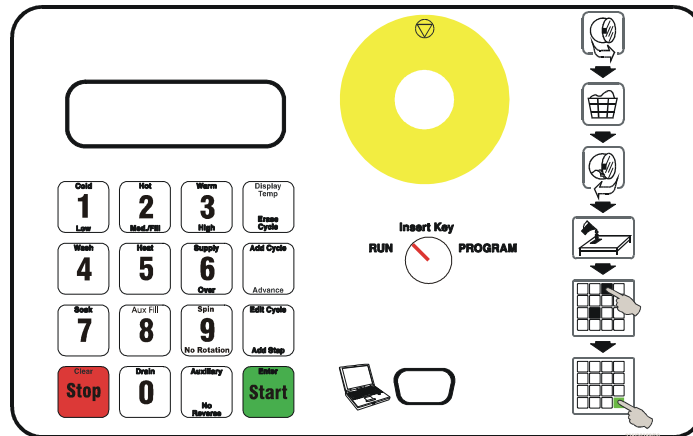


Washer-Extractors

Cabinet Freestanding
WE-8 Computer

Programming



Keep These Instructions for Future Reference.

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



www.comlaundry.com

Part No. 9001889R7
July 2011



WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

NOTE: The WARNING and IMPORTANT instructions appearing in this manual are not meant to cover all possible conditions and situations that may occur. It must be understood that common sense, caution, and carefulness are factors which cannot be built into these washers. These factors MUST BE supplied by the person(s) installing, maintaining, or operating the washer.

Always contact the distributor, service agent, or the manufacturer about any problems or conditions you do not understand.

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Introduction

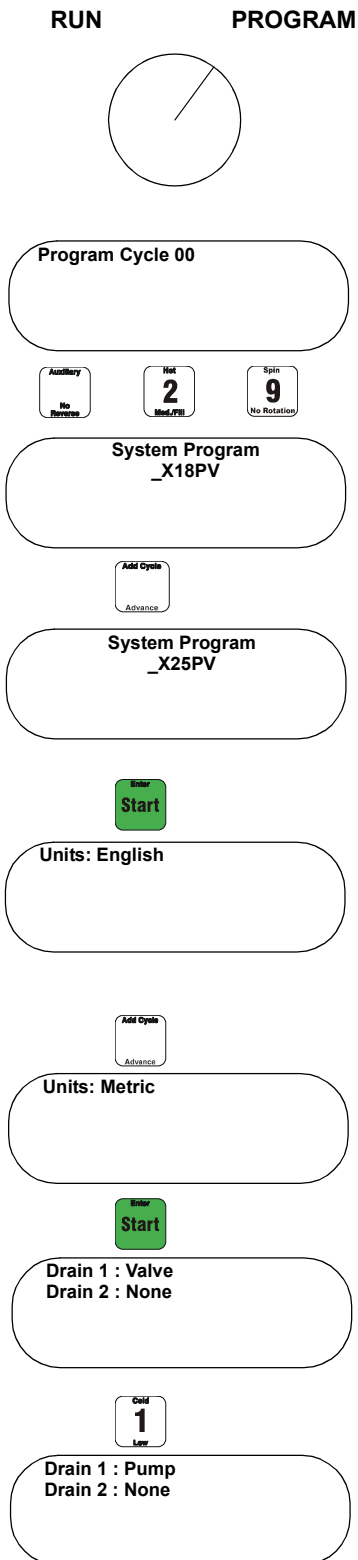
Model Identification

Information in this manual is applicable to these models:

18	HX018PVQM7	HX18PVXU6	SX18PVQU6	UX018PVQM7	UX18PVPA7	UX18PVXA6
	HX018PVXM7	SX018PVPA7	SX18PVXM6	UX018PVXA7	UX18PVPU6	UX18PVXA7
	HX18PVQM6	SX018PVQM7	SX18PVXM7	UX018PVXM7	UX18PVQA6	UX18PVXM6
	HX18PVQM7	SX018PVXM7	SX18PVXU6	UX18PVNA6	UX18PVQA7	UX18PVXM7
	HX18PVQU6	SX18PVPA7	UX018PVNA7	UX18PVNA7	UX18PVQM6	UX18PVXU6
	HX18PVXM6	SX18PVQM6	UX018PVPA7	UX18PVNU6	UX18PVQM7	
	HX18PVXM7	SX18PVQM7	UX018PVQA7	UX18PVPA6	UX18PVQU6	
25	HX025PVQM7	HX25PVXU6	SX25PVXM7	UX025PVXM7	UX25PVQA6	UX25PVXM6
	HX025PVXM7	SX025PVQM7	SX25PVXU6	UX25PVNA6	UX25PVQA7	UX25PVXM7
	HX25PVQM6	SX025PVXM7	UX025PVNA7	UX25PVNA7	UX25PVQM6	UX25PVXU6
	HX25PVQM7	SX25PVQM6	UX025PVPA7	UX25PVNU6	UX25PVQM7	
	HX25PVQU6	SX25PVQM7	UX025PVQA7	UX25PVPA6	UX25PVQU6	
	HX25PVXM6	SX25PVQU6	UX025PVQM7	UX25PVPA7	UX25PVXA6	
	HX25PVXM7	SX25PVXM6	UX025PVXA7	UX25PVPU6	UX25PVXA7	
33	UX33PVNA7	UX33PVPA7	UX33PVQA7	UX33PVQM7	UX33PVXA7	UX33PVXM7
35	HX035PVQM7	HX35PVXU6	SX35PVQU6	UX035PVQM7	UX35PVPA7	UX35PVXA6
	HX035PVXM7	SX035PVNM7	SX35PVXM6	UX035PVXA7	UX35PVPU6	UX35PVXA7
	HX35PVQM6	SX035PVQM7	SX35PVXM7	UX035PVXM7	UX35PVQA6	UX35PVXM6
	HX35PVQM7	SX035PVXM7	SX35PVXU6	UX35PVNA6	UX35PVQA7	UX35PVXM7
	HX35PVQU6	SX35PVNM7	UX035PVNA7	UX35PVNA7	UX35PVQM6	UX35PVXU6
	HX35PVXM6	SX35PVQM6	UX035PVPA7	UX35PVNU6	UX35PVQM7	
	HX35PVXM7	SX35PVQM7	UX035PVQA7	UX35PVPA6	UX35PVQU6	
40	UX40PVNA7	UX40PVPA7	UX40PVQA7	UX40PVQM7	UX40PVXA7	UX40PVXM7
55	HX055PVNU7	HX55PVQU7	SX055PVXU7	SX55PVQU7	UX055PVXU7	UX55PVQU7
	HX055PVQU7	HX55PVXU6	SX55PVNU6	SX55PVXU6	UX55PVNU6	UX55PVXU6
	HX055PVXU7	HX55PVXU7	SX55PVNU7	SX55PVXU7	UX55PVNU7	UX55PVXU7
	HX55PVNU6	SX055PVNU7	SX55PVPU6	UX055PVNU7	UX55PVPU6	
	HX55PVNU7	SX055PVPU7	SX55PVPU7	UX055PVPU7	UX55PVPU7	
	HX55PVQU6	SX055PVQU7	SX55PVQU6	UX055PVQU7	UX55PVQU6	
75	HX075PVNU7	HX75PVPU7	SX075PVQU7	SX75PVQU7	UX75PVNU7	
	HX075PVPU7	HX75PVQU6	SX75PVNU6	UX075PVNU7	UX75PVPU6	
	HX075PVQU7	HX75PVQU7	SX75PVNU7	UX075PVPU7	UX75PVPU7	
	HX75PVNU6	SX075PVNU7	SX75PVPU7	X075PVQU7	UX75PVQU6	
	HX75PVNU7	SX075PVPU7	SX75PVQU6	UX75PVNU6	UX75PVQU7	
100	HX100PVNU6	HX100PVQU6	SX100PVNU7	SX100PVQU7	UX100PVPU6	UX100PVQU7
	HX100PVNU7	HX100PVQU7	SX100PVPU7	UX100PVNU6	UX100PVPU7	
	HX100PVPU7	SX100PVNU6	SX100PVQU6	UX100PVNU7	UX100PVQU6	
135	HX135PVNU6	HX135PVQU6	SX135PVNU7	SX135PVQU7	UX135PVPU6	UX135PVQU7
	HX135PVNU7	HX135PVQU7	SX135PVPU7	UX135PVNU6	UX135PVPU7	
	HX135PVPU7	SX135PVNU6	SX135PVQU6	UX135PVNU7	UX135PVQU6	
165	HX165PVNU6	HX165PVQU6	SX165PVNU7	SX165PVQU7	UX165PVPU6	UX165PVQU7
	HX165PVNU7	HX165PVQU7	SX165PVPU7	UX165PVNU6	UX165PVPU7	
	HX165PVPU7	SX165PVNU6	SX165PVQU6	UX165PVNU7	UX165PVQU6	
200	HX200PVNU7	HX200PVQU7	SX200PVPU7	UX200PVNU7	UX200PVQU7	
	HX200PVPU7	SX200PVNU7	SX200PVQU7	UX200PVPU7		

Programming

Setup of the Machine



Turn key from Run to Program

To go to the main setup of the machine, press “Auxiliary”, “2”, “9”.

To change the machine type, press the “Advance” button.

The following types are possible:

<u>_</u> X18PV	<u>_</u> X40PV	<u>_</u> X135PV
<u>_</u> X25PV	<u>_</u> X55PV	<u>_</u> X165PV
<u>_</u> X33PV	<u>_</u> X75PV	<u>_</u> X200PV

Press the “Advance” button until the right type of machine is selected. Press the “Enter” button.

Select the desired units.

NOTE: English means level in inch and temperature in °F.

Metric means level in cm and temperature in °C.

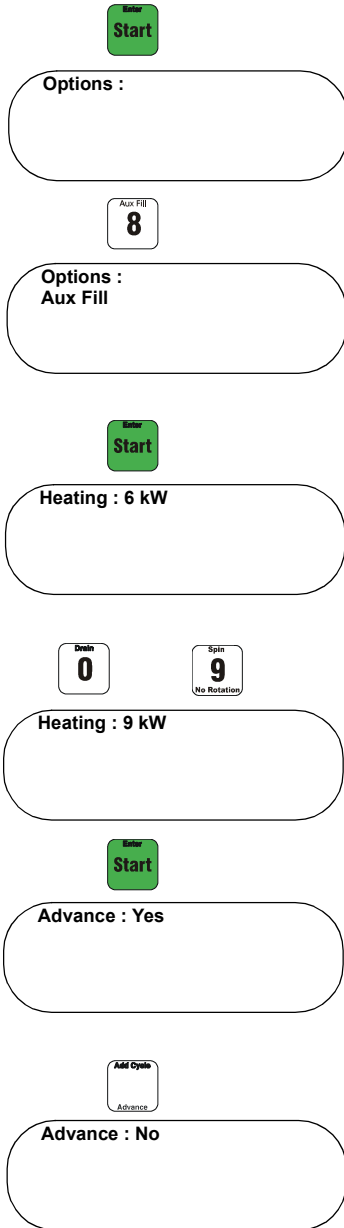
Press the “Advance” button to change the units.

Press the “Enter” button.

Select the type of drain valve.

Press “1” to change drain 1 to pump or valve.

Press “2” to change drain 2 to pump, valve or none.



Press the “Enter” button to select options.

Press the “Aux Fill” button for auxiliary fill option or press “Enter” for heating.


If heating is selected, the user can fill in the kW of the electrical heating (example: 9 kW).


Press “0”, “9”.


Press “Enter” to select advance mode in run mode yes or no.


Press “Advance” to change between yes and no.


Programming



Level : hyst 2"


Temp : hyst 3°F


Spin retries : 5


Address : 0


Enter to save ?


Program Cycle 00

Press “Enter” to set the hysteresis level (level at which water drops before it senses it must refill).

If English is selected for units, this value will be in inches. If Metric is selected for units, this value will be in cm.

Select between 1 to 9 cm or inches.

Press “Enter” to select the temperature hysteresis (level at which temperature drops before machine senses it must reheat).

If English is selected for units, this value will be in °F. If Metric is selected for units, this value will be in °C. Select 1 to 9 °C or °F.

Press the “Enter” button to set the spin retries. Select 1 to 9 spin retries.

Press “Enter” to set the network address of the machine. If this is not used, press “Enter”.

The address of the machine has to be set if you network the machine. Each machine should have a different address.

Fill in between 00 and 99.

Press “Enter” to finish the settings.

Press “Enter” to save the settings or press “Stop” to exit without saving.

Version of Control

To determine control version, apply power to machine. Control will display version of control (i.e., 1.15).

Language on Display (Version 1.15 and later ONLY)

To set a different language on the WE-8 display:

1. Turn key from RUN to PROGRAM.
2. Press “Auxiliary”, “2” and “9” to enter set-up mode.
3. English will display. Press “Advance” until desired language displays (French, Italian, Spanish and German).
4. Press “Enter” keypad.
5. Press “Enter” to advance through set-up mode.
6. Wait until information is saved.
7. Turn key from PROGRAM to RUN.
8. Display will read language chosen for all cycles.

Setup of the Chemical Hold Feature (Version 1.11 and later ONLY)

- At power up, verify that model is at least version 1.11. Refer to version of Control Section. Earlier versions do not have this chemical hold feature.
- Insert key into key switch and turn to Program.
- Push the Auxiliary key, the 2 key, and the 9 key in succession to enter System Program Mode.
- Push the Start key 10 times to arrive at the Chemical hold choice.
- Push the Add Cycle/Advance key to toggle the Chemical hold feature either Yes (on) or No (off).
- Push the Start key twice to save changes and exit System Program Mode.
- Turn key switch to Run.

NOTE: If chemical hold is on, then a switch closure/opening between pins 1 and 4 of the COIN header on the output board will control supplies 4 through 9. A closure will turn the programmed supply/ies on and count down the time for the supply to be on. An opening will turn the programmed supply/ies off and halt the time for the supply to be on.

NOTE: If chemical hold is off, then supplies 4 through 9 are controlled exactly like supplies 1 through 3. A switch closure/opening between pins 1 and 4 of the COIN header on the output board will have no effect.

Program Storing Mode

The WE-8 control is capable of 99 total cycles. One cycle contains 1 or more steps.

One step is a function of the wash program (example: heat).

Choose between the following functions:

- | | |
|-----------|---|
| Fill: | To fill the machine with water. |
| Wash: | Wash action of the machine. |
| Supply: | To add detergent to the wash (liquid or powder). |
| Cooldown: | Cool to programmed temperature |
| Heat: | To heat the water. |
| Soak: | The wash will be soaked for a programmed time and a programmed temperature. |
| Aux: | A relay contact will close for a programmed time. |
| Spin: | To spin the machine for a programmed time and RPM. |
| Drain: | To drain the water from the machine. |

Programming

Explanation of the Step Functions

Fill:

Choose between 4 water inlet configurations and 3 water levels.

Water Inlet Configurations:

- Cold: Only opens the cold water valve.
- Hot: Only opens the hot water valve.
- Warm: Opens the cold and hot water valves.
- Aux Fill: Opens an auxiliary water valve if installed.

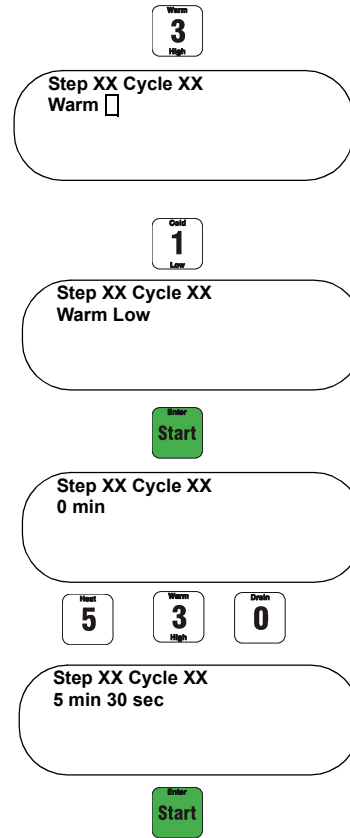
Water Levels:

- Low: Low water level.
- Med: Medium water level.
- High: High water level.

The inlet configurations and the fill levels appear on the keypad, keys 1, 2, 3 and 8.



Example: Warm Low (time limit 5 minutes 30 seconds)



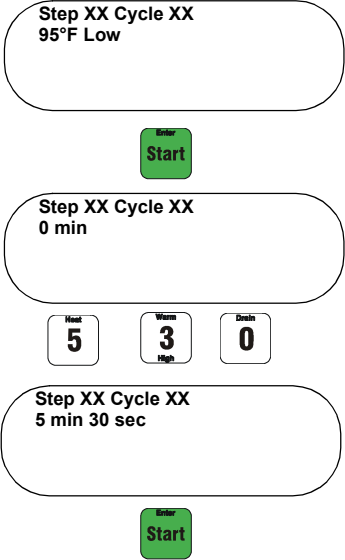
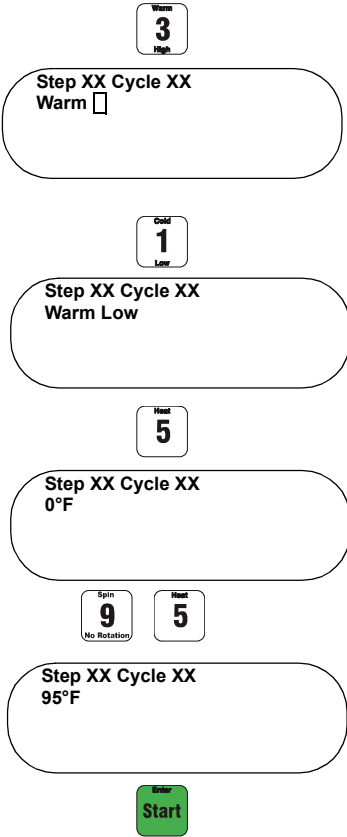
Be sure to select first the inlet configuration and then the water level.

Then you will be asked for the step time limit.

NOTE: If a fill error occurs, then machine has 2 minutes to finish filling. If after 2 minutes it has not finished filling, cycle is aborted.

It is possible to more accurately control the temperature of water coming in to the machine during a fill step. This does not apply to “Aux Fill” step. The control will mix the hot and cold water inlet to the temperature programmed in the fill function. To fill in the temperature, select the water inlet type and the water level. Press the “Heat” button and the control will ask the temperature. In this way the water inlet type selected is of no use because the control will mix between the cold and hot water inlet to reach the temperature.

Example: Fill to low level and 95°F (step time limit: 5 minutes 30 seconds).



Programming

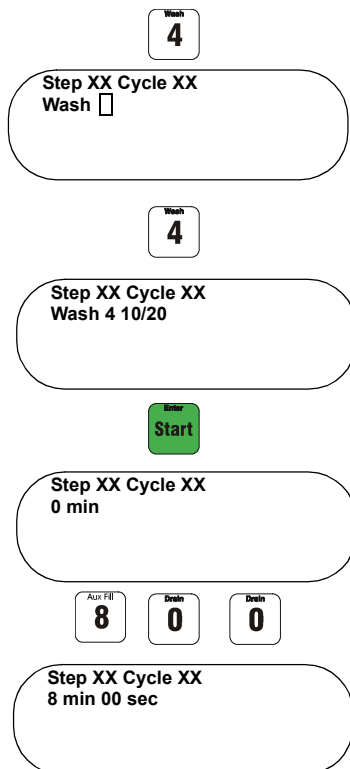
Wash:

Choose between 7 different preset wash actions.

	Action Time (sec)	Stop Time (sec)	G-force
Wash 1	18	3	0.5
Wash 2	3	27	0.5
Wash 3	0	0	0
Wash 4	10	20	0.5
Wash 5*	18	3	0.5
Wash 6	4	56	0.5
Wash 7	0	0	0

The “Wash” button is button 4 on the display.

Example: Wash 4 for 8 minutes 00 seconds.



Supply:

Choose between 9 different supplies.

Supply 1: Turns on the water valve in compartment A of the supply box.

Supply 2: Turns on the water valve in compartment B of the supply box.

Supply 3: Turns on the water valve in compartment C of the supply box.

Supply 4: Activates supply pump 1.

Supply 5: Activates supply pump 2.

Supply 6: Activates supply pump 3.

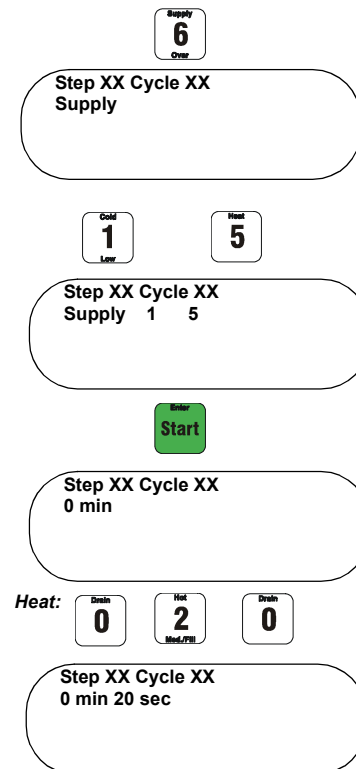
Supply 7: Activates supply pump 4.

Supply 8: Activates supply pump 5.

Supply 9: Activates supply pump 6.

The Supply button is button 6.

Example: Supply 1 and 5 for 20 seconds.



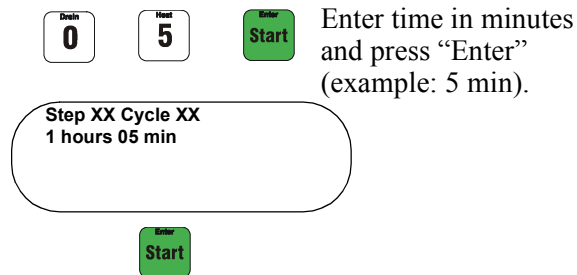
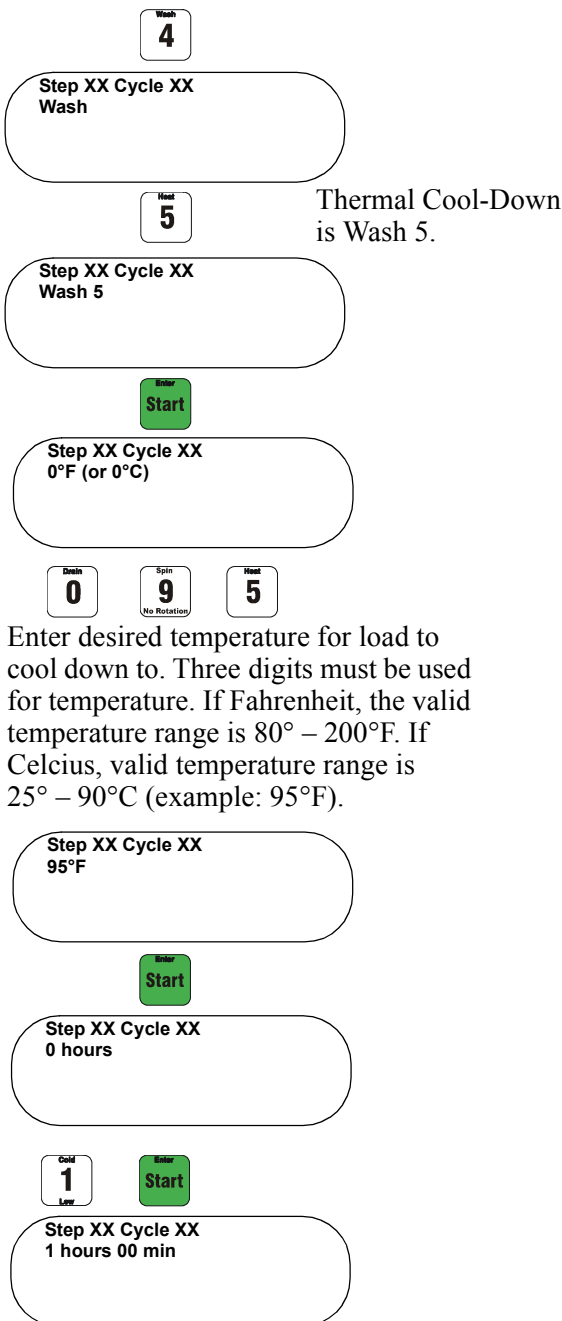
* Refer to section on Wash 5 Thermal Cool-Down.

Chemical Hold Feature

Chemical supply injection can be paused. Refer to Setup of Chemical Hold Feature.

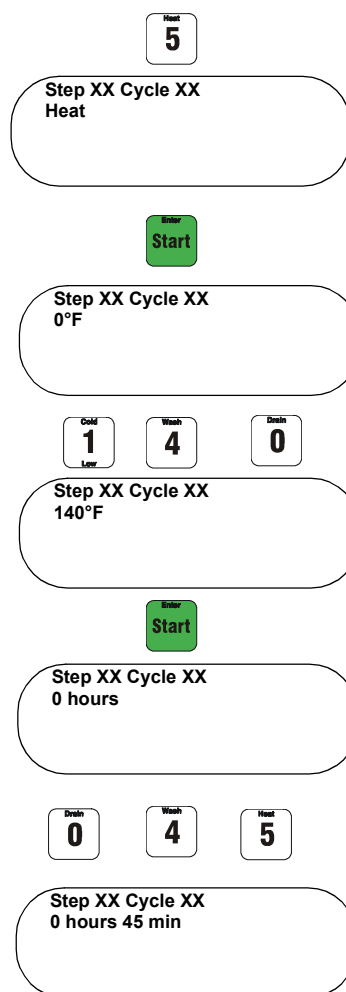
Wash 5 Thermal Cool-Down

Immediately after a heat step, a temperature-controlled thermal cool-down may be programmed to prevent fiber shock from sudden cool-down.



The “Heat” button is number 5.

Example: Heat up to 140°F with the time limit of 45 minutes.



Programming

Soak:

Button 7 is the “Soak” button.

By pressing button 7, “Soak” will appear on the display. Press “Enter” to fill in the soak time.

Example: Soak for 2 hours.

The diagram illustrates the sequence of steps to program a 2-hour soak time:

- Pressing the **Soak 7** button results in a display showing "Step XX Cycle XX Soak".
- Pressing the **Start** button results in a display showing "Step XX Cycle XX 0 hours".
- Pressing the **Hot 2** button results in a display showing "Step XX Cycle XX 2 hours 00 min".
- Pressing the **Warm 3** button results in a display showing "Step XX Cycle XX 2 hours 23 min".
- Pressing the **Start** button results in a display showing "Step XX Cycle XX 2 hours 23 min".

Use the key pad to fill in the hours of the soak time (example: 2 hours).

Now you can fill in the minutes (example: 23 minutes).

Press “Enter”.

The temperature of the soak will be the temperature programmed in the previous step. You can also change the temperature by pressing first “Soak” and then “Heat”.

Example: Soak time of 2 hours with 32°F.

The diagram illustrates the sequence of steps to program a 2-hour soak at 32°F:

- Pressing the **Soak 7** button results in a display showing "Step XX Cycle XX Soak".
- Pressing the **Heat 5** button results in a display showing "Step XX Cycle XX 0°F".
- Pressing the **Aux Fill 8** and **0** buttons results in a display showing "Step XX Cycle XX 32°F".
- Pressing the **Start** button results in a display showing "Step XX Cycle XX Soak 32°F".
- Pressing the **Start** button results in a display showing "Step XX Cycle XX 0 hours".
- Pressing the **Hot 2** button results in a display showing "Step XX Cycle XX 2 hours 00 min".
- Pressing the **Warm 3** button results in a display showing "Step XX Cycle XX 2 hours 23 min".
- Pressing the **Start** button results in a display showing "Step XX Cycle XX 2 hours 23 min".

Use the key pad to fill in the soak temperature (example: 32°F).

Use the key pad to fill in the hours of the soak time (example: 2 hours).

Fill in the minutes (example: 23 minutes).


Press “Enter”.

Spin:


Choose between 4 preset spin speeds.

	18-75 Models	100/135 Models	165 Models	200 Models
Spin 1 RPM	500	500	500	
Spin 2 RPM	650	650	650	
Spin 3 RPM	800	800	750	
Spin 4 RPM	1000	80	750	


“Spin” is button 9.



 Step XX Cycle XX Spin



 Select the spin number (example: 3).

Step XX Cycle XX Spin 3





 Step XX Cycle XX 0 min


Enter the spin time. Enter minutes first and then seconds (example: 5 minutes 30 seconds).



 Step XX Cycle XX 5 min 00 sec


 Step XX Cycle XX 5 min 30 sec



Drain:


This function drains the water.

If you have 2 drains, select which drain has to be opened.




 Step XX Cycle XX Drain

Select Drain 1 or 2. If you only have 1 drain, you can only select 1.




 Step XX Cycle XX Drain 2





 Step XX Cycle XX 0 min


Enter the drain time (example: 1 minute 10 seconds).



 Step XX Cycle XX 1 min 00 sec

 Step XX Cycle XX 1 min 10 sec



NOTE: With the WE-8 control, it is NOT necessary to program a drain step before spin. The spin step incorporates the balancing routine and draining before beginning high speed spin (as a sub part of the spin step). A programmed drain step will be skipped if spin step is programmed immediately after it.

Programming

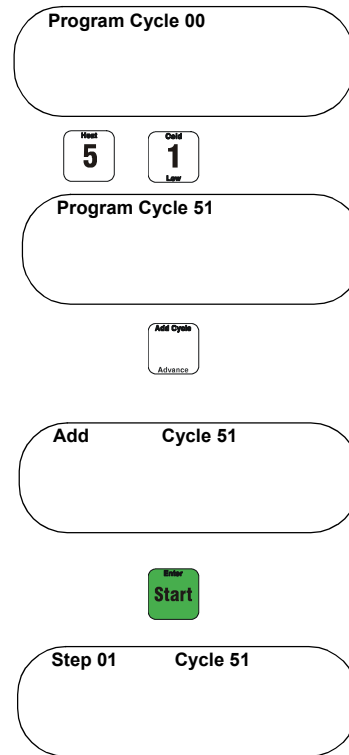
Example Making a New Program

Program 51

- Step 1: Fill warm water to low level
(5 minutes 30 seconds time limit)
- Step 2: Supply 1 and 5 for 20 seconds
- Step 3: Heat up to 140°F (45 minutes time limit)
- Step 4: Wash action 4 for 8 minutes 00 seconds
- Step 5: Drain 1 for 1 minutes 25 seconds
- Step 6: Spin 3 for 8 minutes 30 seconds

To program or edit cycles turn the key into the Program Mode.

“Program Cycle xx” will be shown on the display.



Warm
3
High

Step 01 Cycle 51
Warm

Cold
1
Low

Step 01 Cycle 51
Warm Low

Enter
Start

Step 01 Cycle 51
0 min

Heat 5	Warm 3 High	Drain 0
------------------	--------------------------	-------------------

Step 01 Cycle 51
5 min 30 sec

Enter
Start

End Cycle 51

Edit Cycle
Add Step

Step 02 Cycle 51

Supply
6
Over

Step 02 Cycle 51
Supply

Cold 1 Low	Heat 5
-------------------------	------------------

Step 02 Cycle 51
Supply 1 5

Enter
Start

Step 02 Cycle 51
0 min

Drain 0	Hot 2 Med./Fib	Drain 0
-------------------	-----------------------------	-------------------

Step 02 Cycle 51
0 min 20 sec

Enter
Start

End Cycle 51

Edit Cycle
Add Step

Step 03 Cycle 51

Programming

Heat
5

Step 03 Cycle 51
Heat

Enter
Start

Step 03 Cycle 51
0°F

Cold Wash Drain
1 4 0

Step 03 Cycle 51
140°F

Enter
Start

Step 03 Cycle 51
0 hours

Drain Wash Heat
0 4 5

Step 03 Cycle 51
0 hours 45 min

Enter
Start

End Cycle 51

Edit Cycle
Add Step

Step 04 Cycle 51

Wash
4

Step 04 Cycle 51
Wash

Wash
4

Step 04 Cycle 51
Wash 4 10/20

Enter
Start

Step 04 Cycle 51
0 min

Aux Fill Drain Drain
8 0 0

Step 04 Cycle 51
8 min 00 sec

Enter
Start

End Cycle 51

Edit Cycle
Add Step

Step 05 Cycle 51

Drain
0

Step 05 Cycle 51
Drain 1

Enter
Start

Step 05 Cycle 51
0 min

Cold Hot Heat
1 2 5
Low Med/Hi

Step 05 Cycle 51
1 min 25 sec

Start

End Cycle 51

Add Cycle
Add Step

Step 06 Cycle 51

Spin
9
No Rotation

Step 06 Cycle 51
Spin 1

Warm
3
High

Step 06 Cycle 51
Spin 3

Start

Step 06 Cycle 51
0 min

Aux Fill
8

Warm
3
High

Drain
0

Step 06 Cycle 51
8 min 30 sec

Start

End Cycle 51

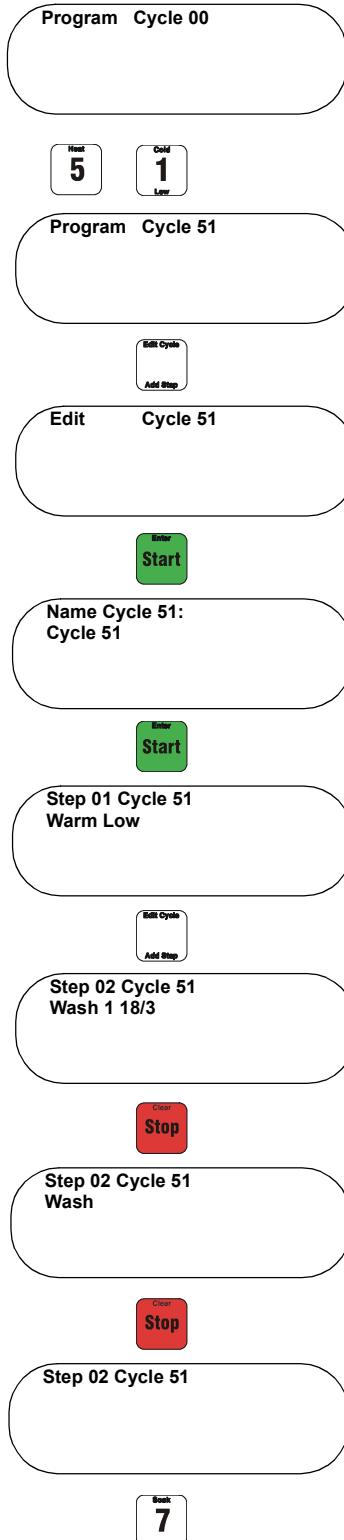
Start

Enter to save ?

Start

Program Cycle 51

Programming



Edit a Cycle

Change a Complete Step

To edit a cycle enter the cycle number (example: cycle 51).

Press the “Edit Cycle” button.

Press the “Enter” button to edit the cycle.

Press “Enter” to continue.

The first step of cycle 51 will display.

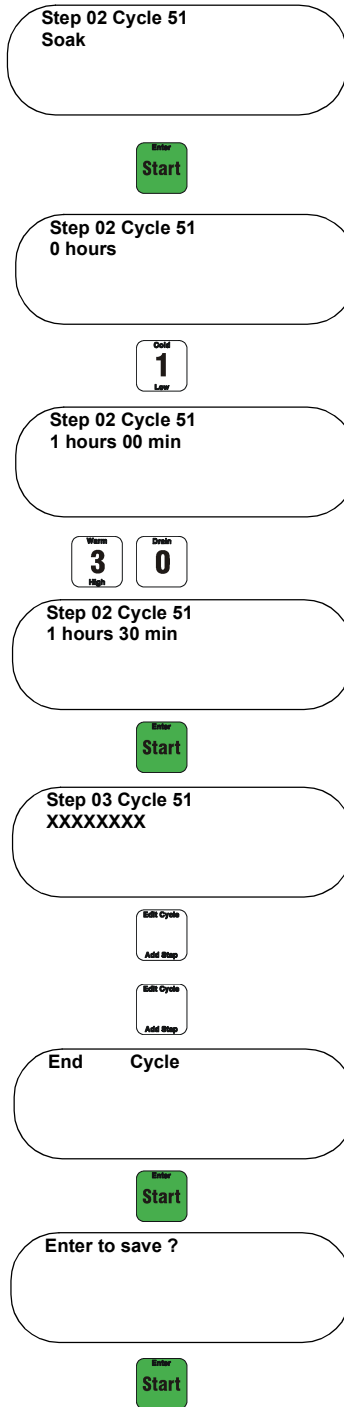
Select the step being edited by using the “Advance” button to go to the next step or the “Previous” button to go to the previous step.

If you would like to change the step, press the “Clear” button.

Select another wash action or press the “Clear” button to change the function.

Fill in the function desired (example: soak for 1 hour 30 minutes).

Press the “Soak” button.



The control is then in the next step of cycle 51. Press “Advance” until the display shows “End Cycle 55”.

Press “Enter” to confirm.

Press “Enter” to save or “Stop” to ignore the changes.

Programming

Program Cycle 00

Hour 5 Load 1 Low

Program Cycle 51

Edit Cycle Add Step

Edit Cycle 51

Enter Start

Name Cycle 51: Cycle 51

Enter Start

Step 01 Cycle 51 Warm Low

Add Cycle Advance

Step 02 Cycle 51 Wash 1 18/3

Enter Start

Step 02 Cycle 51 5 min 00 sec

Clear Stop

Step 01 Cycle 51 5 min

Display 6 Over

Changing the Time of a Step

To edit a cycle, enter the cycle number (example: cycle 51).

Press the “Edit Cycle” button.

Press the “Enter” button to edit the cycle.

Press “Enter” to continue.

The first step of cycle 51 will display.

Select the step being edited by using the “Advance” button to go to the next step or the “Previous” button to go to the previous step.

Press “Enter” to change the time of the wash action.

Press “Clear” to change the time.

Fill in another time (example: 6 minutes 20 seconds).

Step 02 Cycle 51
6 min 00 sec

Hot 2
Drain 0

Step 02 Cycle 51
6 min 20 sec

Enter
Start

Step 03 Cycle 51
XXXXXXX

Add Cycle
Advance

Add Cycle
Advance

End Cycle 51

Enter
Start

Enter to save ?

Enter
Start

Press “Enter” to go to the next step.

Press the “Advance” button until display shows “End Cycle 51”.

Press “Enter” to confirm.

Press “Enter” to save or “Stop” to ignore the changes.

Programming

Program Cycle 00

Heat 5 Cool 1 Low

Program Cycle 51

Add Cycle Add Step

Edit Cycle 51

Enter Start

Name Cycle 51: Cycle 51

Enter Start

Step 01 Cycle 51 Warm Low

Add Cycle Advance

Step 02 Cycle 51 Wash 1 18/3

Clear Stop

Step 02 Cycle 51 Wash

Clear Stop

Step 02 Cycle 51

Clear Stop

Step deleted

Delete a Step

To edit a cycle, enter the cycle number (example: cycle 51).

Press the “Edit Cycle” button.

Press the “Enter” button to edit the cycle.

Press “Enter” to continue.

The first step of cycle 51 will display.

Select the step being edited by using the “Advance” button to go to the next step or the “Previous” button to go to the previous step.

Press the “Clear” button to change the step.

Press the “Clear” button again.

Press the “Clear” button once more.

The step is deleted. Press the “Advance” button to end cycle 51 and press “Enter” 2 times to save the settings.

Insert a Step

Program Cycle 00

Heat 5 Cold 1
Low

Program Cycle 51

Edit Cycle 51

Name Cycle 51:
Cycle 51

Step 01 Cycle 51
Warm Low

Step 02 Cycle 51
Wash 1 18/3

Step 02 Cycle 51

Step 02 Cycle 51
Supply

To edit a cycle, enter the cycle number (example: cycle 51).

Press the “Edit Cycle” button.

Press the “Enter” button to edit the cycle.

Press “Enter” to continue.

The first step of cycle 51 will display.

Select the position where you would like to add a step by using the “Advance” button to go to the next step or the “Previous” button to go to the previous step.

Push the “Add Step” button to add a step.

The control will insert a step before the step selected.

Select the function (example: supply).

Press the supply number (example: supply 7).

Programming

Step 02 Cycle 51
Supply 7



Press "Enter" to confirm.

Step 02 Cycle 51
0 min

Enter the time to activate the supply
(example: 0 minutes 23 seconds).



Step 02 Cycle 51
0 min 00 sec



Step 02 Cycle 51
0 min 23 sec

Press "Enter" to confirm.



Step 03 Cycle 51
Wash 1 18/3

Press the "Advance" button until
"End Cycle 51" is displayed.



End Cycle 51

Press "Enter" to confirm.

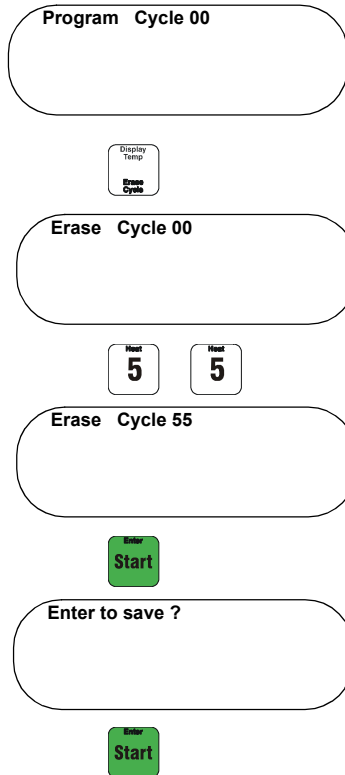


Enter to save ?

Press "Enter" to save or "Stop" to ignore the changes.



Delete a Cycle

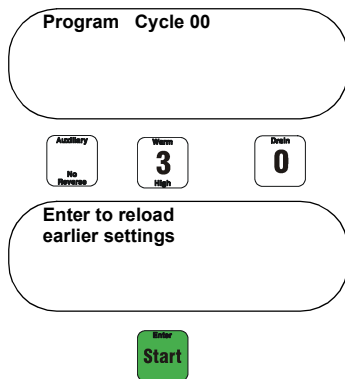


Press the “Erase Cycle” button.

Press the number of the cycle being erased (example: 55).

Press “Enter” to confirm.

Press “Enter” to save or “Stop” to ignore the changes.



Reloading Previous Settings

This special function allows previous settings to be restored.

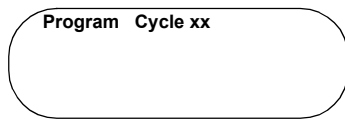
Press “Auxiliary”, “3”, “0”.

The control will ask if earlier settings are desired.

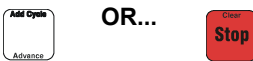
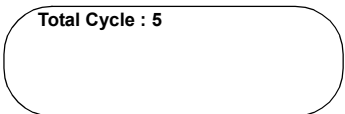
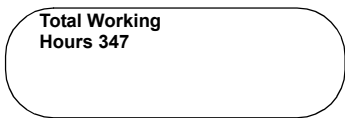
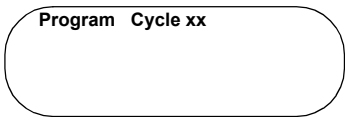
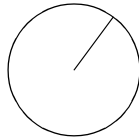
Press “Enter” to confirm the settings.

NOTE: This function only goes back to the last programming function entered.

Cycle Count



RUN **PROGRAM**



Reading Cycle Count

1. Enter Program Mode by turning key to PROGRAM position (xx represents a cycle number from 00 to 99).

2. Press “Auxiliary” key, then “3” key, then “1” key.

3. The total hours of cycle operation (actual run time) will display. Press “Advance” key to continue.
 Example display shows 347 total hours (of all cycles).

4. Display now shows total cycle count. Press “Advance” key to continue into calibration mode, or press “Clear/Stop” key to exit.
 Example display shows 5 total cycles have been run.

Calibration of the Machine

The _x_ PV should reflect the size selected in earlier steps.

Turn key to Program Mode.

Press “Auxiliary”, “3”, “1”.

The total hours the machine was running will be displayed.

Press “Advance” and screen will show total cycles.

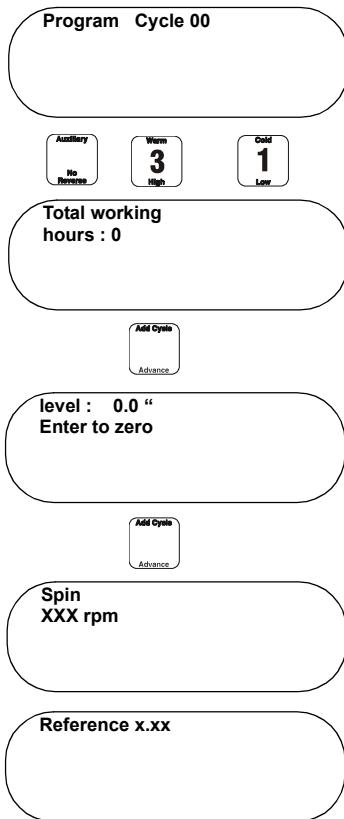
Press “Advance” to calibrate the water level sensor.

If the value is not zero, press “Enter” and the value will change to zero.

Press “Advance” to calibrate the motor.

The board will lock the door and let the motor spin at approximately 500 rpm (Firmware version 1.12 or higher). The rpm will increase on the display. If the machine reached approximately 500 rpm, the display will show a reference value.

After the reference value is shown, the machine will coast down to stop. When the machine stands still, the board will unlock the door.



Speed Calibration

This function automatically calibrates water level, distribution speed and spin speed.

Auxiliary
No Reverse
Warms
3
High
Cool
1
Low

Total working hours : #

Add Cycle
Advance

Total Cycle: #

Add Cycle
Advance

Calibration and testing

level: 0.0"
Enter to zero

Add Cycle
Advance

If shell is empty of water and display reads 0.0", then press "Add Cycle/Advance".

Motor Control

Distribute Speed # rpm

Spin # rpm

Calibrate 1 100 rpm

Spin # rpm

Calibrate 2 500 rpm

Ref: #
Offset: #

Coast down
Please wait

Program Cycle #

End of Calibration

Pre-Programmed Cycles

Cycle 01 Sheets Light Soil		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1, 2, 4, 5	0:45
3	Wash 1 18/3 (32°F)	7:00
4	Drain 1	1:00
5	Hot Fill to High Level	5:00
6	Wash 1 18/3 (32°F)	2:00
7	Drain 1	1:00
8	Spin 1	1:00
9	100°F Fill to Low Level	5:00
10	Supply 3, 6, 7	0:30
11	Wash 1 18/3 (32°F)	4:00
12	Drain 1	1:00
13	Spin 1	3:00

Cycle 02 Sheets No Bleach		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1, 4	0:45
3	Wash 1 18/3 (32°F)	7:00
4	Drain 1	1:00
5	Hot Fill to High Level	5:00
6	Wash 1 18/3 (32°F)	2:00
7	Drain 1	1:00
8	Spin 1	1:00
9	100°F Fill to Low Level	5:00
10	Supply 3, 6, 7	0:30
11	Wash 1 18/3 (32°F)	4:00
12	Drain 1	1:00
13	Spin 1	3:00

Pre-Programmed Cycles

Cycle 03 Towels Light Soil		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1, 2, 4, 5	0:45
3	Wash 1 18/3 (32°F)	7:00
4	Drain 1	1:00
5	Hot Fill to High Level	5:00
6	Wash 1 18/3 (32°F)	2:00
7	Drain 1	1:00
8	Spin 1	1:00
9	110°F Fill to Low Level	5:00
10	Supply 3, 6, 7	0:30
11	Wash 1 18/3 (32°F)	5:00
12	Drain 1	1:00
13	Spin 4	6:00

Cycle 04 Towels No Bleach		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1, 4	0:45
3	Wash 1 18/3 (32°F)	7:00
4	Drain 1	1:00
5	Hot Fill to High Level	5:00
6	Wash 1 18/3 (32°F)	2:00
7	Drain 1	1:00
8	Spin 1	1:00
9	110°F Fill to Low Level	5:00
10	Supply 3, 6, 7	0:30
11	Wash 1 18/3 (32°F)	4:00
12	Drain 1	1:00
13	Spin 4	6:00

Pre-Programmed Cycles

Cycle 05 Sheets Medium Soil		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1, 4	0:45
3	Wash 1 18/3 (32°F)	6:00
4	Drain 1	1:00
5	Hot Fill to Low Level	5:00
6	Supply 2, 5	0:45
7	Wash 1 18/3 (32°F)	6:00
8	Drain 1	1:00
9	Hot Fill to High Level	5:00
10	Wash 1 18/3 (32°F)	2:00
11	Drain 1	1:00
12	Spin 1	1:00
13	100°F Fill to Low Level	5:00
14	Supply 3, 6, 7	0:30
15	Wash 1 18/3 (32°F)	4:00
16	Drain 1	1:00
17	Spin 1	3:00

Cycle 06 Towels Medium Soil		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1, 4	0:45
3	Wash 1 18/3 (32°F)	6:00
4	Drain 1	1:00
5	Hot Fill to Low Level	5:00
6	Supply 2, 5	0:45
7	Wash 1 18/3 (32°F)	6:00
8	Drain 1	1:00
9	Hot Fill to High Level	5:00
10	Wash 1 18/3 (32°F)	2:00
11	Drain 1	1:00
12	Spin 1	1:00
13	110°F Fill to Low Level	5:00
14	Supply 3, 6, 7	0:30
15	Wash 1 18/3 (32°F)	4:00
16	Drain 1	1:00
17	Spin 4	6:00

Pre-Programmed Cycles

Cycle 07 Blankets Warm		
Step	Description	Min:sec
1	Warm Fill to High Level	5:00
2	Supply 1, 4	0:45
3	Wash 1 18/3 (32°F)	6:00
4	Drain 1	1:00
5	Warm Fill to High Level	5:00
6	Wash 1 18/3 (32°F)	5:00
7	Drain 1	1:00
8	Spin 1	1:00
9	Warm Fill to Low Level	5:00
10	Supply 3, 6, 7	0:30
11	Wash 2 3/27 (32°F)	4:00
12	Drain 1	1:00
13	Spin 4	4:00

Cycle 08 Spreads Cold		
Step	Description	Min:sec
1	Cold Fill to High Level	5:00
2	Supply 1, 4	0:45
3	Wash 2 3/27 (32°F)	6:00
4	Drain 1	1:00
5	Cold Fill to High Level	5:00
6	Wash 2 3/27 (32°F)	1:30
7	Drain 1	1:00
8	Spin 1	1:00
9	Cold Fill to High Level	5:00
10	Supply 3, 6, 7	0:30
11	Wash 2 3/27 (32°F)	4:00
12	Drain 1	1:00
13	Spin 4	4:00

Pre-Programmed Cycles

Cycle 09 Towels Heavy Soil		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1, 4	0:45
3	Wash 1 18/3 (32°F)	7:00
4	Hot Fill to High Level	5:00
5	Supply 2, 5	1:00
6	Wash 1 18/3 (32°F)	7:00
7	Drain 1	1:00
8	Spin 1	1:00
9	Warm Fill to High Level	5:00
10	Wash 1 18/3 (32°F)	2:00
11	Drain 1	1:00
12	Spin 1	1:00
13	Warm Fill to Low Level	5:00
14	Supply 3, 6, 7	1:00
15	Wash 1 18/3 (32°F)	4:00
16	Drain 1	1:00
17	Spin 4	6:00

Cycle 10 Rinse and Spin		
Step	Description	Min:sec
1	Warm Fill to Low Level	5:00
2	Wash 1 18/3 (32°F)	1:00
3	Drain 1	1:00
4	Spin 1	1:00
5	Spin 4	4:00

Pre-Programmed Cycles

Cycle 11 Health Care Sheets Light Soil		
Step	Description	Min:sec
1	Warm Fill to High Level	5:00
2	Wash 1 18/3 (32°F)	2:00
3	Drain 1, 2, 4, 5	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1, 2	0:45
6	Wash 1 18/3 (32°F)	8:00
7	Drain 1	1:00
8	Hot Fill to High Level	5:00
9	Wash 1 18/3 (32°F)	3:00
10	Drain 1	1:00
11	Spin 1	1:00
12	100°F Fill to Low Level	5:00
13	Supply 3, 6, 7	0:30
14	Wash 1 18/3 (32°F)	4:00
15	Drain 1	1:00
16	Spin 1	4:00

Cycle 12 Health Care Towels Light Soil		
Step	Description	Min:sec
1	Warm Fill to High Level	5:00
2	Wash 1 18/3 (32°F)	2:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1, 2, 4, 5	0:45
6	Wash 1 18/3 (32°F)	8:00
7	Drain 1	1:00
8	Hot Fill to High Level	5:00
9	Wash 1 18/3 (32°F)	3:00
10	Drain 1	1:00
11	Spin 1	1:00
12	110°F Fill to Low Level	5:00
13	Supply 3, 6, 7	0:30
14	Wash 1 18/3 (32°F)	4:00
15	Drain 1	1:00
16	Spin 4	4:00

Pre-Programmed Cycles

Cycle 13 Health Care Sheets Heavy Soil		
Step	Description	Min:sec
1	32°F Fill to High Level	5:00
2	Wash 1 18/3 (32°F)	2:00
3	Drain 1	1:00
4	120°F Fill to High Level	5:00
5	Wash 1 18/3 (32°F)	2:00
6	Drain 1, 4	1:00
7	Hot Fill to Low Level	5:00
8	Supply 1	0:45
9	Wash 1 18/3 (32°F)	7:00
10	Drain 1	1:00
11	Hot Fill to Low Level	5:00
12	Supply 2, 5	0:45
13	Wash 1 18/3 (32°F)	7:00
14	Drain 1	1:00
15	Hot Fill to High Level	5:00
16	Wash 1 18/3 (32°F)	3:00
17	Drain 1	1:00
18	Spin 1	1:00
19	100°F Fill to Low Level	5:00
20	Supply 3, 6, 7	0:30
21	Wash 1 18/3 (32°F)	4:00
22	Drain 1	1:00
23	Spin 1	3:00

Cycle 14 Health Care Towels Heavy Soil		
Step	Description	Min:sec
1	32°F Fill to High Level	5:00
2	Wash 1 18/3 (32°F)	2:00
3	Drain 1	1:00
4	120°F Fill to High Level	5:00
5	Wash 1 18/3 (32°F)	2:00
6	Drain 1	1:00
7	Hot Fill to Low Level	5:00
8	Supply 1, 4	0:45
9	Wash 1 18/3 (32°F)	7:00
10	Drain 1	1:00
11	Hot Fill to Low Level	5:00
12	Supply 2, 5	0:45
13	Wash 1 18/3 (32°F)	7:00
14	Drain 1	1:00
15	Hot Fill to High Level	5:00
16	Wash 1 18/3 (32°F)	3:00
17	Drain 1	1:00
18	Spin 1	1:00
19	110°F Fill to Low Level	5:00
20	Supply 3, 6, 7	0:30
21	Wash 1 18/3 (32°F)	4:00
22	Drain 1	1:00
23	Spin 4	6:00

Pre-Programmed Cycles

Cycle 15 Health Care Cotton Blankets		
Step	Description	Min:sec
1	110°F Fill to High Level	5:00
2	Wash 1 18/3 (32°F)	2:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1, 2, 4, 5	0:45
6	Wash 1 18/3 (32°F)	7:00
7	Drain 1	1:00
8	Hot Fill to High Level	5:00
9	Wash 1 18/3 (32°F)	3:00
10	Drain 1	1:00
11	Spin 1	1:00
12	110°F Fill to Low Level	5:00
13	Supply 3, 6, 7	0:30
14	Wash 1 18/3 (32°F)	4:00
15	Drain 1	1:00
16	Spin 4	6:00

Cycle 16 Health Care Diapers Heavy Soil		
Step	Description	Min:sec
1	32°F Fill to High Level	5:00
2	Wash 1 18/3 (32°F)	2:00
3	Drain 1	1:00
4	Hot Fill to High Level	5:00
5	Wash 1 18/3 (32°F)	2:00
6	Drain 1	1:00
7	Hot Fill to Low Level	5:00
8	Supply 1, 4	0:45
9	Wash 1 18/3 (32°F)	7:00
10	Drain 1	1:00
11	Hot Fill to Low Level	5:00
12	Supply 1, 4	0:30
13	Wash 1 18/3 (32°F)	7:00
14	Drain 1	1:00
15	Hot Fill to Low Level	5:00
16	Supply 2, 5	0:30
17	Wash 1 18/3 (32°F)	7:00
18	Drain 1	1:00
19	Hot Fill to High Level	5:00
20	Wash 1 18/3 (32°F)	4:00
21	Drain 1	1:00
22	Spin 1	2:00
23	110°F Fill to High Level	5:00
24	Wash 1 18/3 (32°F)	2:00
25	Drain 1	1:00
26	110°F Fill to Low Level	5:00
27	Supply 3, 6, 7	0:30
28	Wash 1 18/3 (32°F)	4:00
29	Drain 1	1:00
30	Spin 1	1:00
31	Spin 4	6:00

Pre-Programmed Cycles

Cycle 17 Health Care Personal Bleach		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1, 2, 4, 5	0:45
3	Wash 1 18/3 (32°F)	6:00
4	Drain 1	1:00
5	Hot Fill to High Level	5:00
6	Wash 1 18/3 (32°F)	2:00
7	Drain 1	1:00
8	Spin 1	1:00
9	110°F Fill to Low Level	5:00
10	Supply 3, 6, 7	0:30
11	Wash 1 18/3 (32°F)	4:00
12	Drain 1	1:00
13	Spin 1	3:00

Cycle 18 Health Care Personal No Bleach		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1, 4	0:45
3	Wash 1 18/3 (32°F)	6:00
4	Drain 1	1:00
5	110°F Fill to High Level	5:00
6	Wash 1 18/3 (32°F)	2:00
7	Drain 1	1:00
8	Spin 1	1:00
9	110°F Fill to Low Level	5:00
10	Supply 3, 6, 7	0:30
11	Wash 1 18/3 (32°F)	4:00
12	Drain 1	1:00
13	Spin 1	3:00

Pre-Programmed Cycles

Cycle 19 Health Care Pads Polyester		
Step	Description	Min:sec
1	110°F Fill to Low Level	5:00
2	Supply 1, 4	0:45
3	Wash 1 18/3 (32°F)	3:00
4	130°F Fill to High Level	5:00
5	Wash 1 18/3 (32°F)	2:00
6	Drain 1	1:00
7	Hot Fill to Low Level	5:00
8	Supply 1, 4	0:45
9	Wash 1 18/3 (32°F)	7:00
10	Drain 1	1:00
11	Hot Fill to Low Level	5:00
12	Supply 2, 5	0:45
13	Wash 1 18/3 (32°F)	7:00
14	Drain 1	1:00
15	Spin 1	1:00
16	110°F Fill to High Level	5:00
17	Wash 1 18/3 (32°F)	2:00
18	Drain 1	1:00
19	Spin 1	1:00
20	110°F Fill to Low Level	5:00
21	Supply 3, 6, 7	0:30
22	Wash 1 18/3 (32°F)	3:00
23	Drain 1	1:00
24	Spin 4	4:00

Cycle 20 Table Linen Iron		
Step	Description	Min:sec
1	110°F Fill to High Level	5:00
2	Wash 1 18/3 (32°F)	2:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1, 4	0:45
6	Wash 1 18/3 (32°F)	7:00
7	Drain 1	1:00
8	Hot Fill to Low Level	5:00
9	Supply 2, 5	0:45
10	Wash 1 18/3 (32°F)	7:00
11	Drain 1	1:00
12	Hot Fill to High Level	5:00
13	Wash 1 18/3 (32°F)	3:00
14	Drain 1	1:00
15	Spin 1	1:00
16	110°F Fill to Low Level	5:00
17	Supply 3, 6	0:30
18	Wash 1 18/3 (32°F)	2:00
19	Supply 6, 8	0:30
20	Wash 1 18/3 (32°F)	5:00
21	Drain 1	1:00
22	Spin 2	4:00

Pre-Programmed Cycles

Cycle 21 Table Linen No Iron		
Step	Description	Min:sec
1	110°F Fill to High Level	5:00
2	Wash 1 18/3 (32°F)	2:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1, 4	0:45
6	Wash 1 18/3 (32°F)	7:00
7	Drain 1	1:00
8	Hot Fill to Low Level	5:00
9	Supply 2, 5	0:45
10	Wash 1 18/3 (32°F)	7:00
11	Drain 1	1:00
12	Hot Fill to High Level	5:00
13	Wash 1 18/3 (32°F)	3:00
14	Drain 1	1:00
15	Spin 1	1:00
16	110°F Fill to Low Level	5:00
17	Supply 3, 6, 7	0:30
18	Wash 1 18/3 (32°F)	4:00
19	Drain 1	1:00
20	Spin 1	3:00

Cycle 22 Table Color Iron		
Step	Description	Min:sec
1	110°F Fill to High Level	5:00
2	Wash 1 18/3 (32°F)	2:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1, 4	0:45
6	Wash 1 18/3 (32°F)	7:00
7	Drain 1	1:00
8	Hot Fill to Low Level	5:00
9	Supply 1, 4	0:45
10	Wash 1 18/3 (32°F)	7:00
11	Drain 1	1:00
12	Hot Fill to High Level	5:00
13	Wash 1 18/3 (32°F)	3:00
14	Drain 1	1:00
15	Spin 1	1:00
16	110°F Fill to Low Level	5:00
17	Supply 3, 6	0:30
18	Wash 1 18/3 (32°F)	4:00
19	Supply 8	0:30
20	Wash 1 18/3 (32°F)	5:00
21	Drain 1	1:00
22	Spin 2	4:00

Pre-Programmed Cycles

Cycle 23 Table Color No Iron		
Step	Description	Min:sec
1	110°F Fill to High Level	5:00
2	Wash 1 18/3 (32°F)	2:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1, 4	0:45
6	Wash 1 18/3 (32°F)	7:00
7	Drain 1	1:00
8	Hot Fill to Low Level	5:00
9	Supply 1, 4	0:45
10	Wash 1 18/3 (32°F)	7:00
11	Drain 1	1:00
12	Hot Fill to High Level	5:00
13	Wash 1 18/3 (32°F)	3:00
14	Drain 1	1:00
15	Spin 1	1:00
16	110°F Fill to Low Level	5:00
17	Supply 3, 6, 7	0:30
18	Wash 1 18/3 (32°F)	4:00
19	Drain 1	1:00
20	Spin 1	4:00

Cycle 24 Visa Iron		
Step	Description	Min:sec
1	110°F Fill to High Level	5:00
2	Wash 1 18/3 (32°F)	3:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1, 4	0:45
6	Wash 1 18/3 (32°F)	7:00
7	Drain 1	1:00
8	Hot Fill to Low Level	5:00
9	Supply 2, 5	0:45
10	Wash 1 18/3 (32°F)	7:00
11	Drain 1	1:00
12	Hot Fill to High Level	5:00
13	Wash 1 18/3 (32°F)	3:00
14	Drain 1	1:00
15	Spin 1	1:00
16	110°F Fill to High Level	5:00
17	Wash 1 18/3 (32°F)	2:00
18	Drain 1	1:00
19	110°F Fill to Low Level	5:00
20	Supply 3, 6	0:30
21	Wash 1 18/3 (32°F)	2:00
22	Supply 8	0:30
23	Wash 1 18/3 (32°F)	5:00
24	Drain 1	1:00
25	Spin 2	3:00

Pre-Programmed Cycles

Cycle 25 Visa No Iron		
Step	Description	Min:sec
1	110°F Fill to High Level	5:00
2	Wash 1 18/3 (32°F)	3:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1, 4	0:45
6	Wash 1 18/3 (32°F)	7:00
7	Drain 1	1:00
8	Hot Fill to Low Level	5:00
9	Supply 2, 5	0:45
10	Wash 1 18/3 (32°F)	7:00
11	Drain 1	1:00
12	Hot Fill to High Level	5:00
13	Wash 1 18/3 (32°F)	3:00
14	Drain 1	1:00
15	Spin 1	1:00
16	110°F Fill to High Level	5:00
17	Wash 1 18/3 (32°F)	2:00
18	Drain 1	1:00
19	110°F Fill to Low Level	5:00
20	Supply 3, 6	0:30
21	Wash 1 18/3 (32°F)	4:00
22	Drain 1	1:00
23	Spin 1	3:00

Cycle 26 Visa Color Iron		
Step	Description	Min:sec
1	110°F Fill to High Level	5:00
2	Wash 1 18/3 (32°F)	3:00
3	Drain 1, 4	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1	0:45
6	Wash 1 18/3 (32°F)	7:00
7	Drain 1	1:00
8	Hot Fill to Low Level	5:00
9	Supply 1, 4	0:45
10	Wash 1 18/3 (32°F)	7:00
11	Drain 1	1:00
12	Hot Fill to High Level	5:00
13	Wash 1 18/3 (32°F)	3:00
14	Drain 1	1:00
15	Spin 1	1:00
16	110°F Fill to High Level	5:00
17	Wash 1 18/3 (32°F)	2:00
18	Drain 1	1:00
19	110°F Fill to Low Level	5:00
20	Supply 3, 6	0:30
21	Wash 1 18/3 (32°F)	2:00
22	Supply 8	0:30
23	Wash 1 18/3 (32°F)	4:00
24	Drain 1	1:00
25	Spin 2	3:00

Pre-Programmed Cycles

Cycle 27 Visa Color No Iron		
Step	Description	Min:sec
1	110°F Fill to High Level	5:00
2	Wash 1 18/3 (32°F)	3:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1, 4	0:45
6	Wash 1 18/3 (32°F)	7:00
7	Drain 1	1:00
8	Hot Fill to Low Level	5:00
9	Supply 1, 4	0:45
10	Wash 1 18/3 (32°F)	7:00
11	Drain 1	1:00
12	Hot Fill to High Level	5:00
13	Wash 1 18/3 (32°F)	3:00
14	Drain 1	1:00
15	Spin 1	1:00
16	110°F Fill to High Level	5:00
17	Wash 1 18/3 (32°F)	2:00
18	Drain 1	1:00
19	110°F Fill to Low Level	5:00
20	Supply 3, 6	0:30
21	Wash 1 18/3 (32°F)	4:00
22	Drain 1	1:00
23	Spin 1	3:00

Cycle 28 Shirt Color Starch		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1, 4	0:45
3	Wash 1 18/3 (32°F)	7:00
4	Drain 1	1:00
5	Hot Fill to Low Level	5:00
6	Supply 1, 4	0:45
7	Wash 1 18/3 (32°F)	5:00
8	Drain 1	1:00
9	Hot Fill to High Level	5:00
10	Wash 1 18/3 (32°F)	3:00
11	Drain 1	1:00
12	Spin 1	1:00
13	Cold Fill to High Level	5:00
14	Supply 3, 6	0:30
15	Supply 5	0:30
16	Wash 1 18/3 (32°F)	4:00
17	Drain 1	1:00
18	Spin 2	3:00

Pre-Programmed Cycles

Cycle 29 Shirt Bleach Starch		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1, 4	0:45
3	Wash 1 18/3 (32°F)	7:00
4	Drain 1	1:00
5	Hot Fill to Low Level	5:00
6	Supply 2, 5	0:45
7	Wash 1 18/3 (32°F)	7:00
8	Drain 1	1:00
9	Hot Fill to High Level	5:00
10	Wash 1 18/3 (32°F)	3:00
11	Drain 1	1:00
12	Spin 1	1:00
13	Cold Fill to High Level	5:00
14	Supply 3, 6	0:30
15	Supply 2, 8	0:30
16	Wash 1 18/3 (32°F)	4:00
17	Drain 1	1:00
18	Spin 2	3:00

Cycle 30 Shirt Color No Bleach		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1, 4	0:45
3	Wash 1 18/3 (32°F)	7:00
4	Drain 1	1:00
5	Hot Fill to Low Level	5:00
6	Supply 1, 4	0:45
7	Wash 1 18/3 (32°F)	5:00
8	Drain 1	1:00
9	Hot Fill to High Level	5:00
10	Wash 1 18/3 (32°F)	3:00
11	Drain 1	1:00
12	Spin 1	1:00
13	Cold Fill to High Level	5:00
14	Supply 3, 6	0:30
15	Supply 4	0:30
16	Wash 1 18/3 (32°F)	4:00
17	Drain 1	1:00
18	Spin 2	3:00

Pre-Programmed Cycles

Cycle 31 Shirt Delicate		
Step	Description	Min:sec
1	Warm Fill to Low Level	5:00
2	Wash 2 3/27 (32°F)	2:00
3	Drain 1	1:00
4	Warm Fill to Low Level	5:00
5	Supply 1, 4	0:45
6	Wash 2 3/27 (32°F)	5:00
7	Drain 1	1:00
8	Warm Fill to High Level	5:00
9	Wash 2 3/27 (32°F)	2:00
10	Drain 1	1:00
11	Warm Fill to High Level	5:00
12	Wash 2 3/27 (32°F)	2:00
13	Drain 1	1:00
14	Cold Fill to High Level	5:00
15	Supply 3, 6, 7	0:30
16	Supply 4	0:30
17	Wash 2 3/27 (32°F)	3:00
18	Drain 1	1:00
19	Spin 2	1:30

Cycle 32 Starch Extract		
Step	Description	Min:sec
1	Warm Fill to Low Level	5:00
2	Supply 2, 8	0:30
3	Wash 1 18/3 (32°F)	7:00
4	Drain 1	1:00
5	Spin 2	3:00

Pre-Programmed Cycles

Cycle 33 Uniforms Bleach		
Step	Description	Min:sec
1	110°F Fill to High Level	5:00
2	Wash 1 18/3 (32°F)	3:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1, 4	0:45
6	Wash 1 18/3 (32°F)	7:00
7	Drain 1	1:00
8	Hot Fill to Low Level	5:00
9	Supply 2, 5	0:45
10	Wash 1 18/3 (32°F)	7:00
11	Drain 1	1:00
12	Hot Fill to High Level	5:00
13	Wash 1 18/3 (32°F)	3:00
14	Drain 1	1:00
15	Spin 1	1:00
16	110°F Fill to High Level	5:00
17	Wash 1 18/3 (32°F)	2:00
18	Drain 1	1:00
19	110°F Fill to Low Level	5:00
20	Supply 3, 6, 7	0:30
21	Wash 1 18/3 (32°F)	4:00
22	Drain 1	1:00
23	Spin 1	3:00

Cycle 34 Uniforms No Bleach		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1, 4	0:45
3	Wash 1 18/3 (32°F)	6:00
4	Drain 1	1:00
5	110°F Fill to Low Level	5:00
6	Wash 1 18/3 (32°F)	2:00
7	Drain 1	1:00
8	Spin 1	1:00
9	110°F Fill to Low Level	5:00
10	Supply 3, 6, 7	0:30
11	Wash 1 18/3 (32°F)	4:00
12	Drain 1	1:00
13	Spin 1	3:00

Pre-Programmed Cycles

Cycle 35 Rags Heavy Soil		
Step	Description	Min:sec
1	110°F Fill to High Level	5:00
2	Wash 1 18/3 (32°F)	2:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1, 4	0:45
6	Wash 1 18/3 (32°F)	7:00
7	Drain 1	1:00
8	Hot Fill to Low Level	5:00
9	Supply 2, 5	0:45
10	Wash 1 18/3 (32°F)	7:00
11	Drain 1	1:00
12	Hot Fill to High Level	5:00
13	Wash 1 18/3 (32°F)	2:00
14	Drain 1	1:00
15	Spin 1	1:00
16	110°F Fill to Low Level	5:00
17	Supply 3, 6	0:30
18	Wash 1 18/3 (32°F)	4:00
19	Drain 1	1:00
20	Spin 4	6:00

Cycle 36 Mops in Bags		
Step	Description	Min:sec
1	110°F Fill to High Level	5:00
2	Wash 1 18/3 (32°F)	2:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1, 4	0:45
6	Wash 1 18/3 (32°F)	7:00
7	Drain 1	1:00
8	Hot Fill to Low Level	5:00
9	Supply 2, 5	0:45
10	Wash 1 18/3 (32°F)	7:00
11	Drain 1	1:00
12	Hot Fill to High Level	5:00
13	Wash 1 18/3 (32°F)	2:00
14	Drain 1	1:00
15	Spin 1	1:00
16	110°F Fill to Low Level	5:00
17	Supply 3, 6	0:30
18	Wash 1 18/3 (32°F)	4:00
19	Drain 1	1:00
20	Spin 4	4:00

Pre-Programmed Cycles

Cycle 37 Rewash/Reclaim		
Step	Description	Min:sec
1	130°F Fill to High Level	5:00
2	Wash 1 18/3 (32°F)	2:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1, 2, 4, 5	0:45
6	Wash 1 18/3 (32°F)	4:00
7	Drain 1	1:00
8	Hot Fill to Low Level	5:00
9	Supply 1, 2, 4, 5	0:45
10	Wash 1 18/3 (32°F)	7:00
11	Drain 1	1:00
12	Hot Fill to High Level	5:00
13	Wash 1 18/3 (32°F)	4:00
14	Drain 1	1:00
15	Spin 1	1:00
16	110°F Fill to High Level	5:00
17	Wash 1 18/3 (32°F)	2:00
18	Drain 1	1:00
19	110°F Fill to High Level	5:00
20	Supply 3, 6	0:30
21	Wash 1 18/3 (32°F)	4:00
22	Supply 3, 6	0:30
23	Wash 1 18/3 (32°F)	4:00
24	Drain 1	1:00
25	Spin 4	4:00

Cycle 38 Supply Setup		
Step	Description	Min:sec
1	Warm Fill to Low Level	5:00
2	Supply 1	2:00
3	Supply 2	2:00
4	Supply 3	2:00
5	Supply 4	2:00
6	Supply 5	2:00
7	Drain 1	1:00
8	Warm Fill to Low Level	5:00
9	Supply 6	2:00
10	Supply 7	2:00
11	Supply 8	2:00
12	Supply 9	2:00
13	Wash 1 18/3 (32°F)	0:30
14	Drain 1	1:00

Pre-Programmed Cycles

Cycle 39 Test Program		
Step	Description	Min:sec
1	Cold Fill to High Level	0:30
2	Drain 1	0:10
3	Hot Fill to Low Level	5:00
4	Auxiliary Fill to Med Level	5:00
5	Heat (150°F)	1h00
6	Cold Fill to High Level	5:00
7	Supply 1	0:30
8	Supply 2	0:30
9	Supply 3	0:30
10	Supply 4	0:30
11	Supply 5	0:30
12	Drain 1	1:00
13	Warm Fill to Low Level	0:30
14	Supply 6	0:30
15	Supply 7	0:30
16	Supply 8	0:30
17	Supply 9	0:30
18	Wash 2 3/27 (32°F)	0:30
19	Wash 3, no agitation (32°F)	0:30
20	Wash 4 10/3 (32°F)	0:30
21	Wash 1, no reverse (32°F)	0:30
22	Drain 1	1:00
23	Auxiliary 1	0:05
24	Auxiliary 2	0:05
25	Auxiliary 3	0:05
26	150°F Fill to High Level	5:00
27	Cold Fill to Overflow	5:00
28	Soak (150°F)	2h00
29	Drain 1	1:00
30	Spin 1	2:00
31	Spin 2	2:00
32	Spin 3	2:00
33	Spin 4	2:00
34	Auxiliary 3	0:15
35	Cold Fill to Med Level	5:00

Cycle 39 Test Program		
Step	Description	Min:sec
36	Wash 1 18/3 (32°F)	0:15
37	Drain 1	1:00

Pre-Programmed Cycles

Cycle 40 Energy Hot		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1, 2	0:15
3	Wash 1 18/3 (32°F)	4:00
4	Drain 1	1:00
5	Cold Fill to High Level	5:00
6	Wash 1 18/3 (32°F)	2:00
7	Drain 1	1:00
8	Cold Fill to High Level	5:00
9	Supply 3	0:15
10	Wash 1 18/3 (32°F)	2:00
11	Spin 4	3:00

Cycle 41 Energy Warm		
Step	Description	Min:sec
1	Warm Fill to Low Level	5:00
2	Supply 1, 2	0:15
3	Wash 1 18/3 (32°F)	4:00
4	Drain 1	1:00
5	Cold Fill to High Level	5:00
6	Wash 1 18/3 (32°F)	2:00
7	Drain 1	1:00
8	Cold Fill to High Level	5:00
9	Supply 3	0:15
10	Wash 1 18/3 (32°F)	2:00
11	Spin 4	3:00

Pre-Programmed Cycles

Cycle 42 Energy Cold		
Step	Description	Min:sec
1	Cold Fill to Low Level	5:00
2	Supply 1, 2	0:15
3	Wash 1 18/3 (32°F)	4:00
4	Drain 1	1:00
5	Cold Fill to High Level	5:00
6	Wash 1 18/3 (32°F)	2:00
7	Drain 1	1:00
8	Cold Fill to High Level	5:00
9	Supply 3	0:15
10	Wash 1 18/3 (32°F)	2:00
11	Spin 4	3:00

Cycle 50 Normal 95°C		
Step	Description	Min:sec
1	Warm Fill to Low Level	5:00
2	Supply 1, 4	0:30
3	Heat (104°F)	1h00
4	Wash 1 18/3 (32°F)	2:00
5	Drain 1	1:00
6	Hot Fill to Low Level	5:00
7	Supply 1, 2, 4, 5	0:30
8	Heat (203°F)	1h00
9	Wash 1 18/3 (32°F)	6:00
10	Cold Fill to High Level	5:00
11	Wash 1 18/3 (32°F)	2:00
12	Drain 1	1:00
13	Cold Fill to High Level	5:00
14	Wash 1 18/3 (32°F)	2:00
15	Drain 1	1:00
16	Cold Fill to High Level	5:00
17	Wash 1 18/3 (32°F)	2:00
18	Drain 1	1:00
19	Cold Fill to High Level	5:00
20	Wash 1 18/3 (32°F)	2:00
21	Drain 1	1:00
22	Spin 1	1:00
23	Cold Fill to High Level	5:00
24	Supply 3, 6, 7	0:30
25	Wash 1 18/3 (32°F)	3:00
26	Drain 1	1:00
27	Spin 4	5:00

Pre-Programmed Cycles

Cycle 51 Normal 60°C		
Step	Description	Min:sec
1	Warm Fill to Low Level	5:00
2	Supply 1, 4	0:30
3	Heat (104°F)	1h00
4	Wash 1 18/3 (32°F)	2:00
5	Drain 1	1:00
6	Hot Fill to Low Level	5:00
7	Supply 1, 2, 4, 5	0:30
8	Heat (140°F)	1h00
9	Wash 1 18/3 (32°F)	6:00
10	Cold Fill to High Level	5:00
11	Wash 1 18/3 (32°F)	2:00
12	Drain 1	1:00
13	Cold Fill to High Level	5:00
14	Wash 1 18/3 (32°F)	2:00
15	Drain 1	1:00
16	Cold Fill to High Level	5:00
17	Wash 1 18/3 (32°F)	2:00
18	Drain 1	1:00
19	Cold Fill to High Level	5:00
20	Wash 1 18/3 (32°F)	2:00
21	Drain 1	1:00
22	Spin 1	1:00
23	Cold Fill to High Level	5:00
24	Supply 3, 6, 7	0:30
25	Wash 1 18/3 (32°F)	3:00
26	Drain 1	1:00
27	Spin 4	5:00

Cycle 52 Normal 40°C		
Step	Description	Min:sec
1	Warm Fill to Low Level	5:00
2	Supply 1, 4	0:30
3	Heat (104°F)	1h00
4	Wash 1 18/3 (32°F)	2:00
5	Drain 1	1:00
6	Hot Fill to Low Level	5:00
7	Supply 1, 2, 4, 5	0:30
8	Heat (104°F)	1h00
9	Wash 1 18/3 (32°F)	6:00
10	Cold Fill to High Level	5:00
11	Wash 1 18/3 (32°F)	2:00
12	Drain 1	1:00
13	Cold Fill to High Level	5:00
14	Wash 1 18/3 (32°F)	2:00
15	Drain 1	1:00
16	Cold Fill to High Level	5:00
17	Wash 1 18/3 (32°F)	2:00
18	Drain 1	1:00
19	Cold Fill to High Level	5:00
20	Wash 1 18/3 (32°F)	2:00
21	Drain 1	1:00
22	Spin 1	1:00
23	Cold Fill to High Level	5:00
24	Supply 3, 6, 7	0:30
25	Wash 1 18/3 (32°F)	3:00
26	Drain 1	1:00
27	Spin 4	5:00

Pre-Programmed Cycles

Cycle 53 Gentle Cold		
Step	Description	Min:sec
1	Cold Fill to High Level	5:00
2	Supply 1, 4	0:30
3	Wash 2 3/27 (32°F)	2:00
4	Drain 1	1:00
5	Cold Fill to High Level	5:00
6	Wash 2 3/27 (32°F)	2:00
7	Drain 1	1:00
8	Spin 1	1:00
9	Cold Fill to High Level	0:30
10	Supply 3, 6, 7	0:30
11	Wash 2 3/27 (32°F)	3:00
12	Drain 1	1:00
13	Spin 1	2:00

Cycle 54 Perm Press 95°C		
Step	Description	Min:sec
1	Warm Fill to Low Level	5:00
2	Supply 1, 4	0:30
3	Heat (104°F)	1h00
4	Wash 1 18/3 (32°F)	2:00
5	Drain 1	1:00
6	Hot Fill to Low Level	5:00
7	Supply 1, 2, 4, 5	0:30
8	Heat (203°F)	1h00
9	Wash 1 18/3 (32°F)	6:00
10	Cold Fill to High Level	5:00
11	Wash 1 18/3 (32°F)	2:00
12	Drain 1	1:00
13	Cold Fill to High Level	5:00
14	Wash 1 18/3 (32°F)	2:00
15	Drain 1	1:00
16	Cold Fill to High Level	5:00
17	Wash 1 18/3 (32°F)	2:00
18	Drain 1	1:00
19	Cold Fill to High Level	5:00
20	Wash 1 18/3 (32°F)	2:00
21	Drain 1	1:00
22	Spin 1	1:00
23	Cold Fill to High Level	5:00
24	Supply 3, 6, 7	0:30
25	Wash 1 18/3 (32°F)	3:00
26	Drain 1	1:00
27	Spin 1	3:00

Pre-Programmed Cycles

Cycle 55 Perm Press 60°C		
Step	Description	Min:sec
1	Warm Fill to Low Level	5:00
2	Supply 1, 4	0:30
3	Heat (104°F)	1h00
4	Wash 1 18/3 (32°F)	2:00
5	Drain 1	1:00
6	Hot Fill to Low Level	5:00
7	Supply 1, 2, 4, 5	0:30
8	Heat (140°F)	1h00
9	Wash 1 18/3 (32°F)	6:00
10	Cold Fill to High Level	5:00
11	Wash 1 18/3 (32°F)	2:00
12	Drain 1	1:00
13	Cold Fill to High Level	5:00
14	Wash 1 18/3 (32°F)	2:00
15	Drain 1	1:00
16	Cold Fill to High Level	5:00
17	Wash 1 18/3 (32°F)	2:00
18	Drain 1	1:00
19	Cold Fill to High Level	5:00
20	Wash 1 18/3 (32°F)	2:00
21	Drain 1	1:00
22	Spin 1	1:00
23	Cold Fill to High Level	5:00
24	Supply 3, 6, 7	0:30
25	Wash 1 18/3 (32°F)	3:00
26	Drain 1	1:00
27	Spin 1	3:00

Cycle 56 Perm Press 40°C		
Step	Description	Min:sec
1	Warm Fill to Low Level	5:00
2	Supply 1, 4	0:30
3	Heat (104°F)	1h00
4	Wash 1 18/3 (32°F)	2:00
5	Drain 1	1:00
6	Hot Fill to Low Level	5:00
7	Supply 1, 2, 4, 5	0:30
8	Heat (140°F)	1h00
9	Wash 1 18/3 (32°F)	6:00
10	Cold Fill to High Level	5:00
11	Wash 1 18/3 (32°F)	2:00
12	Drain 1	1:00
13	Cold Fill to High Level	5:00
14	Wash 1 18/3 (32°F)	2:00
15	Drain 1	1:00
16	Cold Fill to High Level	5:00
17	Wash 1 18/3 (32°F)	2:00
18	Drain 1	1:00
19	Cold Fill to High Level	5:00
20	Wash 1 18/3 (32°F)	2:00
21	Drain 1	1:00
22	Spin 1	1:00
23	Cold Fill to High Level	5:00
24	Supply 3, 6, 7	0:30
25	Wash 1 18/3 (32°F)	3:00
26	Drain 1	1:00
27	Spin 1	3:00



Cycle 57 Gentle 30°C		
Step	Description	Min:sec
1	Cold Fill to High Level	5:00
2	Supply 1, 4	0:30
3	Wash 2 3/27 (32°F)	2:00
4	Drain 1	1:00
5	Cold Fill to High Level	5:00
6	Supply 1, 2, 4, 5	0:30
7	Heat (86°F)	1h00
8	Wash 2 3/27 (32°F)	3:00
9	Drain 1	1:00
10	Cold Fill to High Level	5:00
11	Wash 2 3/27 (32°F)	2:00
12	Drain 1	1:00
13	Spin 1	1:00
14	Drain 1	1:00
15	Cold Fill to High Level	5:00
16	Supply 3, 6, 7	0:30
17	Wash 2 3/27 (32°F)	3:00
18	Drain 1	1:00
19	Spin 1	2:00

Inverter Drive Error Codes


Operation Panel Indication	Name	Description and NOTES	Check point	Corrective action
E.O C 1	Overcurrent shut-off during acceleration	When the inverter output current reaches or exceeds approximately 200% of the rated current during acceleration, the protective circuit is activated to stop the inverter output.	<ul style="list-style-type: none"> Check the motor cable insulation and connection for output short-circuit/ground fault. 	Repair the wiring.
E.O C 2	Overcurrent shut-off during constant speed	When the inverter output current reaches or exceeds approximately 200% of the rated current during constant speed, the protective circuit is activated to stop the inverter output.	<ul style="list-style-type: none"> Check the motor cable insulation and connection for output short-circuit/ground fault. 	Repair the wiring.
E.O C 3	Overcurrent shut-off during deceleration	When the inverter output current reaches or exceeds approximately 200% of the rated current during deceleration (other than acceleration or constant speed), the protective circuit is activated to stop the inverter output.	<ul style="list-style-type: none"> Check for sudden speed reduction. Check the motor cable insulation and connection for output short-circuit/ground fault. 	<ul style="list-style-type: none"> Contact Alliance Laundry Systems' Customer Service department. Repair the wiring.
E.O u 1	Regenerative overvoltage shut-off during acceleration	If regenerative energy causes the inverter's internal main circuit DC voltage to reach or exceed the specified value, the protective circuit is activated to stop the inverter output. It may also be activated by a surge voltage generated in the power supply system.	Check to make sure the machine is loaded properly and that the load is balanced.	Load the machine properly to distribute the load evenly.
E.O u 2	Regenerative overvoltage shut-off during constant speed	If regenerative energy causes the inverter's internal main circuit DC voltage to reach or exceed the specified value, the protective circuit is activated to stop the inverter output. It may also be activated by a surge voltage generated in the power supply system.	Check to make sure the machine is loaded properly and that the load is balanced.	Load the machine properly to distribute the load evenly.
E.O u 3	Regenerative overvoltage shut-off during deceleration or stop	If regenerative energy causes the inverter's internal main circuit DC voltage to reach or exceed the specified value, the protective circuit is activated to stop the inverter output. It may also be activated by a surge voltage generated in the power supply system.	Check to make sure the machine is loaded properly and that the load is balanced.	Load the machine properly to distribute the load evenly.
E.F H N	Motor overload shut-off (electronic overcurrent protection)	The electronic overcurrent protection in the inverter detects motor overload due to overload or reduced cooling capability due to overload or reduced cooling capability during constant-speed operation to stop the inverter output. When a multi-pole motor or two or more motors are run, provide a thermal relay in the output side of the inverter.	Verify that the AC drive's parameters are correct.	Contact Alliance Laundry Systems' Customer Service department.

Operation Panel Indication	Name	Description and NOTES	Check point	Corrective action
E.F.H.F	Inverter overload shut-off (electronic overcurrent protection)	If a current of more than 150% of the rated output current flows and overcurrent shut-off does not occur (200% or less) inverse-time characteristics cause the electronic overcurrent protection to be activated to stop the inverter output in order to protect the output transistors. Note: Resetting the inverter initializes the internal heat integrating data of the electronic overcurrent protection.	Verify that the AC drive's parameters are correct.	Contact Alliance Laundry Systems' Customer Service department.
E.F.I.n	Fin overheat	If the cooling fin overheats, the overheat sensor is actuated to stop the inverter output.	<ul style="list-style-type: none"> • Check for too high ambient temperature. • Check for cooling fin clogging 	Verify that the AC drive's parameters are correct. Contact Alliance Laundry Systems' Customer Service department.
E. b E	Brake transistor alarm detection	Internal Circuit Error		Contact Alliance Laundry Systems' Customer Service department.
E. G F	Output side ground fault overcurrent protection	This function stops the inverter output if a ground fault overcurrent flows due to a ground fault which occurred in the inverter's output (load) side. Use Pr. 249 "ground fault detection at start" to set whether the protective function is to be activated or not. (In the 400V class, the protective function is always active.)	Check the motor cable insulation and connection for output short-circuit/ground fault.	Repair the wiring.
E.O.H.F	External thermal relay operation	If the external thermal relay designed for motor overheat protection or the internally mounted temperature relay in the motor switches on (contacts open), the inverter output is stopped. If the relay contacts are reset automatically, the inverter will not restart unless it is reset.	Check for motor overheating. Check to make sure the machine is loaded properly and that the load is balanced.	Load the machine properly to distribute the load evenly.
E.O.L.F	Stall prevention	The running frequency has fallen to 0 with stall prevention activated.	Check the motor for a "locked rotor" condition.	Verify that the AC drive's parameters are correct. Contact Alliance Laundry Systems' Customer Service department.
E.L.F	Output phase failure protection	This function stops the inverter output if one of the three phases (U, V, W) on the inverter's output side (load side) results in open phase.	Check the wiring. Check the motor for a fault.	Tighten the wire connections. Replace the connectors as needed.
F.n	Fan fault	For the inverter which contains a cooling fan, FN appears on the operation panel when the cooling fan fails.	Check the cooling fan's operation.	Replace the fan as needed.

Inverter Drive Error Codes

Operation Panel Indication	Name	Description and NOTES	Check point	Corrective action
OL	Stall prevention (overcurrent)	<p>During acceleration—If a current of more than 150% of the rated inverter current flows in the motor this function stops the increase in frequency until the overload current reduces to prevent the inverter from resulting in overcurrent shut-off. When the overload current has reduces below 150%, this function increases the frequency again.</p> <p>During constant-speed operation—If a current of more than 150%, this function lowers the frequency again. When the overload current has reduces below 150%, this function increases the frequency again.</p> <p>During deceleration—If a current of more than 150% of the rated inverter current flows in the motor, this function stops the decrease in frequency until the overload current reduces to prevent the inverter from resulting in overcurrent shut-off. When the overload current has reduced below 150%, this function decreases the frequency again.</p>	<ul style="list-style-type: none"> •Check to make sure the machine is loaded properly and that the load is balanced. •Verify that the AC drive's parameters are correct. 	<ul style="list-style-type: none"> •Load the machine properly to distribute the load evenly. •Contact Alliance Laundry Systems' Customer Service department.
OL	Stall prevention (overvoltage)	During deceleration-If the regenerative energy of the motor exceeds the brake capability, this function stops the decrease in frequency to prevent overvoltage shutoff. As soon as the regenerative energy has reduced, deceleration resumes.	Check to make sure the machine is loaded properly and that the load is balanced.	Load the machine properly to distribute the load evenly.
PS	PU stop	A stop made by pressing the  key of the PU has been set in Pr. 75 "PU stop selection".	Check for a stop made by pressing the  key of the operation panel during external operation.	Perform operation correctly.
Err.		<p>This alarm appears if:</p> <ul style="list-style-type: none"> •The RES signal is on; •You attempted to set any parameter value in the external operation mode; •You attempted to change the operation mode during operation; •You attempted to set any parameter value outside its setting range. •You attempted to set any parameter value during operation (while signal STF or STR is ON). •You attempted to set any parameter value while parameter write is being inhibited in Pr. 77 "parameter write inhibit selection". 		Perform operation correctly.

Inverter Drive Error Codes

Operation Panel Indication	Name	Description and NOTES	Check point	Corrective action
	Under Voltage	The power supply has fallen below a specified level.	This fault appears every time the machine is powered down. Check the power supply voltage.	Apply the proper voltage to the machine.

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