

# Washer-Extractor

Pocket Hardmount

Variable-Speed

WE-6 Control

Refer to page 9 for Model Identification



MC010J

**Keep These Instructions for Future Reference.**

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



[www.comlaundry.com](http://www.comlaundry.com)

Part No. F232089R6  
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# Operation/Programming

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## Section 1


# Safety


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

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


	<b>CAUTION</b>
Be careful around the open door, particularly when loading from a level below the door. Impact with door edges can cause personal injury.	
SW025	


	<b>DANGER</b>
Death or serious injury can result if children become trapped in the machine. Do not allow children to play on or around this machine. Do not leave children unattended while the machine door is open.	
SW001	

	<b>WARNING</b>
Dangerous voltages are present in the electrical control box(es) and at the motor terminals. Only qualified personnel familiar with electrical test procedures, test equipment, and safety precautions should attempt adjustments and troubleshooting. Disconnect power from the machine before removing the control box cover, and before attempting any service procedures.	
SW005	

	<b>WARNING</b>
This machine must be installed, adjusted, and serviced by qualified electrical maintenance personnel familiar with the construction and operation of this type of machinery. They must also be familiar with the potential hazards involved. Failure to observe this warning may result in personal injury and/or equipment damage, and may void the warranty.	
SW004	

# Safety

	<b>CAUTION</b>
Ensure that the machine is installed on a level floor of sufficient strength and that the recommended clearances for inspection and maintenance are provided. Never allow the inspection and maintenance space to be blocked.	
SW020	

	<b>WARNING</b>
Never touch internal or external steam pipes, connections, or components. These surfaces can be extremely hot and will cause severe burns. The steam must be turned off and the pipe, connections, and components allowed to cool before the pipe can be touched.	
SW014	

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## Key To Symbols



The lightning flash and arrowhead within the triangle is a warning sign indicating the presence of dangerous voltage.



This warning symbol indicates the presence of possibly dangerous chemicals. Proper precautions should be taken when handling corrosive or caustic materials.



The exclamation point within the triangle is a warning sign indicating important instructions concerning the machine and possibly dangerous conditions.



This warning symbol indicates the presence of hot surfaces that could cause serious burns. Stainless steel and steam lines can become extremely hot and should not be touched.



This warning symbol indicates the presence of potentially dangerous drive mechanisms within the machine. Guards should always be in place when the machine is in operation.




This warning symbol indicates the presence of possibly dangerous pinch-points. Moving mechanical parts can crush and/or sever body parts.

# Safety

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

Use factory-authorized spare parts to avoid safety hazards.

## Operator Safety

	<b>WARNING</b>
NEVER insert hands or objects into basket until it has completely stopped. Doing so could result in serious injury.	
SW012	


To ensure the safety of machine operators, the following maintenance checks must be performed daily:

1. Prior to operating the machine, verify that all warning signs are present and legible. Missing or illegible signs must be replaced immediately. Make certain that spares are available.
2. Check door interlock before starting operation of the machine:
  - a. Attempt to start the machine with the door open. The machine should not start with the door open.
  - b. Close the door without locking it and attempt to start the machine. The machine should not start with the door unlocked.
  - c. Close and lock the door and start a cycle. Attempt to open the door while the cycle is in progress. The door should not open.

If the door lock and interlock are not functioning properly, call a service technician.

3. Do not attempt to operate the machine if any of the following conditions are present:
  - a. The door does not remain securely locked during the entire cycle.
  - b. Excessively high water level is evident.
  - c. Machine is not connected to a properly grounded circuit.

Do not bypass any safety devices in the machine.

	<b>WARNING</b>
Never operate the machine with a bypassed or disconnected balance system. Operating the machine with severe out-of-balance loads could result in personal injury and serious equipment damage.	
SW039	

# Safety

## Safe Operating Environment

Safe operation requires an appropriate operating environment for both the operator and the machine. If questions regarding safety arise, contact the factory immediately.

### Environmental Conditions

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

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

Water pressure switches are affected by increases and decreases in temperature. Every 25° F (10° C) change in temperature will have a 1% effect on the water level.


- *Humidity.* Relative humidity above 90% may cause the machine's electronics or motors to malfunction or may trip the ground fault interrupter. Corrosion problems may occur on some metal components in the machine.

If the relative humidity is below 30%, belts and rubber hoses may eventually develop dry rot. This condition can result in hose leaks, which may cause safety hazards external to the machine in conjunction with adjacent electrical equipment.

- *Ventilation.* The need for make-up air openings for such laundry room accessories as dryers, ironers, water heaters, etc., must be evaluated

periodically. Louvers, screens, or other separating devices may reduce the available air opening significantly.

- *Radio Frequency Emissions.* A filter is available for machines in installations where floor space is shared with equipment sensitive to radio frequency emissions.
- *Elevation.* If the machine is to be operated at elevations of over 3,280 feet (1,000 meters) above sea level, pay special attention to water levels and electronic settings (particularly temperature) or desired results may not be achieved.
- *Chemicals.* Keep stainless steel surfaces free of chemical residues.

	<b>DANGER</b>
Do not place volatile or flammable fluids in any machine. Do not clean the machine with volatile or flammable fluids such as acetone, lacquer thinners, enamel reducers, carbon tetrachloride, gasoline, benzene, naphtha, etc. Doing so could result in serious personal injury and/or damage to the machine.	
SW002	

- *Water Damage.* Do not spray the machine with water. Short circuiting and serious damage may result. Repair immediately all seepage due to worn or damaged gaskets, etc.




## Machine Location

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

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

Consult installation instructions for specific details.

	<b>CAUTION</b>
<p>Replace all panels that are removed to perform service and maintenance procedures. Do not operate the machine with missing guards or with broken or missing parts. Do not bypass any safety devices.</p> <p style="text-align: right;">SW019</p>	

## Input and Output Services

- **Water Pressure.** Best performance will be realized if water is provided at a pressure of 30–85 psi (2.0–5.7 bar). Although the machine will function properly at lower pressure, increased fill times will occur. Water pressure higher than 100 psi (6.7 bar) may result in damage to machine plumbing. Component failure(s) and personal injury could result.


- **Steam Heat (Optional) Pressure.** Best performance will be realized if steam is provided at a pressure of 30–80 psi (2.0–5.4 bar). Steam pressure higher than 125 psi (8.5 bar) may result in damage to steam components and may cause personal injury.

For machines equipped with optional steam heat, install piping in accordance with approved commercial steam practices. Failure to install the supplied steam filter may void the warranty.

- **Compressed Air.** For machines requiring compressed air service, best performance will be realized if air is provided at a pressure of 80–100 psi (5.4–6.7 bar).
- **Drainage System.** Provide drain lines or troughs large enough to accommodate the total number of gallons that could be dumped if all machines on the site drained at the same time from the highest attainable level. If troughs are used, they should be covered to support light foot traffic.
- **Power.** For personal safety and for proper operation, the machine must be grounded in accordance with state and local codes. The ground connection must be to a proven earth ground, not to conduit or water pipes. Do not use fuses in place of the circuit breaker. An easy-access cutoff switch should also be provided.

# Safety

## Safe Operating Environment (Continued)

	<b>WARNING</b>
<p>Ensure that a ground wire from a proven earth ground is connected to the ground lug near the input power block on this machine. Without proper grounding, personal injury from electric shock could occur and machine malfunctions may be evident.</p>	
<small>SW008</small>	

Always disconnect power and water supplies before a service technician performs any service procedure. Where applicable, steam and/or compressed air supplies should also be disconnected before service is performed.

### AC Inverter Drive

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

- An especially dusty or linty environment will require more frequent cleaning of the AC inverter drive cooling fan filter and of the AC inverter drive itself.
- Power line fluctuations from sources such as uninterruptible power supplies (UPS) can adversely affect machines equipped with the AC inverter drive. Proper suppression devices should be utilized on the incoming power to the machine to avoid problems.

- A clean power supply free from voltage spikes and surges is absolutely essential for machines equipped with the AC inverter drive. Nonlinear inconsistencies (peaks and valleys) in the power supply can cause the AC inverter drive to generate nuisance errors.

If voltage is above 240 Volt for 200 Volt installation, ask the power company to correct. As an alternative, a step-down transformer kit is available from the distributor. If voltage is above 480 Volt for 400 Volt installations, a buckboost transformer is required.

- Sufficient space to perform service procedures and routine preventive maintenance is especially important for machines equipped with the AC inverter drive.

## Misuse

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

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

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## Section 2

# Introduction

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### Model Identification

Information in this manual is applicable to these models:

UW35PV*	UW100PV*
UW60PV*	UW125PV*
UW80PV*	UW150PV*

\* This manual applies to models with U1, U2, U3 or U4 in the 8th and 9th, or 9th and 10th positions in the model number (e.g., UW60PVXU40001).

### Nameplate Location

The nameplate is located on cagewrap, on side of AC Inverter Drive Compartment and on Electric Heat Contractor Box (if equipped). Always provide the machine's serial number and model number when ordering parts or when seeking technical assistance. Refer to Figure 1.

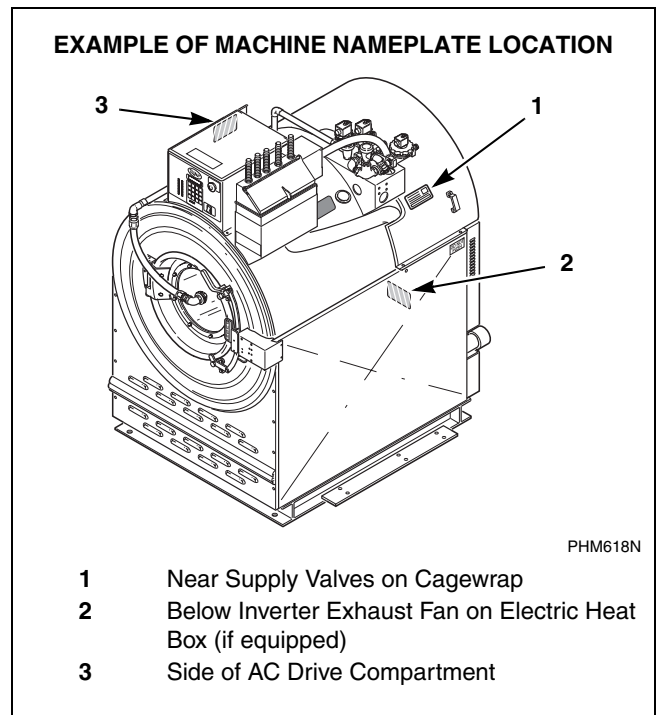


Figure1

# Introduction

This manual is designed as a guide to operating and programming the UW35PV, UW60PV, UW80PV, UW100PV and UW125PV, rigid-mount washer-extractor equipped with the WE-6 microcomputer and an AC inverter drive. The UWPV washer-extractor features programmable custom cycles and high extract force. Wet cleaning capability and water reuse capability offer the operator versatility and economy. The wet-cleaning-capable feature supports the Premium Wet Clean Module.

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

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**Note:** Read this manual thoroughly before attempting to operate the washer-extractor or program the microcomputer.

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**Note:** Do not use this manual in conjunction with earlier model microcomputer-controlled UW washer-extractors. Do not use technical literature intended for earlier models when operating this machine.

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

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## Replacement Parts

If literature or replacement parts are required, contact the source from whom the washer-extractor was purchased or contact Alliance Laundry Systems LLC at (920) 748-3950 for the name and address of the nearest authorized parts distributor. A parts manual may be ordered by returning the reply card provided with each washer-extractor.

## Customer Service

For technical assistance, contact your local distributor or call:

(920) 748-3121  
Ripon, Wisconsin

A record of each washer-extractor is on file with the manufacturer. Always provide the serial number and model number when ordering parts or when seeking technical assistance. Refer to Figure 2.

# Introduction

Model Number Familiarization Guide		
Sample Model Number: <b>UW60PVXU40001</b>		
<b>UW</b>	Model Number Prefix	
<b>60</b>	Washer-Extractor Capacity (pounds dry weight of laundry)	
<b>P</b>	Type of Electrical Control	P = WE-6 Control
<b>V</b>	Washer-Extractor Speed Capabilities	V = 7 Speeds
<b>X</b>	Electrical Characteristics	
<b>U4</b>	Design Series	
<b>0001</b>	Option Identification (varies from machine to machine)	

Model No.	UW60PVXU40001					
Serial No.	000000000000					
Voltage	200 – 240	Amps	14			
Circuit Breaker	20 Amps					
Hz	50 – 60	Wire	2/3	Phase	1/3	
Max. Load	60 LB	27 KG	Max. Speed	813	RPM	
Elec. Heating	N/A	Steam Press.	N/A	PSI	0.0	BAR
<b>Drawings:</b>						
<small>ETL Listed            Conforms To ANSI/UL Std. 1206, 3rd Ed            Certified To CAN/CSA Std. C22.2 No.53-1968</small>						

**EXAMPLE OF NAMEPLATE**

PHM629N

Figure 2



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## Section 3

# Operation

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### Machine Familiarization Guide

The machine familiarization guide in Figure 3 identifies major operational features of the UWPV washer-extractor.

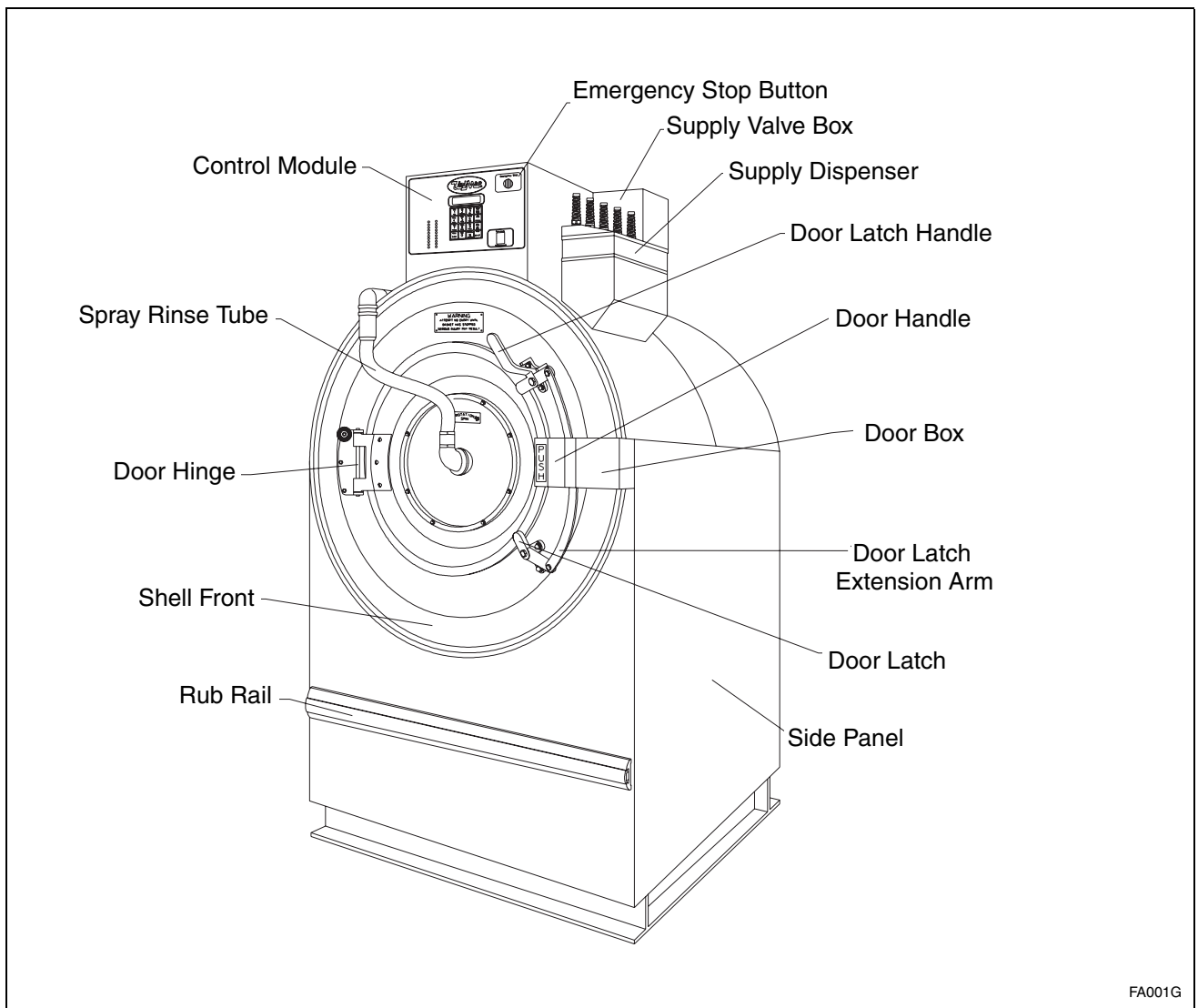


Figure 3

# Operation

## Theory of Operation

The design of the washer-extractor emphasizes performance reliability and long service life. The cylinder, shell, and main body panels are fabricated of stainless steel.

Electrical controls for the washer-extractor are housed in a separate enclosure located on the top of the machine. Removing the screws from the module cover, lifting the cover, and pulling to the rear provides access to the control module. This module contains the WE-6 microcomputer, contactors, water-level switch, and other control components.

The cylinder is driven by a V-drive system supported via the shaft by two flange-mounted spherical roller bearings bolted to the A-frame.

The cylinder is constructed with four lifters or ribs that lift the laundry from the bath solution when the cylinder rotates at slow speed and then allow the laundry to tumble back into the bath. This mechanical action accomplishes the washing function. The cylinder is perforated, allowing the water to drain from within during the wash and extract steps.

The spray rinse feature consists of a fiber-reinforced clear hose connected to the center of the door glass and to both a hot and cold water inlet valve. A hemispherically-shaped spray nozzle inside the door glass produces a fan-action water spray which disperses rinse water throughout the load.

All UWPV washer-extractors use an AC inverter drive control which provides seven preset motor speeds using a single motor. The AC drive interface board converts motor logic from the WE-6 computer to the correct signals for the AC inverter drive. In addition,

all logic inputs to the computer are routed through this board.

The operator can select from among 39 preprogrammed cycles. Cycle 01 is a test cycle used to verify proper operation of the washer-extractor. With the exception of Cycle 39, the remaining cycles are complete wash cycles or specialty cycles designed to handle various fabrics at specific water temperatures and levels. Cycle 39 is designed to test an external chemical injection supply system.

Programmable custom cycles are another feature of the UWPV.

The vibration safety switch system utilizes a micro-switch mounted between the faces of the A-frame to signal the WE-6 computer that the load imbalance is too great for high extract speeds. Depending on the design series, the vibration safety switch will perform in either of two ways. If the washer-extractor utilizes ONLY the vibration safety switch to detect an out-of-balance load, the switch will signal the WE-6 computer to slow the motor speed, allowing the load to re-distribute, and then resume the spin speed programmed. The computer will attempt to redistribute the load in this manner up to three times. On the third attempt, if an imbalance condition is still detected, the computer will abort the spin speed step(s) and advance to the next non-spin speed step.



# Operation

However, if the washer-extractor is equipped with BOTH the vibration safety switch and the inverter drive balance detection systems, the function of the switch is slightly different. The inverter drive will monitor load imbalance conditions and the computer will determine the maximum safe spin speed. During the spin cycle, if the vibration safety switch detects a severe imbalance, due to improper installation or improper loading of the washer, the computer will abort the remaining portion of the cycle and stop the machine. The display will flash “BAL DR” while aborting the cycle until the door has been opened.

Water enters the washer-extractor through electromechanical water valves controlled by the microcomputer. The microcomputer also controls the drain and the door lock. In addition, it selects the water levels according to the programmed cycle. Vacuum breakers are installed in the water-inlet plumbing to prevent backflow of water.

The standard production UW35PV and UW60PV use a single drain valve. (Dual drains are available as an option.) The UW80PV, UW100PV and UW125PV use dual drain valves. The dual drains open and close together under control of the WE-6 computer. The drain valve is normally open, which means that it closes only when power is applied, thus allowing the machine to drain in the event of a power failure.

A door-lock system prevents opening of the stainless steel door when a cycle is in progress. It also prevents operation of the washer-extractor when the door is open. The doorbox contains the door-lock microswitch, door-closed magnetic switch, and the door-unlock solenoid.

The shaft seal assembly includes a brass collar held in place on the cylinder shaft with setscrews. The collar has a flange with a ceramic ring which makes contact with a spring-loaded phenolic face seal enclosed in a housing mounted on the rear of the shell. The collar contains two internal O-rings which maintain contact with the cylinder shaft.

The polypropylene supply dispenser is mounted on the right side of the washer-extractor, viewed from the front. The dispenser has five supply compartments, numbered 1–5, starting from the rear of the machine. The compartments hold plastic supply cups that are used for either liquid or dry supplies. A nozzle flushes supplies from the cups with water for the time programmed in the cycle.

Liquid supplies can be injected directly into the cups by a customer-supplied external chemical supply system. Five hose strain reliefs on top of the supply dispenser facilitate connection to an external supply system. A terminal strip inside a compartment attached to the left side of the control module, viewed from the rear of the washer-extractor, provides connection points for external supply signals.

# Operation

## Theory of Operation (Continued)

### Emergency Stop Button

A red emergency stop button is located on the upper right-hand corner of the control panel. Push the button in to stop the washer-extractor in emergency situations. Turn button to the right and pull out to reset.

### WE-6 Microcomputer

The WE-6 microcomputer control is a field-programmable solid-state control capable of storing and running up to 39 preprogrammed ready-to-use cycles. A detailed description of these cycles can be found in the Programming section of this manual under Individual Cycle Charts.

Never turn the power off while the computer mode switch is in the PROGRAM position. Such action will disorder portions of the programmed data, necessitating reprogramming of some or all of the existing cycles. Always return the mode switch to RUN position before turning the power off.

Never leave the mode switch key inserted in the switch lock where it may be accessible to unauthorized personnel not familiar with programming procedures.

The computer control in this washer-extractor is continuously on the alert for problems within the machine. When the computer detects a problem, it immediately flashes a letter or number or both on the display. It may activate the signal buzzer as well.

### LED Display

The WE-6 microcomputer has a six-digit LED display. References to display indications pertain to the first four digits of the display reading left to right. The last two digits on the right side of the display will indicate either the last cycle used or the current cycle in progress. See Figure 4.

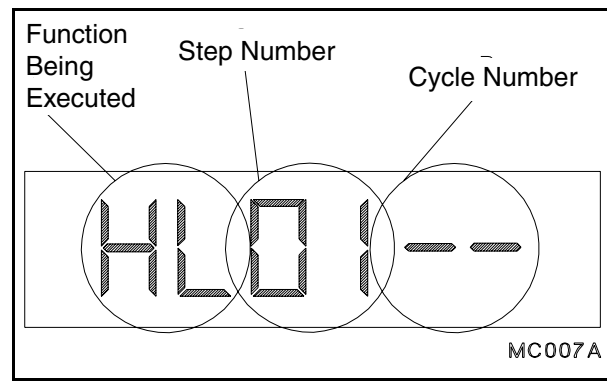


Figure 4

The table which follows, entitled “Display Interpretations,” lists the various displays and what they mean.

# Operation

Display Interpretations	
HRWC03	Program identification code (ROM). This is an example only.
DONE	End of cycle
DOOR	Door not locked problem
EMTY	Empty problem
FILL	Fill problem
SDLY	Spin coast delay
NEXT	Select cycle or open door or select program
NCYC	Cycle not available
STOP	Stop button pressed or cycle ended
A1	Auxiliary output #1
A2	Auxiliary output #2
A3	Signal
CF	Cold flush
CH	Cold fill to high level
CM	Cold fill to medium level
CL	Cold fill to low level
CO	Cold fill to overflow
CR	Cold rinse
CY	Cycle number
D1	Drain #1
Da	Drain to optional reuse tank A
Db	Drain to optional reuse tank B
F	Heat select temperature in ° Fahrenheit
C	Heat select temperature in ° Centigrade
HF	Hot flush
HH	Hot fill to high level
HM	Hot fill to medium level
aL	Fill from reuse tank A to low level

Display Interpretations (Continued)	
aM	Fill from reuse tank A to medium level
aH	Fill from reuse tank A to high level
bL	Fill from reuse tank B to low level
bM	Fill from reuse tank B to medium level
bH	Fill from reuse tank B to high level
HL	Hot fill to low level
HO	Hot fill to overflow
HR	Hot rinse
H1	High speed #1
H2	High speed #2
H3	High speed #3
HT	Heat (steam or electric)
--M	Minutes (used when programming time)
--S	Seconds (used when programming time)
MS	Medium speed spin
SK	Soak
S1	Supply #1 (Detergent)
S2	Supply #2 (Bleach)
S3	Supply #3 (Sour)
S4	Supply #4 (Softener)
S5	Supply #5 (Specialty)
TH	Controlled temperature fill to high level
TM	Controlled temperature fill to medium level
TL	Controlled temperature fill to low level
TO	Controlled temperature overflow
W1	Wash 1 (normal reversing)
W2	Wash 2 (gentle reversing)

# Operation

Display Interpretations (Continued)	
W3	Wash 3 (no agitation)
W4	Wash 4 (medium reversing action)
W5	Wash 5 (temp.-controlled cool-down)
W6	Wash 6 (extra low agitation)
W7	Wash 7 (no agitation, drain 1 open, no refill)
WF	Warm flush
WH	Warm fill to high level
WM	Warm fill to medium level
WL	Warm fill to low level
WO	Warm fill to overflow level
WR	Warm rinse
•	Left dot—poor balance condition
•	Second dot from left—door lock switch
•	Third dot from left—program mode
•	Fourth dot from left—high level reached
•	Fifth dot from left—medium level reached
•	Right dot—low level reached
EXISTS	Cycle already in memory
EDIT?	Do you want to edit the cycle?
TEMP	Over-temperature-limit condition
OVERHT	Open or shorted temperature input circuit or temperature out of computer's allowable limits
WATER	Water in washer-extractor at end of cycle
°FAR	Temperature in degrees Fahrenheit
°CEN	Temperature in degrees Centigrade
MANUAL	Manual Mode enabled
NO MAN	Manual Mode disabled

Display Interpretations (Continued)	
1DRAIN	One drain capability selected
2DRAIN	Second independent drain enabled (via Auxiliary 2 output—precludes control of recirculation pump via Auxiliary 2, if selected). This should not be confused with the “dual drain” option.
ADV	Advance (skip steps) feature enabled
NO ADV	Advance feature disabled
WET CL	Wet clean function for Auxiliary 1 output (1/2 wash speed) and Auxiliary 2 output (recirculation pump) enabled (See “2DRAIN.”)
NO WCL	Wet clean function for Auxiliary 1 and 2 disabled (Auxiliary 1 and 2 are timed outputs.)
S BAL	“Short” balance routine—active only if inverter drive load balance sensing is utilized.
L BAL	“Long” balance routine—active only if AC inverter drive load balance sensing is utilized.
DRTEMP	Temperature is above 160°F in drain to reuse tank A or B step.
BAL DR* (flashing at the end of cycle)	Cycle aborted due to extreme out-of-balance condition or door is unstable.

\* Design U6 and greater models

# Operation

## Operational Keypad

The computer's control keypad includes sixteen keys. See Figure 5. Fourteen of these keys list functions printed in black lettering on a silver background. These functions are available to the operator and are intended to control operation of the washer-extractor. See the table below.

Operational Keypad	
Key	Description
Numbers <b>0–9</b>	Press to select cycle number.
<b>Display Temp</b>	Press and hold. Display will show and update sump temperature in degrees Fahrenheit or Centigrade.
<b>Advance</b>	Press to cause computer to skip to the next step in the cycle. The computer will not advance past drain step. (The <b>Advance</b> key is enabled at the factory and can be disabled at the laundry site.)
<b>Stop</b>	Press to immediately abort the cycle and initiate the Stop Routine.
<b>Start</b>	Press to start selected cycle or to restart a step following a "FILL" or "EMTY" alarm. See Error Recovery Routine in this section of the manual.
<b>Manual</b>	See Manual Mode Control Feature at the end of this section.

# Operation

## Theory of Operation (Continued)

Located to the left of the computer keypad are 20 LED indicator lights for the computer outputs. During the time that a cycle is running, one or more of these lights will be on to indicate the outputs activated for a particular step. See Figure 5.

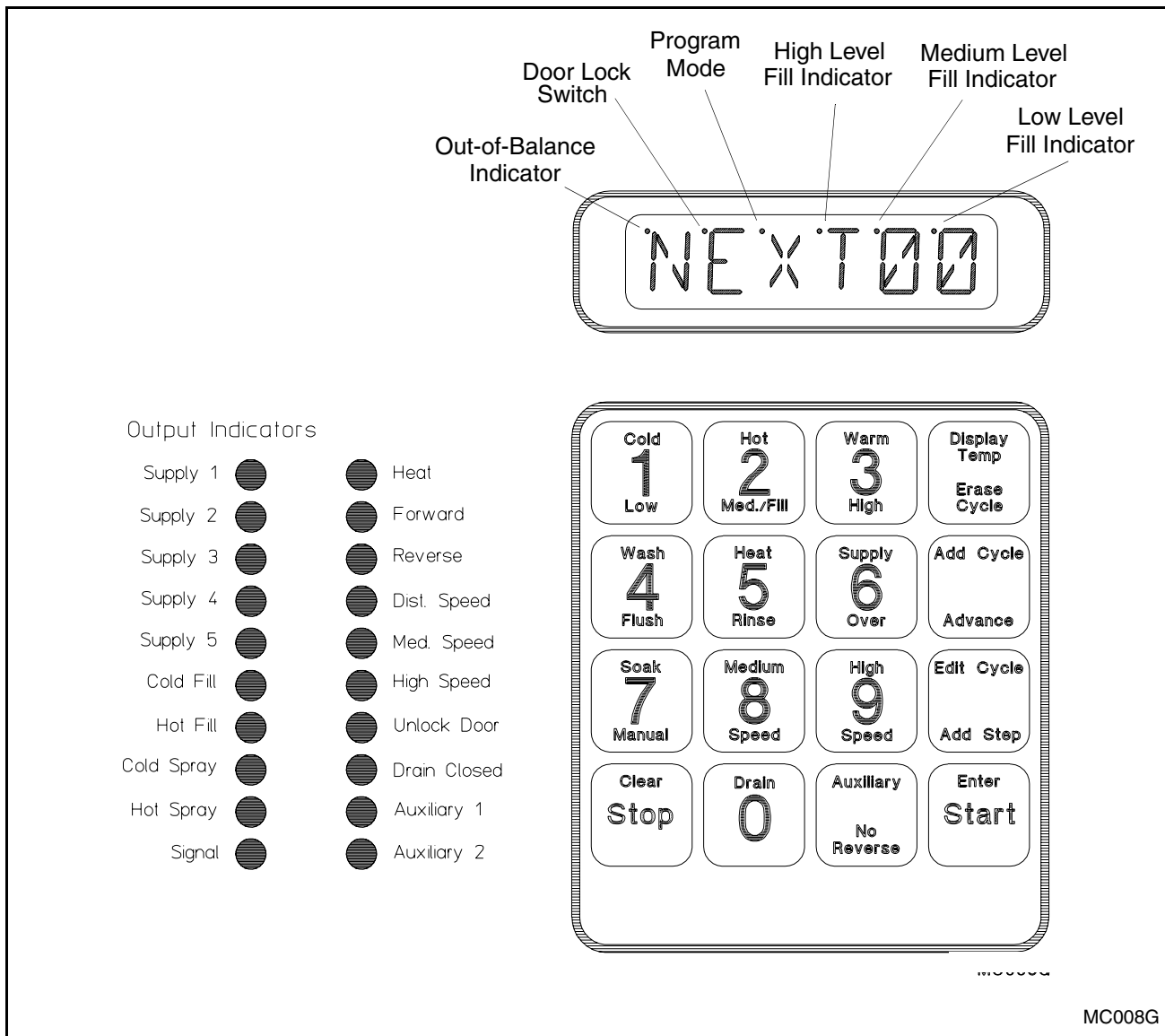


Figure 5

# Operation

## Start-up

Turn on the main power source (circuit breaker or cut-off switch on the wall).

When AC power is turned on, the front panel display will show the program (ROM) identification code.

This identification code will appear for approximately five seconds. Then the computer display will flash “POWER” and “WAIT” alternately for two minutes.

The display will then show “NEXT00” to indicate that a cycle can be selected. This display will be shown at all times that power is on between cycles, indicating that the door-unlock solenoid will function if the door-unlock button is pressed. The washer-extractor is then ready for loading and unloading.

## Opening Door

Use left hand to press and hold the door unlock button located on the lower right front of the control panel. See Figure 6

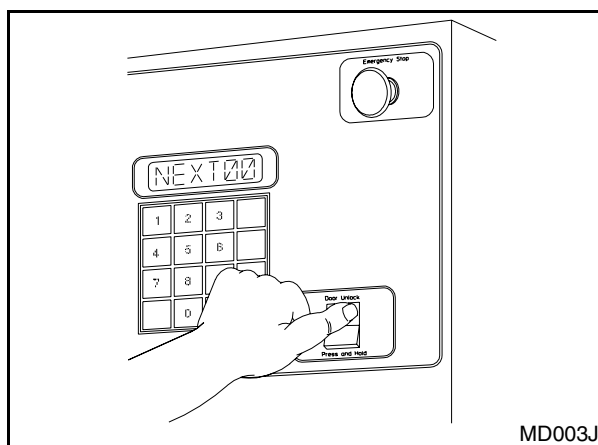


Figure 6

Use right hand to turn door handle clockwise and swing the door left to open. See Figure 5.

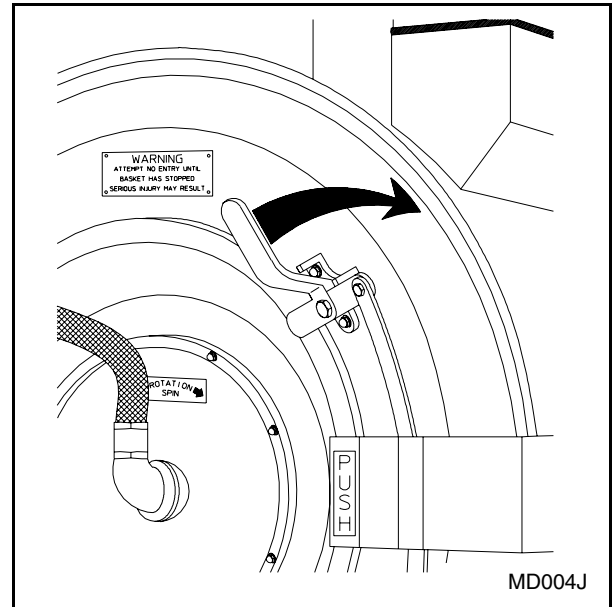


Figure 7

## Loading



### CAUTION

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

SW025

# Operation

## Loading (Continued)

Load the washer-extractor to full capacity whenever possible, but do not exceed the rated dry-weight capacity of the machine if the fabric to be washed is quite dense, closely woven, and heavily soiled. Overloading can result in an inferior wash. The operator may need to experiment to determine load size based on fabric content, soil content, and level of cleanliness required.

When loading is complete, ensure that all fabric is inside the basket. Then close and lock the door.

---

**Note:** When washing items which may disintegrate or fragment, such as mop heads or sponges, use laundry nets to prevent drain blockage.

---

## Supply Dispenser

Dry supplies are placed in the supply dispenser compartment cups prior to the start of each cycle.

Liquid supplies can be injected directly into the supply dispenser by an external chemical supply system.

---

**Note:** Supply dispenser compartment cups must **not** be removed when an external chemical injection supply system is attached to the washer-extractor.

---

## Cycle Selection

---

**Note:** Press keys at their centers just hard enough to activate them.

---

Find the cycle number of the desired wash cycle from the preprogrammed cycle charts in the Programming section of this manual. Cycle numbers must be two-digit numbers from 01 to 39.

Press the numbers desired on the keyboard and note that these numbers are displayed after “NEXT.”

When keys are pressed on the keyboard, a beep will be heard. If an error is made, press the numbers again. As numbers are entered, they move from right to left on the display.

## Cycle Execution

To start the selected cycle, press the **Start** key. If the selected cycle number is not in the computer memory, the display will show “NCYC.” If this happens, select another cycle. Otherwise, the display will now show the first step. For example, if the display reads “HL01,” “HL” represents a hot fill to low level, and “01” indicates that this is the first step of the cycle.



# Operation

As the cycle proceeds, the display will show the function being executed, the step number, and the cycle number selected. Pressing the **Edit Cycle** key while the cycle is running will cause the display to show the remaining cycle time in minutes. Pressing this key again will return the display to normal.

To begin the cycle at any step other than the first step, press the **Advance** key to advance through the cycle to the desired starting point. (The **Advance** key is enabled at the factory and can be disabled at the laundry site.) Then press the **Start** key.

It is possible to skip to the next step in a cycle, with the exception of a drain step: Drain steps must be allowed time to complete.

When the display shows the step desired to begin the cycle, press the **Start** key.

If the door is not locked, the display will indicate “CLOSE” and “DOOR.” If this occurs, be sure the door is closed and locked and press the **Start** key again.

If the LED indicator lights for the computer outputs indicate that one or more outputs are activated but the washer-extractor is not functioning according to the output or outputs indicated, contact a service technician.

As water fills the washer-extractor, one or more of the indicator lights located to the left of the keyboard will come on and stay on until the required water level is reached. LED dots located in the upper left corner of the last three digits on the right of the display will illuminate to indicate the water level(s) reached:

- When the indicator dot in the last digit on the right is lit, the low water level has been reached.
- When the dot in the next-to-the-last digit is lit, medium water level (optional) has been reached.
- When the dot over the third digit from the right has been lit, high level has been reached.

The cycle will continue until its completion. Then the display will read “DONE.”

## Test Cycle

A test cycle is used to analyze washer-extractor functions. Refer to Cycle Charts section.

Step 01 in the test cycle is a cold fill to low level. This step is designed to give not quite enough time to complete a fill, causing the display to read “FILL.” Press the **Start** key to continue the fill, and the test cycle will proceed.

# Operation

## Test Cycle (Continued)

Step 02 in the test cycle is a drain step. Again, the time allotted is shorter than it would be in a normal cycle. The display will read “EMTY.” To proceed, press the **Start** key.

The steps in the test cycle are relatively short with the exception of steps 3, 21, 25, 27, 28, and 29. These can be shortened by pressing the **Advance** key to go on to the next step.

The operator may skip to any next step in the cycle with the exception of a drain step: Drain steps must be allowed to complete. To skip forward in the test cycle, press the **Advance** key.

---

**Note:** The **Advance** feature may be disabled. See Prompting the WE-6 in the programming section of the manual.

---

## Wet Clean Testing

Wet clean processing outputs are tested through the energizing of the Auxiliary 1 output in step 18 and Auxiliary 2 output in step 19. Steps 30 through 41 are designed to test water reuse processing, if this option is installed. If it is not, the outputs associated with each step will be energized, and the cycle will conclude normally.

---

**Note:** Prompts for “1DRAIN” and “WET CL” must be selected when prompting the WE-6 microcomputer in order for steps 18 and 19 to work properly for wet clean processing.

---

## Stop Routine



### WARNING

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

SW012

The operator can select the agitation which will be in effect for the entire STOP routine. This will help prevent tangling of the load and provide maximum control. Three agitations are available for the STOP routine. They are as follows:

#### Wash 1

- 12 seconds forward
- 3 seconds pause
- 12 seconds reverse
- 3 seconds pause

#### Wash 2

- 3 seconds forward
- 27 seconds pause
- 3 seconds reverse
- 27 seconds pause

#### Wash 3

- no rotation

To select the agitation in the stop routine, program a Wash 1, 2, or 3 step for 1 second. *The washer-extractor will begin refilling to the most recent water level if the time is more than 1 second.* If the most recent wash type was Wash 4, 6, or 7, the WE-6 will default to no agitation (Wash 3) during the stop routine.

# Operation

---

**Note:** If the desired action is not programmed in the final cycle step, the computer will default to the most recent action in the cycle. If the cycle stops prematurely, the most recent action at the time the cycle is interrupted will be in effect during the stop routine.

---

The display will read “W1-cc,” “W2-cc,” or “W3-cc” for Wash 1, Wash 2, or Wash 3 action during the entire STOP routine until the final 10 seconds. (The “cc” here stands for the current cycle number and will be represented by numbers in the actual display.) During the final 10 seconds, the display reads “STOPcc.” The display will then read “DONEcc.” At that point, the door can be opened.

## Balance Detection

The washer-extractor may be equipped with either a Vibration Safety Switch Detection System or a Vibration Safety Switch Detection System with an Inverter Drive Balance Detection System. All machines of the Design 5 series or lower will have only the vibration safety switch detection system. All machines of the Design 6 series or greater will have both the vibration safety switch and inverter drive balance detection systems.

### Balance Switch Detection

The vibration safety switch detection system utilizes a micro-switch mounted between the faces of the A-frame to signal the WE-6 computer when the load imbalance is too great for high extract speeds. If the washer-extractor is equipped with **ONLY** the vibration safety switch detection system, the switch will signal the computer that an unacceptable load imbalance has been detected during the extract

speed. At this point, the computer display will illuminate the out-of-balance LED indicator (this indicator is located in the upper left corner of the first digit on the display). The computer will then command the motor to slow down, re-distribute the load, and try again to achieve the programmed spin speed again. The computer will attempt to redistribute the load in this manner up to three times. On the third attempt, if an imbalance condition is still detected, the computer will abort the spin speed step(s) and advance to the next non-spin speed step.

However, if the washer-extractor is equipped with **BOTH** the vibration safety switch and the inverter drive balance detection systems, the function of the switch is slightly different. The inverter drive will monitor load imbalance conditions during the distribution speed step, and if the load is sufficiently out-of-balance, the computer will attempt to re-distribute the load again. The computer will attempt to balance the load in this manner up to two more times for a total of three attempts. If the inverter drive continues to detect an out-of-balance load on the third attempt, the computer display will illuminate the out-of-balance LED indicator, and the computer will determine the maximum safe spin speed up to a maximum speed of 235g. In addition, during any spin speed step, if the vibration safety switch detects a severe imbalance condition, due to improper installation or improper loading of the washer, the computer will abort the remaining portion of the cycle and stop the machine. The display will flash “BAL DR” while aborting the cycle until the door has been opened.

# Operation

## Balance Detection (Continued)

---

**Note:** The computer cannot advance through a drain step, nor will the computer allow starting a cycle in a spray rinse or spin step.

---

**Note:** A drain step must be programmed prior to a high speed step to allow for inverter drive balance detection. Otherwise, spin steps will be skipped by the computer.

---

## Temperature Display

The temperature display can be prompted to display in Fahrenheit or Centigrade. See Prompting the WE-6 in the Programming section of this manual.

To display temperature, press the **Display Temp** key. The display will read “F” or “C” and the temperature as long as the key is pressed. The computer will update the display automatically.

## Error Recovery Routine

When the computer detects an error, it will stop running the current step and display a message to indicate what type of error was found:

- “FILL” indicates that the washer-extractor did not fill within the allotted time.
- “EMPTY” indicates that the washer-extractor did not drain in the allotted time.
- “TEMP” indicates that the temperature sensor has recognized a temperature above the programmed value.
- “MEMR” indicates that the computer has detected a problem with the cycle information. The cycle must be edited.
- “WATER” indicates that the WE-6 computer senses low, medium, or high water level at the end of the stop routine.
- “DRTEMP” indicates that the WE-6 has detected water temperature over 160°F in a “drain to reuse” step. Instead of draining to a tank, the computer gives this error message. The cycle must be edited so the temperature is below 160°F upon entering a reuse drain step (“Da” or “Db”).

All outputs remain off while the message displays, and the door cannot be unlocked.

---

**Note:** The WE-6 computer will not allow the door to be opened while there is water in the washer-extractor.

---

# Operation

Each of these errors is considered to be recoverable. The operator has two minutes to respond to the error condition (except in the case of “WATER”). During this time, the computer will turn the signal (buzzer) relay on and off at the rate of one second on and one second off to alert the operator to the error condition. The washer-extractor may be restarted by pressing the **Start** key. Pressing the **Start** key will restart the cycle step for the originally programmed time period. “WATER” will remain displayed until the error is corrected. The cycle may be aborted by pressing the **Stop** key. After aborting the cycle, the computer will go to the normal stop routine. If the operator does not respond to the error condition within the allocated two minutes, the computer will automatically abort the cycle.

---

**Note:** The “TEMP” alarm can be recovered only after the temperature falls below the alarm level.

---

Certain error conditions are considered to be non-recoverable:

- If the door opens during a cycle, the computer will display “DOOR.” The operator must close the door.

Then, after the computer has detected that the door is closed, it will automatically abort the cycle and go to the normal stop routine.

- “OVERHT” will be displayed when the computer detects an open or shorted temperature input circuit or temperatures are outside of the washer-extractor’s allowable limits. Contact a service technician.

## Manual Mode Control Feature

Manual control is available only while a preprogrammed cycle is in progress, and if manual mode is prompted in the WE-6 programming. With the exception of motor speeds, the reuse tank B drain and tank A and B fill valves, and the door unlock output, the WE-6 computer outputs can be operated manually from the keypad. (In order to ensure proper sequencing, all motor speeds are always controlled by the computer.)

---

**Note:** When the manual mode control feature is activated, the operator must supply on/off commands for the controllable outputs. If an output is on, it will remain on until turned off by the operator or until the assigned time for the manual mode expires. This can be as long as 9 minutes and 99 seconds.

---

In normal operation, when the program mode switch is in the RUN position, only the operations printed in *black* on the keys are accessible to the operator.

# Operation

## Manual Mode Control Feature (Continued)

During the manual mode, normal cycle timing is suspended. When the manual mode is entered, the operations printed in *red* on the keys and mentioned in the following discussion are activated.

Entering the manual mode during a fill operation is not recommended. This bypasses the water-level switch inputs, and the water *must* be turned off manually by the operator.

The following procedure must be accomplished within **three seconds** in order to enter the manual mode:

1. Press the **Manual** key.
2. Then press three number keys to assign a time in minutes and seconds to the manual mode. For example, press key **2**, key **3**, and key **0** to enter the manual mode for 2 minutes and 30 seconds.
3. Then press the **Add Step** key.

When the computer receives all these inputs within the three-second time limit, it will enter the manual mode for the time assigned. The computer display will flash between “MAN230” (reflecting the time chosen in step 2 of the above procedure) and the current cycle step display for four seconds.

---

**Note:** If “NO MAN” is prompted and the normal key sequence for manual mode is entered, the computer will display only the remaining cycle time.

---

After four seconds, the display will flash between “MANUAL” and the current cycle step display for the remainder of the assigned time.

Manual mode operation will automatically end when the assigned time elapses. Normal program timing will then resume from the same point in the cycle where the manual mode was entered. To exit the manual mode and return to normal program timing before the assigned time elapses, press the **Start** key.

All water fill and spray rinse valves, supplies, heat (if the washer-extractor has reached low water level), and auxiliary outputs can be manually controlled. The heat output requires that only the **Heat** key be pressed. All other outputs require that two keys be pressed. For example, to turn *on* the cold fill valve, press the keys **Cold** and **Fill**. When an output is *on*, pressing the same key or keys which caused it to energize will turn it *off*. Thus, to turn *off* the cold fill valve, press the keys **Cold** and **Fill** once again.

---

## Section 4

# Programming

---

### Programming Keypad

All sixteen keys are used in the programming mode. Specific functions are printed in *red* on the keys. The programming mode is active only when the program mode switch is in the PROGRAM position. (When programming is complete, remember to return the mode switch to the RUN position and remove the key.) Keys **1–6** and the **Auxiliary/No Reverse** key are dual function keys in the program

mode. In each instance (with the exception of the **Warm/High** key), when a key is first pressed in a programming step, the word printed at the top of the key applies. In most instances, the next time the same key is pressed or if another key has already been pressed in programming a step, the word printed on the bottom of the key applies.

<b>Programming Keypad</b>	
<b>Red Keys</b>	<b>Description</b>
<b>Cold</b> <b>Low</b>	<b>Cold</b> is pressed when the step requires cold water. <b>Low</b> is pressed for low-level fill.
<b>Hot</b> <b>Med./Fill</b>	<b>Hot</b> is pressed when the step requires hot water. <b>Med./Fill</b> is pressed to select medium water level. <b>Fill</b> is pressed in the manual mode to operate fill valves.
<b>Warm</b> <b>High</b>	<b>Warm</b> is pressed when the step requires warm water. <b>High</b> is pressed for high-level fill.
<b>Erase Cycle</b>	<b>Erase Cycle</b> and a two-digit cycle code number are pressed to erase a cycle from memory.
<b>Wash</b> <b>Flush</b>	<b>Wash</b> is pressed when the step is a wash or dilution rinse. Then key <b>1, 2, 3, 4, 5, 6,</b> or <b>7</b> is pressed to choose the type of agitation. <b>Flush</b> is pressed to keep the drain open when water is added to the machine. A temperature selection key ( <b>Hot, Cold, Warm</b> ) must be pressed before the <b>Flush</b> key. When <b>Flush</b> is programmed, water is added through the door spray nozzle only; the basket rotates in low speed forward only.
<b>Heat</b> <b>Rinse</b>	<b>Heat</b> is pressed when auxiliary heat is needed. This must be followed by a specific temperature selection, such as 165°F. The temperature must be entered; then a time assigned to reach that temperature must be entered. <b>Rinse</b> is pressed when a spin-spray rinse is desired. Before the <b>Rinse</b> key is pressed, a temperature key must be pressed: <b>Hot, Cold,</b> or <b>Warm</b> . The drain will remain open, and the basket will rotate at medium-spin speed (high speed on two-speed only machines). Water is added through the door spray nozzle only.

# Programming

Programming Keypad (Continued)	
Red Keys	Description
<b>Supply</b>	<b>Supply</b> is pressed when soap, bleach, or other chemicals are desired. Key <b>1</b> , <b>2</b> , <b>3</b> , <b>4</b> , or <b>5</b> must then be pressed to indicate the specific supply dispenser being used. Combinations of these supplies can be programmed. See Programming a Supply step.
<b>Over</b>	<b>Over</b> is pressed when an overflow of water is desired. The drain is closed and water is added, using fill valves only, without regard to level. Water flows out the overflow connection for the time assigned to the step.
<b>Add Cycle</b>	<b>Add Cycle</b> is pressed to begin the process of programming a new cycle into memory.
<b>Soak</b>	<b>Soak</b> is used when no agitation is desired. This follows a fill and/or supply step. The time must be assigned in hours and minutes. (Wash 3 also provides no agitation.)
<b>Medium Speed</b>	<b>Medium Speed</b> is pressed when a medium spin <i>only</i> is desired for washing delicate items not suited for high-speed spin or when an intermediate spin is desired.
<b>High Speed</b>	<b>High Speed</b> is pressed when a fast spin is desired. Pressing the <b>High Speed</b> key once will activate the H1 spin; twice, the H2 spin; and three times, the H3 spin.
<b>Edit Cycle</b>	<b>Edit Cycle</b> is pressed followed by a two-digit cycle code number to display the steps of a preprogrammed cycle. The cycle may be altered during the edit cycle procedure by deleting, changing, or adding steps.
<b>Add Step</b>	<b>Add Step</b> is pressed to add a step to an existing cycle during the edit cycle procedure.
<b>Clear</b> (black on red background)	<b>Clear</b> is pressed when an error has been made in programming a step. Instead of pressing <b>Enter</b> as the step is completed, press <b>Clear</b> to eliminate the incorrect information. ( <b>Clear</b> should never be pressed when displaying a cycle unless a particular step is to be eliminated or changed. See Displaying a Cycle in Memory.)
<b>Drain</b>	<b>Drain</b> is pressed after a wash, dilution rinse, or soak step is programmed in order to remove water from the machine. A time must be assigned that will allow the machine to reach empty. If the computer has been prompted for two drains, press key <b>1</b> or key <b>2</b> for the desired drain valve. See Prompting the WE-6. There are always three possible selections for the drain step. These are selected after you press the <b>Drain</b> key by pressing key <b>1</b> for drain 1 (main drain), key <b>2</b> for a drain to reuse tank A, and key <b>3</b> for a drain to reuse tank B. For special applications utilizing "2DRAIN," contact the factory.
<b>Auxiliary</b>	<b>Auxiliary</b> is pressed to activate the buzzer or other auxiliary output. NOTE: Auxiliary 4 is used to activate the recovery fill valve for machines equipped with water reuse system.
<b>No Reverse</b>	<b>No Reverse</b> is used to rotate the basket in one direction only during a step and should be pressed just before pressing the <b>Enter</b> key.
<b>Enter</b>	<b>Enter</b> is pressed to enter programming information into the computer's memory.



# Programming

## Programming Tutorial

The following procedure guides the programmer through a complete cycle and allows hands-on experience for programming cycles. The complete cycle is listed in the Tutorial Cycle table at the end of this section.

1. Locate the key-operated programming switch on the left side of the control module, viewed from the front. Insert the key and turn the switch to PROGRAM position. The display will read “CYC00.”
2. Press the **Add Cycle** key. The display will read “ACYC00.”
3. A two-digit number from 01 to 39 must be entered. Cycle number 39 is recommended because standard program versions use this short cycle for performing a chemical supply setup.
4. Press key **3**, then key **9**, then the **Enter** key. The display will read “CYC39.”
  - a. If the display alternately flashes “EXISTS” and “EDIT?,” press the **Clear/Stop** key. The display will read “CYC39.”
  - b. Erase the existing cycle: Press the **Erase Cycle** key. The display will show “ECYC39.” Press key **3**, then key **9**, then the **Enter** key. The display will read “WAIT” briefly and then “CYC39.”
  - c. Press the **Add Cycle** key. The display will read “ACYC39.” Press key **3**, then key **9**, then the **Enter** key. The display will show “0139.”
5. Enter the desired function for step 1. A natural choice might be hot fill to low level.
  - a. Press the **Hot** key and then the **Low** key. The display will read “HL0139.”
  - b. Press the **Enter** key. The display will read “M--S.”
  - c. Now enter the desired fill time. The recommended number of minutes is four. Press key **4**. The display will read “4M-00S.”
6. Now press the **Enter** key. The display will read “0239,” indicating that the computer is ready for step 2 of cycle 39.
7. A natural choice for step 2 is the addition of a supply.
  - a. To add supply No. 1, press the **Supply** key and then key **1**. The display will read “S10239.”
  - b. Press the **Enter** key and the display will read “M--S.”
  - c. Now enter the desired time in minutes and seconds for the supply valve to be turned on. Thirty seconds is the recommended time.

Press key **0** for minutes, and the display will read “0M-00S.”

Now press key **3** and then key **0**. The display will read “0M-30S,” indicating a supply time of thirty seconds.
8. Now press the **Enter** key. The display will change to read “0339,” indicating that the computer is ready for step 3.

# Programming

## Programming Tutorial (Continued)

9. If no other supply is required, the next step is to choose the type of wash desired and assign it a time. For example, one might choose a wash with standard reversing action (**Wash 1**) and a time of six minutes.
  - a. Press the **Wash** key and then key **1**. The display will read “W10339.”
  - b. Press the **Enter** key. The display will read “M--S.”
  - c. Press key **6**. The display will read “6M-00S,” indicating a wash step of six minutes.
10. Press the **Enter** key. The display will read “0439,” indicating that the computer is ready for step 4.
11. A drain step usually comes next.
  - a. Press the **Drain** key. The display will read “D-0439.” This program allows a choice among drains 1, a, or b. For this application, press key **1**. The display will read “D10439.”
  - b. Then press the **Enter** key. The display will read “M--S.”
  - c. Enter the *maximum* time desired for the computer to allow the machine to drain to empty. The recommended time is one minute. Press key **1**, and the display will change to “1M-00S,” indicating a drain step of one minute.

---

**Note:** The manufacturer does not recommend more than **one minute** for a drain step. If the machine does not drain in the amount of time programmed, the “EMPTY” alarm will be displayed.

---

12. Press the **Enter** key. The display will now read “0539,” indicating that the computer is ready for step 5.
13. A natural next step in the cycle might be a warm rinse.
  - a. Press the **Warm** key and then the **Rinse** key. The display will read “WR0539.”
  - b. Press the **Enter** key. The display will read “M--S.”
  - c. Now enter the rinse duration in minutes and seconds. A spray rinse lasting 2-1/2 minutes is an appropriate choice.  
  
Press key **2**. The display will read “2M-00S.”  
  
Now press key **3** and key **0**. The display will read “2M-30S.”
14. Press the **Enter** key. The display will read “0639,” indicating that the computer is ready for step 6.
15. Step 6 in the cycle might be a warm fill to high level for a dilution rinse.

---

**Note:** The **Rinse** key controls a *spin-spray* rinse. However, a *dilution* rinse is executed the same as a wash step without the addition of detergents.

---

- a. Press the **Warm** key (key **3**) *twice* to turn on two hot and two cold water valves to reduce fill time. The display will read “W-0639.” Then press the **High** key (key **3**). The display will read “WH0639.”
- b. Press the **Enter** key. The display will read “M--S.”

# Programming

- c. Enter the desired time for the computer to allow the machine to fill to high level. Five minutes is acceptable. Press key **5**. The display will read “5M-00S.”

---

**Note:** If the machine does not fill in the amount of time programmed, the “FILL” alarm will be displayed.

---

16. Press the **Enter** key. The display will read “0739.”
17. Add a sour for step 7:
  - a. Press the **Supply** key and key **3**. The display will read “S30739.”
  - b. Press the **Enter** key. The display will read “M---S.”
  - c. Enter the length of time for the supply to be activated. In this case, thirty seconds is adequate.  
  
Press key **0** for minutes; press key **3** and then key **0** for seconds. The display will read “0M-30S.”
18. Press the **Enter** key as always after programming a time duration. The display will read “0839,” indicating that the computer is ready for step 8.
19. For step 8, program the agitation action for the dilution rinse.
  - a. Press the **Wash** key and key **1** to program an action with normal reversing. The display will read “W10839.”
  - b. Press the **Enter** key. The display will read “M---S.”
  - c. Enter the time for the dilution rinse (three minutes).  
  
Press key **3**. The display will read “3M-00S.”
20. Press the **Enter** key. The display will read “0939,” indicating that the computer is ready for step 9.
21. The dilution rinse water must be drained.
  - a. Press the **Drain** key. The display will read “D-0939.” Then press key **1**. The display will read “D10939.”
  - b. Press the **Enter** key. The display will read “M---S.”
  - c. Enter the length of time the computer will allow the machine to drain (one minute).  
  
Press key **1**. The display reads “1M-00S,” indicating that a one-minute step has been programmed.
22. Press the **Enter** key to move to step 10 of the cycle.
23. An extract step should now be programmed.
  - a. Press the **Medium Speed** key. The display will read “MS1039,” indicating a medium-speed spin.
  - b. Press the **Enter** key. The display will read “M---S.”
  - c. Enter the length of time for the medium-speed spin (one minute).  
  
Press key **1**. The display will read “1M-00S.”
24. Press the **Enter** key. The display flashes “SDLY” for one second.

# Programming

## Programming Tutorial (Continued)

The display will then read “0M-00S,” allowing the programmer to enter the time for a slow down delay (coast).

At some point in the future, to have the basket coast before it stops, enter the desired coast time (up to 99 seconds). However, do not enter a time now. That would cause a coast before a higher spin speed (which will be the next step).

For no coast, press the **Enter** key.

25. The next step is to program a high-speed 1 spin, the lowest of three high speeds. (Pressing the **High Speed** key repeatedly when programming a high-speed step will cause the computer display to proceed from “H1” to “H2,” and then to “H3,” the maximum-speed spin. After “H3” appears and the **High Speed** key is pressed again, “H1” will reappear.)
  - a. Press the **High Speed** key once. The display will read “H11139.”
  - b. Press the **Enter** key. The display will read “M--S.”
  - c. Enter a length of time for the high-speed spin (six minutes). Press key **6**. The display will read “6M-00S.”

---

**Note:** High-speed spin is not preceded automatically by medium-speed spin as with nonvariable-speed UW rigid-mount models. Medium-speed spin *only* or high-speed spin 1, 2, or 3 may be programmed.

---

26. Press the **Enter** key. The display will flash “SDLY” for one second. (“SDLY” also displays during the entire actual coastdown.) The display will then read “0M-00S,” inviting the programmer to enter a time for the slow-down delay (coast). If the application requires that the basket coast before it stops, enter the desired coast time (30 seconds here) and press the **Enter** key. If no coast is desired, press the **Enter** key only. The display will read “1239.”

---

**Note:** A slow-down delay of 30 seconds minimum should be programmed after each high-speed spin if the speed is not followed by a higher speed spin or another spin at the same speed.

---

27. The previous step ends the tutorial. Cycle 39, consisting of 11 steps, has been completely programmed.

To end the cycle, turn the program mode switch located on the left side of the control module to the RUN position and remove the key. The display will then read “NEXT.”

The programmer can now select Cycle 39 and press the **Enter** key to run the cycle, if desired; or a cycle of the programmer’s own design can be programmed.

# Programming

Tutorial Cycle		
Step	Description	Min:sec
1	Hot Fill to Low Level	4:00
2	Supply 1	0:30
3	Wash 1	6:00
4	Drain 1	1:00
5	Warm Spray Rinse	2:30
6	Warm/Warm Fill to High Level	5:00
7	Supply 3	0:30
8	Wash 1	3:00
9	Drain 1	1:00
10	Medium Speed Spin	1:00
11	High Speed Spin No. 1 SDLY Stop Routine	6:00 0:30

## Programming Hints

Read the preprogrammed cycle charts (near the end of this manual) for the cycles already programmed into the computer to see how the cycle steps have been ordered.

Use a program worksheet, such as the sample on the next page, to write new cycles. After the worksheet is completed, enter the program into the computer.

The computer can do only one thing at a time, so think in terms of what the machine should do next, step by step. This will make it simpler to write the program.

When entering the timed portion of a step (such as a fill), use a time that is reasonable for the local installation. If the water pressure is low or if the water lines are smaller than desirable, increase the time allowed.

Remember that the drain needs to empty the machine in less than one minute. *Drain times of more than one minute are **not** recommended.*

Except for the soak, heat, and cool-down (Wash 5) steps, which are timed in hours and minutes, the maximum time per step is 9 minutes and 99 seconds. If more time is needed, add more steps to total the complete time desired. For example, if a 15-minute wash is desired, program a wash step for 9 minutes and 00 seconds, immediately followed by another wash step for 6 minutes and 00 seconds.

When a fill or addition of supplies without agitation is desired, first program a Wash 3 step for 0 minutes and 01 seconds. Then program the fill or supply step. When the microcomputer advances to the next step, it will *remain* in the wash mode as programmed in the previous step unless it is instructed to do otherwise.

# Programming

Cycle 00		
Step	Description	Min:sec
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		

Before attempting to program any particular function of the WE-6 microcomputer, read the System Programming, Cycle Programming, and Step Programming subsections below.

## System Programming

### Prompting the WE-6

Prompting the WE-6 allows:

- Displaying sump temperature in Centigrade or Fahrenheit.
- Recognizing and controlling one or two independent drains. (Two independent drains will apply only for special applications.)
- Enabling or disabling the **Advance** key in the RUN mode.
- Enabling or disabling the manual mode.
- Enabling or disabling wet clean functions (affects Auxiliary 1 and 2 outputs).
- Selecting balancing routine (active if inverter balance detection is utilized).
- Reading or resetting the cycle count.

To begin prompting the computer, insert key into the program mode switch (located on the left side of the control module) and turn key to the PROGRAM position. The display will read "CYC00."

1. Press the **Auxiliary** key, key **2**, and key **9** *in that order*. The display will read either "CEN" (Centigrade) or "FAR" (Fahrenheit). To choose the alternate feature, press key **0**.

# Programming

2. Press the **Enter** key. The display will read either “1DRAIN” or “2DRAIN.” The normal prompt for most applications is “1DRAIN.” “2DRAIN” is used only for special applications. Consult factory for full details. To choose the alternate feature, press key **0**.

---

**Note:** Enabling the second drain via the Auxiliary 2 output precludes control of the recirculation pump and is not necessary for the Premium Wet Clean Module.

---

3. Press the **Enter** key. The display will read either “ADV” or “NO ADV.” The prompt “NO ADV” will disable the **Advance** key in the RUN mode, thereby preventing the operator from advancing the computer through steps of the cycle before they are complete; also, it will not be possible to advance to any step before starting a cycle if “NO ADV” is selected. To choose the alternate feature, press key **0**.
4. Press the **Enter** key. The display will read either “MANUAL” or “NO MAN.” If “MANUAL” is displayed, the manual mode will be *enabled* during normal operation. If “NO MAN” is displayed, the manual mode will be *disabled* when a cycle is run, even if the **Manual** operation key sequence is entered. To choose the alternate feature, press key **0**.
5. Press the **Enter** key. The display will read either “WET CL” or “NO WCL.” To choose the alternate feature, press key **0**. If “WET CL” is displayed, wet clean functions are enabled. If “NO WCL” is displayed, wet clean functions are disabled.

6. Press the **Enter** key. The display will read “S BAL” (short balance timing sequence) or “L BAL” (long balance timing sequence). The “L BAL” setting should be chosen on all UW models of Design 6 or greater.

On all UW models of Design 5 or lower, the “S BAL” should be chosen if the machine capacity is 60 lbs. or less, and the “L BAL” setting should be chosen if the machine capacity is greater than 60 lbs. However, if the machine is a UW50PVT, UW55PVT or UW60PVT, the “L BAL” option should be chosen.

This setting will have no effect if the machine is not equipped with an AC Inverter drive balance detection system.

---

**Note:** The design series can be found on the serial decal of the machine. Example: UW60PVQU50001 or UW60PVQU60001.

---

The inverter drive balance-timing sequence, if active, will occur during a drain step. This prevents the machine from reaching a high speed when a poorly balanced load is sensed. The short timing sequence (“S BAL”) and the long timing (“L BAL”) are as follows:

- WE-6 enters drain step (displays “D1,” “Da” or “Db”) with drain(s) initially closed.
- Machine runs at regular wash speed forward (not 1/2 wash speed) for a total of 15 seconds if “S BAL” or for a total of 20 seconds if “L BAL.”
- Machine runs at distribution speed for a total of 15 seconds if “S BAL” or for 20 seconds if “L BAL.”
- Drain(s) open.

# Programming

## System Programming (Continued)

- WE-6 waits for empty condition.
- After empty condition appears, WE-6 waits for 10 seconds before checking the balance signal if “S BAL” or 15 seconds if “L BAL.”
- The WE-6 then monitors the balance signal from the inverter drive for up to 5 seconds. If the balance is okay, the computer proceeds to the next step after the drain when the 5-second time expires. If the balance is not okay at any point during this 5 seconds, the computer will return to low speed forward (regular wash speed) for 10 seconds if “S BAL” or for 15 seconds if “L BAL.” The computer will then repeat the timing sequence, beginning with the third step above, in an attempt to balance the load.

---

**Note:** Anytime the machine goes from low speed to high speed, a drain step *must be programmed* prior to the high-speed step to allow load balancing. Otherwise, any high speed steps for which load balancing has not occurred will be skipped.

---

---

**Note:** Because of the balance procedure, the computer will not advance through a drain step. The computer will neither start in a spin step nor allow any spin step(s) for which proper balancing has not occurred. (A drain step *must* precede a high-speed step or 2 or more consecutive high-speed steps. High-speed steps include rinse steps, medium spins, and H1, H2, or H3 spins.)

---

7. Press the **Enter** key. The display will read “USEDxx.” (The “xx” here stands for the number of cycles run and will be represented by numbers in the actual display.)

The count can be left as it appears in the display, or it can be reset to “00.”

- To leave the count unaltered, press the **Enter** key to return to the normal programming mode.
- To reset the count, press key **0**. The display will read “USED00.”

Press the **Enter** key to return to the normal programming mode.

The computer stores the cycle count in RAM. Thus, if power to the computer is interrupted, the count will automatically be set at “00.”

If a daily count is desired, the display should be read at the end of the day and then reset prior to running the next day’s first cycle. (The display resets automatically after the cycle count reaches 99.)

8. Return the program mode switch to the RUN position and remove the key. Prompting is complete.

---

**Note:** Prompting will change the parameters in all cycles programmed.

---



# Programming

## Cycle Programming

### Displaying a Cycle in Memory

1. Insert key into the program mode switch (located on the left side of the control module) and turn key to the PROGRAM position. The display will read “CYC00.”
2. Press the **Edit Cycle** key on the keypad. The display will read “DCYC00.”
3. Press the two-digit code to display the desired cycle number: For example, press key **2** and then key **5** to select cycle 25. The display will read “DCYC25.”
4. Press the **Enter** key. The computer will search for cycle information for this cycle number.

*If no cycle information exists, the computer will flash “NCYC25” followed by “ADD?” To add this cycle, press the **Enter** key and proceed to the add cycle programming mode. If adding this cycle is *not* desired, press the **Clear** key, and the computer will then return to the normal programming mode.*

5. If cycle information *does* exist for cycle 25, the computer will display “0425,” for example, to indicate that cycle 25 has been run four times. To clear the count (reset it to zero), press key **0**. The display will then show “0025.”

If clearing the count is not necessary or if it has just been cleared, press the **Enter** key. The computer will now display “TH0125,” indicating the first step of cycle 25.

6. Press the **Advance** key to move to the next step of the cycle. To access further information pertaining to each step (for example, temperature and/or time), press the **Enter** key. If the display shows a temperature, press the **Enter** key again to display the time. Press the **Enter** key once more to advance to the next step.
7. At the end of the cycle, the computer will display “END-25” for two seconds and return to the normal programming mode.
8. Return the program mode switch to the RUN position and remove the key.

---

**Note:** *Never* press the **Clear** key while displaying a cycle in memory except to edit or delete a step.

---

### Displaying Individual Cycle Usage

1. Insert key into the program mode switch (located on the left side of the control module) and turn key to the PROGRAM position. The display will read “CYC00.”
2. Press the **Edit Cycle** key on the keypad. The display will read “DCYC00.”
3. Press the two-digit code to display the desired cycle number: For example, press key **2** and then key **5** to select cycle 25.
4. Press the **Enter** key. The display will show “xx25.” (The “xx” here stands for the number of times cycle 25 has been run and will be represented by numbers in the actual display.)

# Programming

## Cycle Programming (Continued)

The computer will remain in this step until one of the following options has been chosen:

- Press the **Enter** key to continue displaying the cycle, OR
- Press the **Clear** key to return to the normal program mode, OR
- Press key **0** to reset the counter for this cycle to zero, OR
- Take the computer out of the program mode.

### Editing a Cycle

To edit a cycle in memory or to change, add, or delete a step:

1. Insert key into the program mode switch (located on the left side of the control module) and turn key to the PROGRAM position. The display will read “CYC00.”
2. Press the **Edit Cycle** key on the keypad. The display will read “DCYC00.”
3. Press the two-digit code for the cycle requiring editing: For example, press key **2** and then key **5** to select cycle 25.
4. Press the **Enter** key. The computer will search for cycle information for this cycle.

*If no cycle information exists, the computer will flash “NCYC25” followed by “ADD?” To add this cycle, press the **Enter** key and proceed to the add cycle programming mode. If adding this cycle is *not* desired, press the **Clear** key. The computer will then return to the normal programming mode.*

5. If cycle information *does* exist for cycle 25, the computer will display “0425,” for example, to indicate that cycle 25 has been run four times. To clear the count (reset it to zero), press key **0**. The display will then show “0025.”

If clearing the count is not necessary or if it has just been cleared, press the **Enter** key. The computer will now display “HH0125,” indicating the first step of cycle 25.

6. Press the **Advance** key to move to the next step of the cycle.
7. Press key **0** to back up to the previous step.
8. To access further information pertaining to each step (for example, temperature and/or time), press the **Enter** key.

If the display shows a temperature, press the **Enter** key again to display the time.

9. Press the **Enter** key once more to advance to the next step.
10. At any time, the programmer can put the program mode switch in the RUN position, and the computer will return to normal running mode, provided all pertinent data for the last step edited is entered.
11. To change a step within the cycle, press the **Clear** key *once* while the computer is displaying the step to be edited. Enter the new step, using the same procedure for adding a step to a new cycle.

---

**Note:** If, after the **Clear** key is pressed, it is decided that clearing the step is *not* desired, press the **Edit Cycle** key to restore the step. (This will work only if a step identification was displayed before pressing the **Clear** key. At other points in the step—such as a time or temperature display—this restoration effort will not work.)

---

# Programming

12. To change the time assigned to a step, press the **Clear** key *once* while the computer is displaying the unwanted time.
13. To add a step within the cycle, press the **Add Step** key. The step will be added into the cycle after the step presently displayed.

The computer will check to see if enough cycle memory is left in the cycle to add a step. (Each cycle may contain up to 51 steps.)

If the cycle memory for this cycle is full, the computer will display “CYFULL” for two seconds and return to displaying the previous step. If the computer sees no problem, the new step number will be displayed and the step may be added (as when adding a step to a new cycle).

---

**Note:** Use the following procedure with caution. It is *not* reversible.

---

14. To delete a step within a cycle, press the **Clear** key while the computer is displaying the step to be deleted. Press the **Clear** key again: the display will read “WAIT” while it is deleting the step.  
  
The computer will then display the next step in the cycle, using the same step number as the deleted step.
15. If the **Add Cycle** key is pressed by mistake instead of the **Edit Cycle** key when the cycle number to be edited is entered, the display will flash “EXISTS” and “EDIT?” To recover, press the **Enter** key, and the computer will change to the edit mode.

## Erasing a Cycle in Memory

1. Insert the key into the program mode switch (located on the left side of the control module) and turn the key to the PROGRAM position. The display will read “CYC00.”
2. Press the **Erase Cycle** key. The display will read “ECYC00.”
3. Press the two-digit code for the cycle number that is to be erased. The display will read “ECYC25” if cycle 25 is chosen.
4. Press the **Enter** key. The display will read “WAIT” while it is erasing the cycle. The display will then return to “CYC00.” If there is no such cycle number in memory, the display will read “NCYC25.” To *not* erase a cycle, press the **Clear** key *before* pressing the **Enter** key. The display will return to “CYC.”
5. Return the program mode switch to the RUN position and remove the key.

## Programming a Wet Clean Cycle

None of the standard 39 preprogrammed cycles includes wet clean steps. A sample wet clean cycle is included in Sample Cycles for Modular Options following the 39 standard cycle charts near the end of this manual. A review of this sample cycle will provide some understanding of the wet cleaning process. The sample cycle is provided as a model wet clean cycle and is not intended as a recommendation. However, no wet clean cycle should be programmed until a wet clean chemical manufacturer is consulted.

---

**Note:** Use of *any* wet clean cycle prior to approval by a wet clean chemical manufacturer’s representative can result in damage to garments.

---

# Programming

## Step Programming

### Programming a Fill without Spray

This process is used in temperature-controlled fill steps. Water is added through the sump only.

To program a fill without spray, program a cold, hot, or warm fill to level as in a normal fill step; however, instead of pressing the **Enter** key after selecting the level, press the **Auxiliary** key. The computer will display a lower case “c,” “h,” or “w,” instead of the usual upper case “C,” “H,” or “W.” Press the **Enter** key now and program the time in the usual manner.

---

**Note:** A fill without spray is programmable in other fills.

---

### Programming a Fill Temperature

The table on page 41 lists the required procedures to produce specific results.

The table shows that when HIGH water level is programmed, the display indicator is “H.” When MEDIUM level is programmed, the display indicator is “M.” When LOW level is programmed, the display indicator is “L.” When OVERFLOW is programmed, the display indicator is “O.”

When the **Warm** key is pressed, the next key pressed will be another temperature key (**Hot**, **Cold**, or **Warm**) *before* selecting the level. Exceptions to this will be when RINSE or FLUSH steps are used: they require no level commands, and water is added through the door spray nozzle *only*.

Each time the **Warm** key is pressed, one hot and one cold water valve is turned on. The machine is equipped with four water valves (two fill and two spray); thus pressing the **Warm** key twice will turn on *all four* valves and reduce fill times.

Use the following procedure to program a fill to a specific temperature:

1. The computer must be in PROGRAM mode, and the cycle programming sequence must be ready for the next step.
2. Press the **Cold** key. If this is the second step of hypothetical cycle 25, the display will read “C-0225.” (HOT or WARM may be programmed instead to control inlet valves during the first three seconds of the fill. After the first three seconds, the fill is the same regardless of the prompt.)
3. Press the key representing the desired water level (**Low**, **Medium**, **High**, or **Over**). If **High** is pressed, for example, the display will read “CH0225.”
4. Press the **Heat** key. The display will read either “080F25” or “025C25,” depending on whether Fahrenheit or Centigrade is prompted.

Enter the desired fill temperature. Three digits must be entered. If the desired temperature is less than 100 degrees, the first digit must be 0. If 100 degrees Fahrenheit is selected, the display will read “100F25.”

The valid temperature range is 80–200 degrees Fahrenheit and 25–93 degrees Centigrade. The computer will not accept temperatures out of this range. (The fill temperatures possible are governed by the temperature of the available hot water.)

# Programming

5. Press the **Enter** key. The display will read “M---S.” Now assign the maximum time to be allowed for reaching the fill *level* in minutes and seconds.
6. Press the **Enter** key, and go to the next step in the cycle.

The computer will attempt to maintain the temperature within a margin of plus or minus 5 degrees of the target fill temperature during such a step.

Fill Temperature Programming		
Keys Pressed	Display	Valves Operating
Hot + Low + Enter	“HL”	1 Hot Fill and 1 Hot Spray
Hot + Med + Enter	“HM”	1 Hot Fill and 1 Hot Spray
Hot + High + Enter	“HH”	1 Hot Fill and 1 Hot Spray
Warm + Warm + Low + Enter	“WL”	Both Hot and Both Cold
Warm + Hot + Low + Enter	“WL”	Both Hot and 1 Cold Fill
Warm + Cold + Low + Enter	“WL”	1 Hot Fill and Both Cold
Cold + Low + Enter	“CL”	1 Cold Fill and 1 Cold Spray
Cold + Med + Enter	“CM”	1 Cold Fill and 1 Cold Spray
Cold + High + Enter	“CH”	1 Cold Fill and 1 Cold Spray
Hot + Overflow + Enter	“HO”	1 Hot Fill to overflow
Cold + Overflow + Enter	“CO”	1 Cold Fill to overflow
Warm + Warm + Overflow + Enter	“WO”	Both Hot and Both Cold to overflow

In addition to the standard fill temperatures, computer-controlled fill or overflow to a specific temperature is available.

## Programming a Supply Step—Models with 8 Supplies

The WE-6 computer is capable of controlling 8 separate supplies, and up to 31 various combinations of the 8 supplies. See the Supply Display Codes table in this subsection for a listing of the energized supply compartments represented by each display code. The supplies are divided into 2 separate banks of 4 supplies each. **Supply 5** acts as a switching function between the 2 banks of supplies and is counted as one of the 31 combinations, as it can be programmed alone for special applications.

The LED display will indicate the combination of supply compartments that will energize for that particular supply. For example, when a Supply 3 (first supply bank, third supply signal) is programmed, the display reads “S3nncc,” with “nn” representing the step number and “cc” representing the cycle number. Supply 3 flushes supply compartment 3. When Supply 7 (second supply bank, second supply signal) is selected, the display reads “S7nncc.” See the Supply Designations table in this subsection for a full explanation of the 8 available supplies.

# Programming

## Step Programming (Continued)

To program a supply in the *first* supply bank, follow this procedure:

1. The computer must be in PROGRAM mode and the cycle programming sequence must be ready for the next step.
2. Press the **Supply** key. The display will read “S-nncc.” Press key **1, 2, 3,** or **4,** whichever corresponds to the appropriate supply valve to be turned on. If key **4** is pressed, for example, the display will read “S4nncc.”
3. Press the **Enter** key. The display will read “M---S.” Now enter the time in minutes and seconds that the supply injection should last.
4. Press the **Enter** key and go to the next step of the cycle.

The supplies in the second bank operate in the following manner:

---

**Note:** To energize the second bank of supplies, press the **Supply** key and key **5**. **Supply 5** serves *only* as a switching function between the first and second supply banks, and is not an actual supply output.

---

1. The computer must be in PROGRAM mode, and the cycle programming sequence must be ready for the next step.
2. Press the **Supply** key followed by key **5** to switch from the first supply bank to the second supply bank. The display will read “S5nncc.” Now press key **1, 2, 3,** or **4,** whichever corresponds to the appropriate supply valve to be turned on. Pressing key **1** will energize the first supply signal of the second supply bank, supply signal 6. The display will read “S6nncc.” Pressing key **2** will energize the second supply signal of the second supply bank, supply signal 7. Pressing key **3** energizes the third supply signal of the second bank, supply signal 8. Pressing key **4** energizes the fourth supply signal of the second bank, supply signal 9.

# Programming

Supply Designations					
Supply Number	Display	Key Combination	Supply Bank Relation	Decal Label	Compartment Flush
<b>First Supply Bank</b>					
Supply 1	“S1nncc” <sup>†</sup>	<b>Supply</b> key followed by key <b>1</b>	First supply signal, first supply bank	Supply 1	1
Supply 2	“S2nncc” <sup>†</sup>	<b>Supply</b> key followed by key <b>2</b>	Second supply signal, first supply bank	Supply 2	2
Supply 3	“S3nncc” <sup>†</sup>	<b>Supply</b> key followed by key <b>3</b>	Third supply signal, first supply bank	Supply 3	3
Supply 4	“S4nncc” <sup>†</sup>	<b>Supply</b> key followed by key <b>4</b>	Fourth supply signal, first supply bank	Supply 4	4 and 5
<b>Second Supply Bank</b>					
Supply 6	“S6nncc” <sup>†</sup>	<b>Supply</b> key followed by key <b>5*</b> , then key <b>1</b>	First supply signal, second supply bank	Supply 6	1
Supply 7	“S7nncc” <sup>†</sup>	<b>Supply</b> key followed by key <b>5*</b> , then key <b>2</b>	Second supply signal, second supply bank	Supply 7	2
Supply 8	“S8nncc” <sup>†</sup>	<b>Supply</b> key followed by key <b>5*</b> , then key <b>3</b>	Third supply signal, second supply bank	Supply 8	3
Supply 9	“S9nncc” <sup>†</sup>	<b>Supply</b> key followed by key <b>5*</b> , then key <b>4</b>	Fourth supply signal, second supply bank	Supply 9	4 and 5
<sup>†</sup> In these examples “nn” represents step number, and “cc” represents cycle number. * <b>Supply 5</b> acts as a switching function between the first and second supply banks.					

# Programming

## Step Programming (Continued)

It is possible to change which supply compartments are flushed for a particular supply. For example, a Supply 3 (first supply bank) energizes compartment 3. Suppose that there is a need for compartments 1 and 3 to energize instead. The following procedure would accomplish this:

1. Advance to the supply step to be changed (Supply 3 in this case).
2. The display will read "S3nncc."
3. Press the **Clear/Stop** key to clear the programmed supply compartments to be flushed from the WE-6 computer.
4. Press the **Supply** key and key **3** again.
5. The display will read "S3nncc."
6. Now press key **1** to program a flush of compartment 1.
7. The display will read "SBnncc," with B representing the code from the Supply Display Codes table that corresponds to the energizing of compartments 1 and 3.

---

**Note:** The order in which key **1** and key **3** are pressed is not important. The computer's interpretation of the supply compartment combination is not dependent upon the order of entry.

---

8. Press the **Enter** key. The display will now read "M--S." Enter the time in minutes and seconds that the supply injection should last.
9. Press the **Enter** key and go on to the next step in the cycle.

Supply Display Codes (8 supplies)				
Code	Supply Number			
	0 = Supply Off X = Supply On			
	5	4	3	2 1
Supply Bank One	1	0	0	0 0 X
	2	0	0	0 X 0
	A	0	0	0 X X
	3	0	0	X 0 0
	B	0	0	X 0 X
	C	0	0	X X 0
	D	0	0	X X X
	4	0	X	0 0 0
	E	0	X	0 0 X
	F	0	X	0 X 0
	H	0	X	0 X X
	I	0	X	X 0 0
	J	0	X	X 0 X
L	0	X	X X 0	
M	0	X	X X X	
Supply Bank Two	5	X	0 0 0 0	
	6	X	0 0 0 X	
	7	X	0 0 X 0	
	N	X	0 0 X X	
	8	X	0 X 0 0	
	O	X	0 X 0 X	
	P	X	0 X X 0	
	Q	X	0 X X X	
	9	X	X 0 0 0	
	R	X	X 0 0 X	
	S	X	X 0 X 0	
	T	X	X 0 X X	
	U	X	X X 0 0	
	V	X	X X 0 X	
	W	X	X X X 0	
	X	X	X X X X	



# Programming

## Programming Heat

---

**Note:** A fill step must be programmed prior to a heat step.

---

1. To program auxiliary heat (either electric or steam), the computer must be in the PROGRAM mode, and the cycle programming sequence must be ready for the next step.

---

**Note:** Models with *both* electric and steam heat are equipped with a selector switch which allows the user to select either option. Because both options are energized by the WE-6 computer via the same output, the procedure for programming a heat step will be the same for either. The switch directs the output signal only to the selected option.

---

2. Press the **Heat** key. The display will read “HTncc.”
3. Press the **Enter** key. The display will read either “080Fnn” or “025Cnn,” depending on whether Fahrenheit or Centigrade is prompted.
4. Enter the final temperature desired. Three digits must be entered for the temperature. If the desired temperature is less than 100 degrees, the first digit should be 0. The valid temperature range is 80–200 degrees Fahrenheit and 25–93 degrees Centigrade. The computer will not accept temperatures outside of this range. If 100 degrees Fahrenheit is selected, the display will read “100Fcc.”

5. Press the **Enter** key. The display will read “H--M.” Now assign the maximum time in hours and minutes for the water to reach the desired temperature.
6. Press the **Enter** key and go to the next step in the cycle.

## Programming a Wash Step

1. The computer must be in the PROGRAM mode, and the cycle programming sequence must be ready for the next step.
2. Press the **Wash** key. The display will read “W-nncc.”
3. Now press the number key (from **1** to **7**) that corresponds to the desired wash step listed in the following table:

Wash	Description
1	18 seconds forward, pause 3 seconds; 18 seconds reverse, pause 3 seconds; repeat
2	3 seconds forward, pause 27 seconds; 3 seconds reverse, pause 27 seconds; repeat
3	No agitation
4	10 seconds forward, pause 20 seconds; 10 seconds reverse, pause 20 seconds; repeat
5	See Programming a Wash 5 Thermal Cool-down. Agitation is the same as Wash 1 or most recent.
6	4 seconds forward, pause 56 seconds; 4 seconds reverse, pause 56 seconds; repeat
7	No agitation, drain open (no automatic refilling)

**Note:** In all wash steps except Wash 7, the machine will automatically refill to the most recent water level (if any), and the drain will be closed.

# Programming

## Step Programming (Continued)

4. If Wash 1 is chosen, the no-reverse option may be selected. The no-reverse option must be selected at *this* point in the step programming. Press the **No Reverse** key while the display reads “W1ncc.”

When the no-reverse option is selected, the display will not indicate that no reverse is selected, but the machine will follow the programming command.

The no-reverse option will cause the basket to run forward only at wash speed for the time programmed.

The computer will return to normal reversing action when this step is complete.

The no-reverse option may be programmed in wash, supply, heat, and overflow steps. The **No Reverse** key must be pressed just prior to pressing the **Enter** key when programming a step.

5. Press the **Enter** key, and the display will read “M--S.” Now assign the wash step time in minutes and seconds.
6. Press the **Enter** key and go to the next step in the cycle.

7. On machines equipped with optional auxiliary heat (steam or electric), it is possible to program a wash step with a temperature step. During such a step, the machine will perform the programmed wash at the temperature programmed, maintaining that temperature throughout the step.

To program a wash with a specific temperature, use the following procedure:

- a. After step 3 of Programming a Wash Step, press the **Heat** key *before* pressing the **Enter** key. The display will read either “080Fcc” or “025Ccc,” depending on whether Fahrenheit or Centigrade is prompted.
- b. Now enter the desired temperature for the machine to maintain during the wash step.  
  
Three digits must be entered for the temperature. If the desired temperature is less than 100 degrees, the first digit must be 0. The valid temperature range is 80–200 degrees Fahrenheit and 25–93 degrees Centigrade. The computer will not accept temperatures outside of this range. If 100 degrees Fahrenheit is selected, the display will read “100Fcc.”
- c. Now proceed with step 5.

## Programming a Wash 5 Thermal Cool-down

After programming a heat step, it may be desirable to program a temperature-controlled thermal cool-down to gradually reduce the temperature of the load and prevent fiber shock from sudden cool-down.

# Programming

The temperature-controlled cool-down provides a gradual cooling down from a higher temperature to a lower temperature. The WE-6 monitors the temperature of the water in the washer and attempts to maintain an approximate cool-down rate of three degrees per minute by periodically energizing the cold water fill valve.

When the programmed time for the step expires, the computer will advance to the next step regardless of whether or not the cool-down temperature has been reached. If the cool-down temperature is reached before the time expires, the computer will advance to the next step.

During the cool-down, the drain will remain closed and *water will exit through the overflow connection*. The cylinder will rotate in a normal reversing mode as during a Wash 1 step.

Assuming that the computer is in the program mode and that a heat step has been created and entered, use the following procedure to program the thermal cool-down. (Do *not* program a drain step before the Wash 5 step.)

1. Press the **Wash** key and then key **5**. The display will read “W5nncc.”
2. Press the **Enter** key. The display will read either “080Fcc” or “025Ccc,” depending on whether Centigrade or Fahrenheit is prompted.
3. Enter the desired temperature for the load to cool down to. Three digits must be used for the temperature. If the desired target temperature is less than 100 degrees, the first digit must be “0.” The valid temperature range is 80–200 degrees Fahrenheit and 25–93 degrees Centigrade. The computer will not accept temperatures out of this range. (The cool-down rate will

be affected by the temperature of the cold water available.) If 100 degrees Fahrenheit is selected, the display will read “100Fcc.”

4. When the desired cool-down temperature is displayed, press the **Enter** key. The display will show “H--M.” Now enter the maximum time in hours and minutes for the computer to reach the target cool-down temperature.

Experimentation may be necessary to determine the exact time required with each installation to enable the computer to reach the target cool-down temperature. Use the edit feature to revise the Wash 5 step during the experimentation process.

When the computer performs the Wash 5 step, the temperature in the sump must be greater than the target cool-down temperature. Otherwise, the computer will advance past the Wash 5 step.

5. When the desired time is displayed, press the **Enter** key and go to the next step in the cycle.

# Programming

## Step Programming (Continued)

### Programming No Reversing

All agitation is programmed by first pressing the **Wash** key and then pressing either key **1**, **2**, **3**, **4**, **5**, **6**, or **7** for the type of agitation desired during the wash step.

If no reversing is desired (rotation continuous in one direction), use the following procedure:

- a. Press the **Wash** key.
- b. Then press either key **1** or key **2**.
- c. Then press the **No Reverse** key.
- d. Then press the **Enter** key.

The display will show either “W1ncc” or “W2ncc,” depending on the kind of agitation selected. The display will not indicate that the no-reverse option was selected, but the machine will obey the instructions.

---

**Note:** The no-reverse option is normally used with Wash 1 steps but may be used with other appropriate functions. The no-reverse option may be programmed in wash, supply, heat, and overflow steps. The **No Reverse** key must be pressed just prior to pressing the **Enter** key when programming a step. See No. 4 under Programming a Wash Step.

---

## Programming a Soak Step

1. The computer must be in the PROGRAM mode, and the cycle programming sequence must be ready for the next step. (The previous step should have been a fill and/or supply step.)
2. Press the **Soak** key. The display will read “SKncc.”

With machines equipped with auxiliary heat (optional steam or electric), it is possible to program a soak-with-temperature step. During such a step, the machine will soak for the time programmed at the temperature programmed and will maintain that temperature throughout the step.

To program a soak-with-temperature step, use the following procedure:

- a. Press the **Heat** key after pressing the **Soak** key. The display will read either “080Fcc” or “025Ccc,” depending on whether Fahrenheit or Centigrade is prompted.
- b. Enter the temperature desired for the machine to maintain during the soak step. Three digits must be entered for the temperature. If the desired temperature is less than 100 degrees, the first digit should be 0. The valid temperature range is 80–200 degrees Fahrenheit and 25–93 degrees Centigrade. The computer will not accept temperatures outside of this range. If 100 degrees Fahrenheit is selected, the display will read “100Fcc.”

# Programming

3. Press the **Enter** key. The display will read "H---M." Now assign the soak step the desired time in hours and minutes. During the soak step, no agitation will occur. The WE-6 microcomputer will maintain the water level during the soak cycle at whatever previous level was programmed.
4. Press the **Enter** key and go to the next step in the cycle.

## Programming a Drain Step

1. The computer must be in the PROGRAM mode, and the cycle programming sequence must be ready for the next step.
2. Press the **Drain** key. The display will read "D-nncc."
3. Press key **1** for a regular drain to sewer or a floor drain. The display will read "D1nncc."
4. Press the **Enter** key. The display will read "M---S." Now assign the time which will allow the machine to drain to empty.

This is an alarm time. The machine should drain in 30 seconds under normal conditions. The recommended drain time is one minute. Drain times of more than one minute are **not** recommended.

5. Press the **Enter** key and go to the next step in the cycle.

## Programming a Flush Step

When the **Flush** key is pressed, the drain will remain open and the basket will rotate in slow speed forward only. Water is added only through the door spray nozzle.

1. The computer must be in the PROGRAM mode, and the cycle programming sequence must be ready for the next step.
2. Press a water temperature key, either **Cold**, **Hot**, or **Warm**. If the **Cold** key is pressed, for example, the display will read "C-nncc," etc.
3. Press the **Flush** key. The display will read "CFnncc," "HFnncc," or "WFnncc," depending upon the temperature selected.
4. Press the **Enter** key. The display will read "M---S." Now assign the desired flush time in minutes and seconds.
5. Press the **Enter** key and go to the next step in the cycle.

# Programming

## Step Programming (Continued)

### Programming a Spin Step

1. The computer must be in the PROGRAM mode, and the cycle programming sequence must be ready for the next step.
2. Press the **Medium Speed** or **High Speed** key. The **High Speed** key must be pressed once for high speed spin No. 1, twice for high speed spin No. 2, and three times for high speed spin No. 3. The display will read “MSncc” for medium speed or “H1ncc” for high speed spin No. 1, “H2ncc” for high speed spin No. 2, or “H3ncc” for high speed spin No. 3. (If the **High Speed** key is pressed when the display shows “H3ncc,” the computer will then return to “H1ncc.”)
3. Press the **Enter** key. The display will read “M--S.” Now assign time in minutes and seconds to the spin step.
4. Press the **Enter** key. The display will read “SDLY” for *one* second. The display will then change to “0M-00S.”
5. Now assign the time for the spin delay (coast down). A *minimum* of 30 seconds is recommended.

---

**Note:** Do not program a Wash 1 step for a shakeout after the spin step. If such a step is programmed, the computer will revert to the previous wash step and will fill with water accordingly. See Stop Routine. **However**, a Wash 1, 2, or 3 step, programmed for ONE second will select stop routine agitation *and* avoid refilling.

---

---

**Note:** Do not program a “SDLY” time of more than “OM-DOS” if followed by consecutive spins. This will cause the computer to skip all consecutive spins and start on the next non-spin step.

---

### Programming a Spray Rinse Step

When the **Rinse** key is pressed on the keypad, the drain will remain open and the basket will rotate in medium spin speed. Water is added through the door spray nozzle only. To program a spray rinse step, use the following procedure:

1. The computer must be in the PROGRAM mode, and the cycle programming sequence must be ready for the next step.
2. Press a water temperature key (**Cold**, **Hot**, or **Warm**). If the **Cold** key is pressed, for example, the display will read “C-ncc,” etc. Then press the **Rinse** key. The display will read “CRncc,” “HRncc,” or “WRncc,” depending on whether cold, hot, or warm temperature was selected.
3. Press the **Enter** key. The display will read “M--S.” Now assign the time in minutes and seconds desired for the duration of the rinse step.
4. Press the **Enter** key and go to the next step in the cycle.

---

**Note:** If a coast-down delay (“SDLY”) is desired after a spray rinse step, program a medium-speed spin step for one second after the rinse step. Then program the desired coast-down time.

---

# Programming

## Programming an Auxiliary Step

Auxiliary No. 1 and Auxiliary No. 2 may be used to control an external buzzer or other device (not supplied with the machine) with a maximum current draw of less than 1/2 amp, if the machine is not prompted for wet cleaning.

Auxiliary No. 3 is identified on the fuse board as A3 (Signal) and controls the built-in buzzer (alarm) mounted on the inside wall of the control module.

When A3 is programmed, the signal will sound continuously for the duration of time assigned. The same signal (buzzer) is used by the computer for an alarm condition, such as a "FILL" or "EMPTY" alarm.

When the signal is activated by the computer to indicate an alarm condition, the tone will be pulsating rather than continuous.

1. The computer must be in the PROGRAM mode, and the cycle programming sequence must be ready for the next step.
2. Press the **Auxiliary** key. The display will read "A-nncc." Now press the number key—**1, 2, 3, 4, or 5**—that corresponds to the desired auxiliary function:

A1—Auxiliary No. 1

A2—Auxiliary No. 2

A3—Signal (SG)

A4—Fill to level using E1 on computer output board. (E1 is a special function ONLY. This step applies only for extra fill capacity. Contact factory for details.)

---

**Note:** If the washer-extractor has an extra fill capability controlled by E1, it cannot also have the water reuse option installed. Or, if the washer-extractor has the water reuse option, it cannot also have an extra fill capability. Contact factory for details.

---

A5—Provides agitation, no refill.

The display will read "A2nncc," for example, if key **2** is pressed.

3. Press the **Enter** key. The display will read "M---S." Now assign the auxiliary step the desired time in minutes and seconds.
4. Press the **Enter** key and go to the next step in the cycle.
5. Auxiliary 4 step (extra fill). Press the **Auxiliary** key. The display will read "A-nncc." Then press the number key **4**. The display will read "R-nncc." Press "low," "medium," or "high" to select low, medium, or high fill level. The display will read "RLnncc," "RMnncc," or "RHnncc" respectively. Then press the **Enter** key and program the step time. Only program this special step if the extra fill capability is being utilized.

# Programming

## Step Programming (Continued)

- 6. Wet Clean 1/2 Wash Speed (Gentle Wash).** The Wash 1, 2, 4, 5, and 6 agitations can have either normal wash speed or 1/2 wash speed (gentle wash) if the WE-6 is prompted for wet cleaning (“WET CL”) and the necessary hardware is installed. To select the gentle wash speed, program an Auxiliary 1 step (A1) *before* the low-speed step or steps which are to have reduced wash speed. Any time for the Auxiliary 1 step may be programmed: 1 second is a good choice. The reduced wash speed will then be in effect until a drain step is activated or until the stop routine takes place. The computer accomplishes this by leaving the Auxiliary 1 output energized after an Auxiliary 1 step until a drain step is reached.

---

**Note:** If “NO WCL” is selected in the prompting process, Auxiliary 1 operates as a timed output (remains on for the time programmed).

---

- 7. Recirculation Pump.** The computer *must* be prompted for “1DRAIN” and “WET CL.” Also, a second drain should *not* be connected to the Auxiliary 2 output if the recirculation pump is used. However, a second independent drain will operate properly when connected to the Auxiliary 2 output *if* the WE-6 is prompted for “2DRAIN.” Thus, one machine cannot have both a recirculation pump and a second independent drain.

---

**Note:** This is not the same as the “dual drain” option. Dual drain models operate the two drains simultaneously. A second independent drain, on the other hand, can be programmed to operate independently of the main drain (drain 1) if “2DRAIN” is prompted. This capability would only be used in special applications and is not for use with standard wet cleaning applications. Therefore, the drain should be prompted for “1DRAIN,” under normal operating conditions.

---

If the WE-6 is prompted for “WET CL”, the Auxiliary 2 output remains on until a drain step is activated or until the stop routine is initiated. Also, the computer will turn off the Auxiliary 2 output (recirculation pump) upon entering a Wash 7 step.

---

**Note:** The WE-6 precludes operation of the recirculation pump if the temperature exceeds 160 degrees Fahrenheit (71 degrees Centigrade) for the remainder of the step in effect at the time.

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**Note:** If “NO WCL” and “1DRAIN” are selected in the prompting process, Auxiliary 2 operates as a timed output (remains on for the time programmed).

---



# Programming

## Water Reuse Systems Models Only

The following information applies only to models with Auxiliary Fill and Drain Valves which are configured to accept field installation of Water Reuse Systems other than the Alliance Laundry proprietary systems.

UW125 models do Not have the Spray Rinse option. Disregard all information pertaining to Spray Rinse in Operation/Programming manual.

### Auxiliary Connections

The Auxiliary Fill Valve is set up to be connected to a reuse water supply only.

**Caution: Never connect the Auxiliary Fill Valve to a potable water supply.**

This valve is mounted on the right side of the machine and is equipped with a hose barb on the inlet side. The auxiliary drain line has a normally closed drain valve and exits the left rear of the machine.

### Programming a Reuse Drain Step

The WE6 computer does **Not** need to be prompted to run the Water Reuse System provided the Reuse system utilizes the E1 and E2 outputs/relays on the WE6 fuse board.

**NOTE: Refer to schematic. Use of E1 and E2, which control 9 volt DC relays, involves the combination in Table 1.**

	E1	E2
Fill from reuse tank	ON	ON
Drain to reuse tank	OFF	ON

Table 1

ON means the relay connected to the output is energized and voltmeter should read 9 to 11 volts DC. Connect the positive lead to "+10V and the negative lead to E1 or E2 output.

With the WE6 computer in PROGRAM mode, ready to accept a new step (refer to Operation/Programming manual), the display will show "nncc" where "nn" represents step number and "cc" represents cycle number.

1. Press the "Drain" key. Display will show "D-nncc".
2. Press the "2" key for the auxiliary drain. The display will show "Danncc".
3. Press the "Enter" key. The display will show "M--- S". Enter desired step time (maximum time allowed for draining through the auxiliary drain valve). If machine does not empty in the amount of time, the WE6 will give the usual "EMPTY" alarm as described in the Programming section of the Operation/Programming manual for Drain 1 "D1" step.
4. Press the "Enter" key. Another step may be programmed or the PROGRAM mode may be exited.

### Programming a Fill through the Auxiliary Fill Valve

With the WE6 computer in PROGRAM mode, ready to accept a new step (refer to Operation/Programming manual if necessary), the display will show "nncc" where "nn" represents step number and "cc" represents cycle number.

- 1.) Press the "Auxiliary" key. The display will show "A-nncc".
- 2.) Press the "6" key for auxiliary fill valve. The display will show "a-nncc". The upper case "A" will change to a lower case "a".
- 3.) Press the "Low", "Medium", or "High" key to program the desired water level. The display will show "L", "M", or "H" in the second digit from the left. For example, a fill using the auxiliary fill valve to fill to medium water level would be displayed as "aMnncc".
- 4.) Press the "Enter" key. The display will show "M---S". Enter the desired maximum time to allow for the step.
- 5.) Press the "Enter" key. Another step may be programmed or the PROGRAM mode may be exited.

# Programming

## Simulator Operation and Program Transfer

### Simulator Operation

The WE-6 simulator is an optional accessory to the WE-6 microcomputer-controlled UWPV washer-extractor. See Figure 8. *When the simulator is first energized, the simulator display will show the program (ROM) identification code for five seconds.*

---

**Note:** Cycles programmed for rigid-mount UWPV machines are not compatible with cycles programmed for freestanding UF models and vice versa. Also, cycles for UWPV machines are not compatible with cycles for UWP machines. **DO NOT** transfer cycles from one of these models to another.

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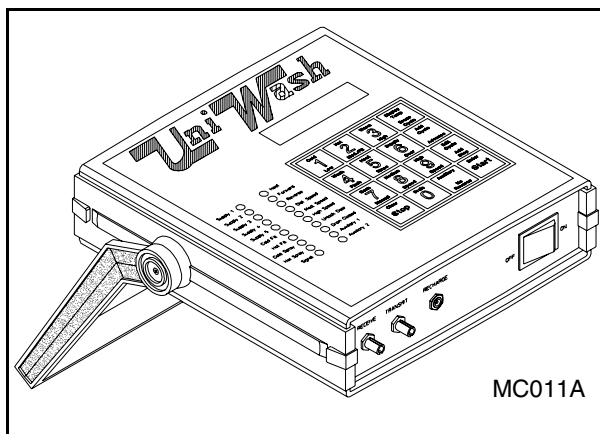


Figure 8

All programming instructions in this manual apply to the simulator as well.

The simulator is a hand-held unit which serves more than one purpose:

- The simulator's primary purpose is to preprogram cycles for transfer to the washer-extractor and to transfer program cycles between the washer-extractor and the simulator in either direction.

- As an instructional aid, the simulator can be used for teaching programming techniques to individuals unfamiliar with the UWPV WE-6 microcomputer.

The keypad and LED display are mounted on the top of the simulator. The ON/OFF rocker switch is located on the front end-panel.

The handle pivots to serve as a stand when using the simulator on a table. To pivot the handles, grasp them at the point of attachment to the main housing and gradually pull the handle sides outward until the ends disengage from the splined mounting holes. Pivot the handles to the desired position and release.

The simulator is battery powered and is supplied with an AC transformer which produces 12VDC at 500mA to recharge the battery pack from a 120V wall plug.

- The transformer is plugged into the power jack marked RECHARGE on the front end-panel of the simulator. The battery pack will be charged only while the simulator is turned *on* and is operating from the transformer.
- A fully charged battery pack will give about 3 hours of operation before recharging is necessary. Allow about 24 hours to fully recharge the battery pack with the transformer.
- The simulator battery pack contains NiCad batteries. These batteries will develop a "memory" according to length of time used. For example, if the simulator is habitually used for only one hour before recharging the batteries, the battery pack will eventually retain this habit and will power the simulator for only one hour before charging is required.

# Programming

- When replacing the battery, use an exact NiCad replacement unit. **Failure to do so will result in damage to the simulator.**

The WE-6 simulator and the WE-6 microcomputer are capable of storing and running up to 39 cycles, each limited to 51 steps.

- The computer will not accept cycle numbers higher than 39.
- If an attempt is made to add a step to a cycle that already contains 51 steps, the computer will display “CYFULL” and refuse additional steps.

The front end-panel of the simulator holds the RECEIVE and TRANSMIT ports for the optic cables used in program transfers.

- When transferring cycles from simulator to computer or computer to simulator, the colored plugs on the ends of the optic cables must match the colors of the ports on the simulator and on the washer-extractor’s control module (gray to gray, blue to blue).
- If a mistake is made connecting the cables, the display will flash “COMM” and “ERROR” when the **Enter** key is pressed during the last step of the cycle transfer process.

On the rear end-panel of the simulator are 6 toggle switches used to simulate various normal operations of the washer-extractor. See Figure 8. These 6 switches simulate or control the PROGRAM/RUN modes, LOW LEVEL, MEDIUM LEVEL, HIGH LEVEL, DOOR OPEN/DOOR CLOSED, and BALANCE.

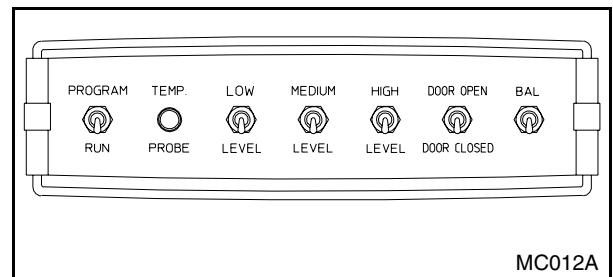


Figure 9

All the switches must be in the *down* position to simulate a machine at rest.

- If the PROGRAM/RUN switch is in the *up* position, the simulator is placed in the PROGRAM mode.
- If the LOW LEVEL switch is in the *up* position, a low level water fill is simulated and the appropriate LED on the display is illuminated. The MEDIUM LEVEL and HIGH LEVEL switches operate similarly.
- When a cycle programmed in the simulator is running, the LEVEL switches must be activated at the appropriate times in the cycle to indicate to the computer that the levels have been reached and that the machine is empty.

# Programming

## Simulator Operation and Program Transfer (Continued)

- If the DOOR OPEN/DOOR CLOSED switch is flipped to the *up* position (DOOR OPEN) while a cycle is running, the “DOOR” alarm will be displayed.
- If the BALANCE switch is in the *up* position during the spin step or drain step of a cycle, an out-of-balance condition is indicated to the computer. (See Balance Detection in the Operation section of this manual in regard to the drain step.)

The temperature probe (located on the rear end-panel of the simulator) simulates sump temperature.

### Transferring All Cycles from Computer to Simulator

*All keypad commands will be entered with the simulator keypad.*

Use the following procedure to transfer all cycles contained in the memory of the computer to the simulator. (Transferring 39 cycles takes about 6 seconds.)

1. Connect the fiber optic cables between the simulator and the computer. Verify that the colored plugs on the ends of the optic cables match the colors of the ports on the simulator and on the washer-extractor’s control module (gray to gray, blue to blue).
2. Place *both* the simulator and the computer in the PROGRAM mode. The display on both will read “CYC00.”
3. Press the **0** key. The display will read “WRITE?”

4. Press the **0** key again. The display will change to “READ?”
5. Press the **Enter** key. The display will read “ALL.”
6. Press the **Enter** key again. The simulator display will flash “RECV” and “ALL” alternately. The computer display will flash “SEND” and “ALL” alternately.

When the two displays stop flashing, the transfer is complete.

### Transferring One Cycle from Computer to Simulator

*All keypad commands will be entered with the simulator keypad.*

Use the following procedure to transfer one cycle contained in the memory of the computer to the simulator. (Transferring 1 cycle takes less than 1 second.)

1. Connect the fiber optic cables between the simulator and the computer. Verify that the colored plugs on the ends of the optic cables match the colors of the ports on the simulator and on the washer-extractor’s control module (gray to gray, blue to blue).
2. Place *both* the simulator and the computer in the PROGRAM mode. The display on both will read “CYC00.”
3. Press the **0** key. The display will read “WRITE?”
4. Press the **0** key again. The display will change to “READ?”

# Programming

5. Press the **Enter** key. The display will read “ALL.”
6. Press the **0** key. The display will read “CYC.”
7. Press the **Enter** key. The display will read “RCYC00.”

Now press the 2-digit code for the desired cycle number from the computer.

8. Press the **Enter** key. The display will read “WCYCcc.”

Now press the 2-digit code for the desired cycle number under which the cycle should be saved in the simulator.

9. Press the **Enter** key. The simulator display will flash “RECV” and “CYC” alternately. The computer display will flash “SEND” and “CYC” alternately.

When the two displays stop flashing, the transfer is complete.

## Transferring All Cycles from Simulator to Computer

*All keypad commands will be entered with the simulator keypad.*

Use the following procedure to transfer all cycles contained in the memory of the simulator to the computer. (Transferring 39 cycles takes about 6 seconds.)

1. Connect the fiber optic cables between the simulator and the computer. Verify that the colored plugs on the ends of the optic cables match the colors of the ports on the simulator and on the washer-extractor’s control module (gray to gray, blue to blue).
2. Place *both* the simulator and the computer in the PROGRAM mode. The display on both will read “CYC00.”
3. Press the **0** key. The display will read “WRITE?”
4. Press the **Enter** key. The display will read “ALL.”
5. Press the **Enter** key again. The simulator display will flash “SEND” and “ALL” alternately. The computer display will flash “RECV” and “ALL” alternately.

When the two displays stop flashing, the transfer is complete.

## Transferring One Cycle from Simulator to Computer

*All keypad commands will be entered with the simulator keypad.*

Use the following procedure to transfer one cycle contained in the memory of the simulator to the computer. (Transferring 1 cycle takes less than 1 second.)

1. Connect the fiber optic cables between the simulator and the computer. Verify that the colored plugs on the ends of the optic cables match the colors of the ports on the simulator and on the washer-extractor’s control module (gray to gray, blue to blue).

# Programming

## Simulator Operation and Program Transfer (Continued)

2. Place *both* the simulator and the computer in the PROGRAM mode. The display on both will read “CYC00.”
3. Press the **0** key. The display will read “WRITE?”
4. Press the **Enter** key. The display will read “ALL.”
5. Press the **0** key. The display will read “CYC00.”
6. Press the **Enter** key. The display will read “RCYC00.”

Now press the 2-digit code for the desired cycle number from the simulator.

7. Press the Enter key. The display will read “WCYCcc.”

Now press the 2-digit code for the desired cycle number under which the cycle should be saved in the computer.

8. Press the **Enter** key. The simulator display will flash “SEND” and “CYC” alternately. The computer display will flash “RECV” and “CYC” alternately.

When the two displays stop flashing, the transfer is complete.

## Preprogrammed Cycles

This section lists the 39 preprogrammed (ready-to-use) cycles. To run a cycle, first make certain that the computer is in the RUN mode. Then enter the two-digit code for the desired cycle, and press the **Start** key.

Test Cycle 01 (standard listing) is the first of the 39 preprogrammed cycles. This cycle is used to verify proper operation of the machine.

Any of these 39 cycles may be erased and replaced by new cycles. As shown earlier in this section of the manual, the cycles may also be edited and revised to match a particular application’s specific needs. Thirty-seven of the preprogrammed cycles use high speed spin No. 3 (maximum G force) for the final extract.

The following prompts are set at the factory:

- Degrees F
- One drain
- Advance enabled
- Manual mode enabled
- Wet clean disabled
- “S BAL” or “L BAL,” depending on AC inverter drive model

## Cycle Categories

- 01 Test or Chemical Supply Setup (depending on model)

### *Hotels and Motels*

- 02 Sheets, light soil, cotton/poly blends
- 03 Sheets, light soil, no bleach, cotton/poly blends
- 04 Towels, light soil, cotton
- 05 Towels, light soil, no bleach, cotton

# Programming

- 06 Sheets, medium soil, cotton/poly blends
- 07 Towels, medium soil, cotton
- 08 Blankets, spreads, no bleach
- 09 Blankets, spreads, cold water
- 10 Towels, heavy soil, cotton
- 11 Rinse and Spin only

## *Healthcare*

- 12 Sheets, light soil, cotton/poly blends
- 13 Towels, light soil, cotton
- 14 Sheets, heavy soil, cotton/poly blends
- 15 Towels, heavy soil, cotton
- 16 Thermal blankets, bleach, cotton
- 17 Diapers, pads, heavy soil, cotton
- 18 Personals, bleach
- 19 Personals, no bleach

## *Restaurants*

- 20 Pads, polyester
- 21 Table napery, bleach, starch, iron
- 22 Table napery, bleach, no iron
- 23 Table napery, colors, starch, iron
- 24 Table napery, colors, no iron
- 25 Visa table napery, bleach, starch, iron
- 26 Visa table napery, bleach, no iron
- 27 Visa table napery, colors, starch, iron
- 28 Visa table napery, colors, no iron

## *Shirt Laundries*

- 29 Shirts, colors, no bleach, starch
- 30 Shirts, bleach, starch
- 31 Shirts, colored, no bleach, no starch
- 32 Shirts, no bleach, no starch, delicates
- 33 Starch, extract only

## *Formulas Common to All Markets*

- 34 Uniforms, with bleach
- 35 Uniforms, without bleach
- 36 Rags/housekeeping, heavy soil
- 37 Rags/kitchen, mops
- 38 Rewash/reclaim
- 39 Chemical Supply Setup or Test  
(depending on model)

## **Standard Supply Legend**

Supplies are shown by number in the cycle charts. The following table correlates the supply number with the supply as it is represented in the cycle charts:

<b>Standard Supply Legend</b>	
<b>Supply Number</b>	<b>Supply Description</b>
1	Detergent
2	Bleach
3	Sour
4	Softener
5	Specialty

# Programming

## Standard Cycle Charts

For Models built after February 4, 2003:

Cycle 01 Formulas Common to All Markets (Chemical 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	Wash 1	0:30
8	Drain 1	1:00

**NOTE:** The cycle shown is intended for setup of supplies with a 5 supply system. If the machine is equipped with 8 supplies, refer to *Programming a Supply Step – Models with 8 Supplies*. As extra supplies are normally controlled by bank 2, program supplies 6, 7, 8, and 9.

**NOTE:** The alarm will sound on steps 01 and 02 (of Test Cycle). These steps have been deliberately programmed with times that are too short. Press Start to continue when alarm sounds. The times here are actual operating times if the steps are allowed to progress to their Mend without pressing Advance.

For all models built before February 4, 2003:

Cycle 01 (Test)		
Step	Description	Min:sec
1	Cold Fill to Low Level	0:30
2	Drain 1	0:10
3	Hot Fill to Low Level	5:00
4	Heat, 150°F (66°C)	1:00
5	Cold Fill to High Level	5:00
6	Supply 1	0:10
7	Supply 2	0:10
8	Supply 3	0:10
9	Supply 4	0:10
10	Supply 5	0:10
11	Supply 1 and 3 (Display: "SB")	0:10
12	Wash 2	1:00
13	Wash 3	0:30
14	Wash 4	0:15
15	Wash 1, No Reverse	0:30
16	Drain 1	1:00
17	Warm Flush	0:30
18	Auxiliary 1	0:05
19	Auxiliary 2	0:05
20	Auxiliary 3	0:05
21	150°F (66°C) Fill to High Level	5:00
22	Cold Fill to Overflow	1:00
23	Soak	2:00
24	Drain 1	1:00
25	Medium Spin	2:00
26	Warm Spray Rinse	0:30
27	High Spin 1	2:00
28	High Spin 2	2:00
29	High Spin 3 (SDLY 0:45)	2:00



# Programming

<b>Cycle 01 (Continued)</b>		
<b>Step</b>	<b>Description</b>	<b>Min:sec</b>
30	Auxiliary 3	0:15
31	Cold Fill to Medium Level	5:00
32	Wash 1	0:15
33	Drain to Reuse Tank A	1:30
34	Fill from Reuse Tank A to High Level	2:00
35	Drain to Reuse Tank B	1:30
36	Fill from Reuse Tank B to High Level	2:00
37	Drain to Sewer (Drain 1)	1:30

<b>Cycle 02 Hotels and Motels (Sheets, light soil, cotton/poly blends)</b>		
<b>Step</b>	<b>Description</b>	<b>Min:sec</b>
1	Hot Fill to Low Level	5:00
2	Supply 1 and 2 (Display: "SA")	0:45
3	Wash 1	7:00
4	Drain 1	1:00
5	Hot Fill to High Level	5:00
6	Wash 1	2:00
7	Drain 1	1:00
8	Medium Spin	0:30
9	Warm Spray Rinse	2:00
10	100°F (38°C) Fill to Low Level	5:00
11	Supply 3 and 4 (Display: "SI")	0:30
12	Wash 1	4:00
13	Drain 1	1:00
14	High Spin 3 (SDLY 0:45)	2:00

# Programming

<b>Cycle 03</b> <b>Hotels and Motels</b> <b>(Sheets, light soil, no bleach, cotton/poly blends)</b>		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1	0:45
3	Wash 1	7:00
4	Drain 1	1:00
5	Hot Fill to High Level	5:00
6	Wash 1	2:00
7	Drain 1	1:00
8	Medium Spin	0:30
9	Warm Spray Rinse	2:00
10	100°F (38°C) Fill to Low Level	5:00
11	Supply 3 and 4 (Display: "SI")	0:30
12	Wash 1	4:00
13	Drain 1	1:00
14	High Spin 3 (SDLY 0:45)	2:00

<b>Cycle 04</b> <b>Hotels and Motels</b> <b>(Towels, light soil, cotton)</b>		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1 and 2 (Display: "SA")	0:45
3	Wash 1	7:00
4	Drain 1	1:00
5	Hot Fill to High Level	5:00
6	Wash 1	2:00
7	Drain 1	1:00
8	Medium Spin	0:30
9	Warm Spray Rinse	2:00
10	110°F (43°C) Fill to Low Level	5:00
11	Supply 3 and 4 (Display: "SI")	0:30
12	Wash 1	4:00
13	Drain 1	1:00
14	High Spin 3 (SDLY 0:45)	4:00

# Programming

<b>Cycle 05</b> <b>Hotels and Motels</b> <b>(Towels, light soil, no bleach, cotton)</b>		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1	0:45
3	Wash 1	7:00
4	Drain 1	1:00
5	Hot Fill to High Level	5:00
6	Wash 1	2:00
7	Drain 1	1:00
8	Medium Spin	0:30
9	Warm Spray Rinse	2:00
10	110°F (43°C) Fill to Low Level	5:00
11	Supply 3 and 4 (Display: "SI")	0:30
12	Wash 1	4:00
13	Drain 1	1:00
14	High Spin 3 (SDLY 0:45)	4:00

<b>Cycle 06</b> <b>Hotels and Motels</b> <b>(Sheets, medium soil, cotton/poly blends)</b>		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1	0:45
3	Wash 1	6:00
4	Drain 1	1:00
5	Hot Fill to Low Level	5:00
6	Supply 2	0:45
7	Wash 1	6:00
8	Drain 1	1:00
9	Hot Fill to High Level	5:00
10	Wash 1	2:00
11	Drain 1	1:00
12	Medium Spin	0:30
13	Warm Spray Rinse	2:00
14	100°F (38°C) Fill to Low Level	5:00
15	Supply 3 and 4 (Display: "SI")	0:30
16	Wash 1	4:00
17	Drain 1	1:00
18	High Spin 3 (SDLY 0:45)	2:00

# Programming

<b>Cycle 07</b> <b>Hotels and Motels</b> <b>(Towels, medium soil, cotton)</b>		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1	0:45
3	Wash 1	6:00
4	Drain 1	1:00
5	Hot Fill to Low Level	5:00
6	Supply 2	0:45
7	Wash 1	6:00
8	Drain 1	1:00
9	Hot Fill to High Level	5:00
10	Wash 1	2:00
11	Drain 1	1:00
12	Medium Spin	0:30
13	Warm Spray Rinse	2:00
14	110°F (43°C) Fill to Low Level	5:00
15	Supply 3 and 4 (Display: "SI")	0:30
16	Wash 1	4:00
17	Drain 1	1:00
18	High Spin 3 (SDLY 0:45)	2:00

<b>Cycle 08</b> <b>Hotels and Motels</b> <b>(Blankets, spreads, no bleach)</b>		
Step	Description	Min:sec
1	Warm Fill to High Level	5:00
2	Supply 1	0:45
3	Wash 1	6:00
4	Drain 1	1:00
5	Warm Fill to High Level	5:00
6	Wash 1	5:00
7	Drain 1	1:00
8	Medium Spin	0:30
9	Warm Spray Rinse	2:00
10	Warm Fill to Low Level	5:00
11	Supply 3 and 4 (Display: "SI")	0:30
12	Wash 1	4:00
13	Drain 1	1:00
14	High Spin 3 (SDLY 0:45)	4:00

# Programming

<b>Cycle 09</b> <b>Hotels and Motels</b> <b>(Blankets, spreads, cold water)</b>		
Step	Description	Min:sec
1	Cold Fill to High Level	5:00
2	Supply 1	0:45
3	Wash 1	6:00
4	Drain 1	1:00
5	Cold Fill to High Level	5:00
6	Wash 1	1:30
7	Drain 1	1:00
8	Cold Spray Rinse	1:30
9	Medium Spin	0:30
10	Cold Fill to High Level	5:00
11	Supply 3 and 4 (Display: "SI")	0:30
12	Wash 1	4:00
13	Drain 1	1:00
14	High Spin 3 (SDLY 0:45)	4:00

<b>Cycle 10</b> <b>Hotels and Motels</b> <b>(Towels, heavy soil, cotton)</b>		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1	0:45
3	Wash 1	7:00
4	Hot Fill to High Level	5:00
5	Supply 2	1:00
6	Wash 1	7:00
7	Drain 1	1:00
8	Medium Spin	0:30
9	Warm Spray Rinse	3:00
10	Warm Fill to High Level	5:00
11	Wash 1	2:00
12	Drain 1	1:00
13	Medium Spin	0:30
14	Warm Fill to Low Level	5:00
15	Supply 3 and 4 (Display: "SI")	1:00
16	Wash 1	4:00
17	Drain 1	1:00
18	High Spin 3 (SDLY 0:45)	5:00

# Programming

<b>Cycle 11 Hotels and Motels (Rinse and spin only)</b>		
Step	Description	Min:sec
1	Warm Fill to Low Level	5:00
2	Wash 1	1:00
3	Drain 1	1:00
4	Medium Spin	0:30
5	Warm Spray Rinse	1:00
6	High Spin 3 (SDLY 0:45)	4:00

<b>Cycle 12 Healthcare (Sheets, light soil, cotton/poly blends)</b>		
Step	Description	Min:sec
1	Warm Fill to High Level	5:00
2	Wash 1	2:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1 and 2 (Display: "SA")	0:45
6	Wash 1	8:00
7	Drain 1	1:00
8	Hot Fill to High Level	5:00
9	Wash 1	3:00
10	Drain 1	1:00
11	Medium Spin	0:30
12	Warm Spray Rinse	2:00
13	100°F (38°C) Fill to Low Level	5:00
14	Supply 3 and 4 (Display: "SI")	0:30
15	Wash 1	4:00
16	Drain 1	1:00
17	High Spin 3 (SDLY 0:45)	4:00

# Programming

<b>Cycle 13 Healthcare (Towels, light soil, cotton)</b>		
Step	Description	Min:sec
1	Warm Fill to High Level	5:00
2	Wash 1	2:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1 and 2 (Display: "SA")	0:45
6	Wash 1	8:00
7	Drain 1	1:00
8	Hot Fill to High Level	5:00
9	Wash 1	3:00
10	Drain 1	1:00
11	Medium Spin	0:30
12	Warm Spray Rinse	2:00
13	110°F (43°C) Fill to Low Level	5:00
14	Supply 3 and 4 (Display: "SI")	0:30
15	Wash 1	4:00
16	Drain 1	1:00
17	High Spin 3 (SDLY 0:45)	4:00

<b>Cycle 14 Healthcare (Sheets, heavy soil, cotton/poly blends)</b>		
Step	Description	Min:sec
1	80°F (27°C) Fill to High Level	5:00
2	Wash 1	2:00
3	Drain 1	1:00
4	120°F (48°C) Fill to High Level	5:00
5	Wash 1	2:00
6	Drain 1	1:00
7	Hot Fill to Low Level	5:00
8	Supply 1	0:45
9	Wash 1	7:00
10	Drain 1	1:00
11	Hot Fill to Low Level	5:00
12	Supply 2	0:45
13	Wash 1	7:00
14	Drain 1	1:00
15	Hot Fill to High Level	5:00
16	Wash 1	3:00
17	Drain 1	1:00
18	Medium Spin	0:30
19	Warm Spray Rinse	2:00
20	100°F (38°C) Fill to Low Level	5:00
21	Supply 3 and 4 (Display: "SI")	0:30
22	Wash 1	4:00
23	Drain 1	1:00
24	High Spin 3 (SDLY 0:45)	2:00

# Programming

<b>Cycle 15 Healthcare (Towels, heavy soil, cotton)</b>		
Step	Description	Min:sec
1	80°F (27°C) Fill to High Level	5:00
2	Wash 1	2:00
3	Drain 1	1:00
4	120°F (48°C) Fill to High Level	5:00
5	Wash 1	2:00
6	Drain 1	1:00
7	Hot Fill to Low Level	5:00
8	Supply 1	0:45
9	Wash 1	7:00
10	Drain 1	1:00
11	Hot Fill to Low Level	5:00
12	Supply 2	0:45
13	Wash 1	7:00
14	Drain 1	1:00
15	Hot Fill to High Level	5:00
16	Wash 1	3:00
17	Drain 1	1:00
18	Medium Spin	0:30
19	Warm Spray Rinse	2:00
20	110°F (43°C) Fill to Low Level	5:00
21	Supply 3 and 4 (Display: "SI")	0:30
22	Wash 1	4:00
23	Drain 1	1:00
24	High Spin 3 (SDLY 0:45)	4:00

<b>Cycle 16 Healthcare (Thermal blankets, bleach, cotton)</b>		
Step	Description	Min:sec
1	110°F (43°C) Fill to High Level	5:00
2	Wash 1	2:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1 and 2 (Display: "SA")	0:45
6	Wash 1	7:00
7	Drain 1	1:00
8	Hot Fill to High Level	5:00
9	Wash 1	3:00
10	Drain 1	1:00
11	Medium Spin	0:30
12	Warm Spray Rinse	2:00
13	110°F (43°C) Fill to Low Level	5:00
14	Supply 3 and 4 (Display: "SI")	0:30
15	Wash 1	4:00
16	Drain 1	1:00
17	High Spin 3 (SDLY 0:45)	4:00



# Programming

<b>Cycle 17 Healthcare (Diapers, pads, heavy soil, cotton)</b>		
Step	Description	Min:sec
1	80°F (27°C) Fill to High Level	5:00
2	Wash 1	2:00
3	Drain 1	1:00
4	Hot Fill to High Level	5:00
5	Wash 1	2:00
6	Drain 1	1:00
7	Hot Fill to Low Level	5:00
8	Supply 1	0:45
9	Wash 1	7:00
10	Drain 1	1:00
11	Hot Fill to Low Level	5:00
12	Supply 1	0:30
13	Wash 1	7:00
14	Drain 1	1:00
15	Hot Fill to Low Level	5:00
16	Supply 2	0:30
17	Wash 1	7:00
18	Drain 1	1:00
19	Hot Fill to High Level	5:00
20	Wash 1	4:00
21	Drain 1	1:00
22	Medium Spin	1:00
23	Warm Spray Rinse	2:00
24	110°F (43°C) Fill to High Level	5:00
25	Wash 1	2:00
26	Drain 1	1:00
27	110°F (43°C) Fill to Low Level	5:00
28	Supply 3 and 4 (Display: "SI")	0:30
29	Wash 1	4:00
30	Drain 1	1:00
31	Medium Spin	1:00
32	High Spin 3 (SDLY 0:45)	4:00

<b>Cycle 18 Healthcare (Personals, bleach)</b>		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1 and 2 (Display: "SA")	0:45
3	Wash 1	6:00
4	Drain 1	1:00
5	Hot Fill to High Level	5:00
6	Wash 1	2:00
7	Drain 1	1:00
8	Medium Spin	0:30
9	Warm Spray Rinse	2:00
10	110°F (43°C) Fill to Low Level	5:00
11	Supply 3 and 4 (Display: "SI")	0:30
12	Wash 1	4:00
13	Drain 1	1:00
14	High Spin 3 (SDLY 0:45)	3:00

# Programming

<b>Cycle 19 Healthcare (Personals, no bleach)</b>		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1	0:45
3	Wash 1	6:00
4	Drain 1	1:00
5	110°F (43°C) Fill to High Level	5:00
6	Wash 1	2:00
7	Drain 1	1:00
8	Medium Spin	0:30
9	Warm Spray Rinse	2:00
10	110°F (43°C) Fill to Low Level	5:00
11	Supply 3 and 4 (Display: "SI")	0:30
12	Wash 1	4:00
13	Drain 1	1:00
14	High Spin 3 (SDLY 0:45)	3:00

<b>Cycle 20 Restaurants (Pads, polyester)</b>		
Step	Description	Min:sec
1	110°F (43°C) Fill to Low Level	5:00
2	Supply 1	0:45
3	Wash 1	3:00
4	130°F (54°C) Fill to High Level	5:00
5	Wash 1	2:00
6	Drain 1	1:00
7	Warm Flush	2:00
8	Hot Fill to Low Level	5:00
9	Supply 1	0:45
10	Wash 1	7:00
11	Drain 1	1:00
12	Hot Fill to Low Level	5:00
13	Supply 2	0:45
14	Wash 1	7:00
15	Drain 1	1:00
16	Medium Spin (SDLY 0:45)	1:00
17	110°F (43°C) Fill to High Level	5:00
18	Wash 1	2:00
19	Drain 1	1:00
20	Medium Spin	0:30
21	Warm Spray Rinse	2:00
22	110°F (43°C) Fill to Low Level	5:00
23	Supply 3	0:30
24	Wash 1	3:00
25	Drain 1	1:00
26	High Spin 3 (SDLY 0:45)	4:00

# Programming

<b>Cycle 21</b> <b>Restaurants</b> <b>(Table napery, bleach, starch, iron)</b>		
Step	Description	Min:sec
1	110°F (43°C) Fill to High Level	5:00
2	Wash 1	2:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1	0:45
6	Wash 1	7:00
7	Drain 1	1:00
8	Hot Fill to Low Level	5:00
9	Supply 2	0:45
10	Wash 1	7:00
11	Drain 1	1:00
12	Hot Fill to High Level	5:00
13	Wash 1	3:00
14	Drain 1	1:00
15	Medium Spin	0:30
16	Warm Spray Rinse	2:00
17	110°F (43°C) Fill to Low Level	5:00
18	Supply 3	0:30
19	Wash 1	2:00
20	Supply 5	0:30
21	Wash 1	5:00
22	Drain 1	1:00
23	High Spin 3 (SDLY 0:45)	4:00

<b>Cycle 22</b> <b>Restaurants</b> <b>(Table napery, bleach, no iron)</b>		
Step	Description	Min:sec
1	110°F (43°C) Fill to High Level	5:00
2	Wash 1	2:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1	0:45
6	Wash 1	7:00
7	Drain 1	1:00
8	Hot Fill to Low Level	5:00
9	Supply 2	0:45
10	Wash 1	7:00
11	Drain 1	1:00
12	Hot Fill to High Level	5:00
13	Wash 1	3:00
14	Drain 1	1:00
15	Medium Spin	0:30
16	Warm Spray Rinse	2:00
17	110°F (43°C) Fill to Low Level	5:00
18	Supply 3 and 4 (Display: "SI")	0:30
19	Wash 1	4:00
20	Drain 1	1:00
21	High Spin 3 (SDLY 0:45)	4:00

# Programming

<b>Cycle 23</b> <b>Restaurants</b> <b>(Table napery, colors, starch, iron)</b>		
Step	Description	Min:sec
1	110°F (43°C) Fill to High Level	5:00
2	Wash 1	2:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1	0:45
6	Wash 1	7:00
7	Drain 1	1:00
8	Hot Fill to Low Level	5:00
9	Supply 1	0:45
10	Wash 1	7:00
11	Drain 1	1:00
12	Hot Fill to High Level	5:00
13	Wash 1	3:00
14	Drain 1	1:00
15	Medium Spin	0:30
16	Warm Spray Rinse	2:00
17	110°F (43°C) Fill to Low Level	5:00
18	Supply 3	0:30
19	Wash 1	4:00
20	Supply 5	0:30
21	Wash 1	5:00
22	Drain 1	1:00
23	High Spin 3 (SDLY 0:45)	4:00

<b>Cycle 24</b> <b>Restaurants</b> <b>(Table napery, colors, no iron)</b>		
Step	Description	Min:sec
1	110°F (43°C) Fill to High Level	5:00
2	Wash 1	2:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1	0:45
6	Wash 1	7:00
7	Drain 1	1:00
8	Hot Fill to Low Level	5:00
9	Supply 1	0:45
10	Wash 1	7:00
11	Drain 1	1:00
12	Hot Fill to High Level	5:00
13	Wash 1	3:00
14	Drain 1	1:00
15	Medium Spin	0:30
16	Warm Spray Rinse	2:00
17	110°F (43°C) Fill to Low Level	5:00
18	Supply 3 and 4 (Display: "SI")	0:30
19	Wash 1	4:00
20	Drain 1	1:00
21	High Spin 3 (SDLY 0:45)	4:00

# Programming

<b>Cycle 25</b> <b>Restaurants</b> <b>(Visa table napery, bleach, starch,</b> <b>iron)</b>		
Step	Description	Min:sec
1	110°F (43°C) Fill to High Level	5:00
2	Wash 1	3:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1	0:45
6	Wash 1	7:00
7	Drain 1	1:00
8	Hot Fill to Low Level	5:00
9	Supply 2	0:45
10	Wash 1	7:00
11	Drain 1	1:00
12	Hot Fill to High Level	5:00
13	Wash 1	3:00
14	Drain 1	1:00
15	Medium Spin	0:30
16	Warm Spray Rinse	2:00
17	110°F (43°C) Fill to High Level	5:00
18	Wash 1	2:00
19	Drain 1	1:00
20	110°F (43°C) Fill to Low Level	5:00
21	Supply 3	0:30
22	Wash 1	2:00
23	Supply 5	0:30
24	Wash 1	5:00
25	Drain 1	1:00
26	High Spin 3 (SDLY 0:45)	1:15

<b>Cycle 26</b> <b>Restaurants</b> <b>(Visa table napery, bleach, no iron)</b>		
Step	Description	Min:sec
1	110°F (43°C) Fill to High Level	5:00
2	Wash 1	3:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1	0:45
6	Wash 1	7:00
7	Drain 1	1:00
8	Hot Fill to Low Level	5:00
9	Supply 2	0:45
10	Wash 1	7:00
11	Drain 1	1:00
12	Hot Fill to High Level	5:00
13	Wash 1	3:00
14	Drain 1	1:00
15	Medium Spin	0:30
16	Warm Spray Rinse	2:00
17	110°F (43°C) Fill to High Level	5:00
18	Wash 1	2:00
19	Drain 1	1:00
20	110°F (43°C) Fill to Low Level	5:00
21	Supply 3	0:30
22	Wash 1	4:00
23	Drain 1	1:00
24	High Spin 3 (SDLY 0:45)	1:15

# Programming

<b>Cycle 27</b> <b>Restaurants</b> <b>(Visa table napery, colors, starch, iron)</b>		
Step	Description	Min:sec
1	110°F (43°C) Fill to High Level	5:00
2	Wash 1	3:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1	0:45
6	Wash 1	7:00
7	Drain 1	1:00
8	Hot Fill to Low Level	5:00
9	Supply 1	0:45
10	Wash 1	7:00
11	Drain 1	1:00
12	Hot Fill to High Level	5:00
13	Wash 1	3:00
14	Drain 1	1:00
15	Medium Spin	0:30
16	Warm Spray Rinse	2:00
17	110°F (43°C) Fill to High Level	5:00
18	Wash 1	2:00
19	Drain 1	1:00
20	110°F (43°C) Fill to Low Level	5:00
21	Supply 3	0:30
22	Wash 1	2:00
23	Supply 5	0:30
24	Wash 1	4:00
25	Drain 1	1:00
26	High Spin 3 (SDLY 0:45)	1:15

<b>Cycle 28</b> <b>Restaurants</b> <b>(Visa table napery, colors, no iron)</b>		
Step	Description	Min:sec
1	110°F (43°C) Fill to High Level	5:00
2	Wash 1	3:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1	0:45
6	Wash 1	7:00
7	Drain 1	1:00
8	Hot Fill to Low Level	5:00
9	Supply 1	0:45
10	Wash 1	7:00
11	Drain 1	1:00
12	Hot Fill to High Level	5:00
13	Wash 1	3:00
14	Drain 1	1:00
15	Medium Spin	0:30
16	Warm Spray Rinse	2:00
17	110°F (43°C) Fill to High Level	5:00
18	Wash 1	2:00
19	Drain 1	1:00
20	110°F (43°C) Fill to Low Level	5:00
21	Supply 3	0:30
22	Wash 1	4:00
23	Drain 1	1:00
24	High Spin 3 (SDLY 0:45)	1:15

# Programming

<b>Cycle 29</b> <b>Shirt Laundries</b> <b>(Shirts, colors, no bleach, starch)</b>		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1	0:45
3	Wash 1	7:00
4	Drain 1	1:00
5	Hot Fill to Low Level	5:00
6	Supply 1	0:45
7	Wash 1	5:00
8	Drain 1	1:00
9	Hot Fill to High Level	5:00
10	Wash 1	3:00
11	Drain 1	1:00
12	Medium Spin	0:30
13	Warm Spray Rinse	2:00
14	Cold Fill to High Level	5:00
15	Supply 3	0:30
16	Supply 5	0:30
17	Wash 1	4:00
18	Drain 1	1:00
19	High Spin 3 (SDLY 0:45)	4:00

<b>Cycle 30</b> <b>Shirt Laundries</b> <b>(Shirts, bleach, starch)</b>		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1	0:45
3	Wash 1	7:00
4	Drain 1	1:00
5	Hot Fill to Low Level	5:00
6	Supply 2	0:45
7	Wash 1	7:00
8	Drain 1	1:00
9	Hot Fill to High Level	5:00
10	Wash 1	3:00
11	Drain 1	1:00
12	Medium Spin	0:30
13	Warm Spray Rinse	2:00
14	Cold Fill to High Level	5:00
15	Supply 3	0:30
16	Supply 5	0:30
17	Wash 1	4:00
18	Drain 1	1:00
19	High Spin 3 (SDLY 0:45)	4:00

# Programming

<b>Cycle 31</b> <b>Shirt Laundries</b> <b>(Shirts, colored, no bleach, no starch)</b>		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1	0:45
3	Wash 1	7:00
4	Drain 1	1:00
5	Hot Fill to Low Level	5:00
6	Supply 1	0:45
7	Wash 1	5:00
8	Drain 1	1:00
9	Hot Fill to High Level	5:00
10	Wash 1	3:00
11	Drain 1	1:00
12	Medium Spin	0:30
13	Warm Spray Rinse	2:00
14	Cold Fill to High Level	5:00
15	Supply 3	0:30
16	Supply 4	0:30
17	Wash 1	4:00
18	Drain 1	1:00
19	High Spin 3 (SDLY 0:45)	4:00

<b>Cycle 32</b> <b>Shirt Laundries</b> <b>(Shirts, no bleach, no starch, delicates)</b>		
Step	Description	Min:sec
1	Warm Fill to Low Level	5:00
2	Wash 1	2:00
3	Drain 1	1:00
4	Warm Fill to Low Level	5:00
5	Supply 1	0:45
6	Wash 1	5:00
7	Drain 1	1:00
8	Warm Fill to High Level	5:00
9	Wash 1	2:00
10	Drain 1	1:00
11	Warm Fill to High Level	5:00
12	Wash 1	2:00
13	Drain 1	1:00
14	Cold Fill to High Level	5:00
15	Supply 3	0:30
16	Supply 4	0:30
17	Wash 1	3:00
18	Drain 1	1:00
19	High Spin 2 (SDLY 0:45)	1:30



# Programming

<b>Cycle 33 Shirt Laundries (Starch, extract only)</b>		
Step	Description	Min:sec
1	Warm Fill to Low Level	5:00
2	Supply 3	0:30
3	Supply 5	0:30
4	Wash 1	7:00
5	Drain 1	1:00
6	High Spin 3 (SDLY 0:45)	4:00

<b>Cycle 34 Formula Common to All Markets (Uniforms, with bleach)</b>		
Step	Description	Min:sec
1	110°F (43°C) Fill to High Level	5:00
2	Wash 1	3:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1	0:45
6	Wash 1	7:00
7	Drain 1	1:00
8	Hot Fill to Low Level	5:00
9	Supply 2	0:45
10	Wash 1	7:00
11	Drain 1	1:00
12	Hot Fill to High Level	5:00
13	Wash 1	3:00
14	Drain 1	1:00
15	Medium Spin	0:30
16	Warm Spray Rinse	2:00
17	110°F (43°C) Fill to High Level	5:00
18	Wash 1	2:00
19	Drain 1	1:00
20	110°F (43°C) Fill to Low Level	5:00
21	Supply 3 and 4 (Display: "SI")	0:30
22	Wash 1	4:00
23	Drain 1	1:00
24	High Spin 3 (SDLY 0:45)	4:00

# Programming

<b>Cycle 35</b> <b>Formula Common to All Markets</b> <b>(Uniforms, without bleach)</b>		
Step	Description	Min:sec
1	Hot Fill to Low Level	5:00
2	Supply 1	0:45
3	Wash 1	6:00
4	Drain 1	1:00
5	110°F (43°C) Fill to High Level	5:00
6	Wash 1	2:00
7	Drain 1	1:00
8	Medium Spin	0:30
9	Warm Spray Rinse	2:00
10	110°F (43°C) Fill to Low Level	5:00
11	Supply 3 and 4 (Display: "SI")	0:30
12	Wash 1	4:00
13	Drain 1	1:00
14	High Spin 3 (SDLY 0:45)	3:00

<b>Cycle 36</b> <b>Formula Common to All Markets</b> <b>(Rags/housekeeping, heavy soil)</b>		
Step	Description	Min:sec
1	110°F (43°C) Fill to High Level	5:00
2	Wash 1	2:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1	0:45
6	Wash 1	7:00
7	Drain 1	1:00
8	Hot Fill to Low Level	5:00
9	Supply 2	0:45
10	Wash 1	7:00
11	Drain 1	1:00
12	Hot Fill to High Level	5:00
13	Wash 1	2:00
14	Drain 1	1:00
15	Medium Spin	0:30
16	Warm Spray Rinse	2:00
17	110°F (43°C) Fill to Low Level	5:00
18	Supply 3	0:30
19	Wash 1	4:00
20	Drain 1	1:00
21	High Spin 3 (SDLY 0:45)	4:00

# Programming

<b>Cycle 37</b> <b>Formula Common to All Markets</b> <b>(Rags/kitchen, mops)</b>		
Step	Description	Min:sec
1	110°F (43°C) Fill to High Level	5:00
2	Wash 1	2:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1	0:45
6	Wash 1	7:00
7	Drain 1	1:00
8	Hot Fill to Low Level	5:00
9	Supply 2	0:45
10	Wash 1	7:00
11	Drain 1	1:00
12	Hot Fill to High Level	5:00
13	Wash 1	2:00
14	Drain 1	1:00
15	Medium Spin	0:30
16	Warm Spray Rinse	2:00
17	110°F (43°C) Fill to Low Level	5:00
18	Supply 3	0:30
19	Wash 1	4:00
20	Drain 1	1:00
21	High Spin 3 (SDLY 0:45)	4:00

<b>Cycle 38</b> <b>Formula Common to All Markets</b> <b>(Rewash/reclaim)</b>		
Step	Description	Min:sec
1	130°F (54°C) Fill to High Level	5:00
2	Wash 1	2:00
3	Drain 1	1:00
4	Hot Fill to Low Level	5:00
5	Supply 1 and 2 (Display: "SA")	0:45
6	Wash 1	4:00
7	Drain 1	1:00
8	Hot Fill to Low Level	5:00
9	Supply 1 and 2 (Display: "SA")	0:45
10	Wash 1	7:00
11	Drain 1	1:00
12	Hot Fill to High Level	5:00
13	Wash 1	4:00
14	Drain 1	1:00
15	Medium Spin	0:30
16	Warm Spray Rinse	2:00
17	110°F (43°C) Fill to High Level	5:00
18	Wash 1	2:00
19	Drain 1	1:00
20	110°F (43°C) Fill to Low Level	5:00
21	Supply 3 and 4 (Display: "SI")	0:30
22	Wash 1	4:00
23	Drain 1	1:00
24	High Spin 3 (SDLY 0:45)	4:00

# Programming

For models built after February 4, 200

<b>Cycle 39 (Test)</b>		
<b>Step</b>	<b>Description</b>	<b>Min:sec</b>
1	Cold Fill to Low Level	0:30
2	Drain 1	0:10
3	Hot Fill to Low Level	5:00
4	Heat, 150°F (66°C)	1:00
5	Cold Fill to High Level	5:00
6	Supply 1	0:10
7	Supply 2	0:10
8	Supply 3	0:10
9	Supply 4	0:10
10	Supply 5	0:10
11	Supply 1 and 3 (Display: "SB")	0:10
12	Wash 2	1:00
13	Wash 3	0:30
14	Wash 4	0:15
15	Wash 1, No Reverse	0:30
16	Drain 1	1:00
17	Warm Flush	0:30
18	Auxiliary 1	0:05
19	Auxiliary 2	0:05

<b>Cycle 39 (Test) (continued)</b>		
<b>Step</b>	<b>Description</b>	<b>Min:sec</b>
20	Auxiliary 3	0:05
21	150°F (66°C) Fill to High Level	5:00
22	Cold Fill to Overflow	1:00
23	Soak	2:00
24	Drain 1	1:00
25	Medium Spin	2:00
26	Warm Spray Rinse	0:30
27	High Spin 1	2:00
28	High Spin 2	2:00
29	High Spin 3 (SDLY 0:45)	2:00
30	Auxiliary 3	0:15
31	Cold Fill to Medium Level	5:00
32	Wash 1	0:15
33	Drain to Reuse Tank A	1:30
34	Fill from Reuse Tank A to High Level	2:00
35	Drain to Reuse Tank B	1:30
36	Fill from Reuse Tank B to High Level	2:00
37	Drain to Sewer (Drain 1)	1:30

# Programming

For models built before February 4, 2003:

<b>Cycle 39</b> <b>Formula Common to All Markets</b> <b>(Chemical Supply Setup)</b>		
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	Wash 1	0:30
8	Drain 1	1:00

**Note:** The cycle shown is intended for setup of supplies with a 5-supply system. If the machine is equipped with 8 supplies, refer to subsection Programming a Supply Step—Models with 8 Supplies. As extra supplies are normally controlled by bank 2, program supplies 6, 7, 8, or 9.

## Sample Cycle for Wet Clean

<b>Sample Wet Clean Cycle</b>		
Step	Description	Min:sec
1	Wash 3 (no agitation)	0:01
2	Cold Fill to Medium Level	5:00
3	Auxiliary 1 (select half wash)	0:01*
4	Auxiliary 2 (Recirculation pump)	0:01*
5	Supply 2	0:08
6	Wash 6, 86°F (30°C)	6:00
7	Drain 1	1:00
8	Wash 3 (no agitation)	0:01
9	Cold Fill to Medium Level	5:00
10	Auxiliary 1 (half wash speed)	0:01*
11	Auxiliary 2 (Recirculation pump)	0:01*
12	Wash 6	3:00
13	Drain 1	1:00
14	Wash 3 (no agitation)	0:01
15	Cold Fill to Medium Level	5:00
16	Auxiliary 1 (half wash speed)	0:01*
17	Auxiliary 2 (Recirculation pump)	0:01*
18	Supply 3	0:11
19	Wash 6	3:00
20	Drain 1	1:00
21	High speed extract #2	2:00
22	Wash 3 (no agitation)	0:01

\* This setting will remain in effect until the next drain step. This includes any agitation settings or auxiliary outputs.



## WARNING

Use of any wet clean cycle prior to approval by a wet clean chemical manufacturer's representative can result in damage to garments.

SW034