Raytheon Appliances

Washer Extractor

UniWash Models

WE-6 Microcomputer

ROM Version 1.3

PROGRAMMING

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WE-6 MICROCOMPUTER PROGRAMMING MANUAL

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WARNING

This machine must be installed, adjusted and serviced by qualified electrical maintenance personnel familiar with the construction and operation of this type of machinery. They must also be familiar with the potential hazards involved. If this warning is not observed, personal injury or equipment damage resulting in voiding the warranty may result.

IMPORTANT

If a delta supply system is used, the high leg should be connected to the red wire (l-3) in the electrical junction box on this machine. If three-phase service is not available and a "roto phase" or other phase adder is used, the artificial leg must be connected to the red wire. If this caution is not observed, equipment damage resulting in voiding the warranty will result.

WARNING

Be absolutely certain that a ground wire from a proven earth ground is connected to the chassis ground lug provided in the electrical junction box on this machine. Without proper grounding, personal injury from electric shock may occur and machine malfunctions may be evident. Note: computer controlled machines must have a proper ground to prevent computer malfunctions.

CAUTION

Replace any and all panels that are removed to perform service and maintenance procedures.

Do not operate the machine with guards or parts missing , or with broken parts.

Do not bypass any safety devices.

All information, illustrations, and specifications contained in this manual are based on the latest product information available at the time of printing. The illustrations contained herein are intended as a guide and may not exactly depict all models. We reserve the right to make changes at any time without notice.

DANGER

Attempt no entry until basket has come to a complete stop.

Failure to do so may result in serious injury.

CAUTION

You should be careful working with machinery every day and should be even more careful around electrical components. A few helpful safety rules can save you and your personnel from serious electrical injuries.

Unless the instructions state that adjustments are to be made, or trouble shooting performed with the machine in operation, lock out the main power panel and lock out the power supply to the control module.

DANGER

Dangerous voltages are present in control modules and at motor terminals. Only qualified personnel familiar with electrical test procedures, test equipment, and safety precautions should attempt adjustments and do trouble shooting.

KEY TO SYMBOLS USED IN THIS MANUAL

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

The exclamation point within the triangle is a warning sign alerting you of important instructions concerning the machine and possible dangerous conditions.

This warning symbol alerts you to the presence of possibly dangerous drive mechanisms within the machine. Guards should always be in place when the machine is in operation. Be careful when servicing the drive.

SAFETY CHECKLIST

☐ **BEFORE INITIAL START UP** of a UniWash washer- extractor --- perform the following safety checks:

Make sure that all electrical and plumbing connections have been made in accordance with applicable local codes and regulations.

Make sure the machine is properly grounded electrically.

Make sure the machine has proper flexible water fill and drain connections of the proper size and length with no kinks and securely attached and/or clamped.

☐ **BEFORE MACHINE IS PLACED IN OPERATION,** door safety interlock must be checked for proper operation as follows:

When washer is energized electrically and in operation, the loading door is locked in the closed position and cannot be opened. Verify this by attempting to open the loading door when the machine is operating. If necessary, check door safety interlock and microswitches for proper operation, or consult the service manual, or call a qualified service technician.

When washer loading door is open, it is not possible to start the machine. Verify this by attempting to start the washer with door open. Also, close the door without locking it and it should not be possible to start the washer with the door not locked. If necessary, check door hinge microswitch and door lock microswitch for proper operation, or consult the service manual, or call a qualified service technician. If additional information is required, contact your local distributor or call the UniMac Company.

☐ **IMPORTANT:** Door safety interlock must be checked daily in accordance with above procedure.

WARNING

Before servicing any UniMac equipment, make certain it is disconnected from the electrical power source. Never allow operation of the machine when any safety device is malfunctioning.
Never bypass safety devices.

INTRODUCTION

I.1 GENERAL

This manual is designed as a guide to programming the UniWash WE-6 Microcomputer controlled washer-extractor. It contains, along with the programming instructions, a test procedure to "proof- test" the functions of the microcomputer plus special instructions for replacement of key parts.

The 39 pre-programmed ready-to-use cycles are located on pages 51 thru 80 of the manual, identified by cycle number. Cycle #01 is included as a means of proving the operation of the machine.

Read and be sure you understand this manual and the service manual included with your machine before attempting to start the machine.

Keep this manual, along with the service manual and the wiring diagrams which accompany the machine, in a safe place for ready reference. The first is included with your machine at no charge. Additional copies are available at a nominal charge.

Do not attempt to use this manual in conjunction with earlier model microcomputer controlled UniWash machines nor should you attempt to apply technical literature intended for earlier models when addressing the WE-6. The WE-6 Programming Manual, Version 4.0 pertains to WE-6 microcomputers installed on UniWash rigid mount washer-extractors and equipped with ROM Version 1.3. Do not attempt to apply this manual to UniMac Freestanding washer-extractors equipped with the WE-6. If your machine has a ROM version other than 1.3 and the control board is returned to the factory for service, the ROM will be automatically updated to Version 1.3 and will be accompanied by a copy of this Programming Manual.

The WE-6 Microcomputer has a six digit LED display. At various points throughout this manual are located bits of information regarding the display read-out pertaining to a specific function. This display read-out may be expressed as "F---" for instance. The blank spaces refer to either unlit digits pertaining to this particular function or to information unimportant to the particular instruction and omitted for clarity.

READ AND UNDERSTAND ALL TECHNICAL LITERATURE FURNISHED WITH YOUR MACHINE. BE A SAFE AND EFFICIENT OPERATOR.

I.2 TIPS & TECHNIQUES

CAUTION

Never turn power off while the computer mode switch is in the "PROGRAM" position. Such action will disarray portions of the programmed data, which may necessitate re-programming of all or some of the existing cycles. Always return the mode switch to "RUN" position before turning 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.

WHEN programming a warm fill to level, if the "WARM" key is pressed once, the hot and cold fill valves are turned on. If the "WARM" key is pressed twice, all four water valves are turned on, thereby decreasing fill time. For a "WARM" fill, you have the additional option of filling with your choice of "WARM_COLD" or "WARM_HOT" or "WARM_WARM". See the section in this manual on "FILL TEMPERATURE SELECTIONS".

WHEN utilizing the "DISPLAY/EDIT" feature, the "ADVANCE" key will display one full step at a time. The "ENTER" key will will display the pertinent data related to each step (i.e. time, etc.). See the section on "DISPLAY/EDIT" for more information.

WHEN it is desired to fill or add supplies without agitation, first program a "WASH 3" step for one second, then program the fill or supply step. "WASH 3" will continue until another wash mode is programmed.

WHEN utilizing the previous cycle run, it is not necessary to re-enter the two digits of the cycle number. The computer holds the previous cycle in memory and it is necessary to press only the "START" key to start the cycle.

EACH step of a cycle must have a time assigned to it when the step is programmed into the computer. In the case of "FILL" and "DRAIN" procedures, this is an alarm time. The computer will normally respond to the water level switch input and proceed to the next step once level has been reached regardless of the time programmed. See "DRAIN" note on page 38.

WHEN it is desired to examine the steps in a cycle in run mode without starting the cycle, select the desired cycle number as described in Section II, Operating Instructions, II.3 - "Select Cycle. Then press the "ADVANCE" key to see the first step. Continue pressing "ADVANCE" to view all cycle steps. The display will show "NEXT--" with the cycle number you selected after you have stepped through all cycle steps. If you advance past this point, you can either step through the cycle again, or press "CLEAR" to return the display to "NEXT--". Disabling the advance feature during the prompting procedure does not disable this function. If you step completely through a cycle until the computer displays "NEXT--", you must press "START" **twice** to run the cycle.

WHEN it is desired to begin a cycle at some step other than step 1, follow the procedure described above for viewing cycle steps in run mode , but step to the point where you want to start the cycle, then press "START" and the machine will begin the cycle with the desired step.

WHEN utilizing the "Display/Edit" feature, the number of times the selected cycle has been run will be displayed first. See the section on "Display/Edit" in this manual.

OPERATING INSTRUCTIONS

II.1 TURN ON

Turn on the main power source (breaker panel or cut-off switch on the wall). The front panel display should light up and flash "POWER" then "WAIT" for 30 seconds (6 seconds on Simulator) followed by "NEXT 00" which means Select Cycle. This display will be on at all times that power is on indicating the machine is ready for loading and unloading.

Note: Throughout this manual, when display indications are referred to, these indications will 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 fig. II-B, page 9.

II.2 LOADING

To load the washer, use left hand to press the door unlock button located on the lower right front of the control panel. Use right hand to turn door handle to the right. The door can then be opened.

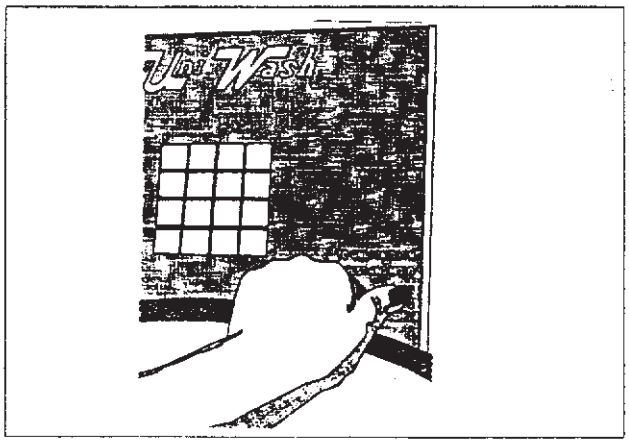


FIGURE II-A: DOOR UNLOCK BUTTON - PRESS AND HOLD

Load linen until the machine is full. Partial loads are a waste of energy, water and chemicals and cause greater machine wear than full loads. If you do not have enough to fill the the basket, wait until a full load is available. Partial loads, if necessary, should only occur at the end of the day. Even then, they can usually be held until the next day when more linen is received.

Note: If stringy items such as mop heads, etc. are to be washed, laundry nets should be used in order to prevent fouling of seals and drains.

Once loading is complete (you cannot overload the machine as far as harm to the machine is concerned; however, overloading can cause improper mechanical action and an inferior quality wash), close and lock the door making sure that all fabric is inside the basket. The machine should not start or run if the door is not both closed and locked.

II.3 SELECT CYCLE

Find the cycle number (cycle numbers must be two digit numbers from 01 to 39) of the desired wash cycle from the cycle code list provided. Press (do not punch) with your finger the numbers desired on the keyboard and note that this number is displayed after "NEXT". When keys are pressed on the keyboard, a beep will be heard. If an error is made, simply press the numbers again. As numbers are entered, they move from right to left on the display. Display will show "NEXT 12" if cycle 12 is pressed.

II.4 START CYCLE

To start the cycle that has been selected, simply press the "START" key. If the cycle number selected 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. (Example: "HL01"- See explanation, fig. II-B, page 9). This number indicates the step # in the cycle as listed in the Selection List. As the cycle proceeds, the display will show the function being executed, step number and the cycle number selected. By pressing the "EDIT CYCLE" key while the cycle is running, the display will alternate between showing the normal step display and the remaining cycle time in minutes.

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 before pressing "START". When the display shows the desired step at which you wish to start the cycle, press "START".

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 again press the "START" key. If the computer starts but the machine does nothing, this indicates that the door hinge microswitch cam may need adjusting(except UW35 & current production UW50). The door hinge microswitch interlocks all 120 volt power to the controls with the exception of the computer itself. Consult the Service Manual for adjustment procedures.

In addition, as water is being turned on to fill the machine, 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. Indicator 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(See page 12). When the indicator dot in last digit on the right is illuminated, the low water level has been reached. Likewise, when the dot in the next to the last digit is illuminated, medium water level (optional) has been reached. When the dot over the third digit from the right has been illuminated, high level has been reached. The cycle will continue until its completion and, at this time, the display will show "DONE".

II.5 TEST CYCLE

Cycle number 01 is a Test Cycle (Page 51) to check out all machine functions. The program for the cycle is shown following the copy of the Program Worksheet.

The first step is a cold fill to low level and is designed to not give quite enough time to complete a fill and cause the display to read "FILL". When "START" is pressed again, the machine should continue to fill and proceed with the Test Cycle. Step 02 is a drain step and ,again, the time is too short. The display will read "EMTY" . To proceed, again, press "START". The steps in the Test Cycle are relatively short with the exception of step 03, step 15 and step 17. These can be shortened by pressing "ADVANCE" to go on to the next step.

Note: "Advance" may be disabled. See prompting section of this manual.

Pressing "START" again will give another time period for the step during which the "START" is pressed (for whatever time was originally programmed for the step).

II.6 END OF CYCLE

When the cycle is completed, the display will show "DONE" plus the cycle number just run. To unload the machine, press the door unlock button and again open the door to remove contents and place them in the dryer. The display will show "NEXT" plus the cycle number just run.

DANGER

Attempt no entry until basket has stopped.
Serious injury may result

To display temperature, press "DISPLAY TEMP". Display will read "---F" as long as the key is pressed and will update the display automatically.

It is possible to skip to the next step in the cycle except a drain step. To do so, press "ADVANCE". Drain procedures must be allowed to complete.

Note: "Advance" may be disabled. See prompting section of this manual.

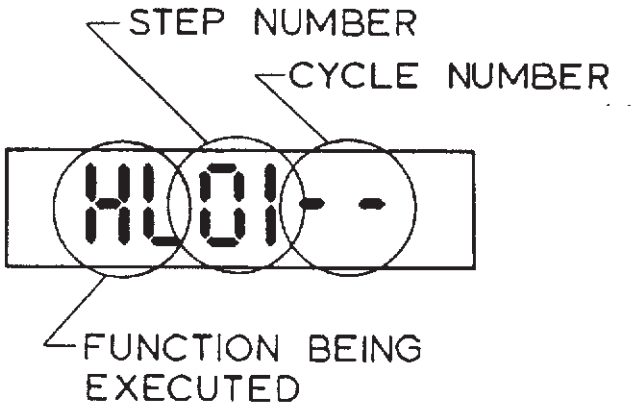


FIGURE II-B: L.E.D. DISPLAY EXPLANATION

II.7 LED OUTPUT INDICATOR LIGHTS

Located to the left of the keyboard 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 indicating the outputs activated for a particular step. (see page 12)

When using the Manual Mode procedure (see page 13), one or more of these lights will be on to indicate the outputs selected for the Manual Mode operation.

II.8 DISPLAY INDICATIONS

When the display shows letters and/or numbers with or without the beeper, read instructions under "II.9 Display Identification". The computer control in this machine is continuously on the alert for problems both within the machine and with the total installation. As the computer sees a problem, it immediately flashes a letter or number or both on the display and it may activate the signal (buzzer- see page 35) as well. The chart on the following page shows the various displays and what they mean. It is advisable that the operator familiarize himself with these indications.

If the display should indicate "WATER" following a spin step (or at any time), the keyboard will refuse any entry and the door will not unlock. This indicates a faulty drain that did not allow machine to empty or a faulty low water level switch. The condition must be corrected before the computer will allow access.

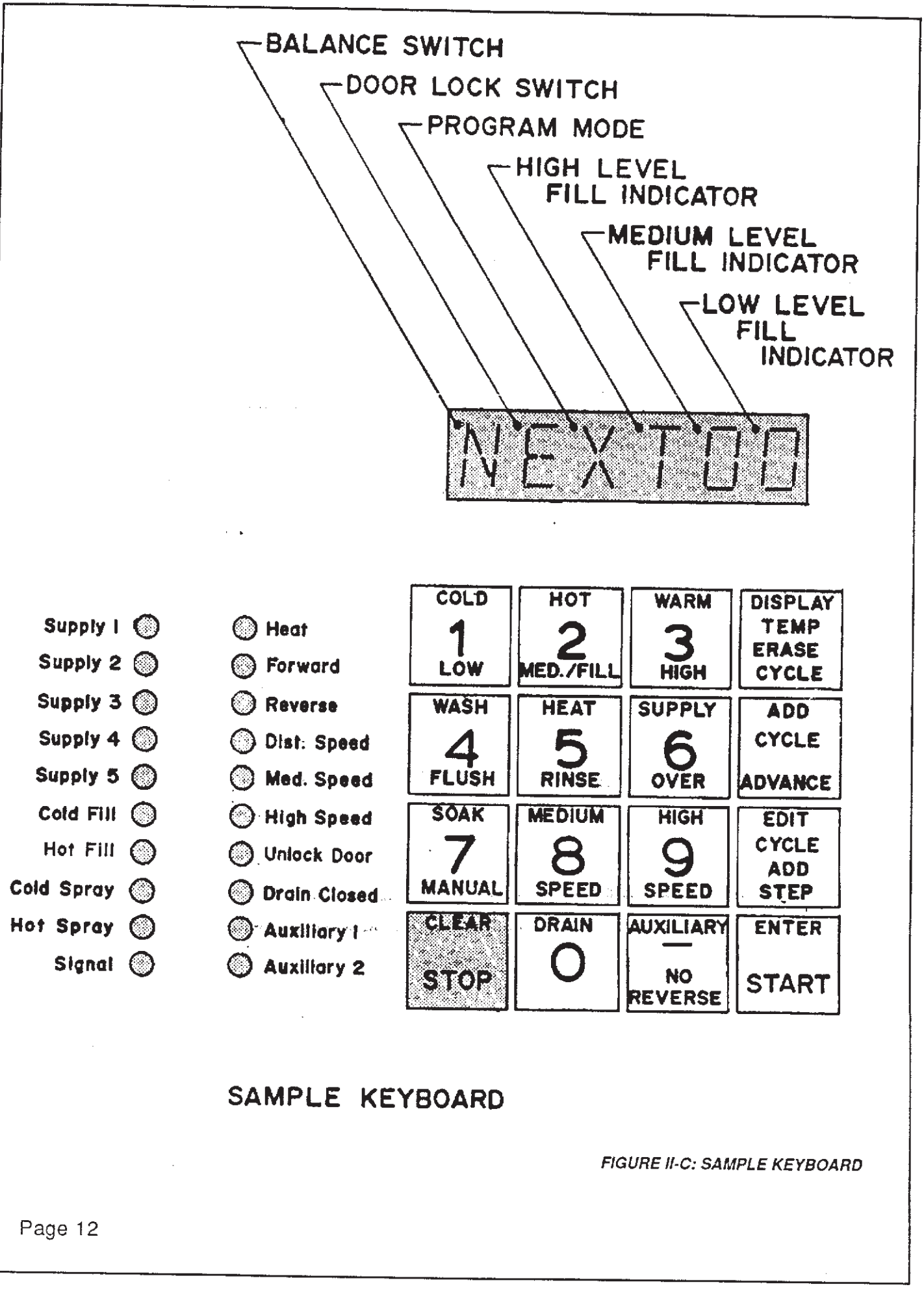
II.9 DISPLAY IDENTIFICATION

DISPLAY	MEANS
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 has been pressed or end of cycle
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
D2	Drain #2
F	Heat select temperature (F--) in degrees Fahrenheit
C	Heat select temperature (C--) in degrees Celsius
HF	Hot flush
HH	Hot fill to high level
HM	Hot fill to medium level
HL	Hot fill to low level
HO	Hot fill to overflow
HR	Hot rinse
HS	High speed spin
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 (soap/break)
S2	Supply #2 (bleach)
S3	Supply #3 (softener/sour)
S4	Supply #4 (as needed)
S5	Supply #5 (as needed)

II.9 DISPLAY IDENTIFICATION (Continued)

DISPLAY	MEANS
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 (regular reversing)
W2	Wash #2 (gentle reversing)
W3	Wash #3 (no agitation)
W4	Wash #4 (distribution speed-forward only)
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
WR	Warm rinse
.	Left dot - balance switch
.	2nd dot from left - door lock switch
.	3rd dot from left - program mode
.	4th dot from left - high level reached
.	5th dot from left - medium level reached
.	6th dot from left - 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
WATER	Indicates water remaining in machine after spin

Note: For further explanation of Problem indication displays, consult Test procedure section of this manual.



SAMPLE KEYBOARD

FIGURE II-C: SAMPLE KEYBOARD

II.10 PROCEDURE FOR ERROR RECOVERY ROUTINE

The computer, upon detecting an error, will stop running a step and display a message to indicate what type of error was encountered. It will display: "FILL--" to indicate the machine did not fill within the allotted time, "EMTY--" to indicate the washer did not drain within the allotted time, "TEMP--" to indicate the temperature sensor has recognized an over temperature limit condition, "MEMR--" to indicate the computer has detected a problem with the cycle information.

Each of these errors is considered to be recoverable. The operator has two (2) minutes to respond to the error condition. During this time, the computer will turn on and off the signal (buzzer) relay at the rate of one (1) second on and one (1) second off to alert the operator to the error condition. The washer may be restarted by pressing the "ENTER" key or the cycle may be aborted by pressing the "CLEAR/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 (2) minutes, the computer will automatically abort the cycle.

Certain error conditions are considered to be non-recoverable. These conditions include the door opening during a cycle prompting the computer to display "DOOR--". The operator must close the door and after the computer has detected the door being 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. See Diagnostic Aid section of this Manual.

II.11 PROCEDURE FOR MANUAL CONTROL FEATURE

Some of the outputs of the WE-6 computer can be operated manually from the keypad. In order to assure proper sequencing, all motor speeds are always controlled by the computer. Therefore, manual control is available only while a pre-programmed cycle is in progress. Manual Mode may not be entered during a spin step or a drain step. The door unlock output is controlled only by the computer and cannot be accessed by the Manual Mode.

Caution

When"manual" control 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 words and numbers printed in BLACK on the keys are meaningful to the operator. When the Manual Mode is entered, some, but not all, of the words printed in RED become active.

To enter the Manual Mode, press "MANUAL". Now you must press three number keys to assign a time in minutes and seconds for the Manual Mode (Example: Press "2" and "3" and then "0" to enter the Manual Mode for 2 minutes and 30 seconds). Then press "ADD

II.11 PROCEDURE FOR MANUAL CONTROL FEATURE (Continued)

STEP". **This entire procedure must be accomplished within 3 seconds.** When the computer receives all these inputs within the 3 seconds time limit, it will enter the Manual Mode for the time assigned. The display will flash between "MAN---" and the current cycle step display for 4 seconds. (During this period,the last three digits will represent the time assigned.) After 4 seconds, the display will flash between "MANUAL" and the current cycle step display for the remainder of the assigned time. During the Manual Mode, normal cycle timing is suspended.

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 Manual Mode was entered. To exit the Manual Mode and return to normal program timing before the assigned time elapses, press "START".

All water fill and spray rinse valves, supplies, heat (if the machine has reached low water level), drain valves, and auxiliary outputs can be manually controlled. To do so, press two (2) keys to turn the output ON ("HEAT" and "DRAIN" require one key). When an output is ON, pressing the same two (2) keys will turn it OFF. For example, to turn ON the cold fill valve, press "COLD" and "FILL". To turn the valve OFF, again press "COLD" and "FILL".

NOTE: It is not recommended that Manual Mode be entered during a fill operation. This will by-pass the water level switch inputs and the water must be turned off manually by the operator.

II.12 PROCEDURE FOR NORMAL STOP ROUTINE

During the normal stop routine at the end of the cycle, the computer will display "STOP--" and turn off all outputs with the exception of auxiliary drain (D2) if the computer is prompted for the 2 drain mode. (See Prompting Procedure, page 25).

A 30 second shake-out (WASH 1) is included as part of the stop procedure. This shake-out may be bypassed by pressing the "ADVANCE" key if ADVANCE has been prompted. If additional shake-out is desired, see VI.13, page 34.

The remainder of the stop routine is fixed at: low speed forward for 15 seconds, then pause for 5 seconds. After this time, the computer will display "DONE--" and the door may be unlocked. The computer will continue to display "DONE--" until the operator opens the door. At that time, the display will change to "NEXT--".

DANGER

Attempt no entry until basket has stopped. Serious injury may result.

II.13 OPERATIONAL KEYBOARD

There are 16 keys on the control keyboard. 14 keys can be used for operation of the machine. The 14 key functions the operator can use are printed in **BLACK.**

These keys are as follows:

NUMBERS 1 THRU 0	Used to select cycle number.
DISPLAY TEMP.	As long as pressed and held, display will show sump temperature in degrees Fahrenheit or Celsius (see page 25) and will continuously update display as temperature changes.
ADVANCE	When pressed, will cause computer to skip to the next step in the cycle. Cannot advance past drain if machine is not empty. (May be disabled-see Prompting Procedure, page 25)
STOP	Serves as Emergency Stop and immediately aborts the cycle and initiates the stop routine. See Stop Routine, page 14.
START	Starts machine in the cycle entered. Re-starts a step following a "FILL" or "EMTY" alarm. (See Error Recovery Routine-page 13)
MANUAL	When pressed, will cause computer to enter the Manual Mode. (See Manual Control, page 13)

TEST PROCEDURE

WARNING

Serious shock may occur Open primary disconnect Switch before attempting Any repairs.

III.1 GENERAL

The WE-6 Programmable Computer, with its display/fuse board, should be easier to maintain than other type controls. The following procedure should help to eliminate problems and determine if components are defective.

1. TEST EQUIPMENT REQUIRED:

a. 20K OHM/Volt AC-DC voltmeter
b. Wiring diagram.
c. Display/fuse board diagram, page 84 of this manual.

2. POWER UP:

a. When AC power is turned on, the display should flash "POWER"/"WAIT" alternately. After 30 seconds, the display should read "NEXT 00"(6 seconds on Simulator).
b. Door unlock solenoid should function if door unlock button is pressed.
c. If these are correct, go to step number 4.

3. IF COMPUTER DOES NOT READ "NEXT" OR DOES NOT ILLUMINATE:

a. Check 2 AMP fuse on left side of control module (see page 20).
b. Check for 115 volts AC between AC HOT (ACH) and AC NEUTRAL (ACN) at left side of display/fuse board. (Ref. page 84)
c. Be certain that all plugs are correctly installed on the computer board .
d. If all above check OK, remove the 4-pin J-4 plug located above the transformer on the display/fuse board. Check for 115 volts AC between the two outside pins on the plug.

4. IF COMPUTER READS "NEXT":

Note: Keys should be pressed at their centers and only hard enough to activate them

a. Test the keyboard, first with keyed mode switch located on the left side of the control module in the "RUN" position. A beep tone should sound as each key is pressed. Press each of the keys **not** including the "START" key and listen for each beep. After pressing all keys (except "START"), press "3" and "9", then press "START". Display should flash "NCYC 39" for 3 seconds, then return to "NEXT00".

b.When "DISPLAY TEMP." is pressed and held, the computer display should change to show the temperature inside the sump. When key is released, the display should return to previous read-out.
c. Turn the keyed mode switch to "PROGRAM" and press "EDIT/CYCLE". Read-out should display "DCYC--".

d. Press "CLEAR/STOP". Display should return to "-CYC 00".
e. Return mode switch to "RUN" position.

5. IF KEYBOARD DOES NOT FUNCTION AS ABOVE:

a. Check the plug (J-3) at bottom center of computer board for proper installation (see page 20).
b. If the plug is correct, proceed to "REPLACING KEYBOARD" section of this manual.

6. TEST CYCLE:

a. Cycle 01 is a pre-programmed test cycle. If it has not been erased, it may be used to check all functions of the machine.
b. Start this cycle by pressing "0", then "1", then "START".
c. The display should show "CL01" with the LED for "COLD FILL" and "COLD SPRAY" illuminated at the left of the module front indicating that these water valves have been turned on.
d. The following LEDs should also be lit: "DRAIN CLOSED" plus "FORWARD" and "REVERSE" should alternate on and off.
e. The printed program on page 51 of this manual will indicate which LEDs to expect for each step.

7. IF READ-OUT IS OK BUT NO LIGHTS (LEDs) LIT ON DISPLAY/ FUSE BOARD INSIDE MODULE:

a. Check door hinge microswitch (except UW35).
b. Check thermal overload indicator on side of control module (see page 20). If lit, thermal overload circuit is open.

8. IF ONLY ONE LIGHT (LED) ON DISPLAY/FUSE BOARD NOT LIT:

a. Check the fuse on the display/fuse board associated with that LED.
b. If fuse is OK, check J-1 jumper between computer and display/fuse board.
c. If the fuse is blown, check the related valve or relay for a shorted condition before replacing the fuse.

CAUTION

For continued protection, replace fuse only with fuse of same type and rating.

d. Use similar procedure for any individual function which does not work.

9.IF DISPLAY INDICATES "DOOR" ALARM:

a. Computer has not been told that the door is locked.
b. Check switch activator on door lock extension arm. (See Service Manual)
c. Check door lock switch.
d. Check input plug ,J-2, on computer board.
e. Check for loose wires or bad connections associated with door lock switch.

10. IF DISPLAY INDICATES "WATER" ALARM:

a. This display will usually appear following a spin step. Computer has not received signal indicating that the machine is empty. Machine may still contain water. Entry will be refused and keyboard will not respond. Check drain and for faulty low water level switch.

11. IF DISPLAY INDICATES "FILL" ALARM:

a. Computer has not been told that water level was reached in the allotted time.
b. Push "START" to allow more time.
c. Check for leaks in air system between level switches and water level air chamber. (See Service Manual)
d. Check for obstruction in water level air chamber or tubing.
e. Check for obstructions or low pressure in water supply system.
f. Check for failed drain valve motor.
g. Check for defective water level switch.

12. IF DISPLAY INDICATES "EMTY" (EMPTY) ALARM:

a. Computer has not been told that water level reached empty in the allotted time.
b. Check for obstructions in air system to level switches. (See Service Manual)
c. Check for slow drain.
d. Check for loose connection in water level circuit.
e. Check for defective water level switch.

Note: Sufficient time for filling and draining must be allowed when a program is written into the computer. If a "fill" or "empty" alarm occurs only in one program, edit that program and re-enter it into the computer making sure enough time has been allowed for fill and/or drain. See error recovery routine, page 13.

13. NO SPIN, REST OF PROGRAM OK:

a. When a spin is programmed (medium or high speed), the computer looks for an out of balance condition and an empty condition.
b. Check input plug, J-2, on computer board (see page 20).
c. Check balance switch inside "A" frame except on models UW30 & UW35.
d. Check water level and drain line. (See Service Manual)

Note: When an "out of balance" condition is detected, the computer will automatically drop back to "wash" forward speed to allow the load to redistribute. The computer will look for "out of balance" three (3) times. If the balance condition is still not corrected, the computer will advance to the next step without completing the spin step.

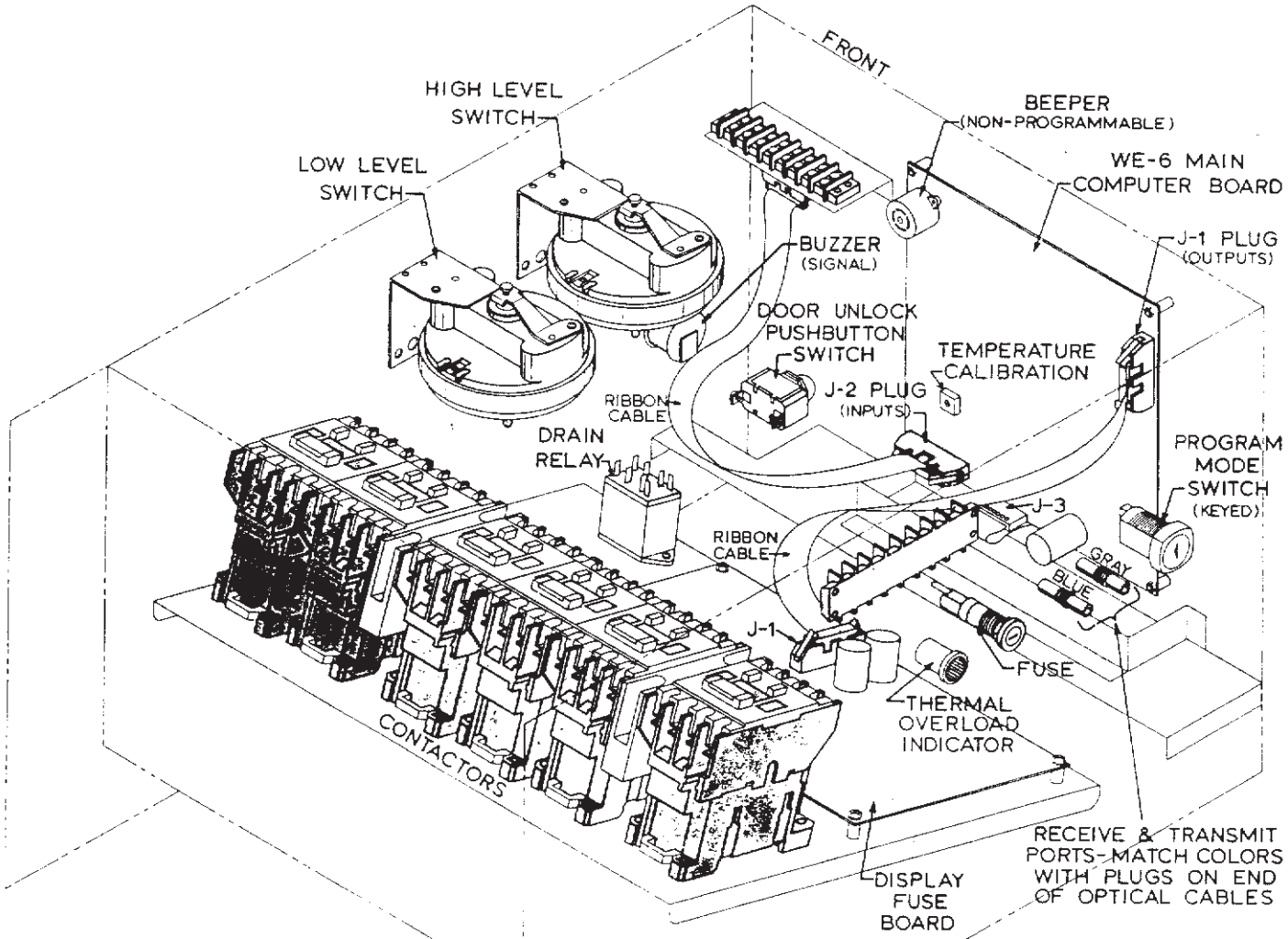
14. SPINS TOO SOON AFTER "SOAK" STEP:

a. Check for leaks in pressure system to water level switches.

15. DISPLAY INDICATES "OVERHT":

a. Temperature probe is short circuited or has an open circuit.See "OVERHT" in Diagnostic Aid section of this Manual (Page 44).
b. . The machine will not function until this problem is rectified.
c. Replace temperature probe in sump.

If the above procedures have failed to determine the problem, call the factory.



FAMILIARIZATION GUIDE
UNIWASH WE-6
MICROPROCESSOR CONTROL
FIGURE B
ILLUSTRATION NO. 721181

REPLACING KEYPAD

WARNING

Before servicing any UniMac equipment, make certain it is disconnected from the electrical power source. Electrical shock hazard does exist when servicing control modules and at motor terminals. Failure to observe this warning could result in serious injury or death.

IV.1 PROCEDURE

The keypad is a separate part of the front decal on the control module. To replace it, first unplug the keypad from the computer board (plug J-3).

The decal is self-adhesive. Carefully peel it from the module. Next, make sure the module front is clean of any residual adhesive. The surface must be clean and smooth before applying the new keypad decal. **An uneven surface will cause the keypad to malfunction.**

To apply the new keypad, remove the backing paper and insert the flat cable and plug into the slot in the module front and be certain the decal is lined up before pressing the decal in place.

Plug the flat cable onto the computer board (J-3). Make certain the plug is not off center and that each pin enters its hole in the plug. Make certain there are no twists in the cable.

Turn the power back on and test following the procedure outlined in Step 4 of the Test Procedure, Section III, page 17, of this manual.

PROGRAMMING TUTORIAL

V.1 GENERAL

The following section guides the programmer through a complete cycle (Cycle 25) and allows "hands on" experience for programming further cycles.

1. Locate the key operated programming switch attached to the left side of the control module. Insert key and turn the switch to "PROGRAM" position. The display should read "-CYC--"

2. Press "ADD CYCLE" key and the display will read "ACYC--".

3. Enter a two digit number (01 to 39) to identify the cycle that you want to enter into the computer memory (for example "25"), then press "ENTER". The computer will check to see if this number is already in memory. If the number is already in memory, the display will flash "EXISTS" and "EDIT?" alternately. If this happens, press "CLEAR" and select another number. If the computer sees no complication, the display will read "--0125". The computer is now ready for step 01 in CYCLE 25.

Note: Cycle 25 is shown in its printed form in this manual following the pre-programmed cycles. Cycle 25 is not pre-programmed.

4. Enter the procedure that you wish to use for step 01 such as hot fill to low level. Press "HOT" and then press "LOW". The display will now read "HL0125". Press "ENTER" and the display will read "-M---S".

5. Now enter the time in minutes and seconds that you want the computer to allow the machine to fill (a good time would be 4 minutes). Press "4" and the display will read "4M00S".

6. Now press "ENTER". The display will now change to read "--0225" indicating that we are now ready to program step 02.

7. The next step would be to add supply #1. Therefore, press "SUPPLY" and then "1". The display will now read "S10225". Press "ENTER" and the display will read "-M--S".

8. Now enter the amount of time, in minutes and seconds, that you want the supply valve to be turned on. A good example would be 30 seconds. Press "0" for minutes and the display will read "0M00S". Now press "3" and then "0". The display will read "0M30S"

9. Now press "ENTER". The display will change to read "--0325" indicating ready to program step 03.

10. If no other supplies are needed, the next step would be the type and time of wash desired. An example would be a wash with standard reversing action (WASH 1) for 6 minutes.

11. Press "WASH" and "1" and the display will read "W10325". Then press "ENTER" and the display will read "-M--S".

12. Now press "6" and the display will read "6M00S" indicating a wash step of 6 minutes.

13. Press "ENTER". The display will read "--0425" and the computer is ready for step 04.

14. A normal next step would be to drain. Press "DRAIN" and the display will read "D10425". Now press "ENTER" and the display will read-M--S".

15. This time you must enter the maximum time that you want the computer to allow the machine to drain to empty. A good time would be 1 minute. Now press "1" and the display will change to "1M0025".

Note: UniMac does not recommend more than 1 1/2 minutes for drain! If the machine does not drain in the amount of time programmed, the "EMTY" alarm will be displayed. See Error Recovery section of this Manual.

16. Press "ENTER". The display will now read "--0525" and is ready for step 05.

17. The next step in the cycle may need to be a warm spray rinse. Press "WARM" and then "RINSE". The display will read "WR0525". Press "ENTER" and again the display will read "-M--S".

18. Now we need to program the length of time for the spray rinse in minutes and seconds. For the example, we will program a two and a half minute spray rinse. Press "2" and the display reads "2M00S". Now press "3" and "0" observing that the display now reads "2M30S".

19. Now press "ENTER" and the display reads "--0625" indicating ready for step 06.

20. The next step in the cycle might be a warm fill to high level for a dilution type rinse. Press "WARM" twice, then press "HIGH". The display reads "WH0625". Press "ENTER" and the display reads "-M--S".

Note: By pressing "WARM" twice, two hot and two cold water valves are turned on which reduces fill time.

21. Enter the time that you want the computer to allow the machine to fill to high level. Press "5" and the display reads "5M00S"

Note: If the machine does not fill in the amount of time programmed, the "FILL" alarm will be displayed. See Error Recovery section of this Manual.

22. Press "ENTER" observing that the display now reads "--0725".

23. Now, we will add a softener (or sour) for the seventh step. Press "SUPPLY" and "3". The display reads "S30725". Press "ENTER" and the display reads "-M--S".

24. As before, we now program the time for the supply to be turned on. Press "0" minutes and "3" and then "0" for seconds. The display reads "0M30S".

25. Press "ENTER" as always after programming a time and the display reads "--0825". We will proceed now with step 08.

Note: The key labeled "RINSE" means spin spray rinse. A dilution type rinse is executed the same as a wash step without the addition of detergents.

26. For step 08, we will program the agitation action for the dilution rinse. Press "WASH" and "1" to program an action with normal reversing. The display will show "W10825". Press "ENTER" and our display is "-M--S".

27. Now enter the time for the dilution rinse. Press "3" and the display reads "3M00S" indicating 3 minutes. Press "ENTER" and you are ready for step 09.

28. Now we will need to drain the dilution rinse water. Press "DRAIN" and the display will read "D10925". Press "ENTER" and the display reads "-M--S".

29. Again, you must program the amount of time the computer will allow the machine to drain empty. Press "1" and the display reads "1M00S" indicating a one minute drain step. Press "ENTER" and we will move to step 10 of the cycle.

30. Now we will extract the water from our load. First, press "MEDIUM SPEED" and the display will read "MS1025" indicating medium speed spin. Press "ENTER".

31. Enter the length of time for the medium speed spin. Press "1" and the display reads "1M00S".

32. Press "ENTER" and you are ready for step 11.

33. High speed spin is next so press "HIGH SPEED". The display will read "HS1125". Now press "ENTER" and the display reads "-M--S".

34. Enter the length of time for the high speed spin. Press "6" and the display reads "6M00S".

Note: High speed spin will always be automatically preceded by medium speed spin for 30 seconds. Medium speed spin is included here to demonstrate how medium speed spin only may be programmed on all models having two spin speeds.

35. Press "ENTER" and the display flashes "SDLY" for one second, then "0M00S" meaning enter time for slow down delay(coast). If you want the basket to coast before it stops, enter the time desired for coast, then press "ENTER". If no coast is desired, press "ENTER" only. The display will read "--1225'.

Note: A slow down delay of 30 seconds minimum should be programmed after each high speed spin. Longer motor and belt life are direct benefits of this practice. All the pre-programmed and optional cycles in this manual reflect this practice.

36. For the tutorial, we will end this cycle after the spin. To end the cycle, we simply turn the Program Mode Switch located on the side of the control module to "RUN" position, remove the key, and this is all that is necessary to end the cycle. The display will then show "NEXT--". Now you have programmed a complete cycle (Cycle 25) consisting of 11 steps.

You can now select Cycle 25 and press "ENTER" to run the cycle if you wish, or proceed with programming a cycle of your own creation.

NEW UW POLYPROPYLENE SUPPLY DISPENSER

(Insert for current UW manuals)

System prompting of supply type.

System will be prompted for dry supply as standard from the factory, for use with the redesigned polypropylene dispenser placed in production January 12, 1994.

You may prompt the WE6 computer for either dry (powdered) supplies or for liquid supplies. If prompted for dry supplies, the WE6 simply energizes the programmed supply output. If prompted for liquid supplies, the WE6 automatically energizes the auxiliary 1 output (A1) along along with the programmed supply output to flush liquid supply compartment every time Supply 1 - 5 is programmed.

Procedure for changing supply prompting (to dry supplies).

(1) Place the WE6 in program mode. Display will show "CYC_XX". Where XX represents the most recently selected cycle number.
(2) Press the following keys in order: "AUXILIARY","2","9". Display will show either "°CEN" or "°FAR".
(3) Press "ENTER". Display will show "1DRAIN" or "2DRAIN".
(4) Press "ENTER". Display will show "NO ADV" or " ADV".
(5) Press "ENTER". Display will show "NO MAN" or "MANUAL".
(6) Press "ENTER". Display will show "L SUPP" or "D SUPP". "L SUPP" means that the WE6 is prompted for liquid supplies, and "D SUPP" means the WE6 is prompted for dry supplies.
(7) Press "0" key to change, if desired. When prompted as desired, press "ENTER". Display will show "USEDnn", where nn represents the number of cycles which have been run.
(8) Press "ENTER" again to exit system prompting.

Return WE6 to run mode if no further programming changes are required.

UniMac®

SUPPLY PROMPTING
ALL UW WITH
POLYPROPYLENE DISPENSER
ILLUSTRATION NO. 721479

SPECIAL PROGRAMMING PROCEDURES

VI.1 GENERAL

The following section of this manual explains the various procedures used to program the many varied functions of the WE-6 microcomputer. You may use the section to proceed direct to any particular function after reading the entire section in depth.

VI.2 PROCEDURE FOR PROMPTING WE-6

With the WE-6, you can prompt the computer to display the sump temperature in Celsius or Fahrenheit. You can also prompt the computer to recognize and control one or two independent drains (optional). The computer can be prompted to enable or disable the "ADVANCE" key in the "RUN" mode. To prompt the computer, observe the following procedure:

1. Turn the Program Mode Switch to "PROGRAM" position. The display will read "-CYC--".

2. Press "AUXILIARY" and "2" and "9" keys in that order. Display will read "CEN" (Celsius) or "FAR" (Fahrenheit). Press "0" to change, if desired, and then press "ENTER".

3. The display will read "1DRAIN" or "2DRAIN". Press "0" to change, if desired, and then press "ENTER". ("1DRAIN" is the normal prompt for most applications. "2DRAIN" will be used for special applications with machines so equipped.)

4. The display will read "ADV" or "NO-ADV". Press "0" to change, if desired, and then press "ENTER". (Selecting "NO-ADV" will disable the "ADVANCE" key in the "RUN" mode preventing the operator from advancing the computer through steps of the cycle before they are complete.)

5. The display will read either "MANUAL" or "NO MAN". If "MANUAL" is displayed, "MANUAL" mode will be **enabled** during normal operation of the washer. If "NO MAN" is displayed, "MANUAL" operation will be disabled when a cycle is run even if the "MANUAL" operation key sequence is entered. To change this feature, press the "0" key.

6. Press "ENTER". The display will show "USEDXX", where "XX" represents the number of cycles run. You can leave the count alone, or reset it (to "00"). To leave the count unaltered, press "ENTER"; this should return you to the normal programming mode. To reset the count, press the "0" key; the display should show "USED00"; press "ENTER" to return to normal programming mode.

The computer stores the cycle count in RAM, so if power to the computer is interrupted, the count will automatically be set at "00". The cycle count represents the number of cycles run since the last reset, so if you intend to accumulate a daily count, you should read the count at the end of the day, then reset it prior to running the next day's first cycle.

The count resets automatically after count "99".

7. Return Program Mode Switch to "RUN" position, remove the key, and prompting is complete. (**Note: Prompting will change the parameters in all cycles programmed.**)

VI.3 PROCEDURE TO DISPLAY A CYCLE IN MEMORY

1. Turn the Program Mode Switch, located on the left side of the control module, to "PROGRAM" position. The display will read "-CYC--".

2. Press the "EDIT CYCLE" key on the key board.

3. Press the TWO-DIGIT code for the cycle number that you want to display. (Example: Press "2" and then "5". Ref cycle #25 shown on page 80 in this Manual) Then press "ENTER".

4. The computer will search to see if cycle information exists for this cycle number. If no cycle information exists, the computer will flash "NCYC25" and then "-ADD?-". If you want to add this cycle, press the "ENTER" key and proceed to the add cycle mode. If you don't want to add this cycle, press the "CLEAR" key and the computer will return to normal programming mode.

5. If the cycle information exists, the computer will display something like "0425", indicating that cycle 25 has been run 4 times. You can clear the count (reset it to zero) by pressing "0"; the display would then show "0025". If you don't want to clear the count, or if you have just cleared the count, press "ENTER" now.

6. If the cycle information exists, the computer will display "HL0125" (Ref. cycle #25 shown on page 80 in this Manual) or whatever the first step may be of the cycle you have selected.

7. Press the "ADVANCE" key to move to the next step of the cycle. If you wish to access further information pertaining to each step (i.e. temperature and/or time) press the "ENTER" key. If the display is showing a temperature, press the "ENTER" key again to display the time. Pressing the "ENTER" key once again will advance to the next step.

8. At the end of the cycle, the computer will display "END-25" for 2 seconds and return to the normal programming mode.

9. Return Program Mode Switch to "RUN" position and remove the key.

CAUTION

Never press "clear" while displaying a cycle in memory unless you wish to edit or omit a step. Editing to be explained elsewhere in this manual.

VI.4 PROCEDURE TO DISPLAY INDIVIDUAL CYCLE USAGE.

1. Turn the Program Mode Switch, located on the left side of the control module, to "PROGRAM" position. The display will read "-CYC--".

2. Press the "EDIT CYCLE" key on the key board.

3. Press the TWO-DIGIT code for the cycle number that you want to display. (Example: Press "2" and then "5". Ref cycle #25 shown on page 80 in this Manual) Then press "ENTER".

4.The display will show "-XX 25" where "XX" indicates how many times this individual cycle has been used. Press the "ENTER" key to continue displaying the cycle; or press the "CLEAR" key to return to the normal Program Mode; or press "0" to reset the counter for this cycle to zero. The computer will remain in this step until one of these options has been taken or the computer is taken out of the Program Mode.

VI.5 PROGRAMMING KEYBOARD

All 16 keys are used in the Programming Mode. These functions are printed in RED on the keys. The Programming Mode is only active when the Program Mode Switch is in "PROGRAM" position. Be sure that this switch is placed in "RUN" position when programming is complete and the key is removed. Keys 1 through 6 and the "AUXILIARY/NO REVERSE" key are dual function keys in the Program Mode. In each case, when a key is pressed first in a programming a step, the word printed on top applies. If the same key is pressed again in the same step, or after another key has been pressed, the word printed on the bottom of the key applies.

The RED keys are as follows:

COLD/LOW	COLD is pressed when the step requires cold water. LOW is pressed for low level fill.
HOT/MED./FILL	HOT is pressed when the step requires hot water. *MED./FILL is pressed when medium water level is wanted. FILL is pressed in Manual Mode for fill valves.
WARM/HIGH	WARM is pressed when the step requires warm water. HIGH is pressed for high level fill.
WASH/FLUSH	WASH is pressed when the step is a wash or dilution rinse along with a number (1, 2, or 3) which describes the type agitation. FLUSH is pressed when it is desired for the drain to remain open when water is added to the machine. When FLUSH is pressed, a temperature selection must precede(HOT, COLD, WARM). When FLUSH is programmed, water will be added through the door spray nozzle only and the basket will rotate in low speed forward only.
HEAT/RINSE	HEAT is pressed when auxiliary heat is needed (See pages 32, 34 & 36). This must be followed by a specific temperature selection (i.e. 165 F). This must be ENTERED, then a time assigned to reach that temperature must be ENTERED. RINSE is pressed when a Spin Spray rinse is desired and must be preceded by a temperature selection (HOT, COLD, WARM). The drain will remain open and the basket will rotate in medium spin speed (high speed on 2-speed only machines). Water is added through the door spray nozzle only.

*Medium water level capability is an option and may not be available on some models

VI.5 PROGRAMMING KEYBOARD (Continued)

SUPPLY/OVER	SUPPLY is pressed when soap, bleach or other chemicals are desired. This is followed by a number (1 ,2, 3, 4, or 5) indicating the supply dispenser being used. Additional combinations of these supplies are available-consult the section of this manual on Programming Supplies. OVER is pressed when an overflow of water is desired. The drain is closed and water is added without regard for water level. Water flows out the overflow connection for the time assigned to the step.
ADD CYCLE	This is pressed to begin the process of programming a new cycle into memory.
SOAK	SOAK is pressed when no agitation is desired. This follows a fill and/or supply step. The time will be assigned in hours and minutes.
MEDIUM SPEED	MEDIUM SPEED is pressed when a medium spin only is desired. (For models equipped with two extract speeds) May be used when washing delicate items that may not be appropriate for high speed spin.
HIGH SPEED	HIGH SPEED is pressed when a fast spin is desired. It is always automatically preceded by a MEDIUM SPEED step for 30 seconds.
ERASE CYCLE	This is pressed and followed by a number indicating the cycle to be erased from memory.
EDIT CYCLE/ADD STEP	EDIT CYCLE is pressed followed by a two digit cycle code number to display the steps of a pre-programmed cycle. The cycle may be altered during the EDIT procedure by deleting, changing, or adding steps. ADD STEP is pressed to add a step to an existing cycle during the EDIT CYCLE procedure.
CLEAR	CLEAR is pressed when an error has been made in programming a step. CLEAR should be pressed instead of ENTER as the step is being completed.

NOTE: CLEAR should never be pressed when displaying a cycle unless a particular step is to be omitted or changed. See VI.3, page 26.

VI.5 PROGRAMMING KEYBOARD (Continued)

DRAIN	DRAIN is pressed after a wash, dilution rinse or soak step is completed to remove the water from the machine. A time is assigned that will allow the machine to reach empty. If the computer has been prompted for two drains, it will be necessary to press "1" or "2" for the desired drain valve. See Prompting Procedure, page 25.
AUXILIARY/ NO REVERSE	AUXILIARY 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 option (turns on E-1 output terminal on display/ fuse board). See special programming instructions, page 35. (Water reuse/ recovery is an option) NO REVERSE is used to rotate the basket in one direction only during a step and should be pressed just before pressing "ENTER".
ENTER	ENTER is pressed to enter programming information into memory.

VI.6 PROCEDURE TO EDIT A CYCLE

To edit a cycle in memory and/or change a step, add a step or delete a step, use the following procedure:

1. Insert key in Program Mode Switch and turn to "PROGRAM" position. The display will read "-CYC--".

2. Press the "EDIT CYCLE" key and the display will read "DCYC--".

3. Press the TWO-DIGIT code for the cycle number you wish to edit. (Example: Press "2" and then "5". Ref cycle #25 shown on page 80) Now press "ENTER".

4. The computer will search to see if cycle information exists for this cycle number. If no cycle information exists, the computer will flash "NCYC25" and then "-ADD?-". If you want to add this cycle, press the "ENTER" key and proceed to the add cycle programming mode. If you don't want to add this cycle, press the "CLEAR" key and the computer will return to normal programming mode.

5. If the cycle information exists, the computer will display something like "0425", indicating that cycle 25 has been run 4 times. You can clear the count (reset it to zero) by pressing "0"; the display would then show "0025". If you don't want to clear the count, or if you have just cleared the count, press "ENTER" now.

6. If the cycle information exists, the computer will display "HL0125" (Ref. cycle #25, page 80) or whatever the first step may be of the cycle you have selected.

7. Press the "ADVANCE" key to move to the next step of the cycle. Press "0" to back up to the previous step. If you wish to access further information pertaining to each step (i.e. temperature and/or time) press the "ENTER" key. If the display is showing a temperature, press the "ENTER" key again to display the time. Pressing the "ENTER" key once again will advance to the next step. At any time, you can put the Program Mode Switch in "RUN" position and the computer will return to normal running mode provided all pertinent data required for the last step edited is entered.

8. To change a step within the cycle, press "CLEAR" **once** while the computer is displaying the step you wish to change. Now enter the new step using the same procedure as you would in adding a step to a new cycle. To change the time assigned to a step, press "CLEAR" **once** while the computer is displaying the time you wish to change. If you change your mind about changing a step, press "EDIT CYCLE" **before** entering the new data and the old step will be displayed (except for time and temperature steps).

9. To add a step within the cycle, press "ADD STEP". The step will be added into the cycle after the step presently displayed. The computer will check to see if there is enough cycle memory left in the cycle to add a step. (Each cycle may contain up to 52 steps) If the cycle memory for this cycle is full, the computer will display "CYFULL" for 2 seconds and return to displaying the previous step. If the computer sees no problem, the new step number will be displayed and you may add your step as you would in adding a step to a new cycle. If you change your mind about adding a step, press "CLEAR" four times **before** entering the time for the new step and the old step will be displayed.

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

10. To delete a step within the cycle, press the "CLEAR" key while the computer is displaying the step you wish to delete. Press the "CLEAR" key **again** and the display will read "-WAIT-" while it is deleting the step.

VI.6 PROCEDURE TO EDIT A CYCLE (Continued)

The computer will then display the next step in the cycle using the same step number as the deleted step.

11. If you press "ADD CYCLE" by mistake instead of "EDIT CYCLE", when you enter the cycle number you wish to edit, the display will flash "EXISTS" and "EDIT?". To recover, press "ENTER" and the computer will change to the edit mode.

VI.7 PROCEDURE FOR ERASING A CYCLE IN MEMORY

To erase a cycle from computer memory, the following steps are necessary:

1. Insert key in Program Mode Switch and turn to "PROGRAM" position. The display will read "-CYC--".

2. Press "ERASE CYCLE". The display will read "ECYC--".

3. Press the two digit code for the cycle number that is to be erased, then press "ENTER". The display will read "WAIT" while it is erasing the cycle and will then return to "-CYC--". If there is no such cycle number in memory, the display will show "NCYC--". If you decide not to erase a cycle, you can press "CLEAR" **before** pressing "ENTER" and the display will return to "-CYC--".

4. Return the Program Mode Switch to "RUN" position and remove the key.

VI.8 PROCEDURE TO PROGRAM WASH STEP

To program a wash step, observe 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 "WASH" and the display will read "W-----". Now press the number, from "1" to "4", that corresponds to the wash type you desire.

WASH 1 - 12 seconds forward, then pause 3 seconds, followed by 12 seconds reverse, pause 3 seconds; then repeat.

WASH 2 - 3 seconds forward, then pause 12 seconds, followed by 3 seconds reverse, pause 12 seconds; then repeat.

WASH 3 - No agitation.

WASH 4 - Distribution speed (forward only).

WASH 5 - See page 38, VI.21.

3. If "WASH 1" is selected, you may wish to select the "NO REVERSE" option. If so, the selection must be made at this point in the step programming. Press "NO REVERSE" when the display is showing "W1----". NOTE: When "NO REVERSE" is selected, the display will not change but the machine will follow the programming command. "NO REVERSE" will cause the basket to run forward only at wash speed for the time programmed. NOTE: The computer will return to normal reversing action when this step has completed.

Note: "NO REVERSE" may be programmed in wash, fill, supply, heat and overflow steps. The "NO REVERSE" must be pressed just prior to pressing "ENTER" when programming a step.

4. Press "ENTER" and the display will read "-M---S". Now assign the time in minutes and seconds that you want the wash step to last.

VI.8 PROCEDURE TO PROGRAM WASH STEP (Continued)

5. Press "ENTER" and go to the next step in the cycle.

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

To program a wash with temperature, after step 2 of the Procedure to Program Wash Step, press "HEAT" **before** pressing "ENTER". The display will read either "080F--" or "025C--", depending on whether Fahrenheit or Celsius is prompted. Now enter the desired temperature that you want 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 should be "0". The valid temperature range is 80 to 200 degrees Fahrenheit and 25 to 93 degrees Celsius.

Now proceed with step 4 above.

VI.9 PROCEDURE FOR PROGRAMMING NO REVERSING

All agitation is programmed by first pressing "WASH" and then pressing either "1, 2, 3 or 4" for the type of agitation desired during the wash step. If no reversing is desired (rotation continuous in one direction), press first "WASH", followed by either "1" or "2", then press "NO REVERSE" before pressing "ENTER". The display will show either "W1--" or "W2--" depending on agitation type selected. The display will not indicate that "NO REVERSE" was selected, but the machine will obey the instructions.

Note: "NO REVERSE" is normally used with "WASH 1" steps but may be used with other appropriate functions. "NO REVERSE" may be programmed in wash, fill, supply, heat and overflow steps. The "NO REVERSE" must be pressed just prior to pressing "ENTER" when programming a step.

VI.10 PROCEDURE TO PROGRAM RINSE STEP

When "RINSE" is pressed on the keyboard, the drain will remain open and the basket will rotate in medium spin speed (high speed on 2-speed machines). Water is added through the door spray nozzle only. To program a rinse step, observe 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"). Then press "RINSE". The display will read "-R----" with the first letter of the display being "C", "H", or "W" depending upon your temperature selection.

3. Press "ENTER" and the display will read "-M---S". Now assign the time in minutes and seconds that you want the rinse step to last.

4. Press "ENTER" and go to the next step in the cycle.

VI.11 FILL TEMPERATURE PROGRAMMING

In programming a fill, the following procedures will produce the indicated results:

IF THE FOLLOWING KEYS ARE PRESSED	THE DISPLAY WILL READ	WITH THE FOLLOWING VALVES TURNED ON
HOT + LOW + ENTER	HL	1 HOT FILL & 1 HOT SPRAY
*HOT + MED + ENTER	HM	1 HOT FILL & 1 HOT SPRAY
HOT + HIGH + ENTER	HH	1 HOT FILL & 1 HOT SPRAY
WARM + WARM + LOW + ENTER	WL	BOTH HOT & BOTH COLD
WARM + HOT + LOW + ENTER	WL	BOTH HOT & 1 COLD FILL
WARM + COLD + LOW + ENTER	WL	1 HOT FILL & BOTH COLD
COLD + LOW + ENTER	CL	1 COLD FILL & 1 COLD SPRAY
*COLD + MED + ENTER	CM	1 COLD FILL & 1 COLD SPRAY
COLD + HIGH + ENTER	CH	1 COLD FILL & 1 COLD SPRAY

*Medium fill capability is an option.
All models are not capable of medium fill.

When HIGH 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 (i.e. "HOT", "COLD", WARM") **before** selecting the level. Exceptions to this will be when "RINSE" or "FLUSH" steps are used which require no level commands and water is added through the door spray nozzle **only**.

Each time "WARM" is pressed, one hot and one cold water valve is turned on. The machine is equipped with four water valves (2 fill & 2 spray), therefore, pressing "WARM" twice will turn on **all four valves** and reduce fill times.

In addition to the standard fill temperatures listed on this page, computer controlled fill or overflow to a specific temperature is possible with the WE-6. See page 34 of this manual.

NOTE: When programming a WARM fill, the computer will not respond to the "ENTER" key until **two** (2) temperature selections and a level have been selected as shown above.

VI.12 PROCEDURE FOR PROGRAMMING A FILL TO TEMPERATURE

To program a fill to a specific water temperature, the following steps are necessary:

1. The computer must be in the "PROGRAM" mode and the cycle programming sequence must be ready for the next step.

2. Press "COLD" and the display will read "C-----". NOTE: You may program "HOT" or "WARM" instead. This controls inlet valves during the first three seconds of the fill. After the first three seconds, the fill is the same, regardless.

3. Now press the key representing the desired water level (i.e. "LOW", "MEDIUM","HIGH" or "OVER"). Assume that "HIGH" is pressed and the display will read "CH----".

4. Press "HEAT". The display will read either "080F--" or "025C--", depending on whether Fahrenheit or Celsius is prompted. Now enter the desired temperature that you want the machine to fill to. 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 to 200 degrees Fahrenheit and 25 to 93 degrees Celsius. The computer will not accept temperatures out of this range. (Note: the fill temperatures possible will be governed by the temperature of the hot water available.)

5. Press the "ENTER" key and 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 "ENTER" and go to the next step in the cycle.

VI.13 PROCEDURE TO PROGRAM A SPIN STEP

To program a spin step, the following steps are necessary:

1. The computer must be in the "PROGRAM" mode and the cycle programming sequence must be ready for the next step.

2. Press "HIGH SPEED" or "MEDIUM SPEED" (for machines equipped with multiple extract speeds). The display will read "MS----" for medium speed or "HS----" for high speed.

3. Press "ENTER" and the display will read "-M---S". Now assign the time in minutes and seconds that you want the spin step to last.

4. Press "ENTER". If the spin step is a medium speed spin step, the computer is will go to the next step in the cycle. If the spin step is a high speed spin, the computer will display "-SDLY-" for **one** second, then the display will change to "0M-00S".

5. Now assign the time for the spin delay (coast down). A **minimum** of 30 seconds is recommended to reduce belt wear.

Note: Do not program a "WASH 1" step for a shake-out 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 on page 14. If additional shake-out is desired, press "AUXILIARY" and "5" after step 5, then press "ENTER" and assign a time for the additional shake-out in minutes and seconds.

VI.14 PROCEDURE TO PROGRAM AUXILIARY STEP

To program an auxiliary step, the following steps are necessary:

1. The computer must be in the "PROGRAM" mode and the cycle programming sequence must be ready for the next step.

2. Press "AUXILIARY" and the display will read "A-----". Now press the number, from "1" to "3", that corresponds to the auxiliary function that you desire.
A1...Auxiliary #1
A2...Auxiliary #2
A3...Signal (SG)
A4...Recovery Fill Pump(turns on E1)
A5...Recovery Spare
3. Press "ENTER" and the display will read "-M---S". Now assign the time in minutes and seconds that you want the auxiliary step to last.

6. Press "ENTER" and go to the next step in the cycle.

Auxiliary #1 and #2 may be used to control an external buzzer or other device (not supplied with machine) with a maximum current draw of less than 1/2 amp.

Auxiliary #3 is identified on the fuse board as SG (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 "EMTY" alarm. When the signal is activated by the computer to indicate an alarm condition, the tone will be pulsating rather than continuous.

VI.15 PROCEDURE TO PROGRAM RECOVERY FILL

Press "AUXILIARY" and the display will read "A----". Now press "4" and the display will read "R----". Next assign the level to which the machine is to fill (LOW or HIGH - MEDIUM if so equipped) and the display will read "R----" with the second letter of the display being "L", "H", or "M" depending on the level you selected. Press "ENTER" and the display will read "-M---S". Now assign the time to be allowed for the machine to reach the programmed level. Keep in mind the flow rate of your recovery pump (supplied by others) and allow sufficient time to fill.

VI.16 PROCEDURE TO PROGRAM SOAK STEP

To program a soak step, observe the following procedure:

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 "SOAK" and the display will read "SK----".

3. Press "ENTER" and the display will read "-H---M". Now assign the time, in hours and minutes that you want the soak step to last. During the soak step, there will be no agitation. The WE-6 will maintain the water level during the soak cycle at whatever previous level was programmed.

4. Press "ENTER" and go to the next step in the cycle.

VI.16 PROCEDURE TO PROGRAM SOAK STEP (Continued)

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 maintain that temperature throughout the step.

To program a soak with temperature step, after step 2 of the above procedure, press "HEAT" before proceeding with step 3. The display will read either "080F--" or "025C--", depending on whether Fahrenheit or Celsius is prompted. Now enter the temperature that you want 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 to 200 degrees Fahrenheit and 25 to 93 degrees Celsius.

Now proceed with step 3.

VI.17 PROCEDURE TO PROGRAM FLUSH STEP

When "FLUSH" is pressed on the keyboard, the drain will remain open and the basket will rotate in slow speed forward only Water is added through the door spray nozzle only. To program a flush step, observe 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"). Then press "FLUSH". The display will read "-F----" with the first letter of the display being "C", "H", or "W" depending upon your temperature selection.

3. Press "ENTER" and the display will read "-M---S". Now assign the time in minutes and seconds that you want the flush step to last.

4. Press "ENTER" and go to the next step in the cycle.

VI.18 PROCEDURE FOR PROGRAMMING HEAT

To program auxiliary heat (either electric or steam), the following steps are necessary:

1. The computer must be in the "PROGRAM" mode and the cycle programming sequence must be ready for the next step. The machine **must** be filled.

2. Press "HEAT". The display will read "HT----"

3. Press "ENTER" and the display will read either "080F--" or "025C--", depending on whether Fahrenheit or Celsius is prompted (see Prompting Procedure, page 25). Now enter the final temperature desired. **Three** digits must be entered for temperature. If the desired temperature is less than 100 degrees, the first digit should be "0". The valid temperature range is 80 to 200 degrees Fahrenheit and 25 to 93 degrees Celsius. The computer will not accept temperatures out of this range.

4. Press "ENTER" and the display will read "-H--M". Now assign the maximum time to be allowed for reaching the temperature in **hours** and **minutes.**

5. Press "ENTER" and go to the next step in the cycle. (If a thermal cooldown (Wash 5) is desired after the heat step, see VI.21, page 38.)

VI.19 PROCEDURE TO PROGRAM SUPPLY STEP

To program a supply step, observe 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 "SUPPLY" and the display will read "S-----". Now press the number, from 1 to 5, that corresponds to the supply valve that you desire to have on. (NOTE: The UW30, UW35, UW50, UW65, & UW85 have only 4 valves. The UW125 has 5 valves.)

3. Press "ENTER" and the display will read "-M---S". Now assign the time in minutes and seconds that you want the supply injection to last.

5. Press "ENTER" and go to the next step in the cycle.

The WE-6 microcomputer is capable of controlling up to 5 separate supplies and up to 31 various combinations of the 5 supplies.

To program multiple simultaneous supply injections, when the "SUPPLY" key has been pressed in step #2 above, press any combination of numbers 1 through 5 before pressing "ENTER"(up to 5 individual digits per step). The computer will add those numbers to the supply step and all will be turned on for the amount of time programmed. The display will indicate the supply combination selected with either a letter or number code as shown in the Supply Display Decode Table. After selecting the supplies, proceed with step #3.

Supply Display Decode Table

SUPPLY NUMBER 54321	DISPLAY CODE
0 0 0 0 X	1
0 0 0 X 0	2
0 0 0 X X	A
0 0 X 0 0	3
0 0 X 0 X	B
0 0 X X 0	C
0 0 X X X	D
0 X 0 0 0	4
0 X 0 0 X	E
0 X 0 X 0	F
0 X 0 X X	H
0 X X 0 0	I
0 X X 0 X	J
0 X X X 0	L
0 X X X X	M
X 0 0 0 0	5
X 0 0 0 X	6
X 0 0 X 0	7
X 0 0 X X	N
X 0 X 0 0	8
X 0 X 0 X	O
X 0 X X 0	P
X 0 X X X	Q
X X 0 0 0	9
X X 0 0 X	R
X X 0 X 0	S
X X 0 X X	T
X X X 0 0	U
X X X 0 X	V
X X X X 0	W
X X X X X	X

NOTE:
0 - DENOTES SUPPLY OFF
X - DENOTES SUPPLY ON

EXAMPLE: The computer is in the program mode and the "SUPPLY" key has been pressed. The keys "1","2", & "5" are pressed one at a time. When key "5" is pressed, the display will show "SN" as the first two digits of the display, then the step number followed by the cycle number being programmed. (See Display Decode Table above. Combination "N" has been underlined for clarity.)

VI.20 PROCEDURE TO PROGRAM DRAIN STEP

To program a drain step, observe 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 "DRAIN" and the display will read "D1----". (If the computer has been prompted for one drain, the display will automatically be "D1". If prompting was for 2 drains, the display will be "D-----". You must press "1" or "2" for the desired drain. NOTE: Drain #1 = main drain; Drain #2 = auxiliary drain)

3. Press "ENTER" and then display will read "-M---S". Now assign the time in minutes and seconds to allow the machine to drain to empty. **NOTE: This is an alarm time. The machine should drain in 30 seconds under normal conditions. 1 minute is the recommended drain time. More than 1 1/2 minutes is <u>not</u> recommended.**

4. Press "ENTER" and go to the next step in the cycle.

VI.21 PROCEDURE TO PROGRAM A "WASH 5" THERMAL COOLDOWN

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

Assuming the computer is in the program mode and a heat step has been created and entered, the next step would be to press "WASH" and then the "5" key. (Do not program a drain step before the WASH 5 Step.) Now, press "ENTER" and the display will read either "080F--" or "025C--" depending on whether Celsius or Fahrenheit is prompted. Now, enter the desired temperature to which you want to cool the load. Three digits must be entered 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 to 200 degrees Fahrenheit and 25 to 93 degrees Celsius. The computer will not accept temperatures out of this range. (Note: the cooldown rate will be affected by the temperature of the cold water available.)

When the desired temperature is displayed, press "ENTER" and the display will show "-H--M". Now enter the maximum time in hours and minutes that you wish to allow the computer to reach the target cooldown temperature. If the desired cooldown temperature has not been reached when this time expires, the computer will advance to the next step.

When the desired time is displayed, press "ENTER" and proceed with the next step in the cycle.

The temperature controlled cooldown provides a gradual cool down from a higher temperature to a lower temperature as programmed. The WE-6 monitors the temperature of the water in the washer and opens the cold water fill valve to maintain a steady cooldown rate. The cooldown rate is gradual and constant. When the programmed time for the step expires, the computer will advance to the next step regardless of whether or not the cooldown temperature has been reached. If the cooldown temperature is reached before the time expires, the computer will advance to the next step. The "heat" output does not energize in "WASH 5".

VI.21 PROCEDURE TO PROGRAM A "WASH 5" THERMAL COOLDOWN (Continued)

During the cooldown, 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. (See page 31, VI.8)

Some experimentation may be necessary to determine the exact time required with each installation to enable the computer to reach the target cooldown temperature. Use the "EDIT" feature to revise the "WASH 5" step during experimentation process. See VI.6, page 30.

Notes regarding "WASH 5":

A. The computer attempts to maintain approximately 3 degrees per minute cooldown rate (F or C, depending on prompting) by periodically energizing the cold water valve.

B. When the computer performs the "WASH 5" step, the temperature in the sump must be greater than the target cooldown temperature. Otherwise, the computer will advance past the WASH 5 step.

VI.22 PROCEDURE TO PROGRAM A FILL WITHOUT SPRAY

To program a fill without spray so that fill water will enter through the sump only, program a cold, hot or warm fill to level as in a normal fill step except instead of pressing "ENTER" after selecting the level, press "AUXILIARY" The computer will display a lower case "c", "h", or "w" instead of the usual "C". "H", or "W". Press "ENTER" now and program the time in the usual manner.

This process may be used to advantage in temperature controlled fill steps where it is desirable to fill without spray and add water though the sump only. 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.

See VI.11, page 33 and VI.12, page 34.

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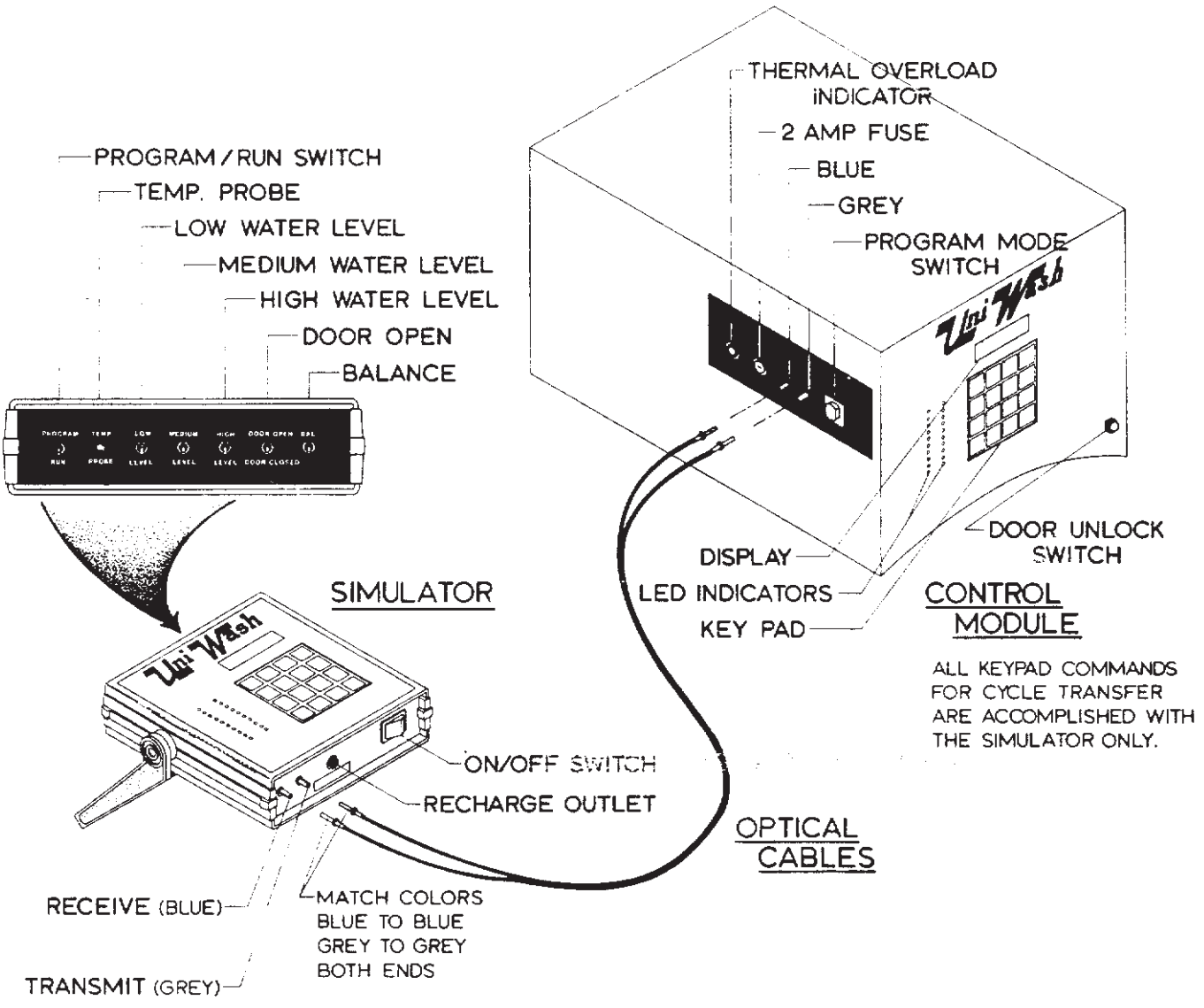
PRELIMINARY PROCEDURE FOR CYCLE TRANSFER

1. CONNECT OPTICAL CABLES, PLACING SIMULATOR AND MICROPROCESSOR IN "PROGRAM" MODE. PRESS "0" ON THE SIMULATOR KEYPAD.
2. TO TRANSFER CYCLE(S) TO SIMULATOR, PRESS "0" ON THE SIMULATOR KEYPAD UNTIL THE DISPLAY SHOWS "READ?". THEN PRESS "ENTER".
3. TO TRANSFER CYCLE(S) TO THE MICROPROCESSOR CONTROL MODULE, PRESS "0" ON THE SIMULATOR UNTIL THE DISPLAY SHOWS "WRITE?". THEN PRESS "ENTER".
4. FOR FURTHER INSTRUCTIONS, REFER TO APPROPRIATE PAGES IN THE MANUAL.



TRANSFER IS COMPLETE WHEN THE DISPLAYS STOP FLASHING, TAKING ABOUT 6 SECONDS.

WE-6
CYCLE TRANSFER
FAMILIARIZATION GUIDE
ILLUSTRATION NO. 721184

SIMULATOR OPERATION & PROGRAM TRANSFER

VII.1 GENERAL

This section of the manual will deal with the WE-6 Simulator and the use of it in transferring programmed cycles from the washer-extractor to the Simulator and from the Simulator to the washer-extractor.

VII.2 SIMULATOR

The WE-6 Simulator is a hand held unit used for instructional purposes when teaching programming techniques and for pre-programming cycles for transfer to the washer-extractor. The Simulator is battery powered for portability and is supplied with an AC transformer for re-charging the battery pack from a 110V common household wall plug. The transformer produces 10V.A.C. at 750ma. to recharge the battery.

The transformer is plugged into the power jack on the Simulator marked "RE-CHARGE". **The battery pack will only be charged while the Simulator is turned <u>on</u> and operating from the transformer.**

A fully charged battery pack will give about 3 hours of operation before re-charging is necessary. Allow about 24 hours to fully recharge the battery pack with the transformer.

When replacing the battery, be sure to 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 consisting of up to 52 steps per cycle. The computer will not accept cycle numbers higher than 39. Also, each cycle is limited to 52 steps. If an attempt is made to add a step to a cycle that already contains 52 steps, the computer will display "CY-FULL" and refuse additional steps.

It is not recommended that you transfer any cycles from a rigid mount UniMac washer-extractor or a simulator containing rigid mount cycles to a freestanding UniMac washer-extractor or vice-versa.

VII.3 PROCEDURE TO TRANSFER ALL CYCLES FROM WASHER TO SIMULATOR

To transfer all cycles contained in the memory of the washer computer, observe the following procedure:

1. Connect the fiber optic cables between the Simulator and the washer computer being careful to match the colors on the cable plugs with the like color ports on the Simulator and washer. (i.e.; Gray to Gray, Blue to Blue)

2. Place the Simulator <u>and</u> the washer computer in the "PROGRAM" mode. The display on both will read "-CYC--".

3. **All keyboard commands will be entered with the Simulator keyboard.** Press the "0" key. The display will read "WRITE?". Press the "0" again and the display will change to "READ?".

4. Press "ENTER" and the display reads "-ALL--". Press "ENTER" again and the Simulator display will flash alternately "-RECV_" and "-ALL--". The washer will flash "-SEND-" and "-ALL--". When the two computers stop flashing, the transfer is complete. Transferring 39 cycles takes about 6 seconds.

VII.4 PROCEDURE TO TRANSFER ONE CYCLE TO SIMULATOR

To transfer one specific cycle contained in the memory of the washer computer to the Simulator, observe the following procedure:

1. Connect the fiber optic cables between the Simulator and the washer computer being careful to match the colors on the cable plugs with the like color ports.

2. Place the Simulator and the washer computer in the "PROGRAM" mode. The display on both will be "-CYC--".

3. **All keyboard commands will be entered with the Simulator keyboard.** Press the "0" key. The display will read "WRITE?". Press the "0" again and the display will change to "READ?".

4. Press "ENTER" and the display reads "-ALL--". Press the "0" and the display will change to "-CYC--".

5. Press "ENTER" again and the display changes to "RCYC--". Now press the two digit code for the cycle number you want to read from the washer computer.

6. Press "ENTER" again and the display changes to "WCYC--". Now press the two digit code for the cycle number you want to save the cycle under in the Simulator.

7. Press "ENTER" again and the Simulator display will flash alternately "-RECV-" and "-CYC--". The washer will flash "SEND-" and "-CYC--". When the two computers stop flashing, the transfer is complete. This process takes less than one second to complete.

VII.5 PROCEDURE TO TRANSFER ALL CYCLES TO THE WASHER

To transfer all cycles contained in the memory of the Simulator to the washer computer, observe the following procedure:

1. Connect the fiber optic cables between the Simulator and the washer computer being careful to match the colors on the cable plugs with the like color ports.

2. Place the Simulator and the washer computer in the "PROGRAM" mode. The display on both will be "-CYC--".

3. **All key board commands will be entered with the Simulator keyboard.** Press the "0" key. The display will read "WRITE?".

4. Press "ENTER" and the display reads "-ALL--". Press "ENTER" again and the Simulator display will flash alternately "-SEND-" and "-ALL--". The washer will flash "-RECV-" and "-ALL--". When the two computers stop flashing, the transfer is complete. Transferring 39 cycles takes about 6 seconds.

VII.6 PROCEDURE TO TRANSFER ONE CYCLE TO THE WASHER

To transfer one specific cycle contained in the memory of the Simulator to the washer computer, observe the following procedure:

1. Connect the fiber optic cables between the Simulator and the washer computer being careful to match the colors on the cable plugs with the like color ports.

VII.6 PROCEDURE TO TRANSFER ONE CYCLE TO THE WASHER (Continued)

2. Place the Simulator and the washer computer in the "PROGRAM" mode. The display on both will be "-CYC--".

3. **All keyboard commands will be entered with the Simulator keyboard.** Press The "0" key. The display will read "WRITE?".

4. Press "ENTER" and the display reads "-ALL--". Press the "0" and the display will change to "-CYC--".

5. Press "ENTER" again and the display changes to "RCYC--". Now press the two digit code for the cycle number you want to read from the Simulator.

6. Press "ENTER" again and the display changes to "WCYC--". Now press the two digit code for the cycle number you want to save the cycle under in the washer computer memory.

7. Press "ENTER" again and the Simulator display will flash alternately "-SEND-" and "-CYC--". The washer will flash "-RECV-" and "-CYC--". When the two computers stop flashing, the transfer is complete. This process takes less than one second to complete.

VII.7 USE OF THE SIMULATOR AS AN INSTRUCTIONAL AID

The WE-6 Simulator can be an invaluable aid when instructing persons not familiar with the UniWash MicroComputer controls.

Through use of the Simulator, programming, troubleshooting, operating and other functions may be taught in a classroom environment.

Located on the rear panel of the Simulator are 6 toggle switches used to simulate various occurrences normal to the operation of the washer-extractor. These 6 switches simulate or control "PROGRAM/RUN" modes, "LOW LEVEL", "MEDIUM LEVEL", "HIGH LEVEL", "DOOR OPEN/CLOSED", and "BALANCE".

FIGURE VII-A: SIMULATOR REAR PANEL

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

If the "PROGRAM/RUN" switch is flipped to the up position, the Simulator is placed in the "PROGRAM" mode.

If the "LOW LEVEL" switch is flipped to the up position, a low level water fill is simulated and the appropriate LED on the display is illuminated (See pages 9 & 12). The "MEDIUM LEVEL" and "HIGH LEVEL" switches operate similarly. When running a cycle programmed in the Simulator, the "LEVEL" switches must be manipulated at the appropriate times in the cycle to indicate to the computer that the levels have been reached and to indicate that the machine is empty.

If the "DOOR OPEN/DOOR CLOSED" switch is flipped to the up position ("DOOR OPEN") while running a cycle, the "DOOR" alarm will be displayed.

VII.7 USE OF THE SIMULATOR AS AN INSTRUCTIONAL AID (Continued)

If the "BALANCE" switch is flipped up during the spin step of a cycle being run, an out-of-balance condition is indicated to the computer (See page 19 of this manual).

The rear panel also serves as the mounting plate for the temperature probe which simulates sump temperature.

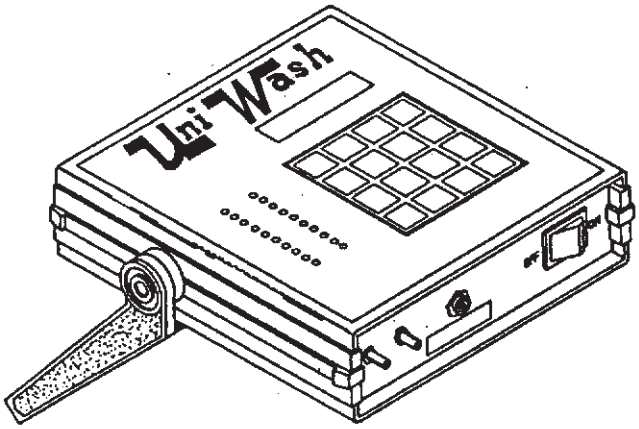


FIGURE VII-B: SIMULATOR

The front panel serves as the mounting place for the "RECHARGE" port for the transformer plug.

On the front is found the "RECEIVE" and "TRANSMIT" ports for the optic cables used in program transfers as well as the "ON/OFF" rocker switch.

The top of the Simulator serves as the mounting place for the keyboard with the display.

The sides of the Simulator form attachment points for the carrying handle. The handle may be pivoted back to serve as a stand when using the Simulator on a table. To pivot the handles, grasp the handles 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.

Programming of the Simulator may be accomplished in the same manner as the washer-extractor computer. All programming instructions in this manual apply to the Simulator as well as the washer.

The Simulator is an optional accessory to the WE-6 controlled washer-extractor and is not a necessity in the operation of the machine.

VII.8 SIMULATOR TIPS

1. When transferring cycles from Simulator to washer or washer to Simulator, care must be taken to be sure the colored plugs on the ends of the optic cables match the colors of the ports into which they are being inserted. If a mistake is made in connecting the cables, when "ENTER" is pressed during the last step of the cycle transfer process, the display will flash "COMM" and "ERROR".

2. The Simulator battery pack contains NiCad batteries. These batteries will develop a "memory" according to length of time used. If you form a habit of using the Simulator 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.

USE OF THE WE-6 AS A DIAGNOSTIC AID

VIII.1 GENERAL

The WE-6 MicroComputer controller - even more than the previous UniWash microcomputers; WE-1, WE-3, WE-4 and WE-5 - can assist the informed technician with trouble-shooting fundamental operations of UniWash equipment. Built-in alarms and indicator lights can almost 'talk' to those who are prepared to 'listen'.

VIII.2 DIAGNOSTIC FUNCTIONS

If the computer responds normally to all entries from the keypad, the display information is correct and the appropriate lights are being illuminated in the output indicators (left of the keypad),it must be accepted that the computer is operating normally. As such, it is preprogrammed to indicate operational errors.

Whenever a computer output indicator (on the front of the control module) is on, then the corresponding output indicator on the solid state relay/fuse board (inside the control module) should also be on. If the fuse board indicator is not on, check the associated fuse and if it is open check the load that it operates and replace it with a fuse of the same type and rating. If the fuse is good; check the appropriate load component and the wires and terminals feeding it. Don't forget the common (neutral) connections.

The following is a summary of the alarms and indicators:

1. "FILL" alarm - The computer will display "FILL" plus the cycle number being used. It will also turn the signal on and off at one second intervals. This means that the computer did not receive an input telling it that the programmed water level had been reached in the allotted time. Check for proper operation of the drain valve, appropriate water fill and spray valves and the water level switch system.

2. "EMPTY" alarm - The computer will display "EMPTY" plus the cycle number being used. It will also turn the signal on and off at one second intervals. This means that the computer did not receive an input from the LOW water level switch telling it that the machine reached empty in the allotted time. The machine should drain in 30 seconds or less (40 seconds or less for the UW-125).

Check for clogged drain or level switch air chamber, incorrectly adjusted or defective low level switch, loose or broken connections to the low level switch. NOTE: Level empty is a closed switch; measure 0 volts DC across the level switch wires. Level full is an open switch; measure approximately +5 volts DC across the level switch wires. Also see Display Indicator Dots explained later.

3. "OVER TEMPERATURE" alarm - The computer will display "TEMP" plus cycle number being used. It will also turn the signal on and off at one second intervals. On machines equipped with auxiliary heat this means that the computer has detected a severe overshoot of the temperature. Check for proper calibration of the temperature circuit, check for inaccurate temperature probe, check for sticking steam valve or heat contactor.

4. "OVERHEAT" - When the computer begins a "HEAT" step of a cycle (temperature fill or auxiliary heat), if it detects a problem in the temperature probe input, the display will show "OVERHT" and sound the alarm buzzer. This can be caused by either an open or short circuit in the probe circuit. The computer will not execute a "HEAT" step until this condition is corrected. The computer will function normally in any cycle that does not contain a "HEAT" step. Disconnect the shielded cable from terminal block (#'s 4 and 3) inside the control module front. Check for 14.5 megohm, plus or minus 5%, at room temperature. (See wiring diagram, dwg. no. 604077, page 82 of this manual) Be sure to calibrate the new probe.

5. "DOOR NOT LOCKED" - If a cycle is started and the computer has not received the signal that the door is locked, it will flash "CLOSE" and "DOOR" alternately at one second intervals. Once the computer receives the door locked input, the cycle may be started by pressing 'START'.

If the door locked input to the computer is opened while a cycle is running, it will display "DOOR" and turn off all outputs. When this input is restored it will go to the 'STOP' routine (Page 14).

6. "PROGRAM MEMORY ERROR" - If the computer finds faulty cycle information while running a cycle it will display "MEMR" and go to the error routine (Page 13).

VIII.3 LED INPUT INDICATORS

In the upper left corner of each digit of the display there is a small red dot. (See page 12) These dots are illuminated by the computer as inputs are received.

From left to right they operate as follows:

1st digit - OUT OF BALANCE - If the balance switch circuit opens while the computer is performing a spin step (medium or high speed) this dot will turn on and remain on until the spin step is completed. NOTE: If the balance switch circuit opens three times during the same spin step the computer will skip the spin operation due to the unbalanced condition and proceed to the next step in the cycle.

2nd digit - DOOR UNLOCKED - When the door locked circuit is open this dot will be on.

3rd digit - PROGRAM MODE - When the RUN/PROGRAM switch is in the PROGRAM position this dot will be on.

4th digit - HIGH WATER LEVEL - When the HIGH level switch circuit is open this dot will be on.

5th digit - MEDIUM WATER LEVEL - When the MEDIUM level switch circuit is open this dot will be on.

6th digit - LOW WATER LEVEL - When the LOW water level switch circuit is open this dot will be on.

NOTE: The out of balance indicator will only function during spin steps in a program. The other five indicators will turn on and stay on if the circuit is open. This could be caused by an open wire or connection between the related switch and the computer. This may be tested at the switch end of the circuit by removing one wire and check for approximately +5 volts DC. This affirms that everything back to the computer is okay.

HELPFUL PROGRAMMING HINTS

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

2. Read the program worksheets prepared for the cycles already programmed into the computer to see how we have done them.

3. **Remember that the computer will help you by not accepting improper programming.**

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

5. When you are 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 the water lines are smaller than desirable, increase the time allowed. The drain needs to be able to empty the machine in less than one minute. **Drain times of more than 1 1/2 minutes are not recommended.**

6. Except for the SOAK step, which is timed in hours and minutes, the maximum time per step is 9 minutes and 99 seconds. If you need more time, add more steps to total the complete time you desire. For example, if a 15 minute wash is desired, program a wash step for 9 minutes 00 seconds immediately followed by another wash step for 6 minutes 00 seconds.

7. When it is desired to fill or add supplies without agitation, first program a "WASH 3" step for 0 minutes 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 you instruct it to do otherwise.

8. If the balance switch is tripped during a **final** spin step, the "OUT OF BALANCE" LED indicator located in the upper left corner of the first digit of the display will be illuminated and will remain illuminated until the operator opens the door when the display is showing "DONE". By observing this indicator, you will know that an out of balance condition existed during the spin step.

PROGRAM WORKSHEET FOR PROGRAMMING MICROCOMPUTER CONTROL

CYCLE NO. _____

STEP NO.	PROCEDURE	STEP NO.	PROCEDURE
01 TIME		18 TIME	
02 TIME		19 TIME	
03 TIME		20 TIME	
04 TIME		21 TIME	
05 TIME		22 TIME	
06 TIME		23 TIME	
07 TIME		24 TIME	
08 TIME		25 TIME	
09 TIME		26 TIME	
10 TIME		27 TIME	
11 TIME		28 TIME	
12 TIME		29 TIME	
13 TIME		30 TIME	
14 TIME		31 TIME	
15 TIME		32 TIME	
16 TIME		33 TIME	
17 TIME		34 TIME	

PRE-PROGRAMMED CYCLES

X.1 GENERAL

The following pages contain the 39 pre-programmed "ready-to-use" cycles. To use any of the 39, simply enter the two digit code for the cycle desired and press "START".

Page 51 contains Test Cycle 01 as one of the 39 pre-programmed cycles. This cycle is intended as a means of proving the operation of the machine.

Any of these 39 may be erased and replaced by new cycles. Any of the 39 may also be edited and revised to match your specific needs. Consult the section of this manual pertaining to Editing (page 30).

X.2 CYCLE GUIDE

01 Test

02-10 Hotels, 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
- 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 & Spin Only

12 - 20 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
- 20 Pads, polyester

21 - 28 Restaurants
- 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

29 - 33 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

34 - 39 Common Formulas To All Markets
- 34 Uniforms, with bleach
- 35 Uniforms, without bleach
- 36 Rags/Housekeeping, heavy soiled
- 37 Rags/Kitchen; Mops
- 38 Rewash/Reclaim
- 39 Chemical Supply Set-up

Cycle 01, Test - WE-6 Microcomputer

STEP NO.	PROCEDURE
01	COLD FILL TO LOW LEVEL
TIME	0 MINUTES 30 SECONDS
02	DRAIN 1
TIME	0 MINUTES 10 SECONDS
03	HOT FILL TO LOW LEVEL
TIME	5 MINUTES 00 SECONDS
04	HEAT 150 DEGREES (F)
TIME	0 MINUTES 30 SECONDS
05	COLD FILL TO HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
06	SUPPLY 1
TIME	0 MINUTES 10 SECONDS
07	SUPPLY 2
TIME	0 MINUTES 10 SECONDS
08	SUPPLY 3
TIME	0 MINUTES 10 SECONDS
09	SUPPLY 4
TIME	0 MINUTES 10 SECONDS
10	SUPPLY 5
TIME	0 MINUTES 10 SECONDS
11	SUPPLY 1 & 3 (SB)
TIME	0 MINUTES 10 SECONDS
12	WASH 2
TIME	0 MINUTES 30 SECONDS
13	WASH 3
TIME	0 MINUTES 30 SECONDS
14	WASH 4
TIME	0 MINUTES 15 SECONDS
15	WASH 1 - NO REVERSE
TIME	0 MINUTES 30 SECONDS
16	DRAIN 1
TIME	1 MINUTE 00 SECONDS
17	WARM FLUSH
TIME	0 MINUTES 30 SECONDS
18	AUXILIARY 1
TIME	0 MINUTES 05 SECONDS
19	AUXILIARY 2
TIME	0 MINUTES 05 SECONDS
20	AUXILIARY 3
TIME	0 MINUTES 05 SECONDS
21	TEMP. FILL/HIGH LEVEL 150 DEG
TIME	5 MINUTES 00 SECONDS
22	COLD OVERFLOW
TIME	1 MINUTE 00 SECONDS
23	SOAK
TIME	0 HOURS 02 MINUTES
24	DRAIN 1
TIME	1 MINUTE 00 SECONDS
25	MEDIUM SPIN
TIME	0 MINUTES 15 SECONDS
26	WARM SPRAY RINSE
TIME	0 MINUTES 30 SECONDS
27	HIGH SPEED SPIN
TIME	1 MINUTE 00 SECONDS
	SDLY 0 MINUTE 15 SECONDS
28	STOP ROUTINE
TIME	
29	
TIME	
30	
TIME	
31	
TIME	
32	
TIME	
33	
TIME	
34	
TIME	

Note:
The alarm will sound on steps 01 & 02. These steps have been deliberately programmed with times that are too short. Press "START" to continue when alarm sounds. The times shown here are actual operating times if the steps are allowed to progress to their end without pressing "ADVANCE".

SECTION X - PRE-PROGRAMMED CYCLES

Cycle 02 - Hospitality - Light Soil, Blends/Sheets

STEP NO.	PROCEDURE
01	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
02	SUPPLY 1 & 2
TIME	0 MINUTES 45 SECONDS
03	WASH 1
TIME	7 MINUTES 00 SECONDS
04	DRAIN
TIME	1 MINUTE 00 SECONDS
05	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
06	WASH 1
TIME	2 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
09	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
10	100' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
11	SUPPLY 3 & 4
TIME	0 MINUTES 30 SECONDS
12	WASH 1
TIME	4 MINUTES 00 SECONDS
13	DRAIN
TIME	1 MINUTE 00 SECONDS
14	HIGH SPIN
TIME	2 MINUTES 00 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

Cycle 03 - Hospitality - Light Soil - No Bleach

STEP NO.	PROCEDURE
01	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
02	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
03	WASH 1
TIME	7 MINUTES 00 SECONDS
04	DRAIN
TIME	1 MINUTE 00 SECONDS
05	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
06	WASH 1
TIME	2 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
09	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
10	100' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
11	SUPPLY 3 & 4
TIME	0 MINUTES 30 SECONDS
12	WASH 1
TIME	4 MINUTES 00 SECONDS
13	DRAIN
TIME	1 MINUTE 00 SECONDS
14	HIGH SPIN
TIME	2 MINUTES 00 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

Cycle 04 - Hospitality - Light Soil - Cotton/ Towels

STEP NO.	PROCEDURE
01	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
02	SUPPLY 1 & 2
TIME	0 MINUTES 45 SECONDS
03	WASH 1
TIME	7 MINUTES 00 SECONDS
04	DRAIN
TIME	1 MINUTE 00 SECONDS
05	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
06	WASH 1
TIME	2 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
09	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
10	110' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
11	SUPPLY 3 & 4
TIME	0 MINUTES 30 SECONDS
12	WASH 1
TIME	4 MINUTES 00 SECONDS
13	DRAIN
TIME	1 MINUTE 00 SECONDS
14	HIGH SPIN
TIME	4 MINUTES 00 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

Cycle 05 - Hospitality - Light Soil - No Bleach

STEP NO.	PROCEDURE
01	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
02	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
03	WASH 1
TIME	7 MINUTES 00 SECONDS
04	DRAIN
TIME	1 MINUTE 00 SECONDS
05	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
06	WASH 1
TIME	2 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
09	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
10	110' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
11	SUPPLY 3 & 4
TIME	0 MINUTES 30 SECONDS
12	WASH 1
TIME	4 MINUTES 00 SECONDS
13	DRAIN
TIME	1 MINUTE 00 SECONDS
14	HIGH SPIN
TIME	4 MINUTES 00 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

SECTION X - PRE-PROGRAMMED CYCLES

Cycle 06 - Hospitality - Medium Soil - Blend/ Sheets

STEP NO.	PROCEDURE
01	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
02	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
03	WASH 1
TIME	6 MINUTES 00 SECONDS
04	DRAIN
TIME	1 MINUTE 00 SECONDS
05	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
06	SUPPLY 2
TIME	0 MINUTES 45 SECONDS
07	WASH 1
TIME	6 MINUTES 00 SECONDS
08	DRAIN
TIME	1 MINUTE 00 SECONDS
09	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
10	WASH 1
TIME	2 MINUTES 00 SECONDS
11	DRAIN
TIME	1 MINUTE 00 SECONDS
12	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
13	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
14	100' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
15	SUPPLY 3 & 4
TIME	0 MINUTES 30 SECONDS
16	WASH 1
TIME	4 MINUTES 00 SECONDS
17	DRAIN
TIME	1 MINUTE 00 SECONDS
18	HIGH SPIN
TIME	2 MINUTES 00 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

Cycle 07 - Hospitality - Medium Soil - Cotton/ Towels

STEP NO.	PROCEDURE
01	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
02	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
03	WASH 1
TIME	6 MINUTES 00 SECONDS
04	DRAIN
TIME	1 MINUTE 00 SECONDS
05	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
06	SUPPLY 2
TIME	0 MINUTES 45 SECONDS
07	WASH 1
TIME	6 MINUTES 00 SECONDS
08	DRAIN
TIME	1 MINUTE 00 SECONDS
09	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
10	WASH 1
TIME	2 MINUTES 00 SECONDS
11	DRAIN
TIME	1 MINUTE 00 SECONDS
12	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
13	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
14	110' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
15	SUPPLY 3 & 4
TIME	0 MINUTES 30 SECONDS
16	WASH 1
TIME	4 MINUTES 00 SECONDS
17	DRAIN
TIME	1 MINUTE 00 SECONDS
18	HIGH SPIN
TIME	4 MINUTES 00 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

Cycle 08 - Hospitality - No Bleach - Blankets/ Spreads

STEP NO.	PROCEDURE
01	WARM HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
02	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
03	WASH 1
TIME	6 MINUTES 00 SECONDS
04	DRAIN
TIME	1 MINUTE 00 SECONDS
05	WARM HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
06	WASH 1
TIME	2 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
09	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
10	WARM LOW LEVEL
TIME	5 MINUTES 00 SECONDS
11	SUPPLY 3 & 4
TIME	0 MINUTES 30 SECONDS
12	WASH 1
TIME	4 MINUTES 00 SECONDS
13	DRAIN
TIME	1 MINUTE 00 SECONDS
14	HIGH SPIN
TIME	4 MINUTES 00 SECONDS SDLY 0 MINUTES 45 SECONDS STOP ROUTINE

Cycle 09 - Hospitality - Cold Wash Delicates - Blankets/ Spreads

STEP NO.	PROCEDURE
01	COLD FILL TO HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
02	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
03	WASH 1
TIME	6 MINUTES 00 SECONDS
04	DRAIN
TIME	1 MINUTE 00 SECONDS
05	COLD FILL TO HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
06	WASH 1
TIME	2 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
09	COLD SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
10	COLD FILL HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
11	SUPPLY 3 & 4
TIME	0 MINUTES 30 SECONDS
12	DRAIN
TIME	1 MINUTE 00 SECONDS
13	HIGH SPIN
TIME	4 MINUTES 00 SECONDS SDLY 0 MINUTES 45 SECONDS STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

SECTION X - PRE-PROGRAMMED CYCLES

Cycle 10 - Hotel/ Motel - Towels - Heavy Soiled

STEP NO.	PROCEDURE
01 TIME	HOT LOW LEVEL 5 MINUTES 00 SECONDS
02 TIME	SUPPLY 1 1 MINUTE 00 SECONDS
03 TIME	WASH 1 7 MINUTES 00 SECONDS
04 TIME	HOT HIGH LEVEL 5 MINUTES 00 SECONDS
05 TIME	SUPPLY 2 1 MINUTE 00 SECONDS
06 TIME	WASH 1 7 MINUTES 00 SECONDS
07 TIME	DRAIN 1 MINUTE 00 SECONDS
08 TIME	MEDIUM SPIN 0 MINUTES 30 SECONDS
09 TIME	WARM SPRAY RINSE 3 MINUTES 00 SECONDS
10 TIME	WARM HIGH LEVEL 5 MINUTES 00 SECONDS
11 TIME	WASH 1 2 MINUTES 00 SECONDS
12 TIME	DRAIN 1 MINUTE 00 SECONDS
13 TIME	MEDIUM SPIN 0 MINUTES 30 SECONDS
14 TIME	WARM LOW LEVEL 5 MINUTES 00 SECONDS
15 TIME	SUPPLY 3 & 4 1 MINUTE 00 SECONDS
16 TIME	WASH 1 4 MINUTES 00 SECONDS
17 TIME	DRAIN 1 MINUTE 00 SECONDS
18 TIME	HIGH SPIN 5 MINUTES 00 SECONDS SDLY 0 MINUTES 45 SECONDS STOP ROUTINE

Cycle 11 - Rinse & Spin

STEP NO.	PROCEDURE
01 TIME	WARM LOW LEVEL 5 MINUTES 00 SECONDS
02 TIME	WASH 1 1 MINUTE 00 SECONDS
03 TIME	DRAIN 1 MINUTE 00 SECONDS
04 TIME	MEDIUM SPIN 0 MINUTES 30 SECONDS
05 TIME	WARM SPRAY RINSE 1 MINUTE 00 SECONDS
06 TIME	HIGH SPIN 4 MINUTES 00 SECONDS SDLY 0 MINUTES 45 SECONDS STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

Cycle 12 - Healthcare - Light Soil - Blend/ Sheets

STEP NO.	PROCEDURE
01	WARM HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
02	WASH 1
TIME	2 MINUTES 00 SECONDS
03	DRAIN
TIME	1 MINUTE 00 SECONDS
04	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
05	SUPPLY 1 & 2
TIME	0 MINUTES 45 SECONDS
06	WASH 1
TIME	8 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
09	WASH 1
TIME	3 MINUTES 00 SECONDS
10	DRAIN
TIME	1 MINUTE 00 SECONDS
11	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
12	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
13	100° LOW LEVEL
TIME	5 MINUTES 00 SECONDS
14	SUPPLY 3 & 4
TIME	0 MINUTES 30 SECONDS
15	WASH 1
TIME	4 MINUTES 00 SECONDS
16	DRAIN
TIME	1 MINUTE 00 SECONDS
17	HIGH SPIN
TIME	2 MINUTES 00 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

Cycle 13 - Healthcare - Light Soil - Cotton/ Towels

STEP NO.	PROCEDURE
01	WARM HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
02	WASH 1
TIME	2 MINUTES 00 SECONDS
03	DRAIN
TIME	1 MINUTE 00 SECONDS
04	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
05	SUPPLY 1 & 2
TIME	0 MINUTES 45 SECONDS
06	WASH 1
TIME	8 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
09	WASH 1
TIME	3 MINUTES 00 SECONDS
10	DRAIN
TIME	1 MINUTE 00 SECONDS
11	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
12	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
13	110° LOW LEVEL
TIME	5 MINUTES 00 SECONDS
14	SUPPLY 3 & 4
TIME	0 MINUTES 30 SECONDS
15	WASH 1
TIME	4 MINUTES 00 SECONDS
16	DRAIN
TIME	1 MINUTE 00 SECONDS
17	HIGH SPIN
TIME	4 MINUTES 00 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

Cycle 14 - Healthcare - Heavy Soil- Blends/ Sheets

STEP NO.	PROCEDURE
01	80' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
02	WASH 1
TIME	2 MINUTES 00 SECONDS
03	DRAIN
TIME	1 MINUTE 00 SECONDS
04	120' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
05	WASH 1
TIME	2 MINUTES 00 SECONDS
06	DRAIN
TIME	1 MINUTE 00 SECONDS
07	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
08	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
09	WASH 1
TIME	7 MINUTES 00 SECONDS
10	DRAIN
TIME	1 MINUTE 00 SECONDS
11	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
12	SUPPLY 2
TIME	0 MINUTES 45 SECONDS
13	WASH 1
TIME	7 MINUTES 00 SECONDS
14	DRAIN
TIME	1 MINUTE 00 SECONDS
15	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
16	WASH 1
TIME	3 MINUTES 00 SECONDS
17	DRAIN
TIME	1 MINUTE 00 SECONDS
18	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
19	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
20	100' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
21	SUPPLY 3 & 4
TIME	0 MINUTES 30 SECONDS
22	WASH 1
TIME	4 MINUTES 00 SECONDS
23	DRAIN
TIME	1 MINUTE 00 SECONDS
24	HIGH SPIN
TIME	2 MINUTES 00 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

Cycle 15 - Healthcare - Heavy Soil - Cotton/ Towels

STEP NO.	PROCEDURE
01	80' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
02	WASH 1
TIME	2 MINUTES 00 SECONDS
03	DRAIN
TIME	1 MINUTE 00 SECONDS
04	120' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
05	WASH 1
TIME	2 MINUTES 00 SECONDS
06	DRAIN
TIME	1 MINUTE 00 SECONDS
07	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
08	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
09	WASH 1
TIME	7 MINUTES 00 SECONDS
10	DRAIN
TIME	1 MINUTE 00 SECONDS
11	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
12	SUPPLY 2
TIME	0 MINUTES 45 SECONDS
13	WASH 1
TIME	7 MINUTES 00 SECONDS
14	DRAIN
TIME	1 MINUTE 00 SECONDS
15	HOT HIGH LEVEL
TIME	5 MINUTE 00 SECONDS
16	WASH 1
TIME	3 MINUTES 00 SECONDS
17	DRAIN
TIME	1 MINUTE 00 SECONDS
18	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
19	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
20	110' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
21	SUPPLY 3 & 4
TIME	0 MINUTES 30 SECONDS
22	WASH 1
TIME	4 MINUTES 00 SECONDS
23	DRAIN
TIME	1 MINUTE 00 SECONDS
24	HIGH SPIN
TIME	4 MINUTES 00 SECONDS SDLY 0 MINUTES 45 SECONDS STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

Cycle 16 - Healthcare - Bleach - Cotton/ Thermo Blankets

STEP NO.	PROCEDURE
01	110' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
02	WASH 1
TIME	2 MINUTES 00 SECONDS
03	DRAIN
TIME	1 MINUTE 00 SECONDS
04	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
05	SUPPLY 1 & 2
TIME	0 MINUTES 45 SECONDS
06	WASH 1
TIME	7 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
09	WASH 1
TIME	3 MINUTES 00 SECONDS
10	DRAIN
TIME	1 MINUTE 00 SECONDS
11	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
12	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
13	110' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
14	SUPPLY 3 & 4
TIME	0 MINUTES 30 SECONDS
15	WASH 1
TIME	4 MINUTES 00 SECONDS
16	DRAIN
TIME	1 MINUTE 00 SECONDS
17	HIGH SPIN
TIME	4 MINUTES 00 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

Cycle 17- Healthcare - Heavy Soil - Cotton/ Diapers & Pads

STEP NO.	PROCEDURE
01	80' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
02	WASH 1
TIME	2 MINUTES 00 SECONDS
03	DRAIN
TIME	1 MINUTE 00 SECONDS
04	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
05	WASH 1
TIME	2 MINUTES 00 SECONDS
06	DRAIN
TIME	1 MINUTE 00 SECONDS
07	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
08	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
09	WASH 1
TIME	7 MINUTES 00 SECONDS
10	DRAIN
TIME	1 MINUTE
11	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
12	SUPPLY 1
TIME	0 MINUTES 30 SECONDS
13	WASH 1
TIME	7 MINUTES 00 SECONDS
14	DRAIN
TIME	1 MINUTE 00 SECONDS
15	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
16	SUPPLY 2
TIME	0 MINUTES 30 SECONDS
17	WASH 1
TIME	7 MINUTES 00 SECONDS
18	DRAIN
TIME	1 MINUTE 00 SECONDS
19	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
20	WASH 1
TIME	4 MINUTES 00 SECONDS
21	DRAIN
TIME	1 MINUTE 00 SECONDS
22	MEDIUM SPIN
TIME	1 MINUTE 00 SECONDS
23	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
24	110' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
25	WASH 1
TIME	2 MINUTES 00 SECONDS
26	DRAIN
TIME	1 MINUTE 00 SECONDS
27	110' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
28	SUPPLY 3 & 4
TIME	0 MINUTES 30 SECONDS
29	WASH 1
TIME	4 MINUTES 00 SECONDS
30	DRAIN
TIME	1 MINUTE 00 SECONDS
31	MEDIUM SPIN
TIME	1 MINUTE 00 SECONDS
32	DRAIN
TIME	1 MINUTE 00 SECONDS
33	MEDIUM SPIN
TIME	1 MINUTE 00 SECONDS
34	DRAIN
TIME	1 MINUTE 00 SECONDS
35	HIGH SPIN
TIME	4 MINUTES 00 SECONDS SDLY 0 MINUTES 45 SECONDS STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

SECTION X - PRE-PROGRAMMED CYCLES

Cycle 18 - Healthcare - Bleach - Personals

STEP NO.	PROCEDURE
01	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
02	SUPPLY 1 & 2
TIME	0 MINUTES 45 SECONDS
03	WASH 1
TIME	6 MINUTES 00 SECONDS
04	DRAIN
TIME	1 MINUTE 00 SECONDS
05	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
06	WASH 1
TIME	2 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
09	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
10	110' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
11	SUPPLY 3 & 4
TIME	0 MINUTES 30 SECONDS
12	WASH 1
TIME	4 MINUTES 00 SECONDS
13	DRAIN
TIME	1 MINUTE 00 SECONDS
14	HIGH SPIN
TIME	3 MINUTES 00 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

Cycle 19 - Healthcare - No Bleach - Personals

STEP NO.	PROCEDURE
01	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
02	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
03	WASH 1
TIME	6 MINUTES 00 SECONDS
04	DRAIN
TIME	1 MINUTE 00 SECONDS
05	110' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
06	WASH 1
TIME	2 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
09	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
10	110' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
11	SUPPLY 3 & 4
TIME	0 MINUTES 30 SECONDS
12	WASH 1
TIME	4 MINUTES 00 SECONDS
13	DRAIN
TIME	1 MINUTE 00 SECONDS
14	HIGH SPIN
TIME	3 MINUTES 00 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

Cycle 20 - Healthcare - Polyester - Pads

STEP NO.	PROCEDURE
01	110' LOW LEVEL
TIME	5 MINUTES 00 MINUTES
02	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
03	WASH 1
TIME	3 MINUTES 00 SECONDS
04	130' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
05	WASH 1
TIME	2 MINUTES 00 SECONDS
06	DRAIN
TIME	1 MINUTE 00 SECONDS
07	WARM FLUSH
TIME	2 MINUTES 00 SECONDS
08	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
09	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
10	WASH 1
TIME	7 MINUTES 00 SECONDS
11	DRAIN
TIME	1 MINUTE 00 SECONDS
12	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
13	SUPPLY 2
TIME	0 MINUTES 45 SECONDS
14	WASH 1
TIME	7 MINUTES 00 SECONDS
15	DRAIN
TIME	1 MINUTE 00 SECONDS
16	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
17	110' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
18	WASH 1
TIME	2 MINUTES 00 SECONDS
19	DRAIN
TIME	1 MINUTE 00 SECONDS
20	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
21	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
22	110' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
23	SUPPLY 3
TIME	0 MINUTES 30 SECONDS
24	WASH 1
TIME	3 MINUTES 00 SECONDS
25	DRAIN
TIME	1 MINUTE 00 SECONDS
26	HIGH SPIN
TIME	4 MINUTES 00 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

Cycle 21- Food Service- Bleach- Starch- Iron- Table Napery

STEP NO.	PROCEDURE
01	110' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
02	WASH 1
TIME	2 MINUTES 00 SECONDS
03	DRAIN
TIME	1 MINUTE 00 SECONDS
04	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
05	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
06	WASH 1
TIME	7 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
09	SUPPLY 2
TIME	0 MINUTES 45 SECONDS
10	WASH 1
TIME	7 MINUTES 00 SECONDS
11	DRAIN
TIME	1 MINUTE 00 SECONDS
12	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
13	WASH 1
TIME	3 MINUTES 00 SECONDS
14	DRAIN 1
TIME	1 MINUTE 00 SECONDS
15	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
16	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
17	110' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
18	SUPPLY 3
TIME	0 MINUTES 30 SECONDS
19	WASH 1
TIME	2 MINUTES 00 SECONDS
20	SUPPLY 5
TIME	0 MINUTES 30 SECONDS
21	WASH 1
TIME	5 MINUTES 00 SECONDS
22	DRAIN
TIME	1 MINUTE 00 SECONDS
23	HIGH SPIN
TIME	4 MINUTES 00 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

Cycle 22 - Food Service - Bleach - No Iron - Table Napery

STEP NO.	PROCEDURE
01	110' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
02	WASH 1
TIME	2 MINUTES 00 SECONDS
03	DRAIN
TIME	1 MINUTE 00 SECONDS
04	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
05	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
06	WASH 1
TIME	7 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
09	SUPPLY 2
TIME	0 MINUTES 45 SECONDS
10	WASH 1
TIME	7 MINUTES 00 SECONDS
11	DRAIN
TIME	1 MINUTE 00 SECONDS
12	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
13	WASH 1
TIME	3 MINUTES 00 SECONDS
14	DRAIN
TIME	1 MINUTE 00 SECONDS
15	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
16	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
17	110' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
18	SUPPLY 3 & 4
TIME	0 MINUTES 30 SECONDS
19	WASH 1
TIME	4 MINUTES 00 SECONDS
20	DRAIN
TIME	1 MINUTE 00 SECONDS
21	HIGH SPIN
TIME	4 MINUTES 00 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

Cycle 23 - Food Service - Starch - Iron - Color Table Napery

STEP NO.	PROCEDURE
01	110' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
02	WASH 1
TIME	2 MINUTES 00 SECONDS
03	DRAIN
TIME	1 MINUTE 00 SECONDS
04	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
05	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
06	WASH 1
TIME	7 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
09	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
10	WASH 1
TIME	7 MINUTES 00 SECONDS
11	DRAIN
TIME	1 MINUTE 00 SECONDS
12	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
13	WASH 1
TIME	3 MINUTES 00 SECONDS
14	DRAIN
TIME	1 MINUTE 00 SECONDS
15	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
16	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
17	110' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
18	SUPPLY 3
TIME	0 MINUTES 30 SECONDS
19	WASH 1
TIME	2 MINUTES 00 SECONDS
20	SUPPLY 5
TIME	0 MINUTES 30 SECONDS
21	WASH 1
TIME	5 MINUTES 00 SECONDS
22	DRAIN
TIME	1 MINUTE 00 SECONDS
23	HIGH SPIN
TIME	4 MINUTES 00 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

Cycle 24 - Food Service - No Iron - Color
Table Napery

STEP NO.	PROCEDURE
01	110' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
02	WASH 1
TIME	2 MINUTES 00 SECONDS
03	DRAIN
TIME	1 MINUTE 00 SECONDS
04	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
05	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
06	WASH 1
TIME	7 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
09	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
10	WASH 1
TIME	7 MINUTES 00 SECONDS
11	DRAIN
TIME	1 MINUTE 00 SECONDS
12	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
13	WASH 1
TIME	3 MINUTES 00 SECONDS
14	DRAIN
TIME	1 MINUTE 00 SECONDS
15	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
16	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
17	110' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
18	SUPPLY 3 & 4
TIME	0 MINUTES 30 SECONDS
19	WASH 1
TIME	4 MINUTES 00 SECONDS
20	DRAIN
TIME	1 MINUTE 00 SECONDS
21	HIGH SPIN
TIME	4 MINUTES 00 SECONDS SDLY 0 MINUTES 45 SECONDS STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

SECTION X - PRE-PROGRAMMED CYCLES

Cycle 25 - Food Service - Bleach - Starch - Iron - Visa

STEP NO.	PROCEDURE
01	110' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
02	WASH 1
TIME	3 MINUTES 00 SECONDS
03	DRAIN
TIME	1 MINUTE 00 SECONDS
04	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
05	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
06	WASH 1
TIME	7 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
09	SUPPLY 2
TIME	00 MINUTES 45 SECONDS
10	WASH 1
TIME	7 MINUTES 00 SECONDS
11	DRAIN
TIME	1 MINUTE 00 SECONDS
12	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
13	WASH 1
TIME	3 MINUTES 00 SECONDS
14	DRAIN
TIME	1 MINUTE 00 SECONDS
15	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
16	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
17	110' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
18	WASH 1
TIME	2 MINUTES 00 SECONDS
19	DRAIN
TIME	1 MINUTE 00 SECONDS
20	110' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
21	SUPPLY 3
TIME	0 MINUTES 30 SECONDS
22	WASH 1
TIME	2 MINUTES 00 SECONDS
23	SUPPLY 5
TIME	0 MINUTES 30 SECONDS
24	WASH 1
TIME	5 MINUTES 00 SECONDS
25	DRAIN
TIME	1 MINUTE 00 SECONDS
26	HIGH SPIN
TIME	1 MINUTE 00 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

Cycle 26- Food Service- Bleach- No Iron- Visa Table Napery

STEP NO.	PROCEDURE
01	110' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
02	WASH 1
TIME	3 MINUTES 00 SECONDS
03	DRAIN
TIME	1 MINUTE 00 SECONDS
04	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
05	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
06	WASH 1
TIME	7 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	HOT LOW LEVEL
TIME	5 MINUTES
09	SUPPLY 2
TIME	0 MINUTES 45 SECONDS
10	WASH 1
TIME	7 MINUTES 00 SECONDS
11	DRAIN
TIME	1 MINUTE 00 SECONDS
12	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
13	WASH 1
TIME	3 MINUTES 00 SECONDS
14	DRAIN
TIME	1 MINUTE 00 SECONDS
15	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
16	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
17	110' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
18	WASH 1
TIME	2 MINUTES 00 SECONDS
19	DRAIN
TIME	1 MINUTE 00 SECONDS
20	110' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
21	SUPPLY 3
TIME	0 MINUTES 30 SECONDS
22	WASH 1
TIME	4 MINUTES 00 SECONDS
23	DRAIN
TIME	0 MINUTES 30 SECONDS
24	HIGH SPIN
TIME	1 MINUTE 00 SECONDS SDLY 0 MINUTES 45 SECONDS STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

Cycle 27- Food Service- Starch- Iron- Visa Color
Table Napery

STEP NO.	PROCEDURE
01	110' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
02	WASH 1
TIME	3 MINUTES 00 SECONDS
03	DRAIN
TIME	1 MINUTE 00 SECONDS
04	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
05	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
06	WASH 1
TIME	7 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
09	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
10	WASH 1
TIME	7 MINUTES 00 SECONDS
11	DRAIN
TIME	1 MINUTE 00 SECONDS
12	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
13	WASH 1
TIME	3 MINUTES 00 SECONDS
14	DRAIN
TIME	1 MINUTE 00 SECONDS
15	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
16	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
17	110' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
18	WASH 1
TIME	2 MINUTES 00 SECONDS
19	DRAIN
TIME	1 MINUTE 00 SECONDS
20	110' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
21	SUPPLY 3
TIME	0 MINUTES 30 SECONDS
22	WASH 1
TIME	2 MINUTES 00 SECONDS
23	SUPPLY 5
TIME	0 MINUTES 30 SECONDS
24	WASH 1
TIME	4 MINUTES 00 SECONDS
25	DRAIN
TIME	1 MINUTE 00 SECONDS
26	HIGH SPIN
TIME	1 MINUTE 00 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

Cycle 28- Food Service- No Iron- Visa Color Table Napery

STEP NO.	PROCEDURE
01	110' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
02	WASH 1
TIME	3 MINUTES 00 SECONDS
03	DRAIN
TIME	1 MINUTE 00 SECONDS
04	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
05	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
06	WASH 1
TIME	7 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
09	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
10	WASH 1
TIME	7 MINUTES 00 SECONDS
11	DRAIN
TIME	1 MINUTE 00 SECONDS
12	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
13	WASH 1
TIME	3 MINUTES 00 SECONDS
14	DRAIN
TIME	1 MINUTE 00 SECONDS
15	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
16	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
17	110' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
18	WASH 1
TIME	2 MINUTES 00 SECONDS
19	DRAIN
TIME	1 MINUTE 00 SECONDS
20	110' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
21	SUPPLY 3
TIME	0 MINUTES 30 SECONDS
22	WASH 1
TIME	4 MINUTES 00 SECONDS
23	DRAIN
TIME	1 MINUTE 00 SECONDS
24	HIGH SPIN
TIME	1 MINUTE 00 SECONDS SDLY 0 MINUTE 45 SECONDS STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

SECTION X - PRE-PROGRAMMED CYCLES

Cycle 29- Shirts, Colors, No Bleach, Starch

STEP NO.	PROCEDURE
01	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
02	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
03	WASH 1
TIME	7 MINUTES 00 SECONDS
04	DRAIN
TIME	1 MINUTE 00 SECONDS
05	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
06	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
07	WASH 1
TIME	5 MINUTES 00 SECONDS
08	DRAIN
TIME	1 MINUTE 00 SECONDS
09	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
10	WASH 1
TIME	3 MINUTES 00 SECONDS
11	DRAIN
TIME	1 MINUTE 00 SECONDS
12	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
13	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
14	COLD HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
15	SUPPLY 3 (SOUR)
TIME	0 MINUTES 30 SECONDS
16	SUPPLY 5 (STARCH)
TIME	0 MINUTES 30 SECONDS
17	WASH 1
TIME	4 MINUTES 00 SECONDS
18	DRAIN
TIME	1 MINUTE 00 SECONDS
19	HIGH SPIN
TIME	4 MINUTES 00 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

Cycle 30 - Shirts - Bleach - Starch

STEP NO.	PROCEDURE
01	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
02	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
03	WASH 1
TIME	7 MINUTES 00 SECONDS
04	DRAIN
TIME	1 MINUTE 00 SECONDS
05	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
06	SUPPLY 2
TIME	0 MINUTES 45 SECONDS
07	WASH 1
TIME	7 MINUTES 00 SECONDS
08	DRAIN
TIME	1 MINUTE 00 SECONDS
09	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
10	WASH 1
TIME	3 MINUTES 00 SECONDS
11	DRAIN
TIME	1 MINUTE 00 SECONDS
12	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
13	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
14	COLD HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
15	SUPPLY 3
TIME	0 MINUTES 30 SECONDS
16	SUPPLY 5
TIME	0 MINUTES 30 SECONDS
17	WASH 1
TIME	4 MINUTES 00 SECONDS
18	DRAIN
TIME	1 MINUTE 00 SECONDS
19	HIGH SPIN
TIME	4 MINUTES 00 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

Cycle 31 - Shirts - Colored - No Bleach - No Starch

STEP NO.	PROCEDURE
01	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
02	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
03	WASH 1
TIME	7 MINUTES 00 SECONDS
04	DRAIN
TIME	1 MINUTE 00 SECONDS
05	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
06	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
07	WASH 1
TIME	5 MINUTES 00 SECONDS
08	DRAIN
TIME	1 MINUTE 00 SECONDS
09	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
10	WASH 1
TIME	3 MINUTES 00 SECONDS
11	DRAIN
TIME	1 MINUTE 00 SECONDS
12	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
13	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
14	COLD HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
15	SUPPLY 3
TIME	0 MINUTES 30 SECONDS
16	SUPPLY 4
TIME	0 MINUTES 30 SECONDS
17	WASH 1
TIME	4 MINUTES 00 SECONDS
18	DRAIN
TIME	1 MINUTE 00 SECONDS
19	HIGH SPIN
TIME	4 MINUTES 00 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

Cycle 32- Shirts- No Bleach- No Starch- Delicates

STEP NO.	PROCEDURE
01	WARM LOW LEVEL
TIME	5 MINUTES 00 SECONDS
02	WASH 1
TIME	2 MINUTES 00 SECONDS
03	DRAIN
TIME	1 MINUTE 00 SECONDS
04	WARM LOW LEVEL
TIME	5 MINUTES 00 SECONDS
05	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
06	WASH 1
TIME	5 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	WARM HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
09	WASH 1
TIME	2 MINUTES 00 SECONDS
10	DRAIN
TIME	1 MINUTE 00 SECONDS
11	WARM HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
12	WASH 1
TIME	2 MINUTES 00 SECONDS
13	DRAIN
TIME	1 MINUTE 00 SECONDS
14	COLD HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
15	SUPPLY 3
TIME	0 MINUTES 30 SECONDS
16	SUPPLY 4
TIME	0 MINUTES 30 SECONDS
17	WASH 1
TIME	3 MINUTES 00 SECONDS
18	DRAIN
TIME	1 MINUTE 00 SECONDS
19	HIGH SPIN
TIME	1 MINUTE 30 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

Cycle 33- Starch - Extract Only

STEP NO.	PROCEDURE
01	WARM LOW LEVEL
TIME	5 MINUTES 00 SECONDS
02	SUPPLY 3
TIME	0 MINUTES 30 SECONDS
03	SUPPLY 5
TIME	0 MINUTES 30 SECONDS
04	WASH 1
TIME	7 MINUTES 00 SECONDS
05	DRAIN
TIME	1 MINUTE 00 SECONDS
06	HIGH SPIN
TIME	4 MINUTES 00 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

Cycle 34- Kitchen Uniforms- Bleach

STEP NO.	PROCEDURE
01	110' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
02	WASH 1
TIME	3 MINUTES 00 SECONDS
03	DRAIN
TIME	1 MINUTE 00 SECONDS
04	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
05	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
06	WASH 1
TIME	7 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
09	SUPPLY 2
TIME	0 MINUTES 45 SECONDS
10	WASH 1
TIME	7 MINUTES 00 SECONDS
11	DRAIN
TIME	1 MINUTE 00 SECONDS
12	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
13	WASH 1
TIME	3 MINUTES 00 SECONDS
14	DRAIN
TIME	1 MINUTE 00 SECONDS
15	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
16	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECOND
17	110' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
18	WASH 1
TIME	2 MINUTES 00 SECONDS
19	DRAIN
TIME	1 MINUTE 00 SECONDS
20	110' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
21	SUPPLY 3 & 4
TIME	0 MINUTES 30 SECONDS
22	WASH 1
TIME	4 MINUTES 00 SECONDS
23	DRAIN
TIME	1 MINUTE 00 SECONDS
24	HIGH SPIN
TIME	4 MINUTES 00 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

SECTION X - PRE-PROGRAMMED CYCLES

Cycle 35- Common Formulas- Light Soil- No Bleach

STEP NO.	PROCEDURE
01	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
02	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
03	WASH 1
TIME	6 MINUTES 00 SECONDS
04	DRAIN
TIME	1 MINUTE 00 SECONDS
05	110' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
06	WASH 1
TIME	2 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
09	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
10	110' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
11	SUPPLY 3 & 4
TIME	0 MINUTES 45 SECONDS
12	WASH 1
TIME	4 MINUTES 00 SECONDS
13	DRAIN
TIME	1 MINUTE 00 SECONDS
14	HIGH SPIN
TIME	3 MINUTES 00 SECONDS SDLY 0 MINUTES 45 SECONDS STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

Cycle 36 - Housekeeping Rags

STEP NO.	PROCEDURE
01	110' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
02	WASH 1
TIME	2 MINUTES 00 SECONDS
03	DRAIN
TIME	1 MINUTE 00 SECONDS
04	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
05	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
06	WASH 1
TIME	7 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
09	SUPPLY 2
TIME	0 MINUTES 45 SECONDS
10	WASH 1
TIME	7 MINUTES 00 SECONDS
11	DRAIN
TIME	1 MINUTE 00 SECONDS
12	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
13	WASH 1
TIME	2 MINUTES 00 SECONDS
14	DRAIN
TIME	1 MINUTE 00 SECONDS
15	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
16	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
17	110' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
18	SUPPLY 3
TIME	0 MINUTES 30 SECONDS
19	WASH 1
TIME	4 MINUTES 00 SECONDS
20	DRAIN
TIME	1 MINUTE 00 SECONDS
21	HIGH SPIN
TIME	4 MINUTES 00 SECONDS SDLY 0 MINUTES 45 SECONDS STOP ROUTINE

Cycle 37- Common Formulas- Regular Soil- Mops- Kitchen Rags

STEP NO.	PROCEDURE
01	110' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
02	WASH 1
TIME	2 MINUTES 00 SECONDS
03	DRAIN
TIME	1 MINUTE 00 SECONDS
04	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
05	SUPPLY 1
TIME	0 MINUTES 45 SECONDS
06	WASH 1
TIME	7 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
09	SUPPLY 2
TIME	0 MINUTES 45 SECONDS
10	WASH 1
TIME	7 MINUTES 00 SECONDS
11	DRAIN
TIME	1 MINUTE 00 SECONDS
12	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
13	WASH 1
TIME	2 MINUTES 00 SECONDS
14	DRAIN
TIME	1 MINUTE 00 SECONDS
15	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
16	WARM SPRAY RINSE
TIME	2 MINUTES 00 SECONDS
17	110' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
18	SUPPLY 3
TIME	0 MINUTES 30 SECONDS
19	WASH 1
TIME	4 MINUTES 00 SECONDS
20	DRAIN
TIME	1 MINUTE 00 SECONDS
21	HIGH SPIN
TIME	4 MINUTES 00 SECONDS SDLY 0 MINUTES 45 SECONDS STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

Cycle 38- Common Formulas- Rewash/ Reclaim Only

STEP NO.	PROCEDURE
01	130' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
02	WASH 1
TIME	2 MINUTES 00 SECONDS
03	DRAIN
TIME	1 MINUTE 00 SECONDS
04	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
05	SUPPLY 1 & 2
TIME	0 MINUTES 45 SECONDS
06	WASH 1
TIME	4 MINUTES 00 SECONDS
07	DRAIN
TIME	1 MINUTE 00 SECONDS
08	HOT LOW LEVEL
TIME	5 MINUTES 00 SECONDS
09	SUPPLY 1 & 2
TIME	0 MINUTES 45 SECONDS
10	WASH 1
TIME	7 MINUTES 00 SECONDS
11	DRAIN
TIME	1 MINUTE 00 SECONDS
12	HOT HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
13	WASH 1
TIME	4 MINUTES 00 SECONDS
14	DRAIN
TIME	1 MINUTE 00 SECONDS
15	MEDIUM SPIN
TIME	0 MINUTES 30 SECONDS
16	WARM SPRAY
TIME	2 MINUTES 00 SECONDS
17	110' HIGH LEVEL
TIME	5 MINUTES 00 SECONDS
18	WASH 1
TIME	2 MINUTES 00 SECONDS
19	DRAIN
TIME	1 MINUTE 00 SECONDS
20	110' LOW LEVEL
TIME	5 MINUTES 00 SECONDS
21	SUPPLY 3 & 4
TIME	0 MINUTES 30 SECONDS
22	WASH 1
TIME	4 MINUTES 00 SECONDS
23	DRAIN
TIME	1 MINUTES 00 SECONDS
24	HIGH SPIN
TIME	4 MINUTES 00 SECONDS
	SDLY 0 MINUTES 45 SECONDS
	STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

Cycle 39- Chemical Set Up- Supply Signal 1 Thru 5

STEP NO.	PROCEDURE
01	WARM FILL LOW LEVEL
TIME	5 MINUTES 00 SECONDS
02	SUPPLY 1
TIME	2 MINUTES 00 SECONDS
03	SUPPLY 2
TIME	2 MINUTES 00 SECONDS
04	SUPPLY 3
TIME	2 MINUTES 00 SECONDS
05	SUPPLY 4
TIME	2 MINUTES 00 SECONDS
06	SUPPLY 5
TIME	2 MINUTES 00 SECONDS
07	WASH 1
TIME	0 MINUTES 30 SECONDS
08	DRAIN
TIME	1 MINUTE 00 SECONDS
	STOP ROUTINE

SUPPLY LEGEND

SUPPLY 1 - DETERGENT
SUPPLY 2 - BLEACH
SUPPLY 3 - SOUR
SUPPLY 4 - SOFTENER
SUPPLY 5 - STARCH/SIZING

Cycle 25 - Tutorial Cycle Not Pre-programmed - See Page 22

STEP NO.	PROCEDURE	STEP NO.	PROCEDURE
01	HOT FILL TO LOW LEVEL	18	
TIME	4 MINUTES 00 SECONDS	TIME	
02	SUPPLY 1	19	
TIME	0 MINUTES 30 SECONDS	TIME	
03	WASH 1	20	
TIME	6 MINUTES 00 SECONDS	TIME	
04	DRAIN 1	21	
TIME	1 MINUTE 00 SECONDS	TIME	
05	WARM SPRAY RINSE	22	
TIME	2 MINUTES 30 SECONDS	TIME	
06	WARM/WARM FILL TO HIGH LEVEL	23	
TIME	5 MINUTES 00 SECONDS	TIME	
07	SUPPLY 3	24	
TIME	0 MINUTES 30 SECONDS	TIME	
08	WASH 1	25	
TIME	3 MINUTES 00 SECONDS	TIME	
09	DRAIN 1	26	
TIME	1 MINUTE 00 SECONDS	TIME	
10	MEDIUM SPEED SPIN	27	
TIME	1 MINUTE 00 SECONDS	TIME	
11	HIGH SPEED SPIN	28	
TIME	6 MINUTES 00 SECONDS	TIME	
	SDLY 0 MINUTES 30 SECONDS		
12	STOP ROUTINE	29	
TIME		TIME	
13		30	
TIME		TIME	
14		31	
TIME		TIME	
15		32	
TIME		TIME	
16		33	
TIME		TIME	
17		34	
TIME		TIME	

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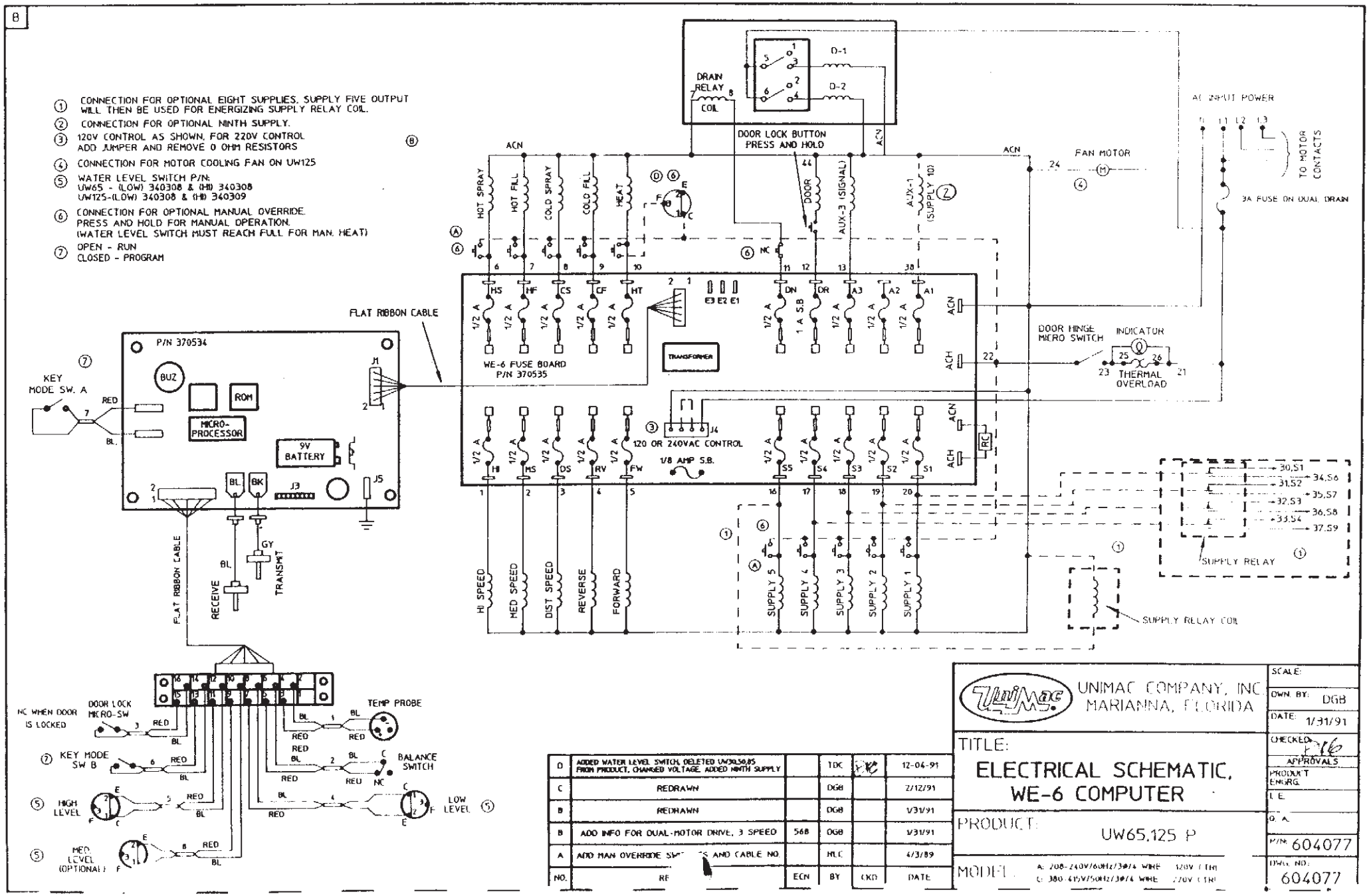


NO.	REF	ECN	BY	CKD	DATE
D	ADDED WATER LEVEL SWITCH, DELETED UW30,50,85 FROM PRODUCT, CHANGED VOLTAGE, ADDED NINTH SUPPLY		TDC		12-04-91
C	REDRAWN		DGB		2/12/91
B	REDRAWN		DGB		1/31/91
B	ADD INFO FOR DUAL-MOTOR DRIVE, 3 SPEED	568	DGB		1/31/91
A	ADD MAN OVERRIDE SW[illegible]S AND CABLE NO		MLC		4/3/89

UNIMAC COMPANY, INC
MARIANNA, FLORIDA

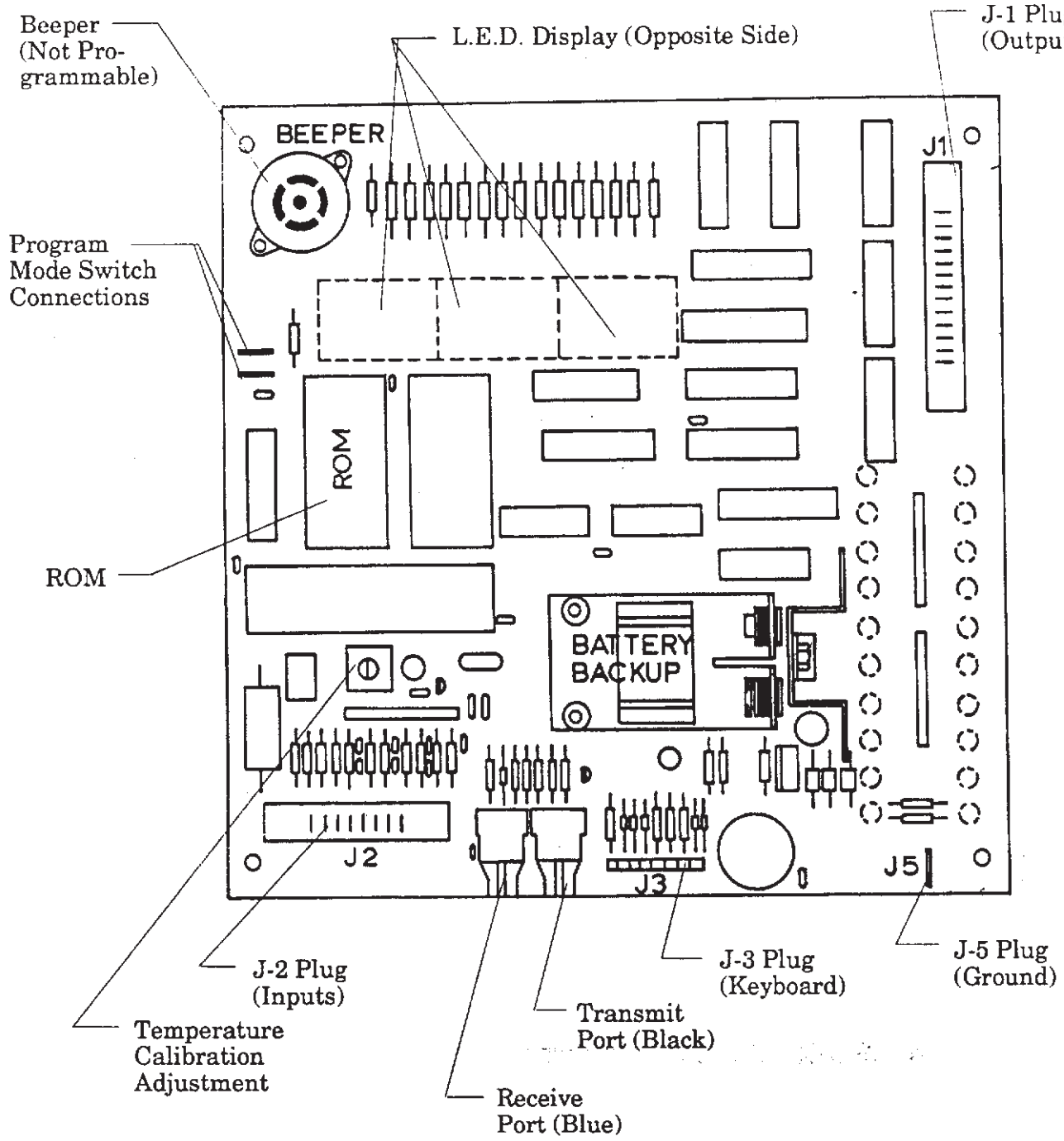
TITLE:
ELECTRICAL SCHEMATIC, WE-6 COMPUTER

PRODUCT: UW65,125 P

MODEL: A: 208-240V/60Hz/3Ø/4 WIRE 120V CTRL
C: 380-415V/50Hz/3Ø/4 WIRE 220V CTRL

SCALE:	
DWN. BY:	DGB
DATE:	1/31/91
CHECKED:	
APPROVALS	
PRODUCT ENGRG.	
I. E.	
Q. A.	
P/N:	604077
DWG. NO.:	604077

WE-6 CONTROL BOARD

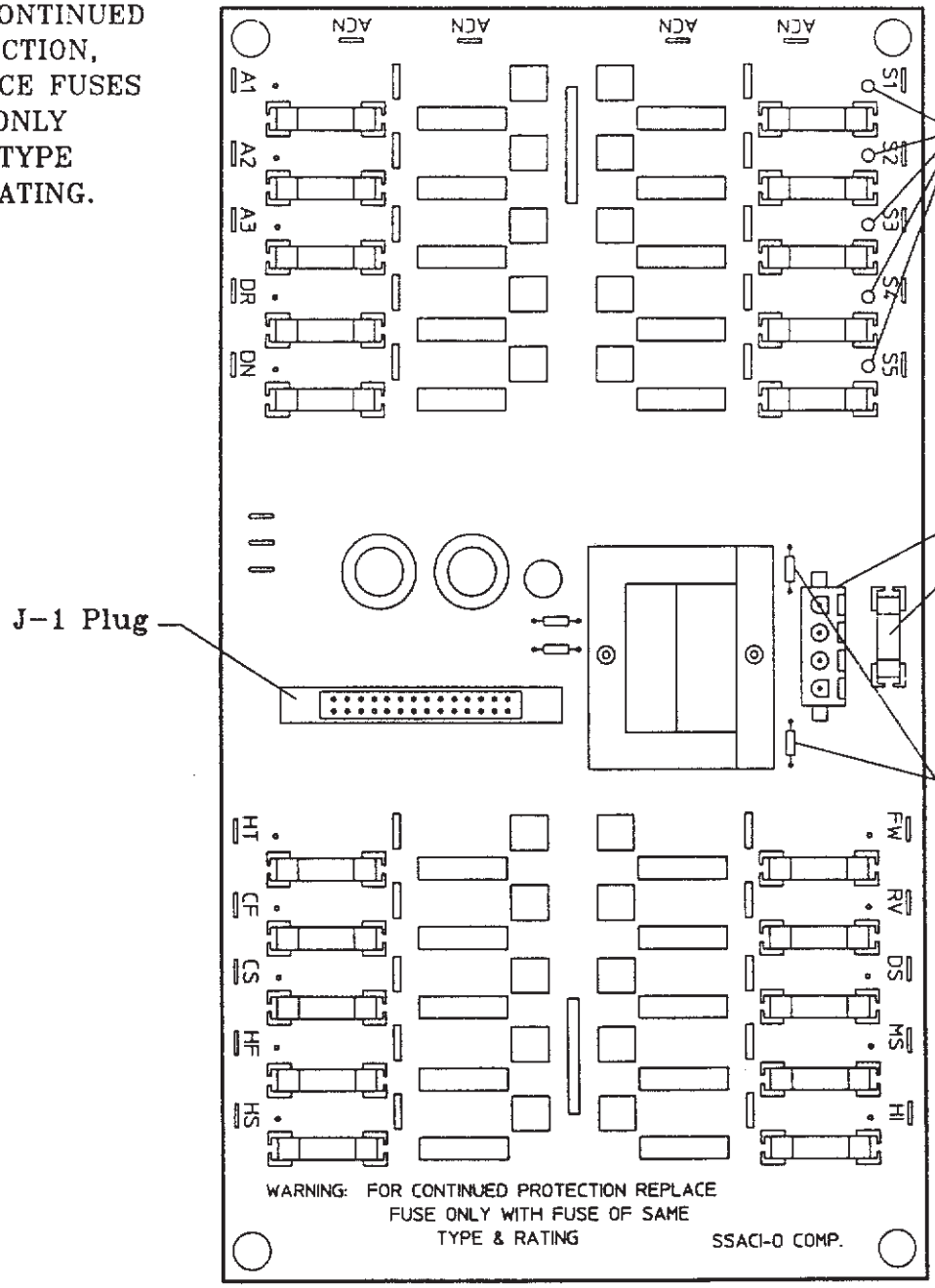


NOTE:
Control Board Shown is WE-6 Washer Unit. Board for Simulator Does Not Have Battery Backup. Washer and Simulator Boards are not Interchangeable.

WE-6 DISPLAY/FUSE BOARD

WARNING

FOR CONTINUED PROTECTION, REPLACE FUSES WITH ONLY SAME TYPE AND RATING.



A1 – Auxiliary 1
A2 – Auxiliary 2
SG – Auxiliary 3 (Buzzer)
DR – Door
DN – Drain
HT – Heat
CF – Cold Fill
CS – Cold Spray
HF – Hot Fill
HS – Hot Spray
S1 – Supply 1
S2 – Supply 2
S3 – Supply 3
S4 – Supply 4
S5 – Supply 5
FW – Forward
RV – Reverse
DS – Distribution Speed
MS – Medium Speed
HI – High Speed
ACN – A.C. Neutral
ACH – A.C. Hot

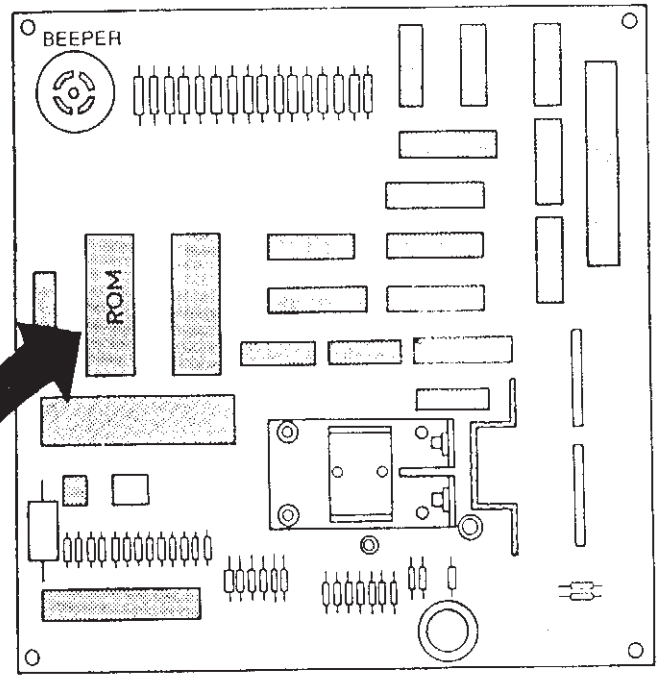
PROGRAMMABLE MICROCOMPUTER CONTROL
INSTRUCTIONS FOR REPLACING ROM
ON WE-6 CONTROL BOARD

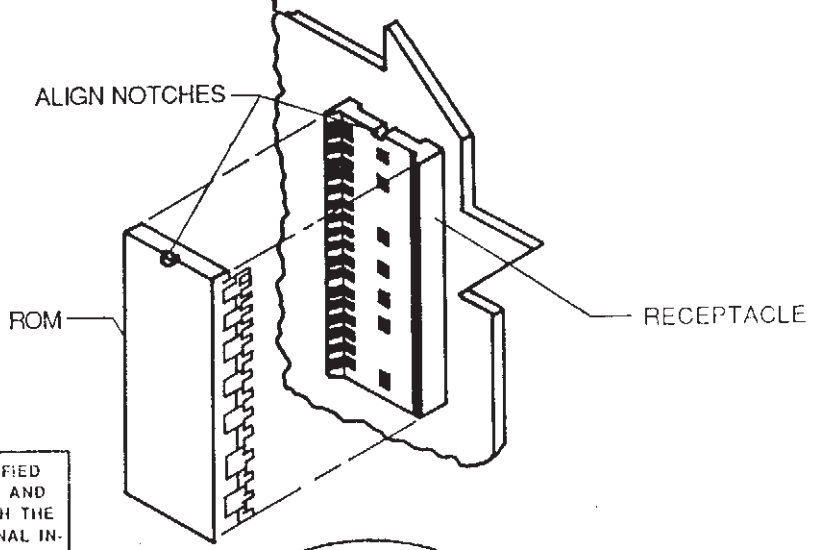
Referring to the adjacent illustration, locate the ROM on the WE-6 board. Note that this is the only user replaceable part on the WE-6 board, therefore, be sure you have correctly located the ROM as shown. The ROM itself plugs into the receptacle and may be unplugged with the assistance of a small instrument. Do not attempt to remove the receptacle from the board as this is a permanent soldered connection and is not removable. Simply separate the ROM from its receptacle.

When replacing the ROM, carefully align the pins with the holes in the receptacle and gently press the ROM into place. To insure correct polarity, the small radiused notch at the top of the ROM should be aligned with the notch at the top of the receptacle.

The replacement ROM is shipped to you in an anti-magnetic shielded container and the defective unit should be returned to the factory in the same container.

It may be necessary to remove the WE-6 board from the control module when replacing the ROM. Attempting this replacement without removing the board from the module to provide complete access may result in damage to the ROM while removing it from the receptacle or pressing the new ROM into the receptacle.





WARNING

SERIOUS SHOCK MAY OCCUR.
OPEN PRIMARY DISCONNECT SWITCH BEFORE ATTEMPTING ANY REPAIRS

THIS MACHINE SHOULD BE INSTALLED, ADJUSTED AND SERVICED BY QUALIFIED ELECTRICAL MAINTENANCE PERSONNEL FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THIS TYPE MACHINERY. THEY SHOULD ALSO BE FAMILIAR WITH THE POTENTIAL HAZARDS INVOLVED. IF THIS WARNING IS NOT OBSERVED, PERSONAL INJURY OR EQUIPMENT DAMAGE RESULTING IN VOIDING THE WARRANTY MAY RESULT.

UniMac

Efficiency Through Advanced Engineering

PROGRAM WORKSHEET FOR PROGRAMMING MICROCOMPUTER CONTROL

CYCLE NO. _____

STEP NO.	PROCEDURE	STEP NO.	PROCEDURE
01 TIME		18 TIME	
02 TIME		19 TIME	
03 TIME		20 TIME	
04 TIME		21 TIME	
05 TIME		22 TIME	
06 TIME		23 TIME	
07 TIME		24 TIME	
08 TIME		25 TIME	
09 TIME		26 TIME	
10 TIME		27 TIME	
11 TIME		28 TIME	
12 TIME		29 TIME	
13 TIME		30 TIME	
14 TIME		31 TIME	
15 TIME		32 TIME	
16 TIME		33 TIME	
17 TIME		34 TIME	

PROGRAM WORKSHEET FOR PROGRAMMING MICROCOMPUTER CONTROL

CYCLE NO. _____

STEP NO.	PROCEDURE	STEP NO.	PROCEDURE
01 TIME		18 TIME	
02 TIME		19 TIME	
03 TIME		20 TIME	
04 TIME		21 TIME	
05 TIME		22 TIME	
06 TIME		23 TIME	
07 TIME		24 TIME	
08 TIME		25 TIME	
09 TIME		26 TIME	
10 TIME		27 TIME	
11 TIME		28 TIME	
12 TIME		29 TIME	
13 TIME		30 TIME	
14 TIME		31 TIME	
15 TIME		32 TIME	
16 TIME		33 TIME	
17 TIME		34 TIME	

PROGRAM WORKSHEET FOR PROGRAMMING MICROCOMPUTER CONTROL

CYCLE NO. _____

STEP NO.	PROCEDURE	STEP NO.	PROCEDURE
01 TIME		18 TIME	
02 TIME		19 TIME	
03 TIME		20 TIME	
04 TIME		21 TIME	
05 TIME		22 TIME	
06 TIME		23 TIME	
07 TIME		24 TIME	
08 TIME		25 TIME	
09 TIME		26 TIME	
10 TIME		27 TIME	
11 TIME		28 TIME	
12 TIME		29 TIME	
13 TIME		30 TIME	
14 TIME		31 TIME	
15 TIME		32 TIME	
16 TIME		33 TIME	
17 TIME		34 TIME	

NOTES

NOTES

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on all recyclable materials.

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Commercial Laundry Equipment

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