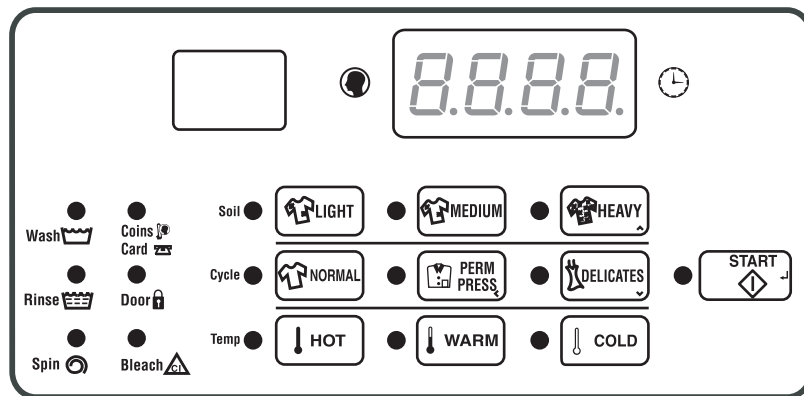


Washer-Extractor

Refer to Page 5 for Model Numbers



CHM1776C

Keep These Instructions for Future Reference.

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





WARNING

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

W030

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

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

Table of Contents

Model Identification	5
Preliminary Information	6
About the Control	6
Glossary of Terms.....	6
Power Failure Recovery	6
Communications	6
Control Identification	7
Select Cycle Pads.....	7
Select Wash Temp Pads.....	7
Select Soil Pads.....	7
Display Identification	8
Light Emitting Diodes (LEDs)	8
Machine Operation	9
Start Up	9
Ready Mode.....	9
Partial Vend Mode.....	9
Additional Vend Mode	9
Start Mode	9
Door Locking Mode	9
Cycle Sequence.....	9
Run Mode	9
Door Unlocking Mode.....	9
End of Cycle Mode.....	9
Signals.....	10
Changing Cycles.....	10
Special Features	11
Programming Control	11
Collecting Audit Information	11
Testing Machine and Control Functions.....	11
Rapid Advance Feature.....	11
Clearing the Vend Feature	11
Communications Mode.....	11
Coin Drop	11
Start Pulse Operation	12
Top Cover and Coin Vault Openings	12
Break-In Alarm.....	12
Special Vend.....	12
OPL Mode	12
Drop-Off Mode	12
Low Power/Auto-Shutdown Option.....	12
Opening the Top Cover	13
Entering the Manual Mode	14
How to Enter the Manual Mode	14
Manual Diagnostics	14
Programming Control	15
What Can Be Programmed?	15
Programmable Options Available.....	15
Programming Flowcharts.....	21
1. Normal Hot Vend Price “AtS1”	27
2. Coin #1 Value “dEn1”	28
3. Coin #2 Value “dEn2”	29
4. Start Pulse Value “PLSE”	30

© Copyright 2012, Alliance Laundry Systems LLC

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

5. Start Pulse Mode “PLSn”	31
6. Available Type “AtyP”	32
7. Default Cycle “dCYC”	33
8. OPL Mode Enable/Disable “oPL”	34
9. Audio Signal “AUd”	34
10. Card Reader Display Control “CArd”	36
11. Error Code Programming “Err-”	37
12. Cycle Programming “CyC-”	41
13. Supply/Compartment Dispenser Programming “SUPC” (Design 1 Models Only)	46
14. Number of Balance Retries “bALr” (Variable Frequency Drives Only)	46
15. IR Access (Enable/Disable) “IrA”	47
16. Fahrenheit/Celsius “t FC” (Models with Heat)	47
17. Hot Water Temperature “FH”	48
18. Warm Water Temperature “FHC”	48
19. Cold Water Temperature “FC”	49
20. Cooldown Enable/Temperature “Codn” (Models with Heat)	49
21. Production Test Cycle (On/Off) “PtEn”	50
22. Manual Rapid Advance (On/Off) “rAEn”	50
23. No Cycle Time Display “nCtd”	51
24. Programmable Cycle Time Display “PCtd”	51
25. Slow Drain Detection Adjust Value “SdAd”	52
26. Pause/Resume Mode (On/Off) “SPAU”	52
27. Normal Warm Vend Price “AtS2”	53
28. Normal Cold Vend Price “AtS3”	54
29. Perm Press Hot Vend Price “AtS4”	55
30. Perm Press Warm Vend Price “AtS5”	56
31. Perm Press Cold Vend Price “AtS6”	57
32. Delicate Hot Vend Price “AtS7”	58
33. Delicate Warm Vend Price “AtS8”	59
34. Delicate Cold Vend Price “AtS9”	60
35. Set Real-Time Clock “rtC-”	61
36. Special Vend A Data “SPA-”	62
37. Special Vend B Days Enable/Disable “SPb-”	82
38. Special Vend C Days Enable/Disable “SPC-”	83
39. Special Vend D Days Enable/Disable “SPd-”	83
40. Cycle Modifier Programming “CnP-”	84
41. Drop Off Mode (On/Off) “droP”	89
42. Low Power/Auto Shutdown A Days Enable “LPSA”	89
43. Low Power/Auto Shutdown B Days Enable “LPSb”	90
44. Low Power/Auto Shutdown C Days Enable “LPSC”	90
45. Low Power/Auto Shutdown D Days Enable “LPSd”	91
46. Power Fail Reset “PFr”	91
47. Manual Diagnostics (On/Off) “dAEn”	93
48. Low Water Level “FLo”	93
49. Medium Water Level “FnEd”	94
50. High Water Level “FHI”	94
51. Temperature Controlled Fill Enable/Disable “tCF” (Models with Heat)	95
52. Auto-Water Leak Detection “ALd-”	96
Collecting Audit Information	97
Manual Reset	98

Testing Machine and Electronic Control Functions	99
Diagnostic Test Descriptions.....	101
Production Test Cycle.....	105
Error Codes	108
Rapid Advance Feature	112
Clear Vend Feature	113
Power Fail Recovery	114
Communications Mode	115
Infra-red Communications.....	115
Card Reader Communications (Card Models Only).....	115
Network Communications.....	115
Default Cycles	116

Model Identification

Information in this manual is applicable to these models:

HCD020LD2	SCN030LYV	SCN060WC2	SCU030LC2	SCU040WXV
HCD030LD2	SCN030WC2	SCN060WCF	SCU030LCV	SCU040WY2
HCD040LD2	SCN030WCF	SCN060WCV	SCU030LD2	SCU040WYV
HCD060LD2	SCN030WCV	SCN060WD2	SCU030LDV	SCU060LC2
HCD080LDV	SCN030WD2	SCN060WDV	SCU030LE2	SCU060LCV
HCL020LD2	SCN030WDV	SCN060WEV	SCU030LEV	SCU060LD2
SCD030LD2	SCN030WLV	SCN060WY2	SCU030LX2	SCU060LDV
SCD040LD2	SCN030WX2	SCN060WYF	SCU030LXV	SCU060LE2
SCD060LD2	SCN030WY2	SCN060WYV	SCU030LY2	SCU060LEV
SCD080LDV	SCN030WYF	SCN080LCV	SCU030LYV	SCU060LX2
SCL030LD2	SCN030WYV	SCN080LDV	SCU030WC2	SCU060LXV
SCL030LEV	SCN040LC2	SCN080LYV	SCU030WCV	SCU060LY2
SCL040LE2	SCN040LCF	SCN080WCV	SCU030WD2	SCU060LYV
SCL060LE2	SCN040LCV	SCN080WDV	SCU030WDV	SCU060WC2
SCN020LC2	SCN040LD2	SCN080WYV	SCU030WE2	SCU060WCV
SCN020LCF	SCN040LDV	SCN125LYV	SCU030WEV	SCU060WD2
SCN020LCV	SCN040LE2	SCN125WYV	SCU030WX2	SCU060WDV
SCN020LD2	SCN040LY2	SCU020LC2	SCU030WXV	SCU060WE2
SCN020LX2	SCN040LYF	SCU020LCV	SCU030WY2	SCU060WEV
SCN020LY2	SCN040LYV	SCU020LD2	SCU030WYV	SCU060WX2
SCN020LYF	SCN040WC2	SCU020LDV	SCU040LC2	SCU060WXV
SCN020LYV	SCN040WCF	SCU020LE2	SCU040LCV	SCU060WY2
SCN020WC2	SCN040WCV	SCU020LEV	SCU040LD2	SCU060WYV
SCN020WCF	SCN040WDV	SCU020LX2	SCU040LDV	SCU080LCV
SCN020WCV	SCN040WX2	SCU020LXV	SCU040LE2	SCU080LDV
SCN020WD2	SCN040WY2	SCU020LY2	SCU040LEV	SCU080LEV
SCN020WDV	SCN040WYF	SCU020LYV	SCU040LX2	SCU080LXV
SCN020WY2	SCN040WYV	SCU020WC2	SCU040LXV	SCU080LYV
SCN020WYF	SCN060LC2	SCU020WCV	SCU040LY2	SCU080WCV
SCN020WYV	SCN060LCF	SCU020WD2	SCU040LYV	SCU080WDV
SCN030LC2	SCN060LCV	SCU020WDV	SCU040WC2	SCU080WEV
SCN030LCF	SCN060LD2	SCU020WE2	SCU040WCV	SCU080WXV
SCN030LCV	SCN060LDV	SCU020WEV	SCU040WD2	SCU080WYV
SCN030LD2	SCN060LE2	SCU020WX2	SCU040WDV	
SCN030LE2	SCN060LY2	SCU020WXV	SCU040WE2	
SCN030LY2	SCN060LYF	SCU020WY2	SCU040WEV	
SCN030LYF	SCN060LYV	SCU020WYV	SCU040WX2	

Preliminary Information

About the Control

This control is an advanced, programmable computer that lets the owner control most machine features by pressing a sequence of keypads. Refer to *Figure 1*.

The control allows the owner to program custom cycles, set vend prices, retrieve audit information, run diagnostic tests, program special vend features and other programmable features. Refer to ***Programming Control*** for a list of features. Machines shipped from the factory have a default cycle and wash temperature setting of PERM PRESS and WARM built in. However, the owner can change the default cycle, or any cycle, as needs permit.

IMPORTANT: In the event of a power failure, the control will not have to be reprogrammed. It is designed with a memory system that will remember how it was programmed until the electrical power is restored.

IMPORTANT: It is extremely important that the washer-extractor has a good ground connection and that all mechanical and electrical connections to the control are made before applying power to or operating the machine.

Glossary of Terms

The following are a few terms and abbreviations to learn. These are referred to throughout the instructions.

Display – This term refers to the window area of the control that displays words and values.

LED (Light Emitting Diode) – This term refers to the lights next to the keypads and status words of the control.

Power Failure Recovery

If a cycle is in progress and the power fails, the cycle status is saved in memory. When the power recovers, the machine will resume into the previously active cycle if so programmed by the owner.

The owner may program a special feature called POWER FAIL RESET which sets a maximum power failure duration. To program this feature, refer to ***Programming Control, option 46***.

If the length of the power failure is greater than the POWER FAIL RESET time, the control will end the cycle and the display will revert back to Ready Mode.

Communications

The control may be programmed manually, by infra-red communication with an external device or by the network. A limited number of features can be programmed by a card reader.

Infra-red Communications (Optional)

An external device, such as a PDA, allows the owner to program and retrieve information from the control without touching the keypad. An external device greatly expands the programming options available to the owner. However, it is not required to program and operate the machine. The operation of an external device and the advanced features available are covered separately in the instructions included with the external device software. Contact Alliance Laundry Systems for a list of approved PDAs and other external devices.

Serial Card Reader Communications (Card Models Only)

The control will accept communication with a serial card reader in order to perform vending transactions when a card is inserted to pay for cycles. The card reader can also allow the owner to program a limited number of features and collect audit information.

For detailed information on the serial card reader communications, refer to instructions included with the card reader.

Network Communications

The control will also accept communication with a network interface board which allows the control to be linked to a personal computer. This network link allows an owner to program, collect data, and run diagnostics on any machine.

For detailed information on network communications, refer to the network instructions.

Control Identification

Select Cycle Pads (Refer to Figure 1)

Select Cycle pads are used to select the specific washer cycle. These pads include NORMAL, PERM PRESS, and DELICATES. These pads allow the user to select a cycle other than the default cycle (PERM PRESS). The Select Cycle keypads are not active after the first Fill step of the cycle. The selected cycle is indicated by the light (LED) on the pad. Pressing the flashing START pad will confirm the selection and the cycle will begin. When the card reader is used, pressing the START pad will start the cycle and deduct the vend price from the card.

Select Wash Temp Pads (Refer to Figure 1)

Select Wash Temp pads are used to select the temperature of the water used for the wash fill. These pads include HOT, WARM, and COLD. These pads allow the user to select a water temperature other than the default setting (WARM). The Select Wash Temp

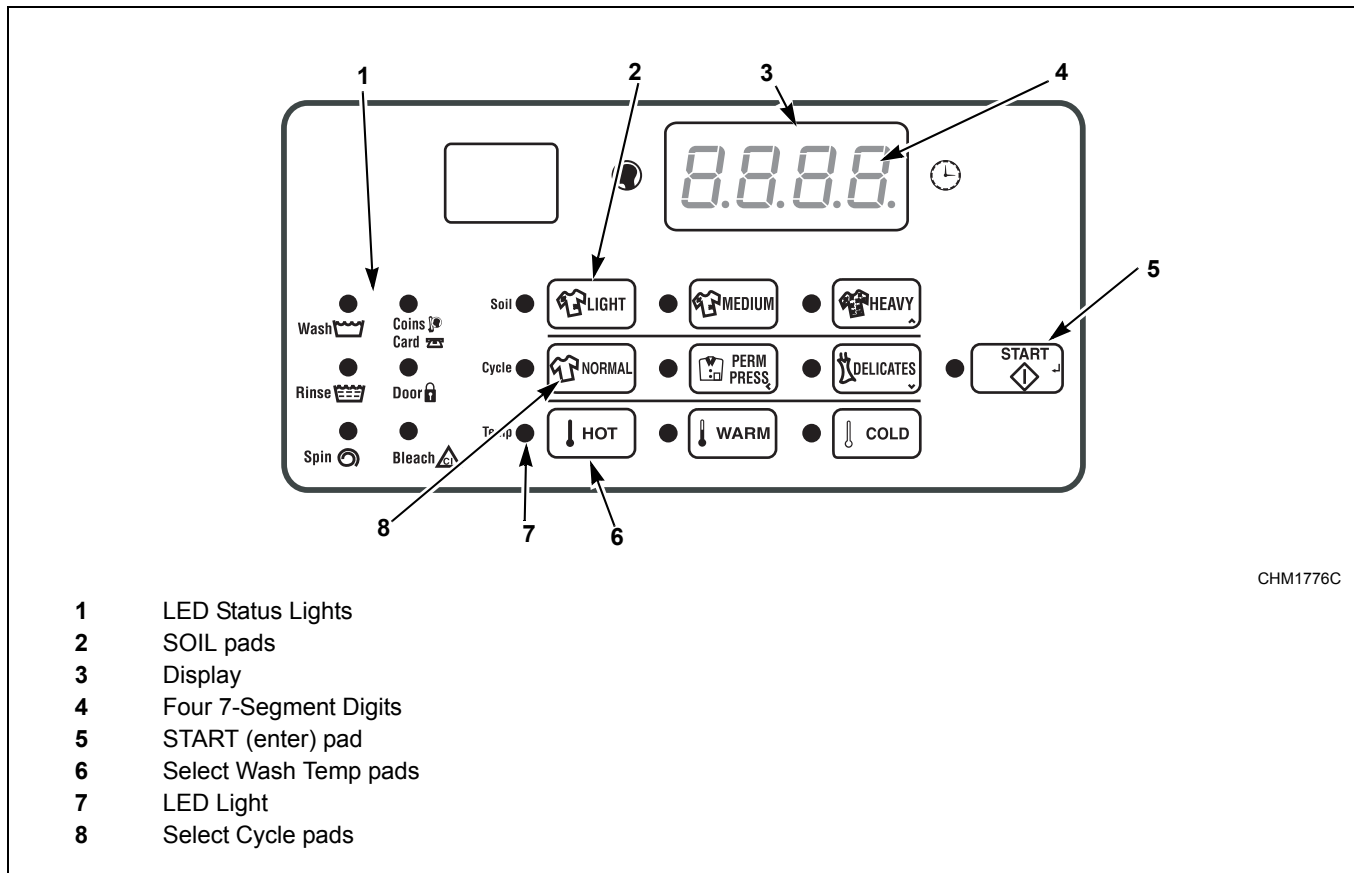
pads are active only during the first Fill step of the cycle. The selected temperature is indicated by the light (LED) on the pad.

Select Soil Pads (Refer to Figure 1)

The Select Soil pads are used to select cycle modifier options. The LIGHT option is the default and indicates no cycle modifiers are active. The MEDIUM and HEAVY options can be programmed to offer extra features for an added vend price. Features available include an added prewash, extra wash time, an added extra rinse, and a warm rinse temperature.

For details on programming the Soil option, refer to *Programming Control*.

The Select Wash Temp pads, Select Cycle pads and Select Soil pads are used in various combinations for programming cycles, retrieving audit information, running diagnostic tests, and other operations. These instructions cover the manual programming and data retrieval options.



CHM1776C

Figure 1

Display Identification

Light Emitting Diodes (LEDs) (Refer to *Figure 1*)

Light Emitting Diodes (LEDs) are used to indicate the chosen cycle, wash temperature, soil, cycle status, if vend is needed, when the bleach compartment is dispensing, and door lock information. See below for information on each LED.

CYCLE LED (NORMAL, PERM PRESS or DELICATES)

Cycle LED will remain lit the entire cycle.

TEMP LED (HOT, WARM or COLD)

Temp LED will remain on until the end of the cycle or will change to show the rinse temperature if programmed to do so.

SOIL LED (LIGHT, MEDIUM or HEAVY)

Soil LED will remain lit the entire cycle.

WASH LED

Wash LED is lit at the beginning of a wash portion of the cycle and will remain lit until the wash is complete.

RINSE LED

Rinse LED is lit at the beginning of a rinse portion of the cycle and will remain lit until the rinse is complete.

SPIN LED

Spin LED is lit during the Final Spin portion of the cycle.

COINS/CARD LED

Coins/Card LED prompts the user for coins or a card to satisfy the vend price. Four digits show the vend price remaining to be satisfied. The vend price displayed will decrease with each coin inserted. If new options are selected during the first Fill step of the wash cycle and it requires additional vend, the *Coins/Card* light will flash one (1) second on and one (1) second off, and the display will show the vend price remaining to be satisfied.

DOOR LED

Door LED is lit whenever the door is locked. The door can't be opened when this LED is lit.

BLEACH LED

Bleach LED is lit when bleach compartment is dispensing for the first time in the cycle.

Four 7-Segment Digits

The 7-Segment Digits are used to display the time remaining in a cycle, vend price, error messages and descriptive codes. During diagnostic testing or manual programming of the control, these digits will display descriptive codes and values (as described in *Entering the Manual Mode*).

Machine Operation

Start Up

When power is applied to the machine, the control will display its software version as “S xx” (“xx” is the version number) for one (1) second. If the control was not powered down during a running cycle, it will enter Ready Mode, Partial Vend Mode or Start Mode.

Ready Mode

In this mode of operation the control indicates the current selected cycle, temperature and soil level by lighting the LED's. The full current vend price for the cycle appears in the display. The *Insert Coins/Card* LED is lit.

To start the cycle, the user must satisfy the vend price and then press the START keypad.

The user will be able to select a different cycle, soil level or wash water temperature by pressing a cycle pad when the machine is in Ready Mode.

Partial Vend Mode

The control enters this mode when part of the vend price has been entered, but not enough vend is entered to satisfy the vend price. The control will display the remaining vend price needed to start the cycle and the *Insert Coins/Card* LED is lit.

The user will be able to select a different cycle, soil level or wash water temperature by pressing a cycle pad when the machine is in Partial Vend Mode.

Additional Vend Mode

The control enters this mode if a higher priced cycle, wash water temperature or soil level is selected while the machine is in Start Mode or Run Mode, but before the first Fill has completed. If the vend price is not satisfied within one (1) minute, the control will go back to the first selection and the cycle will continue if it was paused. After the first Fill, all key presses will be ignored, allowing the machine to go through the complete cycle.

Start Mode

The control enters this mode when the full vend price is satisfied, the vend price is zero, the control is in OPL Mode or the correct Drop Off Mode key sequence is entered. The START pad LED will flash one (1) second on and one (1) second off. If Start Mode is entered because the vend price is satisfied or the control is in OPL Mode, the display will show “PUSH” for one (1) second, “Strt” for one (1) second and the current cycle time for one (1) second. If Start Mode is entered because the vend price is zero, the display will show “FrEE”. When first entering Start Mode, a signal will sound for one (1) second on and one (1) second off for 10 seconds if Signal for Start is enabled.

After pressing the START keypad, the door will lock and the cycle will begin.

Door Locking Mode

The control enters this mode after the START (enter) keypad is pressed in Start Mode. The control stays in Door Locking Mode until it confirms the door is closed and locked.

Cycle Sequence

Upon the start of a cycle, the control will display the total cycle time. The appropriate LEDs will light while the machine passes through different cycle steps. Any coin entered after the first Fill cycle will be added to the total coin counter, but the user will not be able to change cycles or water temperature.

Run Mode

The control enters this mode when a cycle is running. The time remaining appears in the display, the status LED's are lit and the loading door is locked.

Door Unlocking Mode

The control enters this mode after cycle has ended. The control waits for confirmation that door is unlocked. Once confirmation is received that door is unlocked, control will enter End of Cycle Mode.

End of Cycle Mode

When a cycle is complete, the control will display “00” until the washer door is opened, a key is pressed, or a coin/card is entered. The display will revert back to Ready Mode if door is opened or keypad is pressed. If vend is entered, the control will change to Partial Vend Mode or Start Mode.

Machine Operation

Signals

There are five options when a signal can be used during the washer operation. These five options are listed below:

1. **End of Cycle Signal**
By default, this signal is turned off. If turned on, the signal sounds for three (3) seconds at the end of a cycle.
2. **Signal On Keypad Depression**
By default, this signal is turned on and sounds for a quarter of a second each time a keypad is pressed.
3. **Signal On Coin Input/Card Insertion**
By default, this signal is turned on and will sound for a quarter of a second each time a coin or card is entered.
4. **Signal for Card Removal (Card Models Only)**
By default, this signal is turned on and will sound one (1) second on and one (1) second off when the control is prompting for card removal.
5. **Signal for Start**
By default, this signal is turned on and will sound one (1) second on and one (1) second off for 10 seconds after vend price has been satisfied.

NOTE: Refer to *Programming Control* to program signal options.

Changing Cycles

Cycles, wash temperatures and soil levels can be changed anytime during the first Fill step. After the first Fill step, all key presses are ignored.

Selecting a higher priced cycle, wash temperature or soil level will pause the first Fill step, and *Coins/Card* will flash one (1) second on and one (1) second off until the vend price has been satisfied. After the vend price has been satisfied, the cycle will continue with the new selections. If the vend price is not satisfied within one (1) minute, the washer control will go back to the previously set cycle, wash temperature and soil level.

Special Features

Programming Control

The control allows the machine owner to program the control with the use of the keypad. Cycle and vend options may be programmed, audit information may be viewed and diagnostic tests may be run by pressing combinations of the Select Cycle, Select Wash Temperature and Soil keypads.

For details on programming select cycle and vend options, refer to *Programming Control*.

Collecting Audit Information

The control will store audit information in its memory that can be retrieved by pressing various combinations of Select Cycle, Select Wash Temperature, and Select Soil keypads. The control will record coins entered, total machine cycles, total start pulses and total rapid advance cycles.

For more information on the audit features, refer to *Collecting Audit Information*.

NOTE: Additional audit information is retrievable with an external device, the card reader and the network. Refer to the appropriate instruction manual.

Testing Machine and Control Functions

Special diagnostic features built into the control allow the owner to run specific diagnostic tests. By opening and closing the top cover and then pressing various sequences of Select Cycle, Select Wash Temperature and Soil keypads, the owner may retrieve or perform the following tests:

- Front End Control Software Version Number
- Output Board Control Software Version Number
- Output Board Water Level Sensor Trim Value
- Top Cover Opening Test
- Coin Vault Opening Test
- Coin Drop #1 Input Test
- Coin Drop #2 Input Test
- Coin Drop Header Present Test
- Door Switch Input Test
- Door Lock Input Test
- Show Fill Time Test
- Show Drain Time Test
- Temperature Sensor Display Test
- Start Pulse Test
- VFD Balance Input Test

- 24 VAC Switch Input Test
- VFD Drive Fault Input Test
- Frame Balance Switch Input Test
- Balance Weight Test (Design 1 models only)
- Drive DC Bus Display Test (Design 2 models only)
- Water Purge Test
- Water Leak Detection Test
- Drive Software Version Number (Design 2 models only)
- Drive Parameter Table Version Number (Design 2 models only)
- Drive Type (Design 2 models only)

For detailed information on running diagnostic tests, refer to *Testing Machine and Control Functions*.

Rapid Advance Feature

This feature allows the user to quickly advance through active cycles or advance into a cycle from Ready Mode. This feature is useful when tests must be performed immediately on a machine currently in an active cycle. In this case, the user can quickly advance through the cycles to Ready Mode. At this point, the user can perform the required tests and then return the machine to the point it was interrupted.

For detailed information on using the Rapid Advance feature, refer to *Rapid Advance Feature*.

Clearing the Vend Feature

This feature allows the user to return the control back to Ready Mode if coins have been entered but the full vend price has not yet been satisfied.

For more information on using the Clear Vend feature, refer to *Clear Vend Feature*.

Communications Mode

This feature allows the control to communicate with an external device, the card reader, or the network. This allows the control to be programmed and have its data read without using the keypad.

For more detailed information on using the Communications Mode feature, refer to *Communications Mode*.

Coin Drop

The control will accept pulses from a single or dual coin drop to satisfy vend price. Each coin drop will have the ability to start a cycle.

Special Features

Start Pulse Operation

The control will accept pulses from optional payment systems. The machine can be programmed to receive a single start pulse or multiple start pulses, or the Start Pulse Option can be turned off. Start Pulse Mode allows the machine to go from Ready Mode to Start Mode after a single pulse or multiple pulses are received.

Top Cover and Coin Vault Openings

The control will capture the times and dates of the openings of the Coin Vault and the Top Cover. The information is saved in memory. An open top cover combined with various keypad presses allows the control to enter manual modes of operation if the Break-In Alarm is not on. These modes include Manual Programming, Audit Collection and Diagnostics.

Break-In Alarm

This feature allows the owner to program the machine to signal a network alarm, cause a machine alarm or shut down the machine if the top cover or coin vault is opened without disabling the alarm first. The date and time of the break-in is recorded. To avoid the alarm during coin collections, the alarm must be turned off or temporarily disabled by pressing the two programmed keys.

The alarm is turned off by default. The alarm can be turned on by programming the control with an external device or network.

Special Vend

This feature allows the owner to program the control to allow programmable vend prices for specific hours and dates.

For details on programming Special Vend, refer to *Programming Control*.

OPL Mode

This feature allows the user to start a cycle without satisfying the vend price.

For details on enabling OPL Mode, refer to *Programming Control*.

Drop-Off Mode

This feature allows the owner to limit machine use to an attendant without requiring vend. Starting the machine will require the correct sequence of four keypad presses as programmed by an external device, card reader or network.

For details on enabling Drop-Off Mode, refer to *Programming Control*.

Low Power/Auto-Shutdown Option

This feature allows the owner to program the control to shut down or enter a low power consumption mode based on programmable times and dates if either of these options are enabled.

For details on programming the Low Power/Auto-Shutdown option, refer to *Programming Control*.

Opening the Top Cover

To manually program the control, the top cover must be opened. Opening and closing the top cover trips a switch which allows access to various programming options. Once opened, the top cover may either be left open, and then closed after programming, or it may be closed immediately.

NOTE: If the Break-In Alarm option is enabled, it must be disabled before opening the top cover. For more information on using the Break-In Alarm, refer to the instructions included with the external device.

The top cover is located on the top of the washer-extractor.

1. Unlock top cover.
2. Slide top cover forward slightly to move notches away from the pegs on the front of cabinet.
3. Lift the top cover up. To completely remove, lift top cover away from both top cover hinges. Refer to *Figure 2*.

After removing, or opening and closing the top cover, the operator has 4 minutes and 15 seconds to begin programming. If the appropriate Select Pads have not been pressed in that time, the control will not accept operator programming. Should this happen, opening and closing the top cover will once again trip the switch which allows access to the programming options.

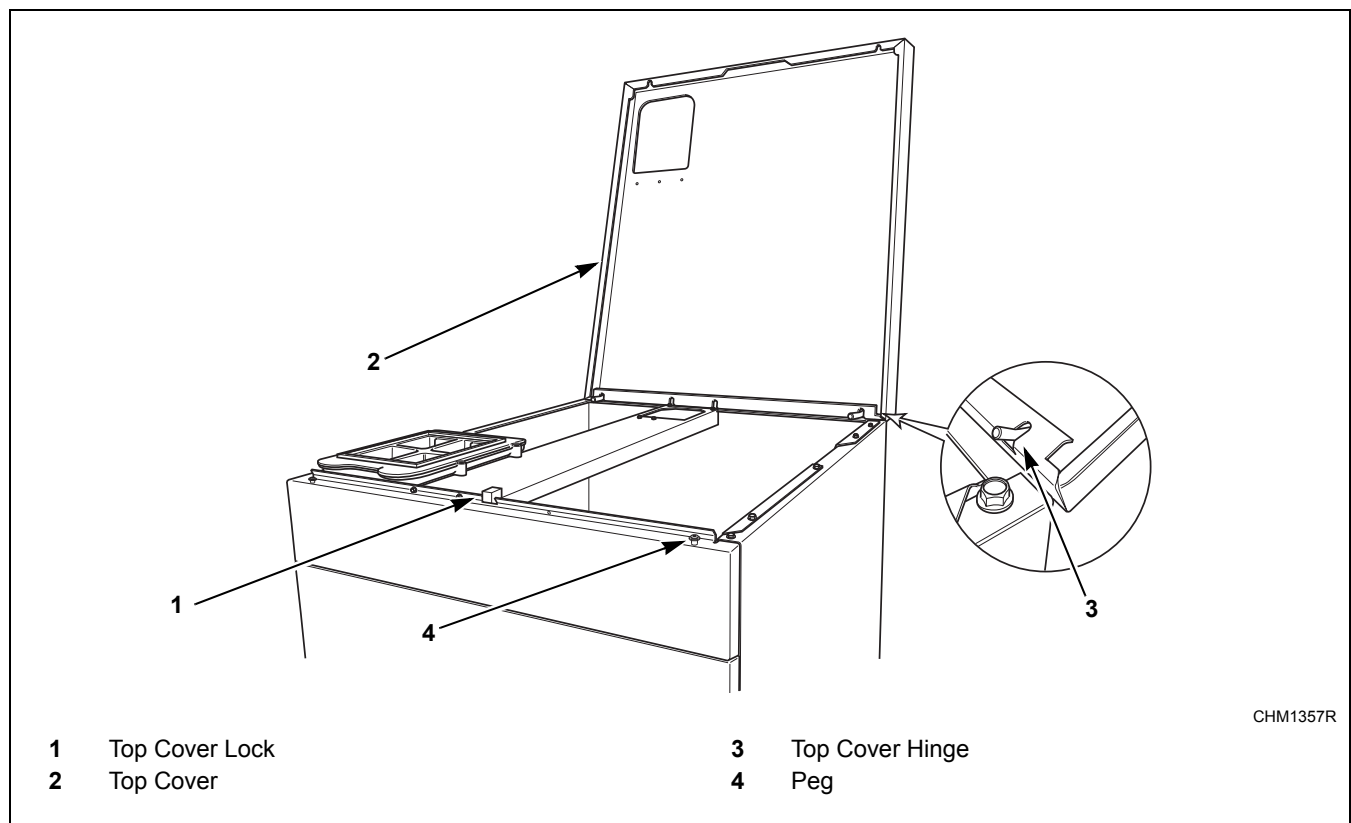


Figure 2

Entering the Manual Mode

For programming, testing, and retrieving information from the control, it is often necessary to enter the Manual Mode by following the six simple steps below.

How to Enter the Manual Mode

1. If accessing Diagnostic Tests, be sure the machine is in the Ready Mode before continuing to step 2. If the machine is in an active cycle, rapid advance through the cycle. Refer to the **Rapid Advance Feature**. If coins or a card has been entered, refer to **Clear Vend Feature**.
2. Open the top cover. Refer to **Opening the Top Cover**.

NOTE: The coin vault switch must be closed to enter Manual Mode.

3. While pressing and holding the NORMAL keypad with one hand, press the LIGHT keypad with the other hand.
4. The display will show “rAPd”.
5. Press the HEAVY (^) keypad or the DELICATES (v) keypad to scroll through the options until the desired option appears in the display.
6. Press the START (enter) keypad.

Manual Mode is broken into three groups: Manual Programming, Manual Rapid Advance and Manual Diagnostics. Manual Programming can only be turned on or off with an external device or the network. Refer to the appropriate instruction manual. Manual Rapid Advance and Manual Diagnostics can be turned on and off using an external device, by manual programming (refer to *options 22 and 47 of Programming Control*), or with the network.

By default, all groups are turned “on”.

The manual features available in each group are as follows (the menu displayed on the display in this mode is in parentheses).

Manual Programming

Manual Programming (Prog)

Manual Read Audit (AUdt)

Manual Reset (rSEt)

Manual Rapid Advance

Rapid Advance (rAPd)

Manual Diagnostics

Manual Diagnostic Tests (diAg)

If a group is turned off, the display will change from the selected feature to “OFF” when the START (enter) pad is pressed and an audio signal will sound for one (1) second. The display will then return to the selected feature. The features in the group cannot be entered.

Programming Control

What Can Be Programmed?

This feature allows the owner to program cycle information, standard vend pricing, special vends and other features by using the keypads. The control must have the Manual Programming Mode enabled, which is the factory default. This mode can only be turned “OFF” and “ON” by using an external device or the network. Refer to this section when programming the control.

This section offers a detailed description of all available programmable options.

Each description includes instructions on when and why the option might be used and, more importantly, how to program the option.

For more advanced users, a quick reference list (refer to *Table 1*) and programming flowcharts (refer to *Figure 3* through *Figure 8*) of the options available through the programming mode are located on the following pages.

NOTE: The letters and numbers in the Option Display column of the Programmable Options List are what will be shown in the display when that option is selected.

Programmable Options Available

Option Number	Option Display	Description	Default Value	Value Range
1	“AtS1”	NORMAL/HOT Vend Price	200	0-65535
2	“dEn1”	Coin #1 Value	25	1-65535
3	“dEn2”	Coin #2 Value	100	1-65535
4	“PLSE”	Start Pulse Value	25	1-65535
5	“PLSn”	Start Pulse Mode	128	oFF/128/192
6	“AtyP”	Available Type	0	0-3
7	“dCYC”	Default Cycle	5*	1-9*
8	“oPL”	OPL Mode Enable/Disable	oFF	on/oFF
9	“AUd”	Audio Signal	29*	0-31*
10	“CArd”	Card Reader Display Control	oFF	on/oFF
11	“Err-”	Errors	—	Press START keypad to access options
a.	“CEr-”	Coin Error Parameters	—	Press START keypad to access options
1.	“CEr1”	Coin Error	on	on/oFF
2.	“CEr2”	Coin Error Penalty	oFF	on/oFF
3.	“CEr3”	Coin Drops Header Present Error	on	on/oFF
b.	“E FL”	Fill Errors	on	on/oFF
c.	“E dr”	Drain Error	on	on/oFF
d.	“E Ub”	Unbalance Error Display	on	on/oFF
e.	“E oP”	Open Thermister Error Display	on	on/oFF
f.	“E SH”	Shorted Thermistor Error Display	on	on/oFF
g.	“E Ht”	Heat Error Display (Heater only)	on	on/oFF

*Refer to programming section for value definition.

**Refer to the *Cycle Charts* for default cycle setting information.

Table 1 (continued)

Programming Control

Table 1 (continued)

Option Number	Option Display	Description	Default Value	Value Range
h.	“LEr-”	Water Leak Detection Error	—	Press START keypad to access options
1.	“LEr1”	<i>Water Leak Detection During a Machine Cycle (On/Off)</i>	oFF	on/oFF
2.	“LEr2”	<i>Water Leak Detection Day of Week Enable</i>	127*	0-127*
3.	“LEr3”	<i>Number of cycles between leak detection test</i>	0*	0-127*
i	“E Sd”	Slow Drain Detection	oFF	on/oFF
12	“CyC-”	Cycle Programming	Refer to <i>Cycle Chart</i> for default cycle information	
a.	“AgIt”	Cycle Agitate	—	Press START keypad to access options
1.	“tyPE”	Agitate Type	**	1-2*
2.	“ASPd”	Agitate Speed (VFD only)	**	Lo/rEg*
b.	“SEg-”	Cycle Segment Programming	—	Press START keypad to access options
1.	“SgEn”	<i>Segment Enable/Disable</i>	**	on/oFF
2.	“FILL”	Fill Step	—	Press START keypad to access options
a.	“FLEn”	<i>Fill Step Enable/Disable</i>	**	on/oFF
b.	“FLEU”	<i>Fill Level</i>	**	HI/nEd/Lo
c.	“tEnP”	<i>Fill Temperature</i>	**	CoLd/UArn/Hot
3.	“SUPL”	Supply Step	—	Press START keypad to access options
a.	“SUEn”	<i>Supply Step Enable/Disable</i>	**	on/oFF
b.	“dISP”	<i>Dispenser Options</i>	**	For Design 1 models, display will show Cx (compartment-oriented) or Sx (supply-oriented), depending on how option 5 (Supply/Compartment Dispenser Programming) is programmed. For Design 2 models, Compartment and Supply dispensing is programmed separately. Press START keypad to access options.
(1)	“C2” or “S1”	<i>Compartment #2/Supply #1 (Design 1 models)</i>	**	on/oFF
(2)	“C3” or “S2”	<i>Compartment #3/Supply #2 (Design 1 models)</i>	**	on/oFF
(3)	“C4” or “S3”	<i>Compartment #4/Supply #3 (Design 1 models)</i>	**	on/oFF
(4)	“S4”	<i>Supply #4 (Design 1 models)</i>	**	on/oFF
(1)	“C2”	<i>Compartment #2 (Design 2 models)</i>	**	on/oFF
(2)	“C3”	<i>Compartment #3 (Design 2 models)</i>	**	on/oFF
(3)	“C4”	<i>Compartment #4 (Design 2 models)</i>	**	on/oFF
(4)	“S1”	<i>Supply #1 (Design 2 models)</i>	**	on/oFF

*Refer to programming section for value definition.

**Refer to the *Cycle Charts* for default cycle setting information.

Table 1 (continued)

Table 1 (continued)

Option Number	Option Display	Description	Default Value	Value Range
(5)	“S2”	Supply #2 (Design 2 models)	**	on/off
(6)	“S3”	Supply #3 (Design 2 models)	**	on/off
(7)	“S4”	Supply #4 (Design 2 models)	**	on/off
c.	“SdUr”	Supply Duration	**	Press START keypad to access options
(1)	“SEC”	Seconds	**	0-59
(2)	“nIn”	Minutes	**	0-9
4.	“AgSt”	Agitate Step	—	Press START keypad to access options
a.	“AgEn”	Agitate Step Enable/Disable	**	on/off
b.	“AdUr”	Agitate Duration (in minutes)	**	1-30 for agitate types 1 or 2
c.	“HEAT”	Heat in Agitate (if heater is present)	**	oFF/1/2**
5.	“drAn”	Drain Step	on	on/off
6.	“SPIn”	Extract Step	—	Press START keypad to access options
a.	“SPEn”	Extract Step Enable/Disable	**	on/off
b.	“SSEC”	Extract Seconds	**	0 - 59
c.	“SnIn”	Extract Minutes	**	Intermediate Extract: Min. Step Time = 30 seconds, Max. Step Time = 3:59 minutes
				Final Extract: Min. Step Time = 30 seconds, Max. Step Time = 9:59 minutes
d.	“SSPd”	Extract Speed (VFD models only)	**	1-5* (Design 1) 1-6* (Design 2)
c.	“Cnin”	Cycle Time	0*	0-255 minutes
13	“SUPC”	Supply/Compartment Dispenser Programming (Design 1 Models only)	C (Compartment)	C (Compartment)/S (Supply Dispenser)
14	“bALr”	Number of Balance Retries (VFD only)	Design 1: 3 Design 2: 1	1-7
15	“IrA”	IR Access (On/Off)	on	on/off
16	“t FC”	Fahrenheit/Celsius	FAHr (Fahrenheit)	FAHr (Fahrenheit)/CEL (Celsius)
17	“FH”	Hot Water Temperature	140°F (60°C)	35°F-194°F/2°C-90°C
18	“FHC”	Warm Water Temperature	100°F (38°C)	35°F-194°F/2°C-90°C
19	“FC”	Cold Water Temperature	35°F (2°C)	35°F-194°F/2°C-90°C
20	“Codn”	Cooldown Enable/Temperature	oFF	oFF or 50°F-160°F/10°C-71°C
21	“PtEn”	Production Test Cycle (On/Off)	on	on/off
22	“rAEn”	Manual Rapid Advance (On/Off)	on	on/off

*Refer to programming section for value definition.

**Refer to the *Cycle Charts* for default cycle setting information.

Table 1 (continued)

Programming Control

Table 1 (continued)

Option Number	Option Display	Description	Default Value	Value Range
23	“nCtd”	No Cycle Time Display	oFF	on/oFF
24	“PCtd”	Cycle Time Display	oFF	on/oFF
25	“SdAd”	Slow Drain Detection Adjust	0	0-255
26	“SPAU”	Pause/Resume Mode	oFF	on/oFF
27	“AtS2”	NORMAL/WARM Vend Price	200	0-65535
28	“AtS3”	NORMAL/COLD Vend Price	200	0-65535
29	“AtS4”	PERM PRESS/HOT Vend Price	200	0-65535
30	“AtS5”	PERM PRESS/WARM Vend Price	200	0-65535
31	“AtS6”	PERM PRESS/COLD Vend Price	200	0-65535
32	“AtS7”	DELICATES/HOT Vend Price	200	0-65535
33	“AtS8”	DELICATES/WARM Vend Price	200	0-65535
34	“AtS9”	DELICATES/COLD Vend Price	200	0-65535
35	“rtC-”	Real Time Clock	—	Press START keypad to access options
a.	“rtC1”	Set Real Time Clock Minutes	—	00-59
b.	“rtC2”	Set Real Time Clock Hours	—	00-23
c.	“rtC3”	Set Real Time Clock Day	—	1 (Sunday)-7 (Saturday)
d.	“rtC4”	Set Real Time Clock Date	—	1-31
e.	“rtC5”	Set Real Time Clock Month	—	1-12
f.	“rtC6”	Set Real Time Clock Year	—	0 (2000)-99
g.	“rtC7”	Daylight Saving Option	on	on/oFF
36	“SPA-”	Special Vend A Data	—	Press START keypad to access options
a.	“SA01”	Special Vend A Days Enable	oFF*	oFF*/1-255
b.	“SA02”	Special Vend A Start Hour	—	0-23
c.	“SA03”	Special Vend A Start Minute	—	0-59
d.	“SA04”	Special Vend A Length in Hours	—	0-24
e.	“SA05”	Special Vend A Start Month	—	0-12
f.	“SA06”	Special Vend A Start Date	—	0-31
g.	“SA07”	Special Vend A Start Year	—	0-99
h.	“SA08”	Special Vend A End Month	—	0-12
i.	“SA09”	Special Vend A End Date	—	0-31
j.	“SA10”	Special Vend A End Year	—	0-99

*Refer to programming section for value definition.

**Refer to the *Cycle Charts* for default cycle setting information.

Table 1 (continued)

Table 1 (continued)

Option Number	Option Display	Description	Default Value	Value Range
k.	“SA11”	Special Vend A NORMAL/HOT Vend Price	—	0-65535
l.	“SA12”	Special Vend A NORMAL/WARM Vend Price	—	0-65535
m.	“SA13”	Special Vend A NORMAL/COLD Vend Price	—	0-65535
n.	“SA14”	Special Vend A PERM PRESS/HOT Vend Price	—	0-65535
o.	“SA15”	Special Vend A PERM PRESS/WARM Vend Price	—	0-65535
p.	“SA16”	Special Vend A PERM PRESS/COLD Vend Price	—	0-65535
q.	“SA17”	Special Vend A DELICATES/HOT Vend Price	—	0-65535
r.	“SA18”	Special Vend A DELICATES/WARM Vend Price	—	0-65535
s.	“SA19”	Special Vend A DELICATES/COLD Vend Price	—	0-65535
t.	“SA20”	Special Vend A Wash Agitate Step Added Minutes	—	0-15
u.	“SA21”	Special Vend A Wash Agitate Step Subtracted Minutes	—	0-15
v.	“SA22”	Time of Day Extract (Design 2 models only)	6	1-6
37	“SPb-”	Special Vend B Days	oFF	on/oFF
38	“SPC-”	Special Vend C Days	oFF	on/oFF
39	“SPd-”	Special Vend D Days	oFF	on/oFF
40	“CnP-”	Cycle Modifier Programming	—	Press START keypad to access options
a.	“CnP1”	Cycle Modifier Medium Vend Price Adder	25	0-65535
b.	“CnP2”	Cycle Modifier Heavy Vend Price Adder	50	0-65535
c.	“CnP3”	Cycle Modifier Medium Options	1*	0-15
d.	“CnP4”	Cycle Modifier Heavy Options	3*	0-15
e.	“CnP5”	Cycle Modifier Wash Segment Added Agitate Time (min.) (Design 1 models)	2 (2 min.)	0-15
		Cycle Modifier Medium Wash Segment Added Agitate Time (min.) (Design 2 models)		

*Refer to programming section for value definition.

**Refer to the *Cycle Charts* for default cycle setting information.

Table 1 (continued)

Programming Control

Table 1 (continued)

Option Number	Option Display	Description	Default Value	Value Range
f.	“CnP6”	Cycle Modifier Default Soil Level	0*	0-2
g.	“CnP7”	Cycle, Modifier Heavy Wash Segment Added Agitate Time (min.) (Design 2 models)	2 (2 min.)	0-15
41	“droP”	Drop Off Mode	oFF	on/oFF
42	“LPSA”	Low Power/Auto Shutdown A Days	oFF	on/oFF
43	“LPSb”	Low Power/Auto Shutdown B Days	oFF	on/oFF
44	“LPSC”	Low Power/Auto Shutdown C Days	oFF	on/oFF
45	“LPSd”	Low Power/Auto Shutdown D Days	oFF	on/oFF
46	“PFr”	Power Fail Reset	oFF/5 min*	oFF/133 - 255
47	“dAEn”	Manual Diagnostics (On/Off)	on	on/oFF
48	“FLo”	Low Water Level	3	1-10
49	“FnEd”	Medium Water Level	15	11-20
50	“FHI”	High Water Level	27	21-30
51	“tCF”	Temperature Controlled Fill (Models with Heat)	oFF	on/oFF
52	“ALd-”	Auto-Water Leak Detection	—	Press START keypad to access options
a.	“ALd1”	Auto-Water Leak Detection (On/Off and cycles)	oFF	oFF/0-127 (Cycles)
b.	“ALd2”	Auto-Water Leak Detection Hour	0	0-23
c.	“ALd3”	Auto-Water Leak Detection Day of Week	127*	0-127*

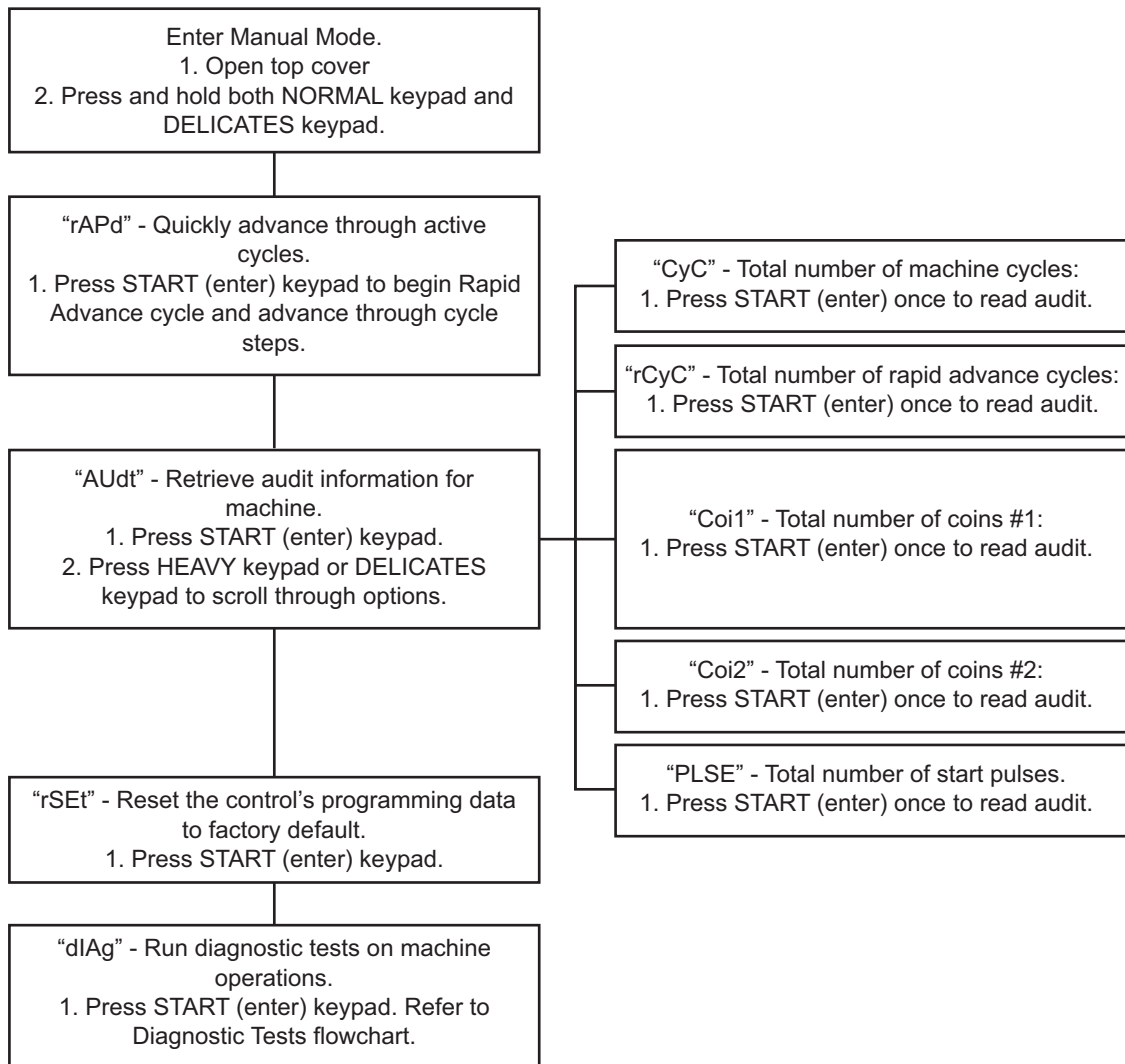
*Refer to programming section for value definition.

**Refer to the *Cycle Charts* for default cycle setting information.

Table 1

Programming Flowcharts

Entering Manual Mode



CHM1353R

Figure 3

Programming Control

Manual Programming

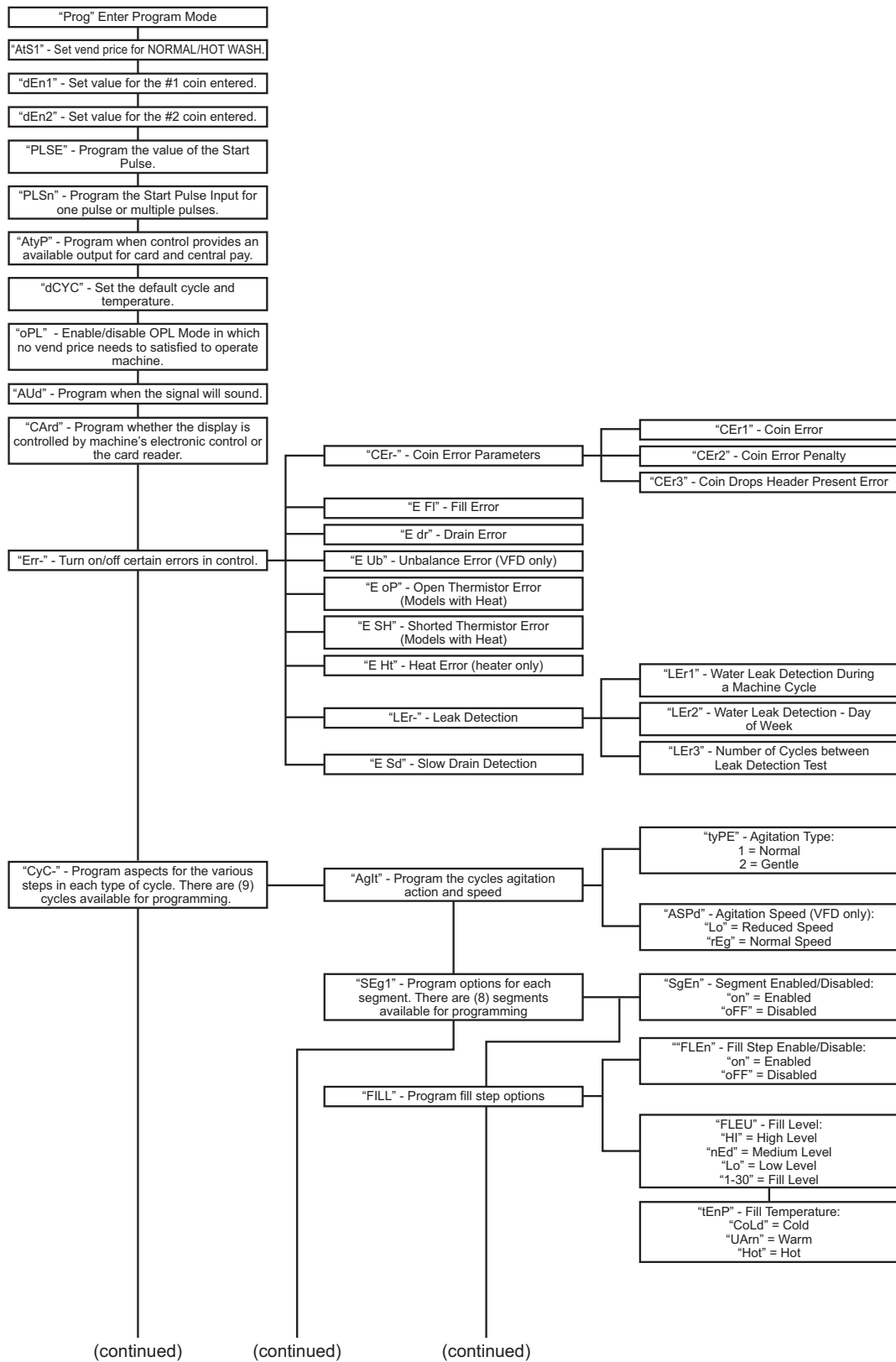


Figure 4

CHM1377R

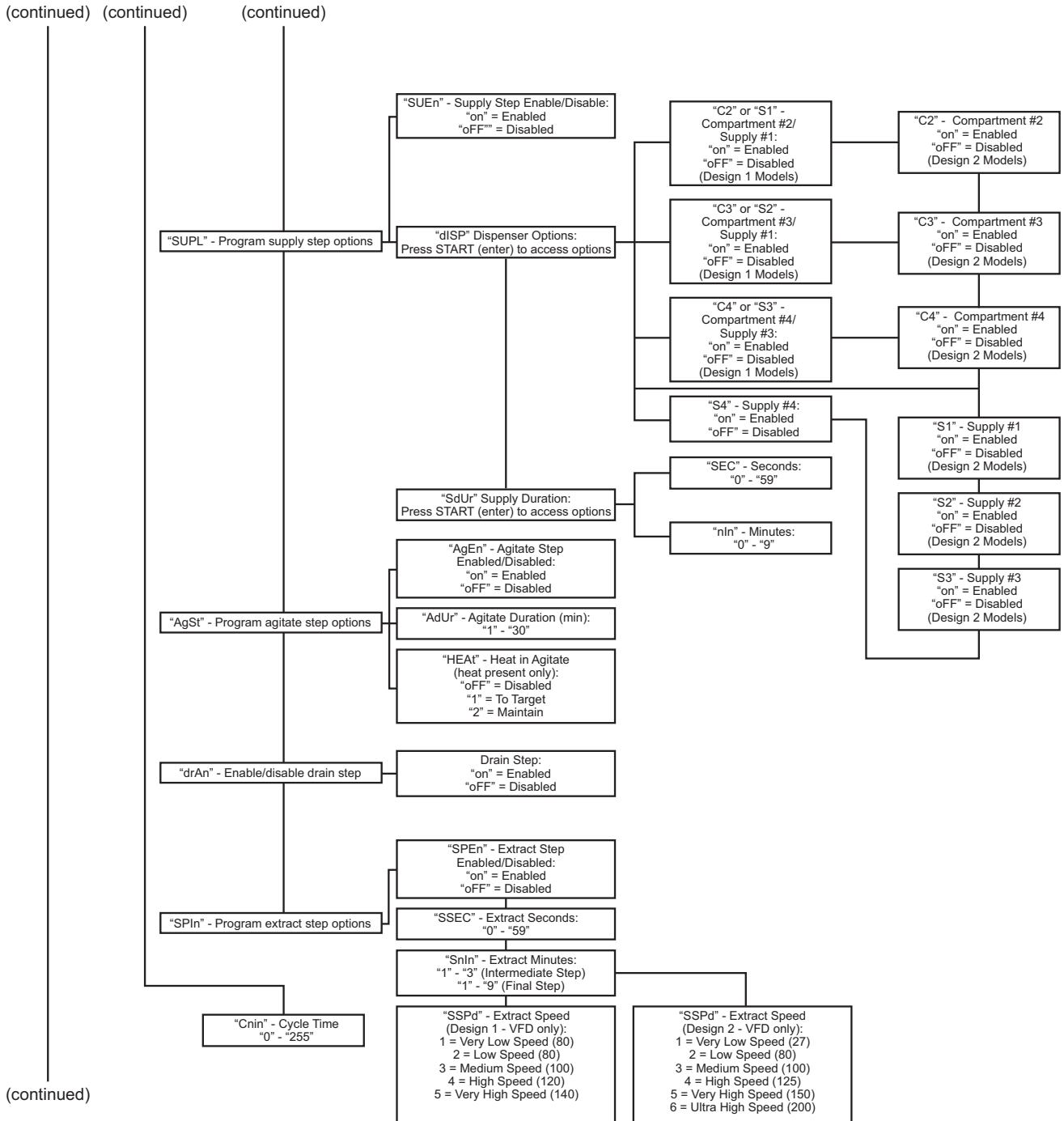
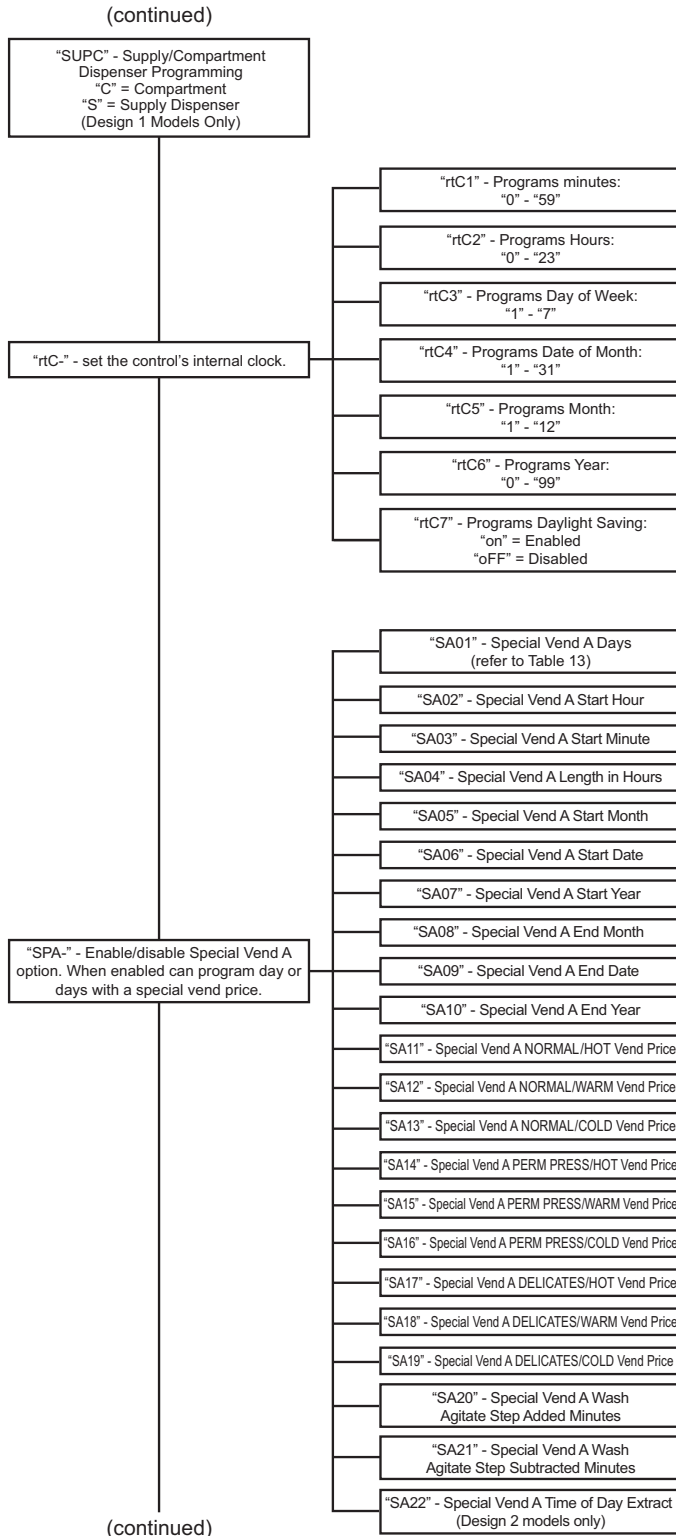


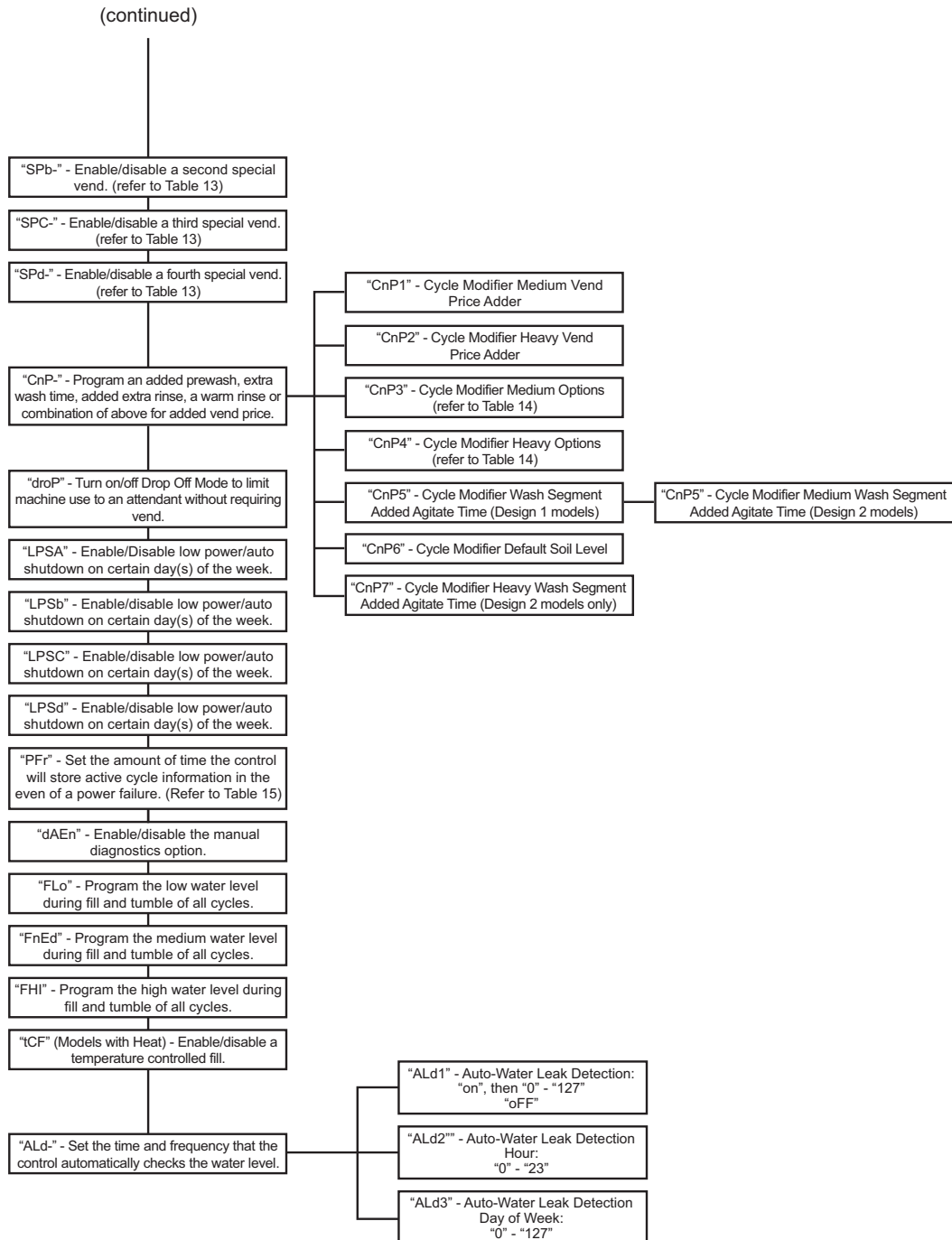
Figure 5

Programming Control



CHM1388R

Figure 6



CHM1384R

Figure 7

Programming Control

Diagnostics

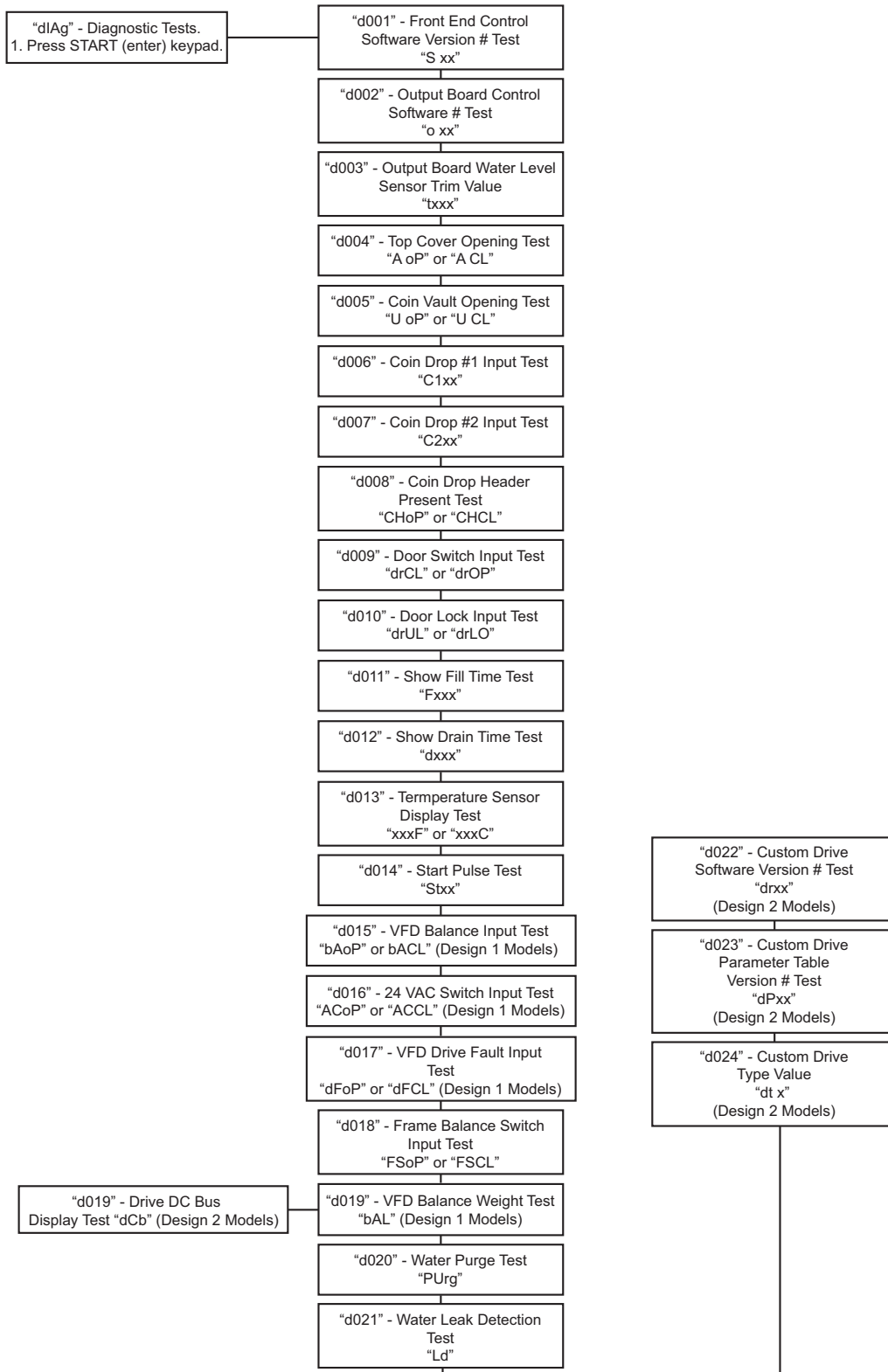


Figure 8

CHM1389R

1. Normal Hot Vend Price “AtS1”

This option allows the owner to set the vend price for a Normal Hot wash. This vend price will be shown in the display when NORMAL and HOT are selected.

How to Program the Normal Hot Vend Price

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad.
3. “AtS1” will appear in the display. Press the START (enter) keypad. The NORMAL and HOT LEDs will be lit to show which cycle/temperature price is being programmed.
4. There are five digits in Normal Hot Vend Price. The fifth digit will appear in the display and will flash one (1) second on, one (1) second off. Refer to *Figure 9*.

NOTE: If the vend price is \$100.00 or more, the fifth digit is “1-6”. If the vend price is \$99.99 or less, the fifth digit is “0”.

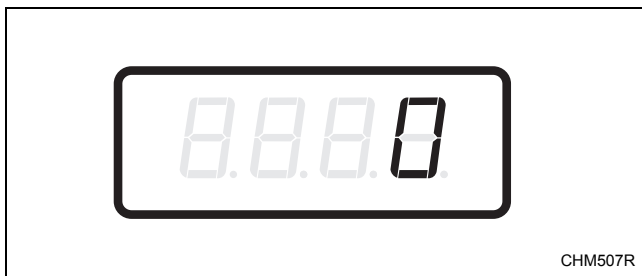


Figure 9

5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the fifth digit.

NOTE: The vend price can be set from 0 to 65,535. The default vend price is 200.

6. Press the START (enter) keypad to enter the fifth digit and display remaining four digits. The active digit will flash one (1) second on and one (1) second off.

NOTE: To go back to the current programmable option without changing the value of the active digit, press the PERM PRESS (<) keypad.

7. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the active digit and the START (enter) keypad to enter the value of the digit and advance to the next digit.
8. Press the START (enter) keypad with the last active digit. The next option, “dEn1”, will appear in the display.

NOTE: To program “dEn1” (Coin #1 Value), refer to *option 2*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Control

2. Coin #1 Value “dEn1”

This option allows the owner to set a specific numerical value for a coin entered. For example, in the United States the coin value for one quarter would be measured in cents (25). Therefore, the coin value entered for one quarter would be 00025.

If the Normal Hot Vend Price (*option 1*) is set for “.75”, and the Coin Value is set for “00025”, the vend price displayed will decrease by .25 for each coin entered.

How to Program Coin #1 Value

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “dEn1” appears in the display.
4. When “dEn1” appears in the display, press the START (enter) keypad. There are five digits in the Coin #1 Value. The fifth digit will appear in the display and will flash one (1) second on, one (1) second off. Refer to *Figure 10*.

NOTE: If the Coin #1 Value is \$100.00 or more, the fifth digit is “1-6”. If the Coin #1 Value is \$99.99 or less, the fifth digit is “0”.

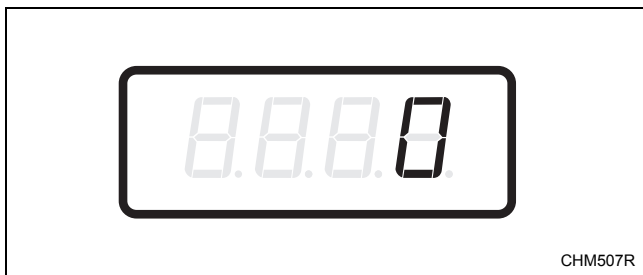


Figure 10

5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the fifth digit.

NOTE: The coin value can be set from 1 to 65,535. The default coin value is 25.

6. Press the START (enter) keypad to enter the fifth digit and display remaining four digits. The active digit will flash one (1) second on and one (1) second off.

NOTE: To go back to the current programmable option without changing the value of the active digit, press the PERM PRESS (<) keypad.

7. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the active digit and the START (enter) keypad to enter the value of the digit and advance to the next digit.
8. Press the START (enter) keypad with the last active digit. The next option, “dEn2”, will appear in the display.

NOTE: To program “dEn2” (Coin #2 Value), refer to *option 3*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

3. Coin #2 Value “dEn2”

This option allows the owner to set a specific numerical value for a coin entered when using the dual coin drop. For example, the coin value for a dollar coin would be measured in cents (1.00). Therefore, the coin value entered for one dollar coin would be 00100.

If the Normal Hot Vend Price (*option 1*) is set for “2.00”, and the Coin Value is set for “00100”, the vend price displayed will decrease by 1.00 for each dollar coin entered.

How to Program Coin #2 Value

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “dEn2” appears in the display.
4. When “dEn2” appears in the display, press the START (enter) keypad. There are five digits in the Coin #2 Value. The fifth digit will appear in the display and will flash one (1) second on and one (1) second off. Refer to *Figure 11*.

NOTE: If the coin value is \$100.00 or more, the fifth digit is “1-6”. If the coin value is \$99.99 or less, the fifth digit is “0”.

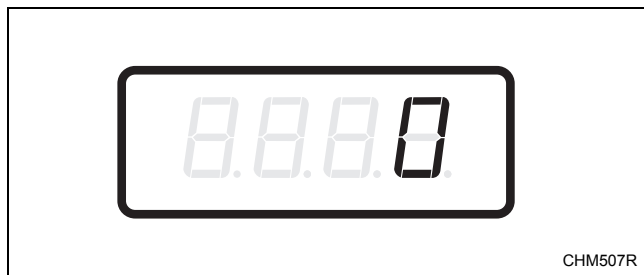


Figure 11

5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the fifth digit.

NOTE: The coin value can be set from 1 to 65,535. The default coin value is 100.

6. Press the START (enter) keypad to enter the fifth digit and display remaining four digits. The active digit will flash one (1) second on and one (1) second off.

NOTE: To go back to the current programmable option without changing the value of the active digit, press the PERM PRESS (<) keypad.

7. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the active digit and the START (enter) keypad to enter the value of the digit and advance to the next digit.
8. Press the START (enter) keypad with the last active digit. The next option, “PLSE”, will appear in the display.

NOTE: To program “PLSE” (Start Pulse Value), refer to *option 4*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Control

4. Start Pulse Value “PLSE”

This option allows the owner to program the value of the Start Pulse if used for multiple pulses with an after-market central card reader or pay system. Refer to *option 5* for additional information.

How to Program Start Pulse Value

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “PLSE” appears in the display.
4. When “PLSE” appears in the display, press the START (enter) keypad. There are five digits in the Start Pulse Value. The fifth digit will appear in the display and will flash one (1) second on and one (1) second off. Refer to *Figure 12*.

NOTE: If the Start Pulse Value is \$100.00 or more, the fifth digit is “1-6”. If the Start Pulse Value is \$99.99 or less, the fifth digit is “0”.

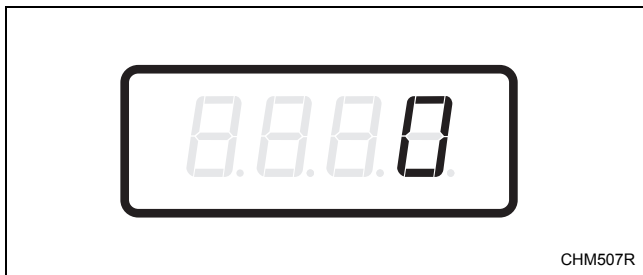


Figure 12

5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the fifth digit.

NOTE: The Start Pulse Value can be set from 1 to 65,535. The default Start Pulse Value value is 25.

6. Press the START (enter) keypad to enter the fifth digit and display remaining four digits. The active digit will flash one (1) second on and one (1) second off.

NOTE: To go back to the current programmable option without changing the value of the active digit, press the PERM PRESS (<) keypad.

7. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the active digit and the START (enter) keypad to enter the value of the digit and advance to the next digit.
8. Press the START (enter) keypad with the last active digit. The next option, “PLSn”, will appear in the display.

NOTE: To program “PLSn” (Start Pulse Mode), refer to *option 5*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

5. Start Pulse Mode “PLSn”

This option allows the owner to program the Start Pulse Input. The Start Pulse Mode can be used for after-market central pay or card systems. The central system sends the start pulse to the Start Pulse Input of the control to start the cycle. If set for single pulse, one start pulse from the central system will start the cycle. If set for multiple pulses, each pulse will deduct from the vend price value set up in *option 4 (Start Pulse Value)* until the vend is satisfied.

How to Program Start Pulse Mode

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “PLSn” appears in the display.
4. When “PLSn” appears in the display, press the START (enter) keypad. “oFF” or a number will appear in the display. This number corresponds to the current Start Pulse Mode Programming Value.
5. Locate the desired number in the first column of *Table 2* below.

“PLSn”		
Start Pulse Mode Value	Start Pulse ON/OFF	Single Pulse/ Multiple Pulses
“oFF”	OFF	OFF
128*	ON	Single Pulse
192	ON	Multiple Pulses

*Factory Default Setting

Table 2

6. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the current number until correct.

NOTE: To go back to the current programmable option without changing the current value, press the PERM PRESS (<) keypad.

7. Press the START (enter) keypad when the correct number appears in the display.

NOTE: To program “AtyP” (Available Type), refer to *option 6*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Control

6. Available Type “AtyP”

This option allows the owner to program when the control provides an available output for card and central pay systems.

How to Program Available Type

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “AtyP” appears in the display.
4. When “AtyP” appears in the display, press the START (enter) keypad. A number will appear in the display. This number corresponds to the current Available Type Value.
5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the current number to the desired number selected from *Table 3*.

Available Type Value	Mode(s) in Which Available Signal is Active
0*	Ready Mode only
1	Ready Mode, Partial Vend Mode
2	Ready Mode, End of Cycle Mode
3	Ready Mode, End of Cycle Mode, Partial Vend Mode

*Factory Default Setting

Table 3

6. Press the START (enter) keypad when the correct number appears in the display. The next option, “dCYC”, will appear in the display.

NOTE: To program “dCYC” (Default Cycle), refer to *option 7*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

7. Default Cycle “dCYC”

This option allows the owner to set the default cycle and temperature the machine will enter when in the Ready Mode. When programming the default cycle, refer to *Table 4*.

How to Program Default Cycle

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (∧) or the DELICATES (∨) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (∧) or the DELICATES (∨) keypad to scroll through the programmable options until “dCYC” appears in the display.
4. When “dCYC” appears in the display, press the START (enter) keypad. A number will appear in the display. This number corresponds to the current default cycle value. Refer to *Table 4*.
5. Press the HEAVY (∧) or the DELICATES (∨) keypad to increase or decrease the current number to the desired number selected from *Table 4*.
6. Press the START (enter) keypad when the correct number appears in the display. The next option, “OPL”, will appear in the display.

NOTE: To program “oPL” (OPL Mode), refer to option 8. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

How to Read *Table 4*

To determine the correct number required to program Default Cycle, use the following table. The Default Value column contains the number required in step 5. The other columns correspond to cycle type and wash temperature.

“dCYC”		
Default Value	Cycle Type	Wash Temperature
1	Normal	Hot
2	Normal	Warm
3	Normal	Cold
4	Perm Press	Hot
5*	Perm Press	Warm
6	Perm Press	Cold
7	Delicates	Hot
8	Delicates	Warm
9	Delicates	Cold

*Factory Default Setting

Table 4

Programming Control

8. OPL Mode Enable/Disable “oPL”

This option allows the owner to enable or disable the OPL Mode in which no vend price needs to be satisfied to operate the machine.

How to Program the OPL Mode Enable/Disable

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “oPL” appears in the display.
4. When “oPL” appears in the display, press the START (enter) keypad. The current OPL Mode Enable/Disable status will appear in the display.
“on” = Option Enabled
“oFF” = Option Disabled (Default Setting)
5. Press the HEAVY (^) or the DELICATES (v) keypad to change the current status.
6. Press the START (enter) keypad when the desired status appears in the display. The next option, “AUd”, will appear in the display.

NOTE: To program “AUd” (Audio Signal), refer to option 9. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

9. Audio Signal “AUd”

This option allows the owner to program when the signal will sound.

There are five occasions when a signal may sound during operation. These five occasions are listed below:

1. **End of Cycle Signal**
By default, the signal is turned off. If turned on, the signal will sound for three (3) seconds at the end of a cycle.
2. **Keypad Depression Signal**
By default, this signal is turned on and will sound for a quarter of a second. This signal will sound each time a keypad is pressed.
3. **Coin Input/Card Insertion Signal**
By default, this signal is turned on and will sound for a quarter of a second each time a coin or card is entered.
4. **Remove Card Signal (Card Models Only)**
By default, this signal is turned on and will sound one (1) second on and one (1) second off when the control is prompting for card removal.
5. **Signal for Start**
By default, this signal is turned on and will sound one (1) second on and one (1) second off for 10 seconds after vend price has been satisfied.

How to Program the Audio Signal

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “AUd” appears in the display.

4. When “AUd” appears in the display press the START (enter) keypad. A number will appear in the display. This number corresponds to the current Audio Signal Programming Value.
5. Locate the desired number in the first column of *Table 5* on the following page.
6. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the current number until correct.

For Example: A user might wish to have the signal sound only when a keypad is pressed. Entering the number “1” in step 5 would turn off all the options except KEYPAD. In this instance, the signal would sound only when a keypad is pressed.

7. Press the START (enter) keypad when the correct number appears in the display. The next option, “CArd”, will appear in the display.

NOTE: To program “CArd” (Card Reader Display Control), refer to *option 10*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

How to Read *Table 5*

To determine the correct number required to program the Audio Signal, use the following chart. The Signal Value column contains the number required in step 6. The other columns correspond to individual options.

Each column of options contains a unique combination of the words “on” and “OFF” that indicates if that column’s option is turned on or off when the Signal Value is entered. Select the desired combination of options and enter the number found in the Signal Value column.

Signal Value	Start Mode	Remove Card	Coin/ Card Input	End of Cycle	Key Pressed
0	OFF	OFF	OFF	OFF	OFF
1	OFF	OFF	OFF	OFF	ON
2	OFF	OFF	OFF	ON	OFF
3	OFF	OFF	OFF	ON	ON
4	OFF	OFF	ON	OFF	OFF
5	OFF	OFF	ON	OFF	ON
6	OFF	OFF	ON	ON	OFF
7	OFF	OFF	ON	ON	ON
8	OFF	ON	OFF	OFF	OFF
9	OFF	ON	OFF	OFF	ON
10	OFF	ON	OFF	ON	OFF
11	OFF	ON	OFF	ON	ON
12	OFF	ON	ON	OFF	OFF
13	OFF	ON	ON	OFF	ON
14	OFF	ON	ON	ON	OFF
15	OFF	ON	ON	ON	ON
16	ON	OFF	OFF	OFF	OFF
17	ON	OFF	OFF	OFF	ON
18	ON	OFF	OFF	ON	OFF
19	ON	OFF	OFF	ON	ON
20	ON	OFF	ON	OFF	OFF
21	ON	OFF	ON	OFF	ON
22	ON	OFF	ON	ON	OFF
23	ON	OFF	ON	ON	ON
24	ON	ON	OFF	OFF	OFF
25	ON	ON	OFF	OFF	ON
26	ON	ON	OFF	ON	OFF
27	ON	ON	OFF	ON	ON
28	ON	ON	ON	OFF	OFF
29*	ON	ON	ON	OFF	ON
30	ON	ON	ON	ON	OFF
31	ON	ON	ON	ON	ON

*Factory Default Setting

Table 5

Programming Control

10. Card Reader Display Control “CArd”

This option allows the owner to program whether the display is controlled by the machine’s electronic control or by the card reader.

NOTE: This feature does not need to be programmed manually. The card reader itself makes this determination.

How to Program the Card Reader Display Control

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “CArd” appears in the display.
4. When “CArd” appears in the display, press the START (enter) keypad. The current Card Reader Display Control Status will appear in the display.
“on” = Card Reader controls display
“oFF” = Machine Electronic Control controls display (Default Setting)

5. Press the HEAVY (^) or the DELICATES (v) keypad to change the current status.
6. Press the START (enter) keypad when the desired status appears in the display. The next option, “Err-”, will appear in the display.

NOTE: To program “Err-” (Error Code Programming), refer to *option 11*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

11. Error Code Programming “Err-”

This option allows the owner to turn on or turn off certain errors in the control.

How to Program Error Code Programming

- Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
- Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
- Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “Err-” appears in the display.
- When “Err-” appears in the display, press the START (enter) keypad. Refer to *Table 6* for a list of programmable error code parameters.
- Press the HEAVY (^) or the DELICATES (v) keypad to select error code.
- Press the START (enter) keypad when the correct code appears in the display. The current status will appear in the display.
“on” = Option Enabled
“oFF” = Option Disabled
- Press the HEAVY (^) or the DELICATES (v) keypad to change the status.
- Press the START (enter) keypad when the correct status appears in the display. The next Error Code Programming option will appear in the display.

NOTE: To program “CyC-” (Cycle Programming), press the PERM PRESS (<) keypad, then the HEAVY (^) keypad and refer to *option 12*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

“CEr-”	Coin Error Parameters	
	“CEr1”	Coin Error - Determines if display will show error.
	“CEr2”	Coin Error Penalty - If enabled, coin error will erase previous coins entered and reset the vend price.
	“CEr3”	Coin Drops Header Present Error - If enabled and coin drop header is unplugged, control ignores coin inputs.
“E FL”	Fill Error	
“E dr”	Drain Error	
“E Ub”	Unbalance Error Display (VFD only)	
“E oP”	Open Thermistor Error Display (Models with Heat)	
“E SH”	Shorted Thermistor Error Display (Models with Heat)	
“E Ht”	Heat Error Display (Heater only)	
“LEr-”	Leak Detection If Water Leak Detection during a machine cycle is enabled, then, on the enabled day(s) of the week, the control will check for water leaks during running machine cycles. If a leak is detected, the control will display the “E Ld” error for one (1) minute after the cycle is completed. It will also light the right-most decimal point on the display. The Water Leak Detection diagnostic test can be used to verify the leak.	
	“LEr1”	Water Leak Detection During a Machine Cycle – Determines if water level drops below target level.
	“LEr2”	Water Leak Detection – Day of Week Enable (Refer to <i>Table 7</i>)
	“LEr3”	Number of cycles between leak detection tests.
“E Sd”	Slow Drain Detection – Determines if machine is slower than normal. If Slow Drain Detection is enabled, the control will check for slow drain operation during running machine cycles. If a slow drain is detected, the control will display the “E Sd” error for one minute after the cycle is completed. It will also light the right-most decimal point on the display.	

Table 6

Programming Control

Day(s) of the Week Enabled Values							
Day Of Week Value	SAT	FRI	THUR	WED	TUE	MON	SUN
0	OFF	OFF	OFF	OFF	OFF	OFF	OFF
1	OFF	OFF	OFF	OFF	OFF	OFF	ON
2	OFF	OFF	OFF	OFF	OFF	ON	OFF
3	OFF	OFF	OFF	OFF	OFF	ON	ON
4	OFF	OFF	OFF	OFF	ON	OFF	OFF
5	OFF	OFF	OFF	OFF	ON	OFF	ON
6	OFF	OFF	OFF	OFF	ON	ON	OFF
7	OFF	OFF	OFF	OFF	ON	ON	ON
8	OFF	OFF	OFF	ON	OFF	OFF	OFF
9	OFF	OFF	OFF	ON	OFF	OFF	ON
10	OFF	OFF	OFF	ON	OFF	ON	OFF
11	OFF	OFF	OFF	ON	OFF	ON	ON
12	OFF	OFF	OFF	ON	ON	OFF	OFF
13	OFF	OFF	OFF	ON	ON	OFF	ON
14	OFF	OFF	OFF	ON	ON	ON	OFF
15	OFF	OFF	OFF	ON	ON	ON	ON
16	OFF	OFF	ON	OFF	OFF	OFF	OFF
17	OFF	OFF	ON	OFF	OFF	OFF	ON
18	OFF	OFF	ON	OFF	OFF	ON	OFF
19	OFF	OFF	ON	OFF	OFF	ON	ON
20	OFF	OFF	ON	OFF	ON	OFF	OFF
21	OFF	OFF	ON	OFF	ON	OFF	ON
22	OFF	OFF	ON	OFF	ON	ON	OFF
23	OFF	OFF	ON	OFF	ON	ON	ON
24	OFF	OFF	ON	ON	OFF	OFF	OFF
25	OFF	OFF	ON	ON	OFF	OFF	ON
26	OFF	OFF	ON	ON	OFF	ON	OFF
27	OFF	OFF	ON	ON	OFF	ON	ON
28	OFF	OFF	ON	ON	ON	OFF	OFF
29	OFF	OFF	ON	ON	ON	OFF	ON
30	OFF	OFF	ON	ON	ON	ON	OFF
31	OFF	OFF	ON	ON	ON	ON	ON
32	OFF	ON	OFF	OFF	OFF	OFF	OFF
33	OFF	ON	OFF	OFF	OFF	OFF	ON
34	OFF	ON	OFF	OFF	OFF	ON	OFF
35	OFF	ON	OFF	OFF	OFF	ON	ON
36	OFF	ON	OFF	OFF	ON	OFF	OFF
37	OFF	ON	OFF	OFF	ON	OFF	ON
38	OFF	ON	OFF	OFF	ON	ON	OFF
39	OFF	ON	OFF	OFF	ON	ON	ON
40	OFF	ON	OFF	ON	OFF	OFF	OFF

Table 7 (continued)

Table 7 (continued)

Day(s) of the Week Enabled Values							
Day Of Week Value	SAT	FRI	THUR	WED	TUE	MON	SUN
41	OFF	ON	OFF	ON	OFF	OFF	ON
42	OFF	ON	OFF	ON	OFF	ON	OFF
43	OFF	ON	OFF	ON	OFF	ON	ON
44	OFF	ON	OFF	ON	ON	OFF	OFF
45	OFF	ON	OFF	ON	ON	OFF	ON
46	OFF	ON	OFF	ON	ON	ON	OFF
47	OFF	ON	OFF	ON	ON	ON	ON
48	OFF	ON	ON	OFF	OFF	OFF	OFF
49	OFF	ON	ON	OFF	OFF	OFF	ON
50	OFF	ON	ON	OFF	OFF	ON	OFF
51	OFF	ON	ON	OFF	OFF	ON	ON
52	OFF	ON	ON	OFF	ON	OFF	OFF
53	OFF	ON	ON	OFF	ON	OFF	ON
54	OFF	ON	ON	OFF	ON	ON	OFF
55	OFF	ON	ON	OFF	ON	ON	ON
56	OFF	ON	ON	ON	OFF	OFF	OFF
57	OFF	ON	ON	ON	OFF	OFF	ON
58	OFF	ON	ON	ON	OFF	ON	OFF
59	OFF	ON	ON	ON	OFF	ON	ON
60	OFF	ON	ON	ON	ON	OFF	OFF
61	OFF	ON	ON	ON	ON	OFF	ON
62	OFF	ON	ON	ON	ON	ON	OFF
63	OFF	ON	ON	ON	ON	ON	ON
64	ON	OFF	OFF	OFF	OFF	OFF	OFF
65	ON	OFF	OFF	OFF	OFF	OFF	ON
66	ON	OFF	OFF	OFF	OFF	ON	OFF
67	ON	OFF	OFF	OFF	OFF	ON	ON
68	ON	OFF	OFF	OFF	ON	OFF	OFF
69	ON	OFF	OFF	OFF	ON	OFF	ON
70	ON	OFF	OFF	OFF	ON	ON	OFF
71	ON	OFF	OFF	OFF	ON	ON	ON
72	ON	OFF	OFF	ON	ON	OFF	OFF
73	ON	OFF	OFF	ON	OFF	OFF	ON
74	ON	OFF	OFF	ON	OFF	ON	OFF
75	ON	OFF	OFF	ON	OFF	ON	ON
76	ON	OFF	OFF	ON	ON	OFF	OFF
77	ON	OFF	OFF	ON	ON	OFF	ON
78	ON	OFF	OFF	ON	ON	ON	OFF
79	ON	OFF	OFF	ON	ON	ON	ON
80	ON	OFF	ON	OFF	OFF	OFF	OFF
81	ON	OFF	ON	OFF	OFF	OFF	ON
82	ON	OFF	ON	OFF	OFF	ON	OFF
83	ON	OFF	ON	OFF	OFF	ON	ON
84	ON	OFF	ON	OFF	ON	OFF	OFF

Table 7 (continued)

Programming Control

Table 7 (continued)

Day(s) of the Week Enabled Values							
Day Of Week Value	SAT	FRI	THUR	WED	TUE	MON	SUN
85	ON	OFF	ON	OFF	ON	OFF	ON
86	ON	OFF	ON	OFF	ON	ON	OFF
87	ON	OFF	ON	OFF	ON	ON	ON
88	ON	OFF	ON	ON	OFF	OFF	OFF
89	ON	OFF	ON	ON	OFF	OFF	ON
90	ON	OFF	ON	ON	OFF	ON	OFF
91	ON	OFF	ON	ON	OFF	ON	ON
92	ON	OFF	ON	ON	ON	OFF	OFF
93	ON	OFF	ON	ON	ON	OFF	ON
94	ON	OFF	ON	ON	ON	ON	OFF
95	ON	OFF	ON	ON	ON	ON	ON
96	ON	ON	OFF	OFF	OFF	OFF	OFF
97	ON	ON	OFF	OFF	OFF	OFF	ON
98	ON	ON	OFF	OFF	OFF	ON	OFF
99	ON	ON	OFF	OFF	OFF	ON	ON
100	ON	ON	OFF	OFF	ON	OFF	OFF
101	ON	ON	OFF	OFF	ON	OFF	ON
102	ON	ON	OFF	OFF	ON	ON	OFF
103	ON	ON	OFF	OFF	ON	ON	ON
104	ON	ON	OFF	ON	OFF	OFF	OFF
105	ON	ON	OFF	ON	OFF	OFF	ON
106	ON	ON	OFF	ON	OFF	ON	OFF
107	ON	ON	OFF	ON	OFF	ON	ON
108	ON	ON	OFF	ON	ON	OFF	OFF
109	ON	ON	OFF	ON	ON	OFF	ON
110	ON	ON	OFF	ON	ON	ON	OFF
111	ON	ON	OFF	ON	ON	ON	ON
112	ON	ON	ON	OFF	OFF	OFF	OFF
113	ON	ON	ON	OFF	OFF	OFF	ON
114	ON	ON	ON	OFF	OFF	ON	OFF
115	ON	ON	ON	OFF	OFF	ON	ON
116	ON	ON	ON	OFF	ON	OFF	OFF
117	ON	ON	ON	OFF	ON	OFF	ON
118	ON	ON	ON	OFF	ON	ON	OFF
119	ON	ON	ON	OFF	ON	ON	ON
120	ON	ON	ON	ON	OFF	OFF	OFF
121	ON	ON	ON	ON	OFF	OFF	ON
122	ON	ON	ON	ON	OFF	ON	OFF
123	ON	ON	ON	ON	OFF	ON	ON
124	ON	ON	ON	ON	ON	OFF	OFF
125	ON	ON	ON	ON	ON	OFF	ON
126	ON	ON	ON	ON	ON	ON	OFF
127*	ON	ON	ON	ON	ON	ON	ON

*Factory Default Setting

Table 7

12. Cycle Programming “CyC-”

This option allows the owner to program different aspects for various steps in each type of cycle. There are nine cycles available for programming.

How to Enter Cycle Programming

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “CyC-” appears in the display. Press the START (enter) keypad and “CyC1” will appear in the display.
4. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the nine cycles to program. Press the START (enter) keypad when the desired cycle appears in the display.
5. The first Cycle Programming option, “AglT”, will appear in the display.

NOTE: To program “AglT” (Cycle Agitate), continue to next option. To program other options, press the HEAVY (^) or the DELICATES (v) keypads and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

How to Program Cycle Agitate “AglT”

This option allows the owner to program the cycle’s agitation action and speed. These options apply to the entire cycle.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Cycle Programming options until “AglT” appears in the display.
2. When “AglT” appears in the display, press the START (enter) keypad. The first Cycle Agitate option will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options. Refer to *Table 8*.
4. Press the START (enter) keypad when the desired programmable option appears in the display. The current status will appear in the display. Refer to *Table 8*.

Final Spin Step	Description	Status
“tyPE”	Agitate Type	1 = Normal 2 = Gentle
“ASPd”	Agitate Speed (VFD only)	“Lo” = Reduced Speed “rEg” = Normal Speed

Table 8

5. Press the HEAVY (^) or the DELICATES (v) keypad to change the current status.
6. Press the START (enter) keypad when the desired status appears in the display. The next Cycle Agitate option will appear in the display.

NOTE: To program “SEg1” (Cycle Segment 1) press the PERM PRESS (<) keypad and continue to next Cycle Programming option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Control

How to Program Cycle Segment “SEg1”

There are eight programmable cycle segments. Within each segment, there are several programmable options.

1. Press the HEAVY (∧) or the DELICATES (∨) keypad to scroll through the eight programmable Cycle Segments until the desired segment appears in the display.
2. When the desired segment appears in the display, press the START (enter) keypad. “SgEn” (Segment Enable/Disable) will appear in the display.
3. Press the HEAVY (∧) or the DELICATES (∨) keypad to scroll through the Cycle Segment programmable options.

NOTE: If the Segment Enable/Disable is programmed “oFF”, the other Cycle Segment programming options can’t be accessed.

4. Press the START (enter) keypad when the desired Cycle Segment programmable option appears in the display.

Programming Segment Enable/Disable

1. When “SgEn” appears in the display, press the START (enter) keypad. The current Segment Enable/Disable status will appear in the display.
“on” = Option Enabled
“oFF” = Option Disabled
2. Press the HEAVY (∧) or the DELICATES (∨) keypad to change the current status.

NOTE: If the Segment Enable/Disable is programmed “oFF”, the other Cycle Segment programming options can’t be accessed.

3. Press the START (enter) keypad when the desired status appears in the display. The next Cycle Segment option, “FILL”, will appear in the display.

NOTE: To program “FILL” (Fill Step), continue to next Cycle Segment option. To program other options, press the HEAVY (∧) or the DELICATES (∨) keypads and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Fill Step

1. When “FILL” appears in the display, press the START (enter) keypad. The first Fill step programming option will appear in the display.
2. Press the HEAVY (∧) or the DELICATES (∨) keypad to scroll through the programmable Fill step options. Refer to *Table 9*.

NOTE: Fill Step “FLEn” must be enabled to scroll through all Fill Step options.

3. Press the START (enter) keypad when the desired option appears in the display. The current status will appear in the display. Refer to *Table 9*.

Fill Step	Description	Status
“FLEn”	Fill Step Enable/Disable	“on”/“oFF”
“FLEU”	Fill Level	“HI” = high level “nEd” = medium level “Lo” = low level “1-30”
“tEnP”	Fill Temperature	“CoLd” = Cold “UArn” = Warm “Hot” = Hot (35°F-194°F [2°C-90°C])

Table 9

4. Press the HEAVY (∧) or the DELICATES (∨) keypad to change the current status.
5. Press the START (enter) keypad when the desired status appears in the display. The next Fill step option will appear in the display.

NOTE: To program “SUPL” (Supply Step), continue to next Cycle Segment option. To program other options, press the HEAVY (∧) or the DELICATES (∨) keypads and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Supply Step

1. When “SUPL” appears in the display, press the START (enter) keypad. The first Supply step programming option will appear in the display.
2. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Supply step options. Refer to *Table 10*.

NOTE: Supply Step “SUEn” must be enabled to scroll through all Supply Step options.

3. Press the START (enter) keypad when the desired option appears in the display. The current status value will appear in the display. Refer to *Table 10*.

NOTE: For the Dispenser options, the display will show “Cx” or “Sx” depending whether or not the control is programmed as compartment-oriented or supply-oriented. Refer to *option 13, Supply/Compartment Dispenser Programming*.

4. Press the HEAVY (^) or the DELICATES (v) keypad to change the current status/value.
5. Press the START (enter) keypad when the desired status/value appears in the display. The next Supply step option will appear in the display.

NOTE: To program “AgSt” (Agitate Step), continue to next Cycle Segment option. If in the Dispenser Options or Supply Duration programming option, press the PERM PRESS (<) keypad first. To program other options, press the HEAVY (^) or the DELICATES (v) keypads and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Supply Step	Description	Status/Value	
“SUEn”	Supply Step Enable/Disable	“on”/“oFF”	
“diSP”	Dispenser options (Design 1 Models only)	Press START (enter) to access options	
	“C2” or “S1”	Compartment 2/ Supply #1	“on”/“oFF”
	“C3” or “S2”	Compartment 3/ Supply #2	“on”/“oFF”
	“C4” or “S3”	Compartment 4/ Supply #3	“on”/“oFF”
	“S4”	Supply #4	“on”/“oFF”
	Dispenser options (Design 2 Models only)	Press START (enter) to access options	
	“C2”	Compartment 2	“on”/“oFF”
	“C3”	Compartment 3	“on”/“oFF”
	“C4”	Compartment 4	“on”/“oFF”
	“S1”	Supply #1	“on”/“oFF”
	“S2”	Supply #2	“on”/“oFF”
	“S3”	Supply #3	“on”/“oFF”
	“S4”	Supply #4	“on”/“oFF”
	“SdUr”	Supply Duration	Press START (enter) to access options
“SEC”		Seconds	0-59
“nIn”		Minutes	0-9

Table 10

Programming Control

Programming Agitate Step

1. When “AgSt” appears in the display, press the START (enter) keypad. The first Agitate step programming option will appear in the display.
2. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Agitate step options. Refer to *Table 11*.

NOTE: Agitate Step “AgEn” must be enabled to scroll through all Agitate Step options.

3. Press the START (enter) keypad when the desired option appears in the display. The current status/value will appear in the display. Refer to *Table 11*.

Agitate Step	Description	Status/Value
“AgEn”	Agitate Step Enable/Disable	“on”/“oFF”
“AdUr”	Agitate Duration (in minutes)	1-30
“HEAT”	Heat in Agitate (If heater is present)	“oFF”, 1 or 2 1 = To Target 2 = Maintain

Table 11

4. Press the HEAVY (^) or the DELICATES (v) keypad to change the current status/value.
5. Press the START (enter) keypad when the desired status/value appears in the display. The next Agitate step option will appear in the display.

NOTE: To program “drAn” (Drain Step), continue to next Cycle Segment option. To program other options, press the HEAVY (^) or the DELICATES (v) keypads and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Drain Step

1. When “drAn” appears in the display, press the START (enter) keypad. The current status will be displayed.
2. Press the HEAVY (^) or the DELICATES (v) keypad to change the current status.
“on” = Drain step is enabled
“oFF” = Drain step is disabled

NOTE: Drain must be enabled to activate Extract step.

3. Press the START (enter) keypad when the desired status appears in the display. The next Cycle Segment option, “SPIn”, will appear in the display.

NOTE: To program “SPIn” (Extract Step), continue to next Cycle Segment option. To program other options press the HEAVY (^) or the DELICATES (v) keypads and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Extract Step

1. When “SPIn” appears in the display, press the START (enter) keypad. The first Extract step programming option will appear in the display.
2. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Extract step options. Refer to *Table 12*.

NOTE: Extract Step “SPEN” must be enabled to scroll through all Extract Step options.

3. Press the START (enter) keypad when the desired option appears in the display. The current status/value will appear in the display. Refer to *Table 12*.

Extract Step	Description	Status/Value
“SPEn”	Extract Step Enable/Disable	“on”/“oFF”
“SSEC”	Extract Seconds	0-59
“SIn”	Extract Minutes	Intermediate Extract: minimum step time = 30 seconds maximum step time = 3:59 minutes Final Extract: minimum step time = 30 seconds maximum step time = 9:59 minutes
“SSPd”	Extract Speed* (G) (Design 1-VFD only)	1 = very low speed (80) 2 = low speed (80) 3 = medium speed (100) 4 = high speed (120) 5 = very high speed (140)
	Extract Speed* (G) (Design 2-VFD only)	1 = very low speed (27) 2 = low speed (80) 3 = medium speed (100) 4 = high speed (125) 5 = very high speed (150) 6 = ultra high speed (200)

* F-Speed machines have a maximum speed of “3” or Medium Speed.

Table 12

4. Press the HEAVY (^) or the DELICATES (v) keypad to change the current status/value.
5. Press the START (enter) keypad when the desired status/value appears in the display. The next Cycle Segment step option, “SEg2” will appear in the display.

NOTE: To program “Cnin” (Cycle Time), continue to next Cycle Segment option. To program other options press the HEAVY (^) or the DELICATES (v) keypads and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

How to Program Cycle Time “Cnin”

This option allows the owner to program minutes to the cycle’s display time

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Cycle Programming options until “Cnin” appears in the display.

NOTE: The option “PCtd” Programmable Cycle Time Display must be programmed “on” to access the “Cnin” option, refer to *option 24*.

2. When “Cnin” appears in the display, press the START (enter) keypad. The first cycle time value will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to change the current value.

NOTE: The Program Cycle Time can be set from 0 to 255 minutes. The default value is 0.

4. Press the START (enter) keypad when the desired cycle time value appears in the display.

NOTE: Programming display time (in minutes) does not actually change time in the cycle, only to the displayed cycle time for the user.

NOTE: To program another cycle, repeat Cycle Programming steps. To program other options, press the HEAVY (^) or the DELICATES (v) keypads and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

13. Supply/Compartment Dispenser Programming “SUPC” (Design 1 Models Only)

This option allows the owner to choose between the supply dispenser or compartment dispenser.

NOTE: “Supply Dispenser” must only be selected if machine is connected to an external chemical supply system.

How to Program Supply/Compartment Dispenser Programming

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad, and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “SUPC” appears in the display.
4. When “SUPC” appears in the display, press the START (enter) keypad. The current dispenser option will appear in the display.
“S” = Supply Dispenser
“C” = Compartment Dispenser (Default Setting)
5. Press the HEAVY (^) or the DELICATES (v) keypad to change the dispenser type.
6. Press the START (enter) keypad when the desired dispenser type appears in the display. The next option, “bALr” (VFD models) or “lrA” (2 speed models), will appear in the display.

NOTE: For VFD models: To program “bALr” (Number of Balance Retries), refer to *option 14*. For 2 speed models: To program “lrA” (IR Access [on/off]), refer to *option 14*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

14. Number of Balance Retries “bALr” (Variable Frequency Drives Only)

This option allows the owner to program how many times the control will retry balancing the load before moving into Extract step.

How to Program Number of Balance Retries

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad, and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “bALr” appears in the display.
4. When “bALr” appears in the display, press the START (enter) keypad. The current value will appear in the display.
5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the current value.

NOTE: The number of balance retries can be set from 1-7. The default balance retries is set at 3 for Design 1 Models and 1 for Design 2 Models.

6. Press the START (enter) keypad when the desired value appears in the display. The next option, “lrA”, will appear in the display.

NOTE: To program “lrA” (IR Access [on/off]), refer to *option 15*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

15. IR Access (Enable/Disable) “IrA”

This option allows the owner to enable or disable allowing the control to be read by an external device.

How to Program the IR Access (Enable/Disable)

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “IrA” appears in the display.
4. When “IrA” appears in the display, press the START (enter) keypad. The current IR Access status will appear in the display.
“on” = Option Enabled (Default Setting)
“oFF” = Option Disabled
5. Press the HEAVY (^) or the DELICATES (v) keypad to change the current status.
6. Press the START (enter) keypad when the desired status appears in the display. The next option, “t FC” (Models with Heat) or “PtEn” (Non-heat Models), will appear in the display.

NOTE: For Models with Heat: To program “t FC” (Fahrenheit/Celsius), refer to *option 16*. For Non-heat Models: To program “PtEn” (Production Test Cycle [On/Off]), refer to *option 21*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

16. Fahrenheit/Celsius “t FC” (Models with Heat)

This option allows the owner to set whether the display will be shown in Fahrenheit or Celsius.

How to Program Fahrenheit/Celsius

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “t FC” appears in the display.
4. When “t FC” appears in the display, press the START (enter) keypad. A number will appear in the display. This number (found below) corresponds to the current Fahrenheit/Celsius setting.
“CEL” = Celsius
“FAHr” = Fahrenheit (Default Setting)
5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the current number to the desired number.
6. Press the START (enter) keypad when the correct number of degrees appears in the display. The new value is saved and the next option, “FH”, will appear in the display.

NOTE: To program “FH” (Hot Water Temperature), refer to *option 17*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Control


17. Hot Water Temperature “FH”

This option allows the owner to program the hot water temperature for models equipped with heat.

How to Program Hot Water Temperature

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “FH” appears in the display.
4. When “FH” appears in the display, press the START (enter) keypad. A number will appear in the display. This number corresponds to the current Hot Water Temperature value.
5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the current Hot Water Temperature value to the desired Hot Water Temperature value.

NOTE: Hot Water Temperature is selectable between 35° and 194° Fahrenheit (2° and 90° Celsius). Default temperature is 140° Fahrenheit (60° Celsius).

	WARNING
To prevent personal injury, avoid contact with inlet water temperatures higher than 125° Fahrenheit (51° Celsius) and hot surfaces.	
W748	

NOTE: Refer to *option 16* to select Celsius or Fahrenheit display.

6. Press the START (enter) keypad when the correct number appears in the display. The next option, “FHC”, will appear in the display.

NOTE: To program “FHC” (Warm Water Temperature), refer to *option 18*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.


18. Warm Water Temperature “FHC”

This option allows the owner to program the warm water temperature for models equipped with heat.

How to Program Warm Water Temperature

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “FHC” appears in the display.
4. When “FHC” appears in the display, press the START (enter) keypad. A number will appear in the display. This number corresponds to the current Warm Water Temperature value.
5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the current Warm Water Temperature value to the desired Warm Water Temperature value.

NOTE: Warm Water Temperature is selectable between 35° and 194° Fahrenheit (2° and 90° Celsius). Default temperature is 100° Fahrenheit (38° Celsius).

	WARNING
To prevent personal injury, avoid contact with inlet water temperatures higher than 125° Fahrenheit (51° Celsius) and hot surfaces.	
W748	

NOTE: Refer to *option 16* to select Celsius or Fahrenheit display.

6. Press the START (enter) keypad when the correct number appears in the display. The next option, “FC”, will appear in the display.

NOTE: To program “FC” (Cold Water Temperature), refer to *option 19*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.


19. Cold Water Temperature “FC”

This option allows the owner to program the cold water temperature for models equipped with heat.

How to Program Cold Water Temperature

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “FC” appears in the display.
4. When “FC” appears in the display, press the START (enter) keypad. A number will appear in the display. This number corresponds to the current Cold Water Temperature value.
5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the current Cold Water Temperature value to the desired Cold Water Temperature value.

NOTE: Cold Water Temperature is selectable between 35° and 194° Fahrenheit (2° and 90° Celsius). Default temperature value is 35° Fahrenheit (2° Celsius).

	WARNING
<p>To prevent personal injury, avoid contact with inlet water temperatures higher than 125° Fahrenheit (51° Celsius) and hot surfaces.</p>	
W748	

NOTE: Refer to *option 16* to select Celsius or Fahrenheit display.

6. Press the START (enter) keypad when the correct number appears in the display. The next option, “Codn”, will appear in the display.

NOTE: To program “Codn” (Cooldown Enable/Temperature), refer to *option 20*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

20. Cooldown Enable/Temperature “Codn” (Models with Heat)

This option allows the owner to enable or disable the Cooldown Water Temperature option. If enabled, the owner can also set the cooldown water temperature.

How to Program Cooldown Enable/Temperature

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “Codn” appears in the display.
4. When “Codn” appears in the display, press the START (enter) keypad. A number or “OFF” will appear in the display. The number corresponds to the current Cooldown Water Temperature value, and “OFF” appears when cool down is disabled.
5. Press the HEAVY (^) or the DELICATES (v) keypad to change the current status.

NOTE: Cooldown Water Temperature is selectable between 50° and 160° Fahrenheit (10° and 71° Celsius). Default is off.

6. Press the START (enter) keypad when the desired value appears in the display.

NOTE: Refer to *option 16* to select Celsius or Fahrenheit display.

7. Press the START (enter) keypad when the correct number appears in the display. The next option, “PtEn”, will appear in the display.

NOTE: To program “PtEn” (Prouction Test Cycle [on/off]), refer to *option 21*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Control

21. Production Test Cycle (On/Off) “PtEn”

This option allows the owner to enable or disable access to the production test cycle. Refer to *Production Test Cycle* section for more information.

How to Program the Production Test Cycle (On/Off)

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “PtEn” appears in the display.
4. When “PtEn” appears in the display, press the START (enter) keypad. The current Production Test Cycle status will appear in the display.
“on” = Option Enabled (Default Setting)
“off” = Option Disabled
5. Press the HEAVY (^) or the DELICATES (v) keypad to change the current status.
6. Press the START (enter) keypad when the desired status appears in the display. The next option, “rAEn”, will appear in the display.

NOTE: To program “rAEn” (Manual Rapid Advance [on/off]), refer to *option 22*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

22. Manual Rapid Advance (On/Off) “rAEn”

This option allows the owner to enable or disable the rapid advance feature. Refer to *Rapid Advance Feature* section for more information.

How to Program the Manual Rapid Advance (On/Off)

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “rAEn” appears in the display.
4. When “rAEn” appears in the display, press the START (enter) keypad. The current Manual Rapid Advance status will appear in the display.
“on” = Option Enabled (Default Setting)
“off” = Option Disabled
5. Press the HEAVY (^) or the DELICATES (v) keypad to change the current status.
6. Press the START (enter) keypad when the desired status appears in the display. The next option, “nCtd”, will appear in the display.

NOTE: To program “nCtd” (No Cycle Time Display), refer to *option 23*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

23. No Cycle Time Display “nCtd”

This option allows the owner to enable or disable whether the cycle time will appear in the display.

How to Program No Cycle Time Display

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “nCtd” appears in the display.
4. When “nCtd” appears in the display, press the START (enter) keypad. The current No Cycle Time Display status will appear in the display.
“on” = Option Enabled
“off” = Option Disabled (Default Setting)
5. Press the HEAVY (^) or the DELICATES (v) keypad to change the current status.
6. Press the START (enter) keypad when the desired status appears in the display. The next option, “PCtd”, will appear in the display.

NOTE: To program “PCtd” (Programmable Cycle Time Display), refer to *option 24*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

24. Programmable Cycle Time Display “PCtd”

This option allows the owner to program the displayed cycle time.

How to Program Programmable Cycle Time Display

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “PCtd” appears in the display.
4. When “PCtd” appears in the display, press the START (enter) keypad. The current Programmable Cycle Time Display status will appear in the display.
“on” = Option Enabled
“off” = Option Disabled (Default Setting)

NOTE: Enabling this option will not change the cycle time, only the display time for the user. Refer to option “Cnin” in Cycle Programming to program minutes to the cycle time display.

5. Press the HEAVY (^) or the DELICATES (v) keypad to change the current status.
6. Press the START (enter) keypad when the desired status appears in the display. The next option, “SdAd”, will appear in the display.

NOTE: To program “SdAd” (Slow Drain Detection Adjust Value), refer to *option 25*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

25. Slow Drain Detection Adjust Value “SdAd”

This option allows the owner to increase the slow drain detection threshold by adding additional seconds to the threshold value. When enabled it increases the time before a slow drain error will occur.

How to Program Slow Drain Detection Adjust Value

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “SdAd” appears in the display.
4. When “SdAd” appears in the display, press the START (enter) keypad. The current Slow Drain Detection Adjust Value will appear in the display.
5. Press the HEAVY (^) or the DELICATES (v) keypad to change the current value.

NOTE: The Slow Drain Detection Adjust Value can be set from 0 to 255 seconds. The default value is 0.

6. Press the START (enter) keypad when the desired value appears in the display. The next option, “SPAU”, will appear in the display.

NOTE: To program “SPAU” (Pause/Resume Mode), refer to *option 26*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

26. Pause/Resume Mode (On/Off) “SPAU”

This option allows the owner to enable or disable Pause/Resume Mode. When enabled, users can press the START keypad three times (during first three minutes of cycle) to pause the cycle.

How to Program Pause/Resume Mode

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “SPAU” appears in the display.
4. When “SPAU” appears in the display, press the START (enter) keypad. The current Pause/Resume status will appear in the display.
“on” = Option Enabled
“off” = Option Disabled (Default Setting)
5. Press the HEAVY (^) or the DELICATES (v) keypad to change the current status.
6. Press the START (enter) keypad when the desired status appears in the display. The next option, “AtS2”, will appear in the display.

NOTE: To program “AtS2” (Normal Warm Vend Price), refer to *option 27*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

27. Normal Warm Vend Price “AtS2”

This option allows the owner to set the vend price for a normal/warm wash. This vend price will be shown in the display when NORMAL and WARM are selected.

How to Program the Normal Warm Vend Price

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad, and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “AtS2” appears in the display. The NORMAL and WARM LEDs will be lit to show which cycle/temperature price is being programmed.
4. When “AtS2” appears in the display, press the START (enter) keypad. There are five digits in the Normal Warm Vend Price. The fifth digit will appear in the display and will flash one (1) second on, one (1) second off. Refer to *Figure 13*.

NOTE: If the vend price is \$100.00 or more, the fifth digit is “1-6”. If the vend price is \$99.99 or less, the fifth digit is “0”.

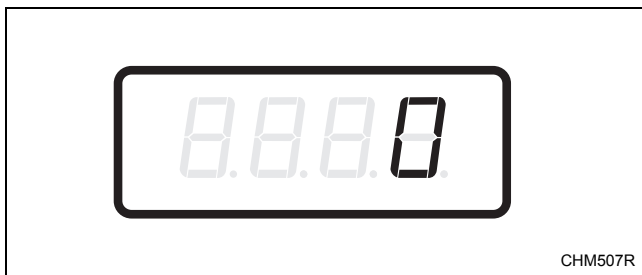


Figure 13

5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the fifth digit.

NOTE: The vend price can be set from 0 to 65,535. The default vend price is 200.

6. Press the START (enter) keypad to enter the fifth digit and display remaining four digits. The active digit will flash one (1) second on and one (1) second off.

NOTE: To go back to the current programmable option without changing the value of the active digit, press the PERM PRESS (<) keypad.

7. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the active digit and the START (enter) keypad to enter the value of the digit and advance to the next digit.
8. Press the START (enter) keypad with the last active digit. The next option, “AtS3”, will appear in the display.

NOTE: To program “AtS3” (Normal Cold Vend Price), refer to *option 28*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Control

28. Normal Cold Vend Price “AtS3”

This option allows the owner to set the vend price for a normal/cold wash. This vend price will be shown in the display when NORMAL and COLD are selected.

How to Program the Normal Cold Vend Price

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “AtS3” appears in the display. The NORMAL and COLD LEDs will be lit to show which cycle/temperature price is being programmed.
4. When “AtS3” appears in the display, press the START (enter) keypad. There are five digits in the Normal Cold Vend Price. The fifth digit will appear in the display and will flash one (1) second on, one (1) second off. Refer to *Figure 14*.

NOTE: If the vend price is \$100.00 or more, the fifth digit is “1-6”. If the vend price is \$99.99 or less, the fifth digit is “0”.

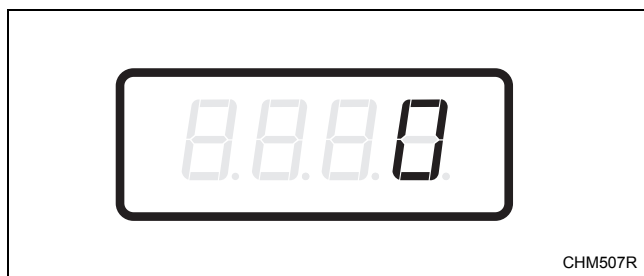


Figure 14

5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the fifth digit.

NOTE: The vend price can be set from 0 to 65,535. The default vend price is 200.

6. Press the START (enter) keypad to enter the fifth digit and display remaining four digits. The active digit will flash one (1) second on and one (1) second off.

NOTE: To go back to the current programmable option without changing the value of the active digit, press the PERM PRESS (<) keypad.

7. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the active digit and the START (enter) keypad to enter the value of the digit and advance to the next digit.
8. Press the START (enter) keypad with the last active digit. The next option, “AtS4”, will appear in the display.

NOTE: To program “AtS4” (Perm Press Hot Vend Price), refer to *option 29*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

29. Perm Press Hot Vend Price “AtS4”

This option allows the owner to set the vend price for a perm press/hot wash. This vend price will be shown in the display when PERM PRESS and HOT are selected.

How to Program the Perm Press Hot Vend Price

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “AtS4” appears in the display. The PERM PRESS and HOT LEDs will be lit to show which cycle/temperature price is being programmed.
4. When “AtS4” appears in the display, press the START (enter) keypad. There are five digits in the Perm Press Hot Vend Price. The fifth digit will appear in the display and will flash one (1) second on, one (1) second off. Refer to *Figure 15*.

NOTE: If the vend price is \$100.00 or more, the fifth digit is “1-6”. If the vend price is \$99.99 or less, the fifth digit is “0”.

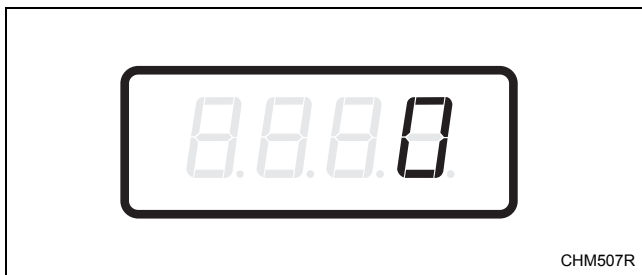


Figure 15

5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the fifth digit.

NOTE: The vend price can be set from 0 to 65,535. The default vend price is 200.

6. Press the START (enter) keypad to enter the fifth digit and display remaining four digits. The active digit will flash one (1) second on and one (1) second off.

NOTE: To go back to the current programmable option without changing the value of the active digit, press the PERM PRESS (<) keypad.

7. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the active digit and the START (enter) keypad to enter the value of the digit and advance to the next digit.
8. Press the START (enter) keypad with the last active digit. The next option, “AtS5”, will appear in the display.

NOTE: To program “AtS5” (Perm Press Warm Vend Price), refer to *option 30*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Control

30. Perm Press Warm Vend Price “AtS5”

This option allows the owner to set the vend price for a perm press/warm wash. This vend price will be shown in the display when PERM PRESS and WARM are selected.

How to Program the Perm Press Warm Vend Price

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “AtS5” appears in the display. The PERM PRESS and WARM LEDs will be lit to show which cycle/temperature price is being programmed.
4. When “AtS5” appears in the display, press the START (enter) keypad. There are five digits in the Perm Press Warm Vend Price. The fifth digit will appear in the display and will flash one (1) second on, one (1) second off. Refer to *Figure 16*.

NOTE: If the vend price is \$100.00 or more, the fifth digit is “1-6”. If the vend price is \$99.99 or less, the fifth digit is “0”.

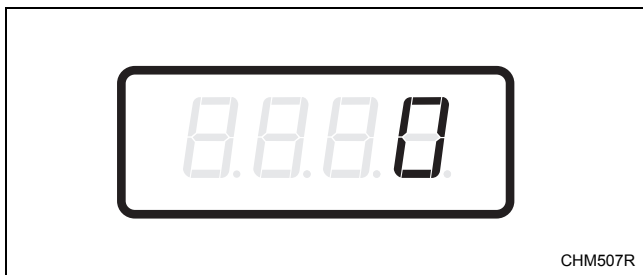


Figure 16

5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the fifth digit.

NOTE: The vend price can be set from 0 to 65,535. The default vend price is 200.

6. Press the START (enter) keypad to enter the fifth digit and display remaining four digits. The active digit will flash one (1) second on and one (1) second off.

NOTE: To go back to the current programmable option without changing the value of the active digit, press the PERM PRESS (<) keypad.

7. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the active digit and the START (enter) keypad to enter the value of the digit and advance to the next digit.
8. Press the START (enter) keypad with the last active digit. The next option, “AtS6”, will appear in the display.

NOTE: To program “AtS6” (Perm Press Cold Vend Price), refer to *option 31*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

31. Perm Press Cold Vend Price “AtS6”

This option allows the owner to set the vend price for a perm press/cold wash. This vend price will be shown in the display when PERM PRESS and COLD are selected.

How to Program the Perm Press Cold Vend Price

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “AtS6” appears in the display. The PERM PRESS and COLD LEDs will be lit to show which cycle/temperature price is being programmed.
4. When “AtS6” appears in the display, press the START (enter) keypad. There are five digits in the Perm Press Cold Vend Price. The fifth digit will appear in the display and will flash one (1) second on, one (1) second off. Refer to *Figure 17*.

NOTE: If the vend price is \$100.00 or more, the fifth digit is “1-6”. If the vend price is \$99.99 or less, the fifth digit is “0”.

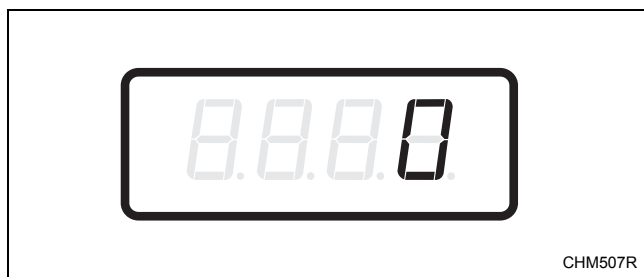


Figure 17

5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the fifth digit.

NOTE: The vend price can be set from 0 to 65,535. The default vend price is 200.

6. Press the START (enter) keypad to enter the fifth digit and display remaining four digits. The active digit will flash one (1) second on and one (1) second off.

NOTE: To go back to the current programmable option without changing the value of the active digit, press the PERM PRESS (<) keypad.

7. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the active digit and the START (enter) keypad to enter the value of the digit and advance to the next digit.
8. Press the START (enter) keypad with the last active digit. The next option, “AtS7”, will appear in the display.

NOTE: To program “AtS7” (Delicate Hot Vend Price), refer to *option 32*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Control

32. Delicate Hot Vend Price “AtS7”

This option allows the owner to set the vend price for a delicate/hot wash. This vend price will be shown in the display when DELICATES and HOT are selected.

How to Program the Delicate Hot Vend Price

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “AtS7” appears in the display. The DELICATES and HOT LEDs will be lit to show which cycle/temperature price is being programmed.
4. When “AtS7” appears in the display, press the START (enter) keypad. There are five digits in the Delicate Hot Vend Price. The fifth digit will appear in the display and will flash one (1) second on, one (1) second off. Refer to *Figure 18*.

NOTE: If the vend price is \$100.00 or more, the fifth digit is “1-6”. If the vend price is \$99.99 or less, the fifth digit is “0”.

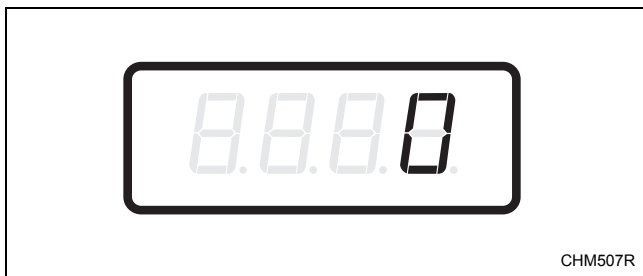


Figure 18

5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the fifth digit.

NOTE: The vend price can be set from 0 to 65,535. The default vend price is 200.

6. Press the START (enter) keypad to enter the fifth digit and display remaining four digits. The active digit will flash one (1) second on and one (1) second off.

NOTE: To go back to the current programmable option without changing the value of the active digit, press the PERM PRESS (<) keypad.

7. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the active digit and the START (enter) keypad to enter the value of the digit and advance to the next digit.
8. Press the START (enter) keypad with the last active digit. The next option, “AtS8”, will appear in the display.

NOTE: To program “AtS8” (Delicate Warm Vend Price), refer to *option 33*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

33. Delicate Warm Vend Price “AtS8”

This option allows the owner to set the vend price for a delicate/warm wash. This vend price will be shown in the display when DELICATES and WARM are selected.

How to Program the Delicate Warm Vend Price

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “AtS8” appears in the display. The DELICATES and WARM LEDs will be lit to show which cycle/temperature price is being programmed.
4. When “AtS8” appears in the display, press the START (enter) keypad. There are five digits in the Delicate Warm Vend Price. The fifth digit will appear in the display and will flash one (1) second on, one (1) second off. Refer to *Figure 19*.

NOTE: If the vend price is \$100.00 or more, the fifth digit is “1-6”. If the vend price is \$99.99 or less, the fifth digit is “0”.

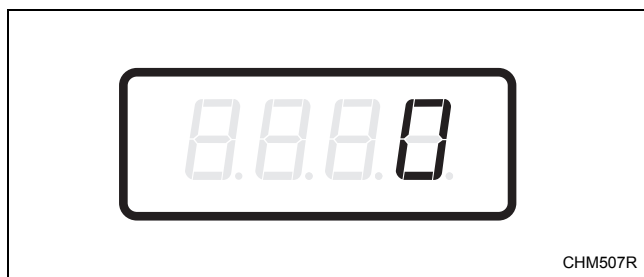


Figure 19

5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the fifth digit.

NOTE: The vend price can be set from 0 to 65,535. The default vend price is 200.

6. Press the START (enter) keypad to enter the fifth digit and display remaining four digits. The active digit will flash one (1) second on and one (1) second off.

NOTE: To go back to the current programmable option without changing the value of the active digit, press the PERM PRESS (<) keypad.

7. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the active digit and the START (enter) keypad to enter the value of the digit and advance to the next digit.
8. Press the START (enter) keypad with the last active digit. The next option, “AtS9”, will appear in the display.

NOTE: To program “AtS9” (Delicate Cold Vend Price, refer to *option 34*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Control

34. Delicate Cold Vend Price “AtS9”

This option allows the owner to set the vend price for a delicate/cold wash. This vend price will be shown in the display when DELICATES and COLD are selected.

How to Program the Delicate Cold Vend Price

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “AtS9” appears in the display. The DELICATES and COLD LEDs will be lit to show which cycle/temperature price is being programmed.
4. When “AtS9” appears in the display, press the START (enter) keypad. There are five digits in the Delicate Cold Vend Price. The fifth digit will appear in the display and will flash one (1) second on, one (1) second off. Refer to *Figure 20*.

NOTE: If the vend price is \$100.00 or more, the fifth digit is “1-6”. If the vend price is \$99.99 or less, the fifth digit is “0”.

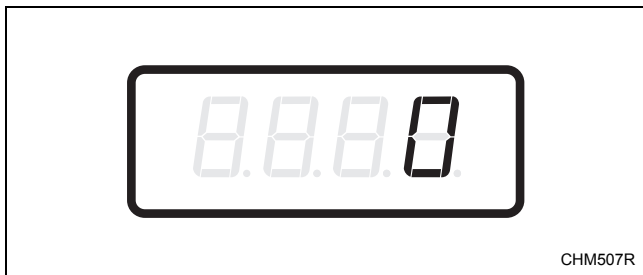


Figure 20

5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the fifth digit.

NOTE: The vend price can be set from 0 to 65,535. The default vend price is 200.

6. Press the START (enter) keypad to enter the fifth digit and display remaining four digits. The active digit will flash one (1) second on and one (1) second off.

NOTE: To go back to the current programmable option without changing the value of the active digit, press the PERM PRESS (<) keypad.

7. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the active digit and the START (enter) keypad to enter the value of the digit and advance to the next digit.
8. Press the START (enter) keypad with the last active digit. The next option, “rtC-”, will appear in the display.

NOTE: To program “rtC-” (Real-Time Clock), refer to *option 35*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

35. Set Real-Time Clock “rtC-”

This option allows the owner to set the control’s internal clock to the correct time and date.

How to Program the Time and Date

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “rtC-” appears in the display. Press the START keypad and “rtC1” will appear in the display.
4. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options. Refer to *Table 13*.

“rtC1”	Programs Minutes (0-59)
“rtC2”	Programs Hours (0-23)
“rtC3”	Programs Day of Week (1-7)
“rtC4”	Programs Date of Month (1-31)
“rtC5”	Programs Month (1-12)
“rtC6”	Programs Year (0-99)
“rtC7”	Programs Daylight Saving (on*/oFF)

*Factory Default Setting

Table 13

5. When the desired option appears in the display, press the START (enter) keypad. The current value will appear in the display.
6. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the minutes, hours, day of week, date of the month, month, year to the correct time or date.

NOTE: The hours will be displayed in military time. For day of week, Sunday is considered day one (1), Monday is day two (2) and so on. For year, the year 2000 is “00”, the year 2001 is “01” and so on.

If programming Daylight Saving, “rtC7”, “on” enables Daylight Saving Time and “oFF” disables Daylight Saving Time.

7. Press the START (enter) keypad when the correct time or date appears in the display. The next Set Real-Time Clock option will appear in the display.

NOTE: To program “SPA-” (Special Vend A Data), press the PERM PRESS (<) keypad and refer to *option 36*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Control

36. Special Vend A Data “SPA-”

This option allows the owner to set the day or days of a special vend.

Special Vend A is used to change the standard vend prices for special occasions. The special vend can be programmed to start and end on a specific day or days of the week.

The owner may also turn the Special Vend A option on or off if desired.

How to Program Special Vend A Days Enable “SA01”

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “SPA-” appears in the display. Press the START (enter) keypad and “SA01” will appear in the display.
4. When “SA01” appears in the display, press the START (enter) keypad. A number will appear in the display that corresponds to the current Special Vend A Days Enable Programming Value.
5. Locate the desired number in the first column of *Table 14* on the following pages.
6. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the current number until correct.
7. Press the START (enter) keypad when the correct number appears in the display. The next Special Vend A option, “SA02”, will appear in the display.

NOTE: To program “SA02” (Special Vend A Start Hour), continue to the next Special Vend A option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

How to Read Table 14

To determine the correct number required to program the Special Vend Days Enable, use the following table. The Special Vend Value column contains the number required in step 6. The other columns correspond to individual days.

Each column of days contains a unique combination of the words “ON” and “OFF” that indicates if that column’s day is turned on or off when the value is entered. Select the desired combination of days and enter the number found in the value column.

"SA01"								
SPECIAL VEND VALUE	SAT	FRI	THUR	WED	TUE	MON	SUN	ON/OFF
0*	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
3	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON
5	OFF	OFF	OFF	OFF	OFF	ON	OFF	ON
7	OFF	OFF	OFF	OFF	OFF	ON	ON	ON
9	OFF	OFF	OFF	OFF	ON	OFF	OFF	ON
11	OFF	OFF	OFF	OFF	ON	OFF	ON	ON
13	OFF	OFF	OFF	OFF	ON	ON	OFF	ON
15	OFF	OFF	OFF	OFF	ON	ON	ON	ON
17	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON
19	OFF	OFF	OFF	ON	OFF	OFF	ON	ON
21	OFF	OFF	OFF	ON	OFF	ON	OFF	ON
23	OFF	OFF	OFF	ON	OFF	ON	ON	ON
25	OFF	OFF	OFF	ON	ON	OFF	OFF	ON
27	OFF	OFF	OFF	ON	ON	OFF	ON	ON
29	OFF	OFF	OFF	ON	ON	ON	OFF	ON
31	OFF	OFF	OFF	ON	ON	ON	ON	ON
33	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON
35	OFF	OFF	ON	OFF	OFF	OFF	ON	ON
37	OFF	OFF	ON	OFF	OFF	ON	OFF	ON
39	OFF	OFF	ON	OFF	OFF	ON	ON	ON
41	OFF	OFF	ON	OFF	ON	OFF	OFF	ON
43	OFF	OFF	ON	OFF	ON	OFF	ON	ON
45	OFF	OFF	ON	OFF	ON	ON	OFF	ON
47	OFF	OFF	ON	OFF	ON	ON	ON	ON
49	OFF	OFF	ON	ON	OFF	OFF	OFF	ON
51	OFF	OFF	ON	ON	OFF	OFF	ON	ON
53	OFF	OFF	ON	ON	OFF	ON	OFF	ON
55	OFF	OFF	ON	ON	OFF	ON	ON	ON
57	OFF	OFF	ON	ON	ON	OFF	OFF	ON
59	OFF	OFF	ON	ON	ON	OFF	ON	ON
61	OFF	OFF	ON	ON	ON	ON	OFF	ON
63	OFF	OFF	ON	ON	ON	ON	ON	ON
65	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON
67	OFF	ON	OFF	OFF	OFF	OFF	ON	ON

*Factory Default Setting

Table 14 (continued)

Programming Control

Table 14 (continued)

“SA01”								
SPECIAL VEND VALUE	SAT	FRI	THUR	WED	TUE	MON	SUN	ON/OFF
69	OFF	ON	OFF	OFF	OFF	ON	OFF	ON
71	OFF	ON	OFF	OFF	OFF	ON	ON	ON
73	OFF	ON	OFF	OFF	ON	OFF	OFF	ON
75	OFF	ON	OFF	OFF	ON	OFF	ON	ON
77	OFF	ON	OFF	OFF	ON	ON	OFF	ON
79	OFF	ON	OFF	OFF	ON	ON	ON	ON
81	OFF	ON	OFF	ON	OFF	OFF	OFF	ON
83	OFF	ON	OFF	ON	OFF	OFF	ON	ON
85	OFF	ON	OFF	ON	OFF	ON	OFF	ON
87	OFF	ON	OFF	ON	OFF	ON	ON	ON
89	OFF	ON	OFF	ON	ON	OFF	OFF	ON
91	OFF	ON	OFF	ON	ON	OFF	ON	ON
93	OFF	ON	OFF	ON	ON	ON	OFF	ON
95	OFF	ON	OFF	ON	ON	ON	ON	ON
97	OFF	ON	ON	OFF	OFF	OFF	OFF	ON
99	OFF	ON	ON	OFF	OFF	OFF	ON	ON
101	OFF	ON	ON	OFF	OFF	ON	OFF	ON
103	OFF	ON	ON	OFF	OFF	ON	ON	ON
105	OFF	ON	ON	OFF	ON	OFF	OFF	ON
107	OFF	ON	ON	OFF	ON	OFF	ON	ON
109	OFF	ON	ON	OFF	ON	ON	OFF	ON
111	OFF	ON	ON	OFF	ON	ON	ON	ON
113	OFF	ON	ON	ON	OFF	OFF	OFF	ON
115	OFF	ON	ON	ON	OFF	OFF	ON	ON
117	OFF	ON	ON	ON	OFF	ON	OFF	ON
119	OFF	ON	ON	ON	OFF	ON	ON	ON
121	OFF	ON	ON	ON	ON	OFF	OFF	ON
123	OFF	ON	ON	ON	ON	OFF	ON	ON
125	OFF	ON	ON	ON	ON	ON	OFF	ON
127	OFF	ON	ON	ON	ON	ON	ON	ON
129	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON
131	ON	OFF	OFF	OFF	OFF	OFF	ON	ON
133	ON	OFF	OFF	OFF	OFF	ON	OFF	ON
135	ON	OFF	OFF	OFF	OFF	ON	ON	ON
137	ON	OFF	OFF	OFF	ON	OFF	OFF	ON
139	ON	OFF	OFF	OFF	ON	OFF	ON	ON
141	ON	OFF	OFF	OFF	ON	ON	OFF	ON
143	ON	OFF	OFF	OFF	ON	ON	ON	ON
145	ON	OFF	OFF	ON	OFF	OFF	OFF	ON
147	ON	OFF	OFF	ON	OFF	OFF	ON	ON
149	ON	OFF	OFF	ON	OFF	ON	OFF	ON
151	ON	OFF	OFF	ON	OFF	ON	ON	ON
153	ON	OFF	OFF	ON	ON	OFF	OFF	ON
155	ON	OFF	OFF	ON	ON	OFF	ON	ON

Table 14 (continued)

Table 14 (continued)

"SA01"								
SPECIAL VEND VALUE	SAT	FRI	THUR	WED	TUE	MON	SUN	ON/OFF
157	ON	OFF	OFF	ON	ON	ON	OFF	ON
159	ON	OFF	OFF	ON	ON	ON	ON	ON
161	ON	OFF	ON	OFF	OFF	OFF	OFF	ON
163	ON	OFF	ON	OFF	OFF	OFF	ON	ON
165	ON	OFF	ON	OFF	OFF	ON	OFF	ON
167	ON	OFF	ON	OFF	OFF	ON	ON	ON
169	ON	OFF	ON	OFF	ON	OFF	OFF	ON
171	ON	OFF	ON	OFF	ON	OFF	ON	ON
173	ON	OFF	ON	OFF	ON	ON	OFF	ON
175	ON	OFF	ON	OFF	ON	ON	ON	ON
177	ON	OFF	ON	ON	OFF	OFF	OFF	ON
179	ON	OFF	ON	ON	OFF	OFF	ON	ON
181	ON	OFF	ON	ON	OFF	ON	OFF	ON
183	ON	OFF	ON	ON	OFF	ON	ON	ON
185	ON	OFF	ON	ON	ON	OFF	OFF	ON
187	ON	OFF	ON	ON	ON	OFF	ON	ON
189	ON	OFF	ON	ON	ON	ON	OFF	ON
191	ON	OFF	ON	ON	ON	ON	ON	ON
193	ON	ON	OFF	OFF	OFF	OFF	OFF	ON
195	ON	ON	OFF	OFF	OFF	OFF	ON	ON
197	ON	ON	OFF	OFF	OFF	ON	OFF	ON
199	ON	ON	OFF	OFF	OFF	ON	ON	ON
201	ON	ON	OFF	OFF	ON	OFF	OFF	ON
203	ON	ON	OFF	OFF	ON	OFF	ON	ON
205	ON	ON	OFF	OFF	ON	ON	OFF	ON
207	ON	ON	OFF	OFF	ON	ON	ON	ON
209	ON	ON	OFF	ON	OFF	OFF	OFF	ON
211	ON	ON	OFF	ON	OFF	OFF	ON	ON
213	ON	ON	OFF	ON	OFF	ON	OFF	ON
215	ON	ON	OFF	ON	OFF	ON	ON	ON
217	ON	ON	OFF	ON	ON	OFF	OFF	ON
219	ON	ON	OFF	ON	ON	OFF	ON	ON
221	ON	ON	OFF	ON	ON	ON	OFF	ON
223	ON	ON	OFF	ON	ON	ON	ON	ON
225	ON	ON	ON	OFF	OFF	OFF	OFF	ON
227	ON	ON	ON	OFF	OFF	OFF	ON	ON
229	ON	ON	ON	OFF	OFF	ON	OFF	ON
231	ON	ON	ON	OFF	OFF	ON	ON	ON
233	ON	ON	ON	OFF	ON	OFF	OFF	ON
235	ON	ON	ON	OFF	ON	OFF	ON	ON
237	ON	ON	ON	OFF	ON	ON	OFF	ON
239	ON	ON	ON	OFF	ON	ON	ON	ON
241	ON	ON	ON	ON	OFF	OFF	OFF	ON
243	ON	ON	ON	ON	OFF	OFF	ON	ON

Table 14 (continued)

Programming Control

Table 14 (continued)

"SA01"								
SPECIAL VEND VALUE	SAT	FRI	THUR	WED	TUE	MON	SUN	ON/OFF
245	ON	ON	ON	ON	OFF	ON	OFF	ON
247	ON	ON	ON	ON	OFF	ON	ON	ON
249	ON	ON	ON	ON	ON	OFF	OFF	ON
251	ON	ON	ON	ON	ON	OFF	ON	ON
253	ON	ON	ON	ON	ON	ON	OFF	ON
255	ON	ON	ON	ON	ON	ON	ON	ON

Table 14

How to Program Special Vend A Start Hour “SA02”

This option allows the owner to set the hour that Special Vend A will begin.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Special Vend A options until “SA02” appears in the display.
2. When “SA02” appears in the display, press the START (enter) keypad. The current start time (in military time) will appear in the display.

NOTE: The hours will be displayed in military time (0-23).

3. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the start hour to the desired hour.
4. Press the START (enter) keypad when the correct hour appears in the display. The next Special Vend A option, “SA03”, will appear in the display.

NOTE: To program “SA03” (Special Vend A Start Minute), continue to next Special Vend A option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

How to Program Special Vend A Start Minute “SA03”

This option allows the owner to set the minute that Special Vend A will begin.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Special Vend A options until “SA03” appears in the display.
2. When “SA03” appears in the display, press the START (enter) keypad. The current start minute will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the start minute to the desired minute.
4. Press the START (enter) keypad when the correct minute appears in the display. The next Special Vend A option, “SA04”, will appear in the display.

NOTE: To program “SA04” (Special Vend A Length in Hours), continue to next Special Vend A option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Control

How to Program Special Vend A Length in Hours “SA04”

This option allows the owner to set the length in hours for Special Vend A.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Special Vend A options until “SA04” appears in the display.
2. When “SA04” appears in the display, press the START (enter) keypad. The current length in hours will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the current length of hours to the desired number of hours.
4. Press the START (enter) keypad when the correct hour appears in the display. The next Special Vend A option, “SA05”, will appear in the display.

NOTE: To program “SA05” (Special Vend A Start Month), continue to next Special Vend A option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

How to Program Special Vend A Start Month “SA05”

This option allows the owner to set the month that Special Vend A will begin.

NOTE: If Special Vend A Start Month, Start Date, End Month, or End Date are programmed to zero (default is zero), the Special Vend A will be active every week on the days programmed in Table 14.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Special Vend A options until “SA05” appears in the display.
2. When “SA05” appears in the display, press the START (enter) keypad. The current start month will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the start month to the desired month.

If “0” is selected and Special Vend A is on, Special Vend A will occur at the time and days of week selected, regardless of the month.
4. Press the START (enter) keypad when the correct month appears in the display. The next Special Vend A option, “SA06”, will appear in the display.

NOTE: To program “SA06” (Special Vend A Start Date), continue to next Special Vend A option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

How to Program Special Vend A Start Date “SA06”

This option allows the owner to set the date that Special Vend A will begin.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Special Vend A options until “SA06” appears in the display.
2. When “SA06” appears in the display, press the START (enter) keypad. The current start date will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the start date to the desired date.

If “0” is selected and Special Vend A is on, Special Vend A will occur at the time and days of week selected, regardless of the date.

4. Press the START (enter) keypad when the correct date appears in the display. The next Special Vend A option, “SA07”, will appear in the display.

NOTE: To program “SA07” (Special Vend A Start Year), continue to next Special Vend A option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

How to Program Special Vend A Start Year “SA07”

This option allows the owner to set the year that Special Vend A will begin.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Special Vend A options until “SA07” appears in the display.
2. When “SA07” appears in the display, press the START (enter) keypad. The current start year will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the start year to the desired year.

If “0” is selected and Special Vend A is on, Special Vend A will occur at the time or days of week selected, regardless of the year. “01” is year 2001, “02” is year 2002, and so on.

4. Press the START (enter) keypad when the correct year appears in the display. The next Special Vend A option, “SA08”, will appear in the display.

NOTE: To program “SA08” (Special Vend A End Month), continue to next Special Vend A option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Control

How to Program Special Vend A End Month “SA08”

This option allows the owner to set the month that Special Vend A will end.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Special Vend A options until “SA08” appears in the display.
2. When “SA08” appears in the display, press the START (enter) keypad. The current end month will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the end month to the desired month.

If “0” is selected and Special Vend A is on, Special Vend A will occur at the time and day of week selected, regardless of the month.

4. Press the START (enter) keypad when the correct month appears in the display. The next Special Vend A option, “SA09”, will appear in the display.

NOTE: To program “SA09” (Special Vend A End Date), continue to next Special Vend A option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

How to Program Special Vend A End Date “SA09”

This option allows the owner to set the date that Special Vend A will end.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Special Vend A options until “SA09” appears in the display.
2. When “SA09” appears in the display, press the START (enter) keypad. The current end date will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the end date to the desired date.

If “0” is selected and Special Vend A is on, Special Vend A will occur at the time or days of week selected, regardless of the date.

4. Press the START (enter) keypad when the correct date appears in the display. The next Special Vend A option, “SA10”, will appear in the display.

NOTE: To program “SA10” (Special Vend A End Year), continue to next Special Vend A option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

How to Program Special Vend A End Year “SA10”

This option allows the owner to set the year that Special Vend A will end.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Special Vend A options until “SA10” appears in the display.
2. When “SA10” appears in the display, press the START (enter) keypad. The current end year will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the end year to the desired year.

If “0” is selected and Special Vend A is on, Special Vend A will occur at the time or days of week selected, regardless of the year. “01” is year 2001, “02” is year 2002 and so on.

4. Press the START (enter) keypad when the correct year appears in the display. The next Special Vend A option, “SA11”, will appear in the display.

NOTE: To program “SA11” (Special Vend A Normal Hot Vend Price), continue to next Special Vend A option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Control

How to Program Special Vend A Normal Hot Vend Price “SA11”

This option allows the owner to set the vend price for a Normal Hot wash in Special Vend A. The corresponding LEDs will be lit while programming.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Special Vend A options until “SA11” appears in the display.
2. When “SA11” appears in the display, press the START (enter) keypad. There are five digits in the Special Vend A Normal Hot Vend Price. The fifth digit will appear in the display and will flash one (1) second on and one (1) second off. Refer to *Figure 21*.

NOTE: If the vend price is \$100.00 or more, the fifth digit is “1-6”. If the vend price is \$99.99 or less, the fifth digit is “0”.

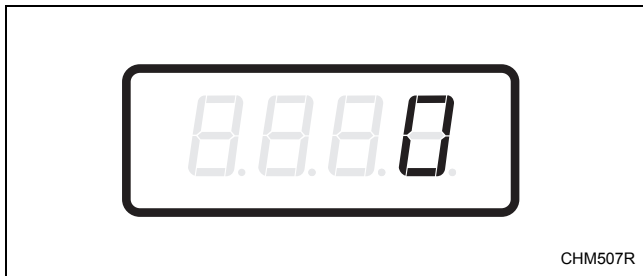


Figure 21

3. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the fifth digit.

NOTE: The vend price can be set from 0 to 65,535.

4. Press the START (enter) keypad to enter the fifth digit and display remaining four digits. The active digit will flash one (1) second on and one (1) second off.

NOTE: To go back to the current programmable Special Vend A option without changing the value of the active digit, press the PERM PRESS (<) keypad.

5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the active digit and the START keypad to enter the value of the digit and advance to the next digit.
6. Press the START (enter) keypad with the last active digit. The next Special Vend A option, “SA12”, will appear in the display.

NOTE: To program “SA12” (Special Vend A Normal Warm Vend Price), continue to next Special Vend A option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

How to Program Special Vend A Normal Warm Vend Price “SA12”

This option allows the owner to set the vend price for a Normal Warm wash in Special Vend A. The corresponding LEDs will be lit while programming.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Special Vend A options until “SA12” appears in the display.
2. When “SA12” appears in the display, press the START (enter) keypad. There are five digits in the Special Vend A Normal Warm Vend Price. The fifth digit will appear in the display and will flash one (1) second on and one (1) second off. Refer to *Figure 22*.

NOTE: If the vend price is \$100.00 or more, the fifth digit is “1-6”. If the vend price is \$99.99 or less, the fifth digit is “0”.

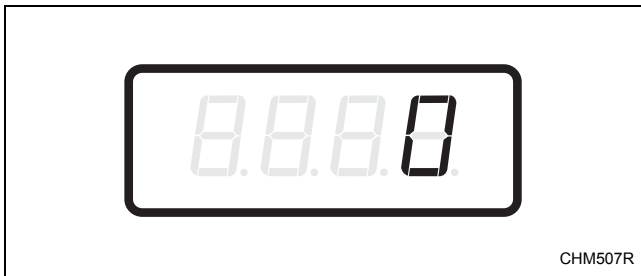


Figure 22

3. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the fifth digit.

NOTE: The vend price can be set from 0 to 65,535.

4. Press the START (enter) keypad to enter the fifth digit and display remaining four digits. The active digit will flash one (1) second on and one (1) second off.

NOTE: To go back to the current programmable Special Vend A option without changing the value of the active digit, press the PERM PRESS (<) keypad.

5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the active digit and the START keypad to enter the value of the digit and advance to the next digit.
6. Press the START (enter) keypad with the last active digit. The next Special Vend A option, “SA13”, will appear in the display.

NOTE: To program “SA13” (Special Vend A Normal Cold Vend Price), continue to next Special Vend A option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Control

How to Program Special Vend A Normal Cold Vend Price “SA13”

This option allows the owner to set the vend price for a Normal Cold wash in Special Vend A. The corresponding LEDs will be lit while programming.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Special Vend A options until “SA13” appears in the display.
2. When “SA13” appears in the display, press the START (enter) keypad. There are five digits in the Special Vend A Normal Cold Vend Price. The fifth digit will appear in the display and will flash one (1) second on and one (1) second off. Refer to *Figure 23*.

NOTE: If the vend price is \$100.00 or more, the fifth digit is “1-6”. If the vend price is \$99.99 or less, the fifth digit is “0”.

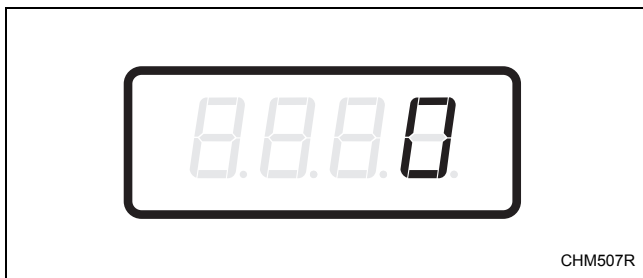


Figure 23

3. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the fifth digit.

NOTE: The vend price can be set from 0 to 65,535.

4. Press the START (enter) keypad to enter the fifth digit and display remaining four digits. The active digit will flash one (1) second on and one (1) second off.

NOTE: To go back to the current programmable Special Vend A option without changing the value of the active digit, press the PERM PRESS (<) keypad.

5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the active digit and the START keypad to enter the value of the digit and advance to the next digit.
6. Press the START (enter) keypad with the last active digit. The next Special Vend A option, “SA14”, will appear in the display.

NOTE: To program “SA14” (Special Vend A Perm Press Hot Vend Price), continue to next Special Vend A option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

How to Program Special Vend A Perm Press Hot Vend Price “SA14”

This option allows the owner to set the vend price for a Perm Press Hot wash in Special Vend A. The corresponding LEDs will be lit while programming.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Special Vend A options until “SA14” appears in the display.
2. When “SA14” appears in the display, press the START (enter) keypad. There are five digits in the Special Vend A Perm Press Hot Vend Price. The fifth digit will appear in the display and will flash one (1) second on and one (1) second off. Refer to *Figure 24*.

NOTE: If the vend price is \$100.00 or more, the fifth digit is “1-6”. If the vend price is \$99.99 or less, the fifth digit is “0”.

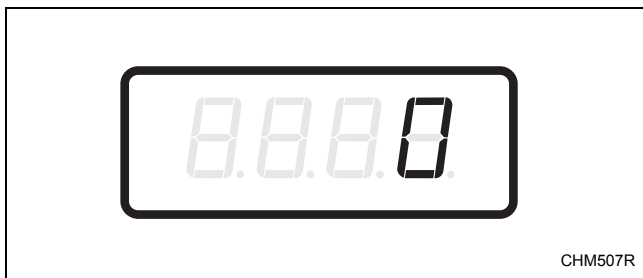


Figure 24

3. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the fifth digit.

NOTE: The vend price can be set from 0 to 65,535.

4. Press the START (enter) keypad to enter the fifth digit and display remaining four digits. The active digit will flash one (1) second on and one (1) second off.

NOTE: To go back to the current programmable Special Vend A option without changing the value of the active digit, press the PERM PRESS (<) keypad.

5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the active digit and the START keypad to enter the value of the digit and advance to the next digit.
6. Press the START (enter) keypad with the last active digit. The next Special Vend A option, “SA15”, will appear in the display.

NOTE: To program “SA15” (Special Vend A Perm Press Warm Vend Price), continue to next Special Vend A option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Control

How to Program Special Vend A Perm Press Warm Vend Price “SA15”

This option allows the owner to set the vend price for a Perm Press Warm wash in Special Vend A. The corresponding LEDs will be lit while programming.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Special Vend A options until “SA15” appears in the display.
2. When “SA15” appears in the display, press the START (enter) keypad. There are five digits in the Special Vend A Perm Press Warm Vend Price. The fifth digit will appear in the display and will flash one (1) second on and one (1) second off. Refer to *Figure 25*.

NOTE: If the vend price is \$100.00 or more, the fifth digit is “1-6”. If the vend price is \$99.99 or less, the fifth digit is “0”.

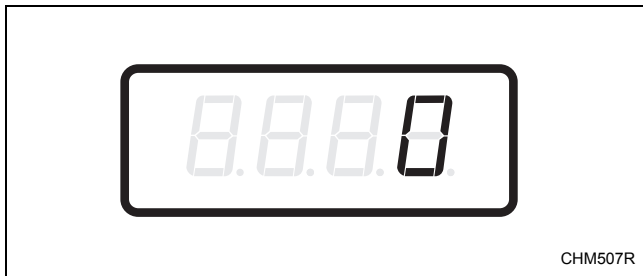


Figure 25

3. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the fifth digit.

NOTE: The vend price can be set from 0 to 65,535.

4. Press the START (enter) keypad to enter the fifth digit and display remaining four digits. The active digit will flash one (1) second on and one (1) second off.

NOTE: To go back to the current programmable Special Vend A option without changing the value of the active digit, press the PERM PRESS (<) keypad.

5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the active digit and the START keypad to enter the value of the digit and advance to the next digit.
6. Press the START (enter) keypad with the last active digit. The next Special Vend A option, “SA16”, will appear in the display.

NOTE: To program “SA16” (Special Vend A Perm Press Cold Vend Price), continue to next Special Vend A option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

How to Program Special Vend A Perm Press Cold Vend Price “SA16”

This option allows the owner to set the vend price for a Perm Press Cold wash in Special Vend A. The corresponding LEDs will be lit while programming.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Special Vend A options until “SA16” appears in the display.
2. When “SA16” appears in the display, press the START (enter) keypad. There are five digits in the Special Vend A Perm Press Cold Vend Price. The fifth digit will appear in the display and will flash one (1) second on and one (1) second off. Refer to *Figure 26*.

NOTE: If the vend price is \$100.00 or more, the fifth digit is “1-6”. If the vend price is \$99.99 or less, the fifth digit is “0”.

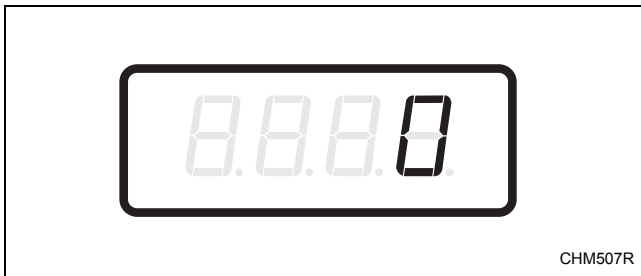


Figure 26

3. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the fifth digit.

NOTE: The vend price can be set from 0 to 65,535.

4. Press the START (enter) keypad to enter the fifth digit and display remaining four digits. The active digit will flash one (1) second on and one (1) second off.

NOTE: To go back to the current programmable Special Vend A option without changing the value of the active digit, press the PERM PRESS (<) keypad.

5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the active digit and the START keypad to enter the value of the digit and advance to the next digit.
6. Press the START (enter) keypad with the last active digit. The next Special Vend A option, “SA17”, will appear in the display.

NOTE: To program “SA17” (Special Vend A Delicates Hot Vend Price), continue to next Special Vend A option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Control

How to Program Special Vend A Delicates Hot Vend Price “SA17”

This option allows the owner to set the vend price for a Delicates Hot wash in Special Vend A. The corresponding LEDs will be lit while programming.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Special Vend A options until “SA17” appears in the display.
2. When “SA17” appears in the display, press the START (enter) keypad. There are five digits in the Special Vend A Delicates Hot Vend Price. The fifth digit will appear in the display and will flash one (1) second on and one (1) second off. Refer to *Figure 27*.

NOTE: If the vend price is \$100.00 or more, the fifth digit is “1-6”. If the vend price is \$99.99 or less, the fifth digit is “0”.

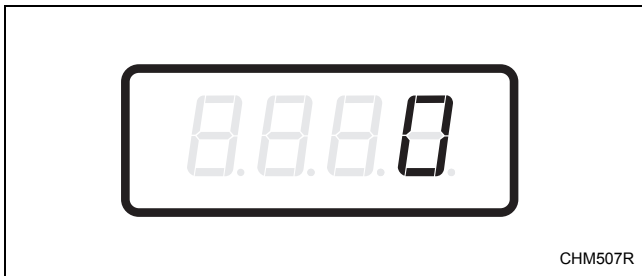


Figure 27

3. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the fifth digit.

NOTE: The vend price can be set from 0 to 65,535.

4. Press the START (enter) keypad to enter the fifth digit and display remaining four digits. The active digit will flash one (1) second on and one (1) second off.

NOTE: To go back to the current programmable Special Vend A option without changing the value of the active digit, press the PERM PRESS (<) keypad.

5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the active digit and the START keypad to enter the value of the digit and advance to the next digit.
6. Press the START (enter) keypad with the last active digit. The next Special Vend A option, “SA18”, will appear in the display.

NOTE: To program “SA18” (Special Vend A Delicates Warm Vend Price), continue to next Special Vend A option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

How to Program Special Vend A Delicates Warm Vend Price “SA18”

This option allows the owner to set the vend price for a Delicates Warm wash in Special Vend A. The corresponding LEDs will be lit while programming.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Special Vend A options until “SA18” appears in the display.
2. When “SA18” appears in the display, press the START (enter) keypad. There are five digits in the Special Vend A Delicates Warm Vend Price. The fifth digit will appear in the display and will flash one (1) second on and one (1) second off. Refer to *Figure 28*.

NOTE: If the vend price is \$100.00 or more, the fifth digit is “1-6”. If the vend price is \$99.99 or less, the fifth digit is “0”.

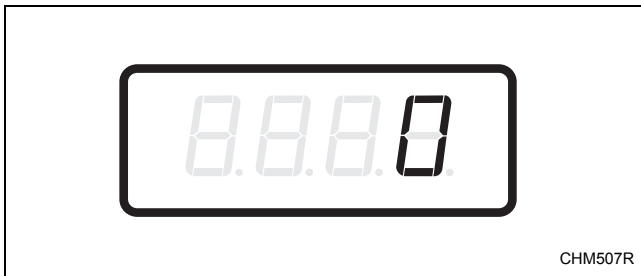


Figure 28

3. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the fifth digit.

NOTE: The vend price can be set from 0 to 65,535.

4. Press the START (enter) keypad to enter the fifth digit and display remaining four digits. The active digit will flash one (1) second on and one (1) second off.

NOTE: To go back to the current programmable Special Vend A option without changing the value of the active digit, press the PERM PRESS (<) keypad.

5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the active digit and the START keypad to enter the value of the digit and advance to the next digit.
6. Press the START (enter) keypad with the last active digit. The next Special Vend A option, “SA19”, will appear in the display.

NOTE: To program “SA19” (Special Vend A Delicates Cold Vend Price), continue to next Special Vend A option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Control

How to Program Special Vend A Delicates Cold Vend Price “SA19”

This option allows the owner to set the vend price for a Delicates Cold wash in Special Vend A. The corresponding LEDs will be lit while programming.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Special Vend A options until “SA19” appears in the display.
2. When “SA19” appears in the display, press the START (enter) keypad. There are five digits in the Special Vend A Delicates Cold Vend Price. The fifth digit will appear in the display and will flash one (1) second on and one (1) second off. Refer to *Figure 29*.

NOTE: If the vend price is \$100.00 or more, the fifth digit is “1-6”. If the vend price is \$99.99 or less, the fifth digit is “0”.

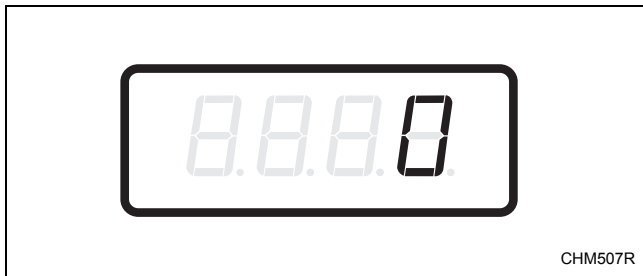


Figure 29

3. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the fifth digit.

NOTE: The vend price can be set from 0 to 65,535.

4. Press the START (enter) keypad to enter the fifth digit and display remaining four digits. The active digit will flash one (1) second on and one (1) second off.

NOTE: To go back to the current programmable Special Vend A option without changing the value of the active digit, press the PERM PRESS (<) keypad.

5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the active digit and the START keypad to enter the value of the digit and advance to the next digit.
6. Press the START (enter) keypad with the last active digit. The next Special Vend A option, “SA20”, will appear in the display.

NOTE: To program “SA20” (Special Vend A Wash Agitate Step Added Minutes), continue to next Special Vend A option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

How to Program Special Vend A Wash Agitate Step Added Minutes “SA20”

This option allows the owner to add time to the wash agitate part of the cycle in Special Vend A.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Special Vend A options until “SA20” appears in the display.
2. When “SA20” appears in the display, press the START (enter) keypad.
3. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the number of minutes displayed to the desired number of added minutes.

NOTE: The Special Vend A Added Wash Agitate Time can be set from zero “0” to 15 minutes.

4. Press the START (enter) keypad when the correct number of minutes appears in the display. The next Special Vend A option, “SA21”, will appear in the display.

NOTE: To program “SA21” (Special Vend A Wash Agitate Step Subtracted Minutes), continue to next Special Vend A option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

How to Program Special Vend A Wash Agitate Step Subtracted Minutes “SA21”

This option allows the owner to subtract time from the wash agitate part of the cycle in Special Vend A.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Special Vend A options until “SA21” appears in the display.
2. When “SA21” appears in the display, press the START (enter) keypad.
3. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the number of minutes displayed to the desired number of subtracted minutes.

NOTE: The Special Vend A Subtracted Wash Agitate Time can be set from zero “0” to 15 minutes.

4. Press the START (enter) keypad when the correct number of minutes appears in the display. The next Special Vend A option, “SA01” or “SA22” (Design 2 models only), will appear in the display.

NOTE: For Design 1 models, to program “SPb-” (Special Vend B Enable/Disable), press the PERM PRESS (<) keypad and refer to *option 37*. To program other options refer to the appropriate section.

For Design 2 models, to program “SA22” (Special Vend A Time of Day Extract), continue to next Special Vend A option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Control

How to Program Special Vend A Time of Day Extract “SA22” (Design 2 models only)

This option allows the owner to increase or decrease extract speeds during the extract part of the cycle in Special Vend A.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Special Vend A options until “SA22” appears in the display.
2. When “SA22” appears in the display, press the START (enter) keypad. A number will appear in the display. This number corresponds to the current extract speed.
3. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the current number to the desired number selected from *Table 15*.

Extract Speed Value	Extract Speed Description
1	Very low speed (27)
2	Low speed (80)
3	Medium speed (100)
4	High speed (125)
5	Very high speed (150)
6*	Ultra high speed (200)

*Factory Default Setting

Table 15

4. Press the START (enter) keypad when the correct extract speed value appears in the display. The next Special Vend A option, “SA01”, will appear in the display.

NOTE: To program “SPb-” (Special Vend B Enable/Disable), press the PERM PRESS (<) keypad and refer to *option 37*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

37. Special Vend B Days Enable/Disable “SPb-”

This option allows the owner to enable or disable a second special vend in Manual Mode.

Special Vend B can be further programmed using an external device or network.

How to Program Special Vend B Days Enable/Disable

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “SPb-” appears in the display.
4. When “SPb-” appears in the display, press the START (enter) keypad. The current Special Vend B Enable/Disable status will appear in the display.
“on” = Option Enabled
“off” = Option Disabled (Default setting)
5. Press the HEAVY (^) or the DELICATES (v) keypad to change the current status.
6. Press the START (enter) keypad when the desired status appears in the display. The next option, “SPC-”, will appear in the display.

NOTE: To program “SPC-” (Special Vend C Days Enable/Disable), refer to *option 38*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

38. Special Vend C Days Enable/Disable “SPC-”

This option allows the owner to enable or disable a third special vend in Manual Mode.

Special Vend C can be further programmed using an external device or network.

How to Program Special Vend C Days Enable/Disable

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “SPC-” appears in the display.
4. When “SPC-” appears in the display, press the START (enter) keypad. The current Special Vend C Enable/Disable status will appear in the display.
“on” = Option Enabled
“OFF” = Option Disabled (Default setting)
5. Press the HEAVY (^) or the DELICATES (v) keypad to change the current status.
6. Press the START (enter) keypad when the desired status appears in the display. The next option, “SPd-”, will appear in the display.

NOTE: To program “SPd-” (Special Vend D Days Enable/Disable), refer to *option 39*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

39. Special Vend D Days Enable/Disable “SPd-”

This option allows the owner to enable or disable a fourth special vend in Manual Mode.

Special Vend D can be further programmed using an external device or network.

How to Program Special Vend D Days Enable/Disable

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “SPd-” appears in the display.
4. When “SPd-” appears in the display, press the START (enter) keypad. The current Special Vend D Enable/Disable status will appear in the display.
“on” = Option Enabled
“OFF” = Option Disabled (Default setting)
5. Press the HEAVY (^) or the DELICATES (v) keypad to change the current status.
6. Press the START (enter) keypad when the desired status appears in the display. The next option, “CnP-”, will appear in the display.

NOTE: To program “CnP-” (Cycle Modifier Programming), refer to *option 40*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Control

40. Cycle Modifier Programming “CnP-”

This option allows the owner to program the machine to offer an added prewash, extra wash time, an added extra rinse, a warm rinse, or any combination of the above to the customers for an added vend price. This option is selected when MEDIUM or HEAVY is selected using the Select Soil keypads.

How to Program Cycle Modifier Medium Vend Price Adder “CnP1”

This price setting will be added to the current vend price. For example, if the vend price is \$1.50 and Cycle Modifier Medium Vend Price Adder is set to .25, the total vend price when the Medium Soil is chosen will be \$1.75.

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “CnP-” appears in the display. Press the START (enter) keypad and “CnP1” will appear in the display.
4. When “CnP1” appears in the display, press the START (enter) keypad. There are five digits in the Cycle Modifier Medium Vend Price Adder. The fifth digit will appear in the display and will flash for one (1) second on, one (1) second off. Refer to *Figure 30*.

NOTE: If the vend price adder is \$100.00 or more, the fifth digit is “1-6”. If the vend price is \$99.99 or less, the fifth digit is “0”.

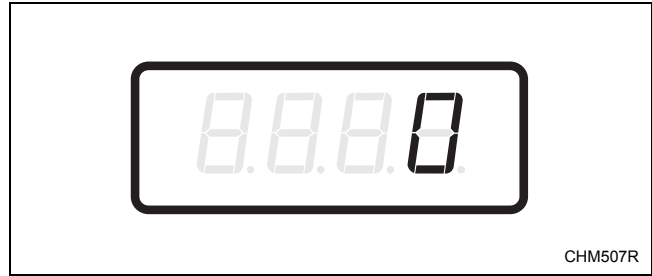


Figure 30

5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the fifth digit.

NOTE: The vend price adder can be set from 1 to 65,535. The default vend price adder is 25.

6. Press the START (enter) keypad to enter the fifth digit and display remaining four digits. The active digit will flash one (1) second on and one (1) second off.

NOTE: To go back to the current programmable option without changing the value of the active digit, press the PERM PRESS (<) keypad.

7. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the active digit and the START (enter) keypad to enter the value of the digit and advance to the next digit.
8. Press the START (enter) keypad with the last active digit. The next Cycle Modifier option, “CnP2”, will appear in the display.

NOTE: To program “CnP2” (Cycle Modifier Heavy Vend Price Adder), continue to next Cycle Modifier option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

How to Program Cycle Modifier Heavy Vend Price Adder “CnP2”

This price setting will be added to the current vend price. For example, if the vend price is \$1.00 and Cycle Modifier Heavy Vend Price Adder is set to .25, the total vend price when the Heavy Soil is chosen will be \$1.25.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Cycle Modifier options until “CnP2” appears in the display.
2. When “CnP2” appears in the display, press the START (enter) keypad. There are five digits in the Cycle Modifier Heavy Vend Price Adder. The fifth digit will appear in the display and will flash for one (1) second on, one (1) second off. Refer to *Figure 31*.

NOTE: If the vend price adder is \$100.00 or more, the fifth digit is “1-6”. If the vend price is \$99.99 or less, the fifth digit is “0”.

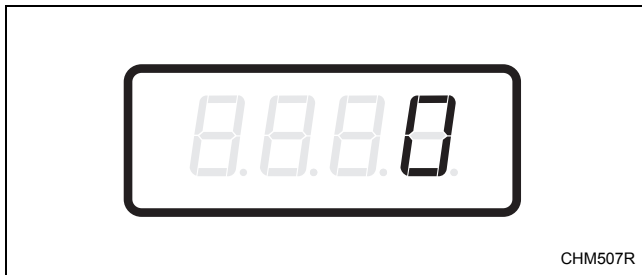


Figure 31

3. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the fifth digit.

NOTE: The vend price adder can be set from 1 to 65,535. The default vend price adder is 50.

4. Press the START (enter) keypad to enter the fifth digit and display remaining four digits. The active digit will flash one (1) second on and one (1) second off.

NOTE: To go back to the current programmable option without changing the value of the active digit, press the PERM PRESS (<) keypad.

5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the value of the active digit and the START (enter) keypad to enter the value of the digit and advance to the next digit.
6. Press the START (enter) keypad with the last active digit. The next Cycle Modifier option, “CnP3”, will appear in the display.

NOTE: To program “CnP3” (Cycle Modifier Medium Options), continue to next Cycle Modifier option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Control

How to Program Cycle Modifier Medium Options “CnP3”

This option allows the owner to enable or disable the Cycle Modifier Medium Option.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Cycle Modifier options until “CnP3” appears in the display.
2. When “CnP3” appears in the display, press the START (enter) keypad. A number will appear in the display. This number corresponds to the current Cycle Modifier Medium Option value. Refer to *Table 16*.
3. Locate the desired number in the first column of *Table 16*.
4. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the current number until correct.
5. Press the START (enter) keypad when the correct number appears in the display. The next Cycle Modifier option, “CnP4”, will appear in the display.

NOTE: To program “CnP4” (Cycle Modifier Heavy Options), continue to next Cycle Modifier option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

How to Read *Table 16*

To determine the correct number required to program the Cycle Modifier Option, use the following chart. The Cycle Modifier Value column contains the number required in step 3. The other columns correspond to individual options.

Each column of options contains a unique combination of the words “ON” and “OFF” that indicates if that column’s option is turned on or off when the Cycle Modifier Value is entered. Select the desired combination of options and enter the number found in the Cycle Modifier Value column.

Cycle Modifier Value	Prewash	Extra Rinse	Extra Wash Time	Warm Rinse
0	OFF	OFF	OFF	OFF
1*	ON	OFF	OFF	OFF
2	OFF	ON	OFF	OFF
3**	ON	ON	OFF	OFF
4	OFF	OFF	ON	OFF
5	ON	OFF	ON	OFF
6	OFF	ON	ON	OFF
7	ON	ON	ON	OFF
8	OFF	OFF	OFF	ON
9	ON	OFF	OFF	ON
10	OFF	ON	OFF	ON
11	ON	ON	OFF	ON
12	OFF	OFF	ON	ON
13	ON	OFF	ON	ON
14	OFF	ON	ON	ON
15	ON	ON	ON	ON

*Factory Default Setting (Cycle Modifier Medium Option)

**Factory Default Setting (Cycle Modifier Heavy Option)

Table 16

How to Program Cycle Modifier Heavy Options “CnP4”

This option allows the owner to enable or disable the Cycle Modifier Heavy Option.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Cycle Modifier options until “CnP4” appears in the display.
2. When “CnP4” appears in the display, press the START (enter) keypad. A number will appear in the display. This number corresponds to the current Cycle Modifier Heavy Options value. Refer to *Table 16*.
3. Locate the desired number in the first column of *Table 16*.
4. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the current number until correct.

NOTE: To go back to the current programmable option without changing the value of the active digit, press the PERM PRESS (<) keypad.

5. Press the START (enter) keypad when the correct number appears in the display. The next Cycle Modifier option, “CnP5”, will appear in the display.

NOTE: To program “CnP5” (Cycle Modifier Wash Segment Added Agitate Time [Design 1 models] or Cycle Modifier Medium Wash Segment Added Agitate Time [Design 2 models]), continue to next Cycle Modifier option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

How to Program Cycle Modifier Wash Segment Added Agitate Time (Design 1 Models) or Cycle Modifier Medium Wash Segment Added Agitate Time (Design 2 Models) “CnP5”

This option allows the owner to set the amount of additional wash time for the Medium and Heavy Cycle Modifier Options for Design 1 models or only the Medium Cycle Modifier Options for Design 2 models. The Extra Wash option needs to be turned on (refer to Cycle Modifier Medium and Heavy options) for the Cycle Modifier Wash Segment Added Agitate Time to take effect.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Cycle Modifier options until “CnP5” appears in the display.
2. When “CnP5” appears in the display, press the START (enter) keypad. The current number of minutes set for the Cycle Modifier Wash Segment Added Agitate Time will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the current number of minutes shown in the display to the desired number of minutes.

NOTE: The Cycle Modifier Wash Segment Added Agitate Time can be set from zero (0) to 15 minutes. The default added agitate time is 2 minutes.

4. Press the START (enter) keypad when the correct number of minutes appears in the display. The next Cycle Modifier option, “CnP6”, will appear in the display.

NOTE: To program “CnP6” (Cycle Modifier Default Soil Level), continue to next Cycle Modifier option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Control

How to Program Cycle Modifier Default Soil Level Options “CnP6”

This option allows the owner to program the Cycle Modifier Default Soil Level Option.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Cycle Modifier options until “CnP6” appears in the display.
2. When “CnP6” appears in the display, press the START (enter) keypad. A number will appear in the display. This number corresponds to the current Cycle Modifier Default Soil Level Options value. Refer to *Table 17*.
3. Locate the desired number in the first column of *Table 17*.

Cycle Modifier Value	Soil Level
0*	Light
1	Medium
2	Heavy

*Factory Default Setting

Table 17

4. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the current number until correct.

NOTE: To go back to the current programmable option without changing the value of the active digit, press the PERM PRESS (<) keypad.

5. Press the START (enter) keypad when the correct number appears in the display. The next Cycle Modifier option, “CnP1”, for Design 1 models or “CnP7” for Design 2 models will appear in the display.

NOTE: For Design 1 models, to program “drop” (Drop Off Mode [on/off]), press the PERM PRESS (<) keypad then the HEAVY (^) keypad and refer to *option 41*. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

For Design 2 models, to program “CnP7” (Cycle Modifier Heavy Wash Segment Added Agitate Time), continue to next Cycle Modifier option. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

How to Program Cycle Modifier Heavy Wash Segment Added Agitate Time “CnP7” (Design 2 Models Only)

This option allows the owner to set the amount of additional wash time for the Heavy Cycle Modifier Options. The Extra Wash option needs to be turned on (refer to Cycle Modifier Heavy options) for the Cycle Modifier Heavy Wash Segment Added Agitate Time to take effect.

1. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable Cycle Modifier options until “CnP7” appears in the display.
2. When “CnP7” appears in the display, press the START (enter) keypad. The current number of minutes set for the Cycle Modifier Heavy Wash Segment Added Agitate Time will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the current number of minutes shown in the display to the desired number of minutes.

NOTE: The Cycle Modifier Heavy Wash Segment Added Agitate Time can be set from zero (0) to 15 minutes. The default added agitate time is 2 minutes.

4. Press the START (enter) keypad when the correct number of minutes appears in the display. The next Cycle Modifier option, “CnP1”, will appear in the display.

NOTE: To program “drop” Drop Off Mode (on/off), press the PERM PRESS (<) keypad then the HEAVY (^) keypad and refer to *option 41*. To program other options, press the PERM PRESS (<) keypad and refer to the appropriate section.

NOTE: How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

41. Drop Off Mode (On/Off) “droP”

This option allows the owner to limit machine use to an attendant without requiring vend.

How to Program the Drop Off Mode (On/Off)

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (∧) or the DELICATES (∨) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (∧) or the DELICATES (∨) keypad to scroll through the programmable options until “droP” appears in the display.
4. When “droP” appears in the display, press the START (enter) keypad. The current Drop Off Mode (On/Off) Status will appear in the display.
“on” = Option Enabled
“oFF” = Option Disabled (Default Setting)

When the Drop Off Mode is enabled, starting the machine requires the correct sequence of four keypad presses as programmed with a PDA.

NOTE: Manual Mode or Production Test Cycle cannot be accessed when Drop Off Mode is enabled, to disable Drop Off Mode use an external device or enter the programmed keypress code. The default code is a sequence of five keypad presses: (1) LIGHT, (2) MEDIUM, (3) HEAVY, (4) NORMAL and (5) START.

5. Press the HEAVY (∧) or the DELICATES (∨) keypad to change the current status.
6. Press the START (enter) keypad when the desired status appears in the display. The next option, “LPSA”, will appear in the display.

NOTE: To program “LPSA” (Low Power/Auto Shutdown A Days Enable), refer to *option 42*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

42. Low Power/Auto Shutdown A Days Enable “LPSA”

This option allows the owner to set Low Power/Auto Shutdown on certain day(s) of the week. Low Power or Auto Shutdown duration are programmed using an external device or network.

How to Program the Low Power/Auto Shutdown A Days Enable

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (∧) or the DELICATES (∨) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (∧) or the DELICATES (∨) keypad to scroll through the programmable options until “LPSA” appears in the display.
4. When “LPSA” appears in the display, press the START (enter) keypad. The current Low Power/Auto Shutdown A Days Enable status will appear in the display.
“on” = Option Enabled
“oFF” = Option Disabled (Default Setting)
5. Press the HEAVY (∧) or the DELICATES (∨) keypad to change the current status.
6. Press the START (enter) keypad when the correct status appears in the display. The next option, “LPSb”, will appear in the display.

NOTE: To program “LPSb” (Low Power/Auto Shutdown B Days Enable), refer to *option 43*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

43. Low Power/Auto Shutdown B Days Enable “LPSb”

This option allows the owner to set Low Power/Auto Shutdown on certain day(s) of the week. Low Power or Auto Shutdown duration are programmed using an external device or network.

How to Program the Low Power/Auto Shutdown B Days Enable

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “LPSb” appears in the display.
4. When “LPSb” appears in the display, press the START (enter) keypad. The current Low Power/Auto Shutdown B Days Enable status will appear in the display.
“on” = Option Enabled
“OFF” = Option Disabled (Default Setting)
5. Press the HEAVY (^) or the DELICATES (v) keypad to change the current status.
6. Press the START (enter) keypad when the correct status appears in the display. The next option, “LPSC”, will appear in the display.

NOTE: To program “LPSC” (Low Power/Auto Shutdown C Days Enable), refer to *option 44*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

44. Low Power/Auto Shutdown C Days Enable “LPSC”

This option allows the owner to set Low Power/Auto Shutdown on certain day(s) of the week. Low Power or Auto Shutdown duration are programmed using an external device or network.

How to Program the Low Power/Auto Shutdown C Days Enable

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “LPSC” appears in the display.
4. When “LPSC” appears in the display, press the START (enter) keypad. The current Low Power/Auto Shutdown C Days Enable status will appear in the display.
“on” = Option Enabled
“OFF” = Option Disabled (Default Setting)
5. Press the HEAVY (^) or the DELICATES (v) keypad to change the current status.
6. Press the START (enter) keypad when the correct status appears in the display. The next option, “LPSd”, will appear in the display.

NOTE: To program “LPSd” (Low Power/Auto Shutdown D Days Enable), refer to *option 45*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

45. Low Power/Auto Shutdown D Days Enable “LPSd”

This option allows the owner to set Low Power/Auto Shutdown on certain day(s) of the week. Low Power or Auto Shutdown duration are programmed using an external device or network.

How to Program the Low Power/Auto Shutdown D Days Enable

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “LPSd” appears in the display.
4. When “LPSd” appears in the display, press the START (enter) keypad. The current Low Power/Auto Shutdown D Days Enable status will appear in the display.
“On” = Option Enabled
“OFF” = Option Disabled (Default Setting)
5. Press the HEAVY (^) or the DELICATES (v) keypad to change the current status.
6. Press the START (enter) keypad when the correct status appears in the display. The next option, “PFR”, will appear in the display.

NOTE: To program “PFR” (Power Fail Reset), refer to *option 46*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

46. Power Fail Reset “PFR”

This option allows the owner to set the amount of time the control will store active cycle information in the event of a power failure. The default setting for Power Fail Reset is OFF. If Power Fail Reset is turned OFF, the cycle will be saved.

How to Program Power Fail Reset

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “PFR” appears in the display.
4. When “PFR” appears in the display, press the START (enter) keypad. “OFF” or a number will appear in the display. This number corresponds to the current Power Fail Reset setting.
5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the current number to the desired number selected from *Table 18*.
6. Press the START (enter) keypad when the correct number appears in the display. The next option, “dAEn”, will appear in the display.

NOTE: To program “dAEn” (Manual Diagnostics [on/off]), refer to *option 47*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Control

How to Read Table 18

Use this table to set the amount of time for Power Fail Reset.

“oFF” turns the option OFF. The current cycle status will be saved. When power is restored, the cycle will begin where it was interrupted.

If “133” is entered, the current cycle will be saved for up to five minutes. If power is not restored within five minutes, the control will erase the cycle status. The minimum power failure time is five minutes. The maximum power fail reset time is 127 minutes.

“PFR”	
DISPLAY TO ENTER IN STEP 6	POWER FAIL RESET TIME
“oFF”*	Turned OFF. Cycle will be saved.
133	5 minutes without power before cycle is lost
. . . add one minute for every number up to	
255	127 minutes without power before cycle is lost

*Factory Default Setting

Table 18

47. Manual Diagnostics (On/Off) “dAEn”

This option allows the owner to enable or disable the manual diagnostics option. Refer to *Testing Machine and Electronic Control Functions* section for more information.

How to Program the Manual Diagnostics (On/Off)

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “dAEn” appears in the display.
4. When “dAEn” appears in the display, press the START (enter) keypad. The current Manual Diagnostics status will appear in the display.
“on” = Option Enabled (Default Setting)
“off” = Option Disabled
5. Press the HEAVY (^) or the DELICATES (v) keypad to change the current status.
6. Press the START (enter) keypad when the desired status appears in the display. The next option, “FLo”, will appear in the display.

NOTE: To program “FLo” (Low Water Level), refer to *option 48*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

48. Low Water Level “FLo”

This option allows the owner to program the low water level during fill and tumble of all cycles.

How to Program Low Water Level

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “FLo” appears in the display.
4. When “FLo” appears in the display, press the START (enter) keypad. A number will appear in the display. This number corresponds to the current low water level during tumble and fill of all cycles.
5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the current water level to the desired water level.

NOTE: The Low Water Level value can be set from 1 to 10. The default Low Water Level is 3.

6. Press the START (enter) keypad when the correct number appears in the display. The next option, “FnEd”, will appear in the display.

NOTE: To program “FnEd” (Medium Water Level), refer to *option 49*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Programming Control

49. Medium Water Level “FnEd”

This option allows the owner to program the medium water level during fill and tumble of all cycles.

How to Program Medium Water Level

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “FnEd” appears in the display.
4. When “FnEd” appears in the display, press the START (enter) keypad. A number will appear in the display. This number corresponds to the current medium water level during tumble and fill of all cycles.
5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the current water level to the desired water level.

NOTE: The Medium Water Level value can be set from 11 to 20. The default Medium Water Level is 15.

6. Press the START (enter) keypad when the correct number appears in the display. The next option, “FHI”, will appear in the display.

NOTE: To program “FHI” (High Water Level), refer to *option 50*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

50. High Water Level “FHI”

This option allows the owner to program the high water level during fill and tumble of all cycles.

How to Program High Water Level

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “FHI” appears in the display.
4. When “FHI” appears in the display, press the START (enter) keypad. A number will appear in the display. This number corresponds to the current high water level during tumble and fill of all cycles.
5. Press the HEAVY (^) or the DELICATES (v) keypad to increase or decrease the current water level to the desired water level.

NOTE: The High Water Level value can be set from 21 to 30. The default High Water Level is 27.

6. Press the START (enter) keypad when the correct number appears in the display. The next option, “tCF”, will appear in the display.

NOTE: To program “tCF” (Temperature Controlled Fill), refer to *option 51*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

51. Temperature Controlled Fill Enable/Disable “tCF” (Models with Heat)

This option allows the owner to enable or disable a Temperature Controlled Fill. When enabled, the control will regulate the temperature of the fill to the temperature programmed in *options 17, 18 and 19*.

How to Program Temperature Controlled Fill

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “tCF” appears in the display.
4. When “tCF” appears in the display, press the START (enter) keypad. The current Temperature Controlled Fill status will appear in the display.
 “on” = Option Enabled
 “oFF” = Option Disabled (Default Setting)
5. Press the HEAVY (^) or the DELICATES (v) keypad to change the current status.

6. Press the START (enter) keypad when the desired status appears in the display. The next option, “ALd-”, will appear in the display.

NOTE: To program “ALd-” (Auto-Water Leak Detection), refer to *option 52*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

52. Auto-Water Leak Detection “ALd-”

This option allows the owner to set the time and frequency that the control automatically checks the water level. The owner programs which day(s) of the week and hour of day(s) they want this test to occur. The owner may also program this test to only occur after XX number of machine cycles have been completed since the last time the test was run. In order for this Auto-Water Leak Detection test to occur, the machine’s door must be closed.

How to Program the Auto-Water Leak Detection

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “Prog” appears in the display. Press the START (enter) keypad and “AtS1” will appear in the display.
3. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options until “ALd-” appears in the display. Press the START keypad and “ALd1” will appear in the display.
4. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the programmable options. Refer to *Table 19*.

“ALd1”	Auto-Water Leak Detection (“oFF”* or “0” through “127” cycles [on] – Number of completed cycles after which this test will occur.)
“ALd2”	Auto-Water Leak Detection Hour (“0”*-“23” – Hour of the day this test will occur)
“ALd3”	Auto-Water Leak Detection Day of Week (“0”-“127”* – Refer to <i>Table 7</i>)

*Factory Default Setting

Table 19

5. When the desired option appears in the display, press the START (enter) keypad. The current value will appear in the display.

6. Press the HEAVY (^) or the DELICATES (v) keypad to enable during cycles, disable, increase or decrease the hours or day.

NOTE: The hours will be displayed in military time. For day of week, Sunday is considered day one (001), Monday is day two (002) and so on.

7. Press the START (enter) keypad when the correct value appears in the display. The next option “AtS1”, will appear in the display.

NOTE: To program “AtS1” (Normal Hot Vend Price), refer to *option 1*. To program other options, refer to the appropriate section.

How to Exit Programming Feature

Press the PERM PRESS (<) keypad until the control returns to Ready Mode.

Collecting Audit Information

This feature allows the owner to retrieve audit information stored in the machine by pressing a sequence of pads on the control. For an explanation of the audit options available, refer to *Table 20*.

How to Enter Audit Feature

There are two methods the owner can use to enter the Audit Feature.

Entering the Audit Feature by Manual Mode

1. Control must be in Manual Mode to start. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “AUdt” appears.
3. Press the START (enter) keypad. “CyC” will appear.

Entering the Audit Feature with the Coin Vault Open

1. Open coin vault. Make sure top cover is closed.
2. Press the START (enter) keypad.

How to Read Audit Data

1. Use the HEAVY (^) or the DELICATES (v) keypad to scroll through various options until the desired option is shown in the display. Refer to the Audit Options List, *Table 20*, for an explanation of the audit options available.

Audit Options List		
#	Display	Description
1	“CyC”	Total # of machine cycles
2	“rCyC”	Total # of rapid advanced cycles
3	“Coi1”	Total # of coins #1
4	“Coi2”	Total # of coins #2
5	“PLSE”	Total # of start pulses

Table 20

2. Once the desired option appears in the display, press the START (enter) keypad **once** to start the audit count. At this point, the display will show the first four-digit segment of the audit value. If the audit count is 10,000 or higher, press the START (enter) keypad again to view the last four digits of the number.

NOTE: The display can show up to 4 digits at one time. Audit counts 10,000 or higher are separated into two 4-digit segments. Each time the START (enter) keypad is pressed in step 2, the display will show the next 4-digit segment in the audit value. If the value is 9,999 or less, only one 4-digit segment will be shown.

For Example: In the Total Number of Coins LIGHT option with “Coi1” shown in the display, the audit has counted 10,009 coins. Pressing the START (enter) keypad one time will show “_ _ _ 1” to represent ten thousand. Pressing the START (enter) keypad a second time will display “0009” meaning nine. The total equals “00010009” or 10,009.

3. Press the START (enter) keypad again. The control will go to the next audit option in the Audit Options List.
4. To select other audit options, repeat steps 1 – 4.

How to Exit Audit Feature

Press the PERM PRESS (<) keypad.

NOTE: To exit Audit Feature when using Coin Vault Open method, owner must close coin vault.

Manual Reset

This feature allows the owner to reset the machine control's programming data to the factory default settings by pressing a sequence of pads on the control.

How to Enter Manual Reset

1. Control must be in Manual Mode to start. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until "rSEt" appears.
3. Press the START (enter) keypad. The control will be blank until the programming is complete. Once the program has been reset, the control will display the next Manual Mode option, "dIAG".

Testing Machine and Electronic Control Functions

This feature allows the owner to run diagnostic tests on various machine operations without servicing the machine. The following tests are available:

- Front End Control Software Version Number
- Output Board Control Software Version Number
- Output Board Water Level Sensor Trim Value
- Top Cover Opening Test
- Coin Vault Opening Test
- Coin Drop #1 Input Test
- Coin Drop #2 Input Test
- Coin Drop Header Present Test
- Door Switch Input Test
- Door Lock Input Test
- Show Fill Time Test
- Show Drain Time Test
- Temperature Sensor Display Test
- Start Pulse Test
- VFD Balance Input Test (Design 1 models only)
- 24 VAC Switch Input Test (Design 1 models only)
- VFD Drive Fault Input Test (Design 1 models only)
- Frame Balance Switch Input Test
- Balance Weight Test (VFD models) (Design 1 models only)
- Water Purge Test
- Water Leak Detection Test

The following tests are available on Design 2 models only:

- Drive Software Version Number
- Drive Parameter Table Version Number
- Drive Type Value
- Drive DC Bus Display Test

How to Enter Diagnostic Testing Feature

1. Control must be in Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “dIAG” appears.
3. Press the START (enter) keypad. Display will change to “d001” indicating the front end control software version number test.
4. Press the HEAVY (^) or the DELICATES (v) keypad to scroll through the diagnostic test options.

How to Start Tests

To start a diagnostic test, refer to the quick reference chart (*Table 21*). Press the START (enter) keypad when the desired test number is displayed. For detailed information on each test, read the appropriate description.

How to Exit Diagnostic Testing Feature

Press the PERM PRESS (<) keypad. The display will return to the previous mode of operation.

Testing Machine and Electronic Control Functions

Diagnostic (Testing) Mode – Quick Reference Chart		
Test Number	Diagnostic Mode	Display
“d001”	Front End Control Software Version # Test	“S xx”
“d002”	Output Board Control Software # Test	“o xx”
“d003”	Output Board Water Level Sensor Trim Value	“txxx”
“d004”	Top Cover Opening Test	“A oP” or “A CL”
“d005”	Coin Vault Opening Test	“U oP” or “U CL”
“d006”	Coin Drop #1 Input Test	“C1xx”
“d007”	Coin Drop #2 Input Test	“C2xx”
“d008”	Coin Drop Header Present Test	“CHoP” or “CHCL”
“d009”	Door Switch Input Test	“drCL” or “drOP”
“d010”	Door Lock Input Test	“drUL” or “drLO”
“d011”	Show Fill Time Test	“Fxx”
“d012”	Show Drain Time Test	“dxx”
“d013”	Temperature Sensor Display Test	“xxxF” or “xxxC”
“d014”	Start Pulse Test	“Stxx”
“d015” (Design 1 models only)	VFD Balance Input Test	“bAoP” or “bACL”
“d016” (Design 1 models only)	24 VAC Switch Input Test	“ACoP” or “ACCL”
“d017” (Design 1 models only)	VFD Drive Fault Input Test	“dFoP” or “dFCL”
“d018”	Frame Balance Switch Input Test	“FSoP” or “FSCL”
“d019”	VFD Balance Weight Test (Design 1 models)	“bAL”
	Drive DC Bus Display Test (Design 2 models)	“dCb”
“d020”	Water Purge Test	“PUrg”
“d021”	Water Leak Detection Test	“Ld”
“d022” (Design 2 models only)	Drive Software Version Number	“drxx”
“d023” (Design 2 models only)	Drive Parameter Table Version Number	“dPxx”
“d024” (Design 2 models only)	Drive Type Value	“dt x”

Table 21

Diagnostic Test Descriptions

Front End Control Software Version Number Test

This option displays the front end control software version number. To start test, control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show “S xx” where “xx” is the front end control software version number.

To exit the Front End Control Software Version Number Test, press the PERM PRESS (<) keypad. The control will return to the Diagnostic Testing Mode.

Output Board Control Software Version Number

This option displays the output board control software version number. To start test, control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show “O xx” where “xx” is the output board control software version number.

To exit the Output Board Control Software Version Number Test, press the PERM PRESS (<) keypad. The control will return to the Diagnostic Testing Mode.

Output Board Water Level Sensor Trim Value

This option displays the output board water level sensor trim value. To start test, control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show “txxx” where “xxx” is the trim value sent from the output board to the front end control.

To exit the Output Board Water Level Sensor Trim Value, press the PERM PRESS (<) keypad. The control will return to the Diagnostic Testing Mode.

Top Cover Opening Test

This option tests the top cover switch. To start test, control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show “A oP” when the top cover switch is open and “A CL” when the top cover switch is closed.

The top cover switch has to be closed for at least one (1) second and opened for at least a half a second for the display to change. This test will add a count to the top cover opening counter for the audit and save the date/time for every opening of the test.

To exit the Top Cover Opening Test, press the PERM PRESS (<) keypad. The control will return to the Diagnostic Testing Mode.

Coin Vault Opening Test

This option tests the coin vault switch. To start test, the control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show “U oP” when the coin vault switch is open and “U CL” when the coin vault switch is closed.

The coin vault switch has to be closed for at least one (1) second and opened for at least a half a second for the display to change. This test will add a count to the coin vault opening counter for the audit and save the time/date for every opening of the test.

To exit the Coin Vault Opening Test, press the PERM PRESS (<) keypad. The control will return to the Diagnostic Testing Mode.

Coin Drop #1 Input Test

This option tests coin drop #1. To start test, control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show “C1xx”. The “xx” will show the number of coins entered and will increment one for each coin entered in coin drop #1.

NOTE: Coins entered in Test Mode will not increment the total # of coins counter that is accessed in the audit feature.

To exit the Coin Drop #1 Input Test, press the PERM PRESS (<) keypad. The control will return to the Diagnostic Testing Mode.

Testing Machine and Electronic Control Functions

Coin Drop #2 Input Test

This option tests coin drop #2. To start test, control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show “C2xx”. The “xx” will show the number of coins entered and will increment one for each coin entered in coin drop #2.

NOTE: Coins entered in Test Mode will not increment the total # of coins counter that is accessed in the audit feature.

To exit the Coin Drop #2 Input Test, press the PERM PRESS (<) keypad. The control will return to the Diagnostic Testing Mode.

Coin Drop Header Present Test

This option tests the coin drop header connection. To start test, control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show “CHoP” when the wiring connection is open and “CHCL” when the connection is closed.

To exit the Coin Drop Header Present Test, press the PERM PRESS (<) keypad. The control will return to the Diagnostic Testing Mode.

Door Switch Input Test

This test will display whether the washer door is open or closed.

To start test, control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. If the door is closed, the display will show “drCL”. If the door is open, the display will show “drOP”.

To exit the test, press the PERM PRESS (<) keypad. The control will return to the Diagnostic Testing Mode.

Door Lock Input Test

This test will display whether the door is locked or unlocked.

To start test, control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

Machines with 24 VDC Door Lock Solenoid

To enter, close the door and press the START (enter) keypad. The control will lock the door. The door must be closed to enter test.

If the door is unlocked, the display will show “drUL”. After the door is locked, the display shows “drLO” and turns off power to the door lock. The door will take approximately five seconds to unlock. This sequence is repeated every time the START (enter) keypad is pressed.

To exit the test, press the PERM PRESS (<) keypad. The control will return to the Diagnostic Testing Mode.

Show Fill Time Test

This test will display the average low level fill time. This average will be calculated by taking the average of the last 10 fill times from the start of the fill until the low level is reached.

To start test, control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show “Fxxx”. The “xxx” will be the average fill time in seconds.

To exit the Show Fill Time Test, press the PERM PRESS (<) keypad. The control will return to the Diagnostic Testing Mode.

Show Drain Time Test

This test will display the average drain time. This average will be calculated by taking the average of the last 10 drain times.

To start test, control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show “dxxx”. The “xxx” will be the average drain time in seconds.

To exit the Show Drain Time Test, press the PERM PRESS (<) keypad. The control will return to the Diagnostic Testing Mode.

Temperature Sensor Display Test

This test is only available on machines equipped with heat. This option displays the temperature sensed at the sensor.

To start test, control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show “xxxF” for the temperature in degrees Fahrenheit or “xxxC” for the temperature in degrees Celsius. The display will show “SH” if the sensor is shorted or “oP” if the control senses an open sensor.

To exit the Temperature Sensor Display Test, press the PERM PRESS (<) keypad. The control will return to the Diagnostic Testing Mode.

Start Pulse Test

This option tests the Start Pulse. To start test, control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show “Stxx”. The “xx” will show the number of pulses entered. This test will add counts to the total number of Start Pulses counter. Refer to *Collecting Audit Information*.

To exit the Start Pulse Test, press the PERM PRESS (<) keypad. The control will return to the Diagnostic Testing Mode.

VFD Balance Input Test (Design 1 models)

This option tests the VFD balance switch.

To start test, control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. If the VFD balance switch is open, indicating poor balance, the display will show “bAoP”. If the switch is closed, indicating good balance, the display will show “bACL”.

To exit the test, press the PERM PRESS (<) keypad. The control will return to the Diagnostic Testing Mode.

24 VAC Switch Input Test (Design 1 models)

This option tests the 24 VAC switch.

To start test, control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. If the 24 VAC switch is open, the display will show “ACoP”. If the switch is closed, the display will show “ACCL”.

To exit the test, press the PERM PRESS (<) keypad. The control will return to the Diagnostic Testing Mode.

VFD Drive Fault Input Test (Design 1 models)

This option tests the drive fault input.

To start test, control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. If the drive fault input is open, the display will show “dFoP”. If the switch is closed, the display will show “dFCL”.

To exit the test, press the PERM PRESS (<) keypad. The control will return to the Diagnostic Testing Mode.

Testing Machine and Electronic Control Functions

Frame Balance Switch Input Test

This option tests the frame balance switch.

To start test, control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. If the frame balance switch is open, the display will show “FSoP”. If the switch is closed, the display will show “FSCL”.

To exit the test, press the PERM PRESS (<) keypad. The control will return to the Diagnostic Testing Mode.

VFD Balance Weight Test (Design 1 models)

This test is only available on machines equipped with a variable frequency motor drive.

To start test, control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show “bAL” and the START keypad LED will flash. Close the door. Press the START (enter) keypad. The door will lock. The motor will turn at distribution speed. The control monitors the VFD balance switch for frequency and displays a corresponding message. Refer to *Table 22*.

VFD Balance Switch Frequency	Description	Display
0	Switch is always closed	“CLoS”
1 Hz		“1 H”
2 Hz		“2 H”
3 Hz		“3 H”
	Switch is always open	“oPEn”

Table 22

Press the START (enter) keypad to stop the test. The door will not unlock until the basket stops or the coast time has expired.

Drive DC Bus Display Test (Design 2 models)

This test is only available on machines equipped with a custom drive.

To start test, control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show “dCb” and the START keypad LED will flash. Close the door. Press the START (enter) keypad. The door will lock. The control will turn on the drive and ramp up the motor to distribution speed. The drive’s DC Bus Voltage will display.

Water Purge Test

This option empties all water from the machine.

To start test, control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show “PUrg” and the START keypad LED will flash. Close the door. Press the START (enter) keypad. The door will lock. The display will show “FLSH”. The control will energize all water valves and supply outputs while keeping the drain valves open.

The test will end, return to Water Purge Test start prompt, and door will unlock if any keypad is pressed, the door is unlocked or opened, if an end test communication is received or if two minutes has occurred since the test began. The control will prevent the door from being unlocked until there is no water in the machine.

Water Leak Detection Test

This option allows the owner to test for a water leak in the machine.

To start test, control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

To enter, press the START (enter) Keypad. The display will show “Ld” and the START keypad LED will flash if the door is closed. Press the START (enter) keypad. The door will lock. The control closes the drain valve and fills the machine with cold water to low level. The water level is monitored for 2 minutes and the display shows an alternating horizontal segment while the control is monitoring the water level. If after 2 minutes the water level is the same, control will display “PASS”, water will drain, door will unlock and control will return to Ready Mode. If water level is lower, indicating a leak in the drain, control will display “FAIL”, water will drain, door will unlock and water leak detection error will display as “E Ld”.

On Design 2 models, if water level is higher, indicating a leak in the fill valve, control will display “FAIL”, water will drain, door will unlock and water leak detection error will display as “E LF”.

Drive Software Version Number Test (Design 2 models only)

This option displays the custom drive software version number. To start test, control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show “drxx” where “xx” is the custom drive software version number.

To exit the Custom Drive Software Version Number Test, press the PERM PRESS (<) keypad. The control will return to the Diagnostic Testing Mode.

Drive Parameter Table Version Number (Design 2 models only)

This option displays the custom drive parameter table version number. To start test, control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show “dPxx” where “xx” is the custom drive parameter table version number.

To exit the Custom Drive Parameter Table Version Number Test, press the PERM PRESS (<) keypad. The control will return to the Diagnostic Testing Mode.

Drive Type Value (Design 2 models only)

This option displays the custom drive type value. To start test, control must be in the Diagnostic Testing Mode. Refer to *How to Enter Diagnostic Testing Feature* at the beginning of this section.

To enter, press the START (enter) keypad. The display will show “dt x” where “x” is the custom drive type value. Refer to *Table 23*.

Display	Drive Type
“dt 1”	2 HP drive
“dt 2”	3 HP drive
“dt 3”	5 HP 280V drive
“dt 4”	5 HP 480V drive

Table 23

To exit the Custom Drive Type Value, press the PERM PRESS (<) keypad. The control will return to the Diagnostic Testing Mode.

Production Test Cycle

To Enter Production Test Cycle

1. Be certain control is in Ready Mode and top cover or coin vault is open.
2. While pressing and holding the HEAVY keypad with one hand, press the HOT keypad with the other hand.
3. When the control enters the Production Test Cycle, it will first display “S xx” with the “xx” showing the software version of the front end control.
4. The control will advance through the sequence of test steps whenever any key is pressed. Refer to *Table 24* for all tests in the **Production Test Cycle**.

To Exit Production Test Cycle

To exit a test step, power down the machine.

Testing Machine and Electronic Control Functions

Production Test Cycle Quick Reference Chart		
Display	Test Cycle Step	Comments
“S xx”	FEC Control Software Version	xx is the software version number.
“o xx”	Output Board Software Version	xx is the software version number.
“Ct 4”	Control Type	4 is the control type.
“COIn”	Control Type	Coin
“drAn” or “PUnP”	Drain Type	Drain or Pump
“tEnP”	Temp Sensor	Step skipped if not model with heat.
“HEAt”	Heater	Step skipped if not heater-equipped.
“L dC”	Door Lock Type	“L dC” for 24 VDC lock.
“droP” or “drCL”	Door Status	Door status open or closed.
“drUL” or “drLo”	Door Lock Status	Door will lock.
“8.8.8.8.” + all LEDs	Display Test	All display elements are lit.
“PAxx” where xx = 1 through 12	Keypad Test step	Advance after all keypads are pressed.
“A xx”	Top Cover Switch Test	xx is either “CL” for closed or “oP” for open.
“U xx”	Coin Vault Switch Test	xx is either “CL” for closed or “oP” for open.
“CxCx”	Coin Drop Test	1st x is number of Coin Drop #1 coins. 2nd x is number of Coin Drop #2 coins.
“Cxxx” or “Pxxx”	Machine Type/Size	
“drxx”	Drive Software Version Number	xx is the drive software version number. Design 2 models only.
“dPxx”	Drive Parameter Table Version Number	xx is the drive parameter table version number. Design 2 models only.
“dt x”	Drive Type Value	xx is the drive type value. Design 2 models only.
“HFIL”	Hot Fill to Low Level	All water outputs turned off when Low Level reached.
“CFIL”	Cold Fill to Low Level	All water outputs turned off when Low Level reached.
“bFIL”	Warm Fill to Low Level	All water outputs turned off when Low Level reached.
“bFIH”	Warm Fill to High Level	All water outputs turned off when High Level reached.
“S1” for supply or “C2Co” for compartment	Supply #1 or Compartment #2 Cold Fill	
“S2” for supply or “C2Ho” for compartment	Supply #2 or Compartment #2 Hot Fill	
“S3” for supply or “C3Co” for compartment	Supply #3 or Compartment #3 Cold Fill	

Table 24 (continued)

Table 24 (continued)

Production Test Cycle Quick Reference Chart		
Display	Test Mode	Comments
“S4” for supply or “C4Ho” for compartment	Supply #4 or Compartment #4 Hot Fill	
“xxxF” degrees F or “xxxC” degrees C depending on the Fahrenheit/Celsius programming parameter	Heat water to 110°F or display temperature	xxx is degree temperature. This step skipped if not heat model. Heater turned off when temperature reached.
“LoAg” then “ xxx”	Reduced Wash Speed Forward with no agitation action	This step skipped on 2 Speed Models.
“Ag” then “ xxx”	Wash Speed Forward with no agitation action	
“rAg” then “ xxx”	Wash Speed Reverse with no agitation action	
“drAI” then “ xxx”	Drain Distribution Speed	
“PUrg”	Factory Valve Purge	
“SP 1” then “ xxx”	Extract Speed #1 “very low”	This step skipped on 2 Speed Models.
“SP 2” then “ xxx”	Extract Speed #2 “low”	This step skipped on 2 Speed Models.
“SP 3” then “ xxx”	Extract Speed #3 “medium”	This step skipped on 2 Speed Models.
“SP 4” (VFD Models) or “SPIn” (2 Speed Models) then “ xxx”	Extract Speed #4 “high”	This step skipped on F-Speed Models.
“SP 5” then “ xxx”	Extract Speed #5 “very high”	This step skipped on 2 Speed and F-Speed Models.
“SP 6” then “ xxx”	Extract Speed #6 “ultra high”	Design 2 models only.
“Prdn”	End of test	Turn Power off

Table 24

Error Codes

Following is a list of possible error codes for an electronic control. Errors beginning with “EI” refer to external device Infra-red communication errors. Errors

beginning with “EC” refer to card reader errors. All other errors refer to machine errors.

Display	Description	Cause/ Corrective Action
EI01	Transmission Failure	Communication failure. Re-aim external device and try again.
EI02	Time-out Error	Communication failure. Re-aim external device and try again.
EI03	Invalid Command Code	Communication successful, but the command was not valid for this machine type, or the control could not perform the command in its current mode of operation. Ensure data is for current machine type and control is in correct mode.
EI04	Expecting Upload Request	Communication failure. Re-aim external device and try again.
EI05	Invalid or Out-of-Range Data	The value in at least one of the programming options is invalid or out of range. Recheck the programming option’s value and try again.
EI09	CRC-16 Error	Communication failure. Re-aim external device and try again.
EI0A	Framing Error	Communication error. Re-aim external device and try again.
EI0C	Time-out Exceeded	Communication error. Re-aim external device and try again.
EI0E	Encryption Error	Communication error. Re-aim external device and try again. If the problem persists, check that the security code is correct.
EI0F	Infra-red Disabled	Communication failure or infra-red is disabled. Manually enable infra-red on control or re-aim external device and try again.
EC02	Time-out Error	Communication failure. Try card again.
EC03	Invalid Command Code	Communication successful, but the command was not valid for this machine type, or the control could not perform the command in its current mode of operation. Ensure data is for current machine type and control is in correct mode.
EC05	Invalid or Out-of-Range Data	The value in at least one of the programming options is invalid or out of range. Recheck the programming option’s value and try again.
EC11	No Card Reader Initialization	Communication is valid, but there is no card reader initialization. Power down, power up and try again.

Table 25 (continued)

Table 25 (continued)

Display	Description	Cause/ Corrective Action
EC18	No Communication	Card reader is initialized, communication lost. Power down, power up and try again. If error persists, replace control or card reader.
EC19	No Card Reader Communication	Communication failure. Power down, power up and try again. If error persists, replace control or card reader.
Right most decimal point Lit*	Network Communication Error	Communication problem. Wait for 1.5 minutes for error to clear. If error doesn't clear, power-down and power-up the machine. If error persists, replace control or network board.
ALrn	Break-in Alarm Error	Access panel or coin vault switches. Power down machine to clear if Auto-Shutdown on.
oFF	Break-in Alarm Shutdown Error	Access panel or coin vault switches. Opened with Break-In Alarm enabled.
E FL	Fill Error	Programmed water level not reached within 10 minutes (or other programmed length of time) in any fill agitate cycle. End cycle. Power down machine to clear.
E SP	SPI Communications Error	Front End control cannot communicate with output board. Power down the machine, power up and try again.
E dL	Door Lock Error	Door does not lock immediately upon closing (open and reclose door) or doesn't unlock 5 seconds after cycle completion. Power down machine and retry.
E do	Door Open Error	Control detects door open. Caused by pulling on door while locked or about to lock. Correct inoperative door locking system. End cycle. Power down machine to clear.
E Ub	Unbalance Error	Unable to balance load. Redistribute load and run cycle.
door	Door Open Indicator	Door is not closed in Start Mode. If door is closed, check for improper wiring or faulty door switch.
Err	Coin Error	Invalid coin pulse or inoperative coin sensor. Check coin drop area and remove obstructions. If error persists, tampering may have occurred. Evaluate security procedures.
E dr	Drain Alarm Error	Machine not drained within 15 minutes (or other programmed length of time) in any drain step. End cycle. Power down machine to clear.
E Ht	Heat Alarm Error	Programmed heat alarm time of 120 minutes or other programmed length of time is exceeded. Turns off heater output for remainder of cycle.

*The right-most decimal point will also light for Water Leak Detection and Slow Drain Detection errors, refer to "E Ld" and "E Sd".

Table 25 (continued)

Error Codes

Table 25 (continued)

Display	Description	Cause/ Corrective Action
E oP	Open Temperature Sensor Error	Control senses temperature less than 0°F (-18°C) in machine equipped with temperature sensor. Heater and thermistor related operations are disabled.
E SH	Shorted Temperature Sensor Error	Control senses temperature greater than 220°F (104°C) in machine equipped with temperature sensor. Heater and thermistor related operations are disabled for remainder of cycle.
E ro	Rotation Sensor Error	Invalid signal received from Rotation Sensor. Control will activate coast times to complete cycle.
E FS	Frame Balance Switch Error	Control detects Frame Balance Switch open. End cycle.
E db	Drive Balance Switch Error	Control detects VFD Balance Switch input closed at start of drain step. End cycle. Power down machine to clear.
E Ld	Water Leak Detection Error	Control senses a drop in water level during diagnostic testing. Power down machine to clear. Control shows error after door is open (when cycle is completed) for one minute or after test has been completed, the right-most decimal point on display lights* and the error information will be logged in audit data.
E LF**	Water Leak Detection Error	Control senses an increase in water level during diagnostic testing. Power down machine to clear. Control shows error after door is open (when cycle is completed) for one minute or after test has been completed, the right-most decimal point on display lights* and the error information will be logged in audit data.
E Sd	Slow Drain Error	Control senses the time required to drain the water is too long, the control shows error after door is open (when cycle is completed) for one minute, the right-most decimal point on display lights* and the error information will be logged in audit data.
E Pr	Low Level Pressure Switch Error	Control detects improper operation of low level pressure switch during the Production Test Cycle. The Production Test Cycle is aborted. Power down machine to clear.

*To clear the decimal point on display, press the START (enter) button 3 times in succession (within 5 seconds).

**Design 2 models only.

Table 25 (continued)

Table 25 (continued)

Display	Description	Cause/ Corrective Action
Ed01**	SPI Communication Error	Front End control cannot communicate with motor drive. Power down, verify input power and 6-pin communication connection on drive and Front End control, power up and try again.
Ed02**	DC Bus Error	The control detects the DC bus is too high. Power down, verify line voltage is within specification, power up and try again.
Ed03**	Tachometer Error	The drive detects the tachometer input is damaged during power up or no tachometer signal is detected after initiating motor output. Power down, verify H3 on drive and tachometer connections on motor, power up and try again.
Ed04**	Locked Rotor Error	Motor does not reach speed at startup. Power down, verify motor mounting and look for obstructions, power up and try again.
Ed05**	IGBT Overcurrent Error	The drive detects an overcurrent shunt condition. Power down machine for a minimum of two minutes, verify the motor is not shorted phase to phase or phase to ground. Power up and try again. If problem persists, replace drive.
Ed06**	Thermal Error	The control detects a high IPM temperature. Power down, verify convection around drive heat sink, power up and try again.
Ed07**	No Setup Error	The drive receives movement commands without receiving a setup packet. Power down, power up and try again.
Ed08**	Max Over Current Error	The drive detects motor output overcurrent condition. Power down, power up and try again.
Ed09**	Current Sensor Error	The drive detects a current sensor is not operating properly at startup. Power down, power up and try again. If problem persists, replace drive.

*To clear the decimal point on display, press the START (enter) button 3 times in succession (within 5 seconds).

**Design 2 models only.

Table 25

Rapid Advance Feature

The Rapid Advance feature allows the owner to quickly advance through active cycles or advance into a cycle from the Ready Mode.

How to Enter Rapid Advance

1. If control is in Ready Mode, control must be put into Manual Mode. Refer to *Entering the Manual Mode*.
2. Press the HEAVY (^) or the DELICATES (v) keypad until “rAPd” appears in the display.
3. Press the START (enter) keypad. The display will show cycle time and the START (enter) keypad LED will flash.
4. Press the START (enter) keypad to start cycle.

NOTE: Door must be closed to start cycle.

How to Enter Rapid Advance During an Active Cycle

1. Be certain top cover is open and coin vault switch is closed.
2. While pressing and holding the NORMAL keypad with one hand, press the LIGHT keypad with the other hand.
3. Press the HEAVY (^) or the DELICATES (v) keypad until “rAPd” appears in the display.
4. Press START (enter) to activate rapid advance cycle.

How to Use Rapid Advance

Control may be in an active cycle or in the Ready Mode to use the Rapid Advance feature.

While in the Rapid Advance Mode, pressing the START (enter) keypad will advance the machine to the next cycle step. The cycle indicator lights will tell which cycle step the machine is in.

For Example: If the washer is in the first Fill cycle step, pressing the START (enter) keypad will advance the machine into the Agitate cycle step.

Continue pressing the START (enter) keypad until the cycle is completed.

How to Exit Rapid Advance Feature

1. Advance through the cycles until reaching the Ready Mode.

NOTE: The Rapid Advance option must be turned on for Rapid Advance to work. Refer to *option 22* in *Programming Control*.

Clear Vend Feature

The Clear Vend feature allows the owner to clear a control which is in the middle of satisfying a vend price, and set it back to the Ready Mode.

How to Clear Vend

1. Open the top cover. Refer to *Opening the Top Cover*.
2. While pressing and holding the NORMAL keypad with one hand, press the MEDIUM keypad with the other hand. The control will reset to the Ready Mode.

Power Fail Recovery

The Power Fail Recovery feature allows the cycle status to be saved in memory in the event of a power failure.

If the power failure lasted less than 2 minutes, the cycle will resume without requiring the user to press the START (enter) keypad to restart.

If the power failure lasted longer than 2 minutes, the Power Fail Reset option is turned “ON” and the duration of the power failure is less than or equal to the time programmed in the Power Fail Reset option or the Power Fail Reset option is disabled, the START (enter) keypad will flash until it is pressed and the cycle will restart from the point it left off.

If the power failure lasted longer than 2 minutes, the Power Fail Reset option is turned “ON” and if the duration of the power failure lasted longer than the time programmed in the Power Fail Reset option, the control will return to Ready Mode.

Communications Mode

Infra-red Communications

The Infra-red Communications feature allows the control to communicate with an external device. The control can be programmed and have its data read without using the keypad. It may also be used to start and stop various diagnostic tests.

How to Begin Communications with An External Device

The control will go blank and the display will show “-C-” until the communication is complete. If an error occurs that terminates communication, the display will show “E1XX” (“XX” represents the error code).

NOTE: The Infra-red Communications option must be turned on. Refer to *option 15* in *Programming Control*.

Card Reader Communications (Card Models Only)

The Card Reader Communications feature allows the control to communicate with the card reader. The control can be programmed for a limited number of options and have its data read without using the keypad.

Network Communications

The Network Communications feature allows the control to communicate with a network. The control can be programmed and have its data read without using the keypad.

Default Cycles

Cycle Chart									
Cycle Stops	Normal Hot	Normal Warm	Normal Cold	Perm Press Hot	Perm Press Warm	Perm Press Cold	Delicate Hot	Delicate Warm	Delicate Cold
Cycle reference (display in Program Mode)	CYC1	CYC2	CYC3	CYC4	CYC5	CYC6	CYC7	CYC8	CYC9
Agitation type	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	3/12/3 Gentle	3/12/3 Gentle	3/12/3 Gentle
Wash 1 (ON/OFF)	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Time for agitation (min.)	2	2	2	2	2	2	5	5	5
Fill Temperature	Warm	Warm	Cold	Warm	Warm	Cold	Warm	Warm	Cold
Fill Level	High	High	High	High	High	High	High	High	High
Supply	C1 (S1)	C1 (S1)	C1 (S1)	C1 (S1)	C1 (S1)	C1 (S1)	C1 (S1)	C1 (S1)	C1 (S1)
Heat (if enabled)	2	2	2	2	2	2	2	2	2
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spin (min.)	0	0	0	0	0	0	0	0	0
Wash 2 (ON/OFF)	ON	ON	ON	ON	ON	ON	ON	ON	ON
Time for agitation (min.)	6	6	6	5	5	5	4	4	4
Fill Temperature	Hot	Warm	Cold	Hot	Warm	Cold	Hot	Warm	Cold
Fill Level	Low	Low	Low	Low	Low	Low	Low	Low	Low
Supply	C1, C2, C3 (S1, S2)	C1, C2, C3 (S1, S2)	C1, C2, C3 (S1, S2)	C1, C2, C3 (S1, S2)	C1, C2, C3 (S1, S2)	C1, C2, C3 (S1, S2)	C1, C2, C3 (S1, S2)	C1, C2, C3 (S1, S2)	C1, C2, C3 (S1, S2)
Heat (if enabled)	2	2	2	2	2	2	2	2	2
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spin (min.)	0	0	0	0	0	0	0	0	0
Wash 3 (ON/OFF)	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Time for agitation (min.)	2	2	2	2	2	2	2	2	2
Fill Temperature	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold
Fill Level	Low	Low	Low	Low	Low	Low	Low	Low	Low
Supply	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3
Heat (if enabled)	2	2	2	2	2	2	2	2	2
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spin (min.)	0	0	0	0	0	0	0	0	0
Wash 4 (ON/OFF)	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Time for agitation (min.)	2	2	2	2	2	2	2	2	2
Fill Temperature	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold
Fill Level	Low	Low	Low	Low	Low	Low	Low	Low	Low
Supply	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3
Heat (if enabled)	2	2	2	2	2	2	2	2	2
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spin (min.)	0	0	0	0	0	0	0	0	0

(continued)

(continued)

Cycle Chart									
Cycle Stops	Normal Hot	Normal Warm	Normal Cold	Perm Press Hot	Perm Press Warm	Perm Press Cold	Delicate Hot	Delicate Warm	Delicate Cold
Cycle reference (display in Program Mode)	CYC1	CYC2	CYC3	CYC4	CYC5	CYC6	CYC7	CYC8	CYC9
Agitation type	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	3/12/3 Gentle	3/12/3 Gentle	3/12/3 Gentle
Rinse 1 (ON/OFF)	ON	ON	ON	ON	ON	ON	ON	ON	ON
Time for agitation (min.)	2	2	2	2	2	2	2	2	2
Fill Temperature	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold
Fill Level	Low	Low	Low	Low	Low	Low	High	High	High
Supply	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3
Heat (if enabled)	0	0	0	0	0	0	0	0	0
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spin (min.)	0	0	0	0	0	0	0	0	0
Rinse 2 (ON/OFF)	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Time for agitation (min.)	2	2	2	2	2	2	2	2	2
Fill Temperature	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold
Fill Level	Low	Low	Low	Low	Low	Low	Low	Low	Low
Supply	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3
Heat (if enabled)	0	0	0	0	0	0	0	0	0
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spin (min.)	0	0	0	0	0	0	0	0	0
Rinse 3 (ON/OFF)	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Time for agitation (min.)	2	2	2	2	2	2	4	4	4
Fill Temperature	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold
Fill Level	High	High	High	High	High	High	High	High	High
Supply	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3	C1, C2, C3
Heat (if enabled)	0	0	0	0	0	0	0	0	0
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spin (min.)	1 (High)	1 (High)	1 (High)	1 (High)	1 (High)	1 (High)	1 (High)	1 (High)	1 (High)
Rinse 4 (ON/OFF)	ON	ON	ON	ON	ON	ON	ON	ON	ON
Time for agitation (min.)	4	4	4	4	4	4	4	4	4
Fill Temperature	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold	Cold
Fill Level	Low	Low	Low	Low	Low	Low	Low	Low	Low
Supply	C1, C2, C3, C4 (S3, S4)	C1, C2, C3, C4 (S3, S4)	C1, C2, C3, C4 (S3, S4)	C1, C2, C3 (S3, S4)	C1, C2, C3 (S3, S4)	C1, C2, C3 (S3, S4)	C1, C2, C3 (S3, S4)	C1, C2, C3 (S3, S4)	C1, C2, C3 (S3, S4)
Heat (if enabled)	0	0	0	0	0	0	0	0	0
Drain	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spin (min.) (spin speed)	4 (Design 1: Very High) (Design 2: Ultra High)	4 (Design 1: Very High) (Design 2: Ultra High)	4 (Design 1: Very High) (Design 2: Ultra High)	3 (Design 1: Very High) (Design 2: Ultra High)	3 (Design 1: Very High) (Design 2: Ultra High)	3 (Design 1: Very High) (Design 2: Ultra High)	2 (High)	2 (High)	2 (High)
Default Cycle Time (hh:mm:ss)	2 speed	00:22:20	00:22:20	00:22:20	00:20:20	00:20:20	00:20:20	00:18:20	00:18:20
	F and V-speed (Design 1)	00:23:05	00:23:05	00:23:05	00:21:05	00:21:05	00:21:05	00:19:05	00:19:05
	F and V-speed (Design 2)	00:23:17	00:23:17	00:23:17	00:21:17	00:21:17	00:21:17	00:19:17	00:19:17

Default Cycles

Blank Cycle Chart									
Cycle Stops	Normal Hot	Normal Warm	Normal Cold	Perm Press Hot	Perm Press Warm	Perm Press Cold	Delicate Hot	Delicate Warm	Delicate Cold
Cycle reference (display in Program Mode)	CYC1	CYC2	CYC3	CYC4	CYC5	CYC6	CYC7	CYC8	CYC9
Agitation type	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	3/12/3 Gentle	3/12/3 Gentle	3/12/3 Gentle
Wash 1 (ON/OFF)									
Time for agitation (min.)									
Fill Temperature									
Fill Level									
Supply									
Heat (if enabled)									
Drain									
Spin (min.)									
Wash 2 (ON/OFF)									
Time for agitation (min.)									
Fill Temperature									
Fill Level									
Supply									
Heat (if enabled)									
Drain									
Spin (min.)									
Wash 3 (ON/OFF)									
Time for agitation (min.)									
Fill Temperature									
Fill Level									
Supply									
Heat (if enabled)									
Drain									
Spin (min.)									
Wash 4 (ON/OFF)									
Time for agitation (min.)									
Fill Temperature									
Fill Level									
Supply									
Heat (if enabled)									
Drain									
Spin (min.)									

(continued)

(continued)

Blank Cycle Chart									
Cycle Stops	Normal Hot	Normal Warm	Normal Cold	Perm Press Hot	Perm Press Warm	Perm Press Cold	Delicate Hot	Delicate Warm	Delicate Cold
Cycle reference (display in Program Mode)	CYC1	CYC2	CYC3	CYC4	CYC5	CYC6	CYC7	CYC8	CYC9
Agitation type	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	3/12/3 Gentle	3/12/3 Gentle	3/12/3 Gentle
Rinse 1 (ON/OFF)									
Time for agitation (min.)									
Fill Temperature									
Fill Level									
Supply									
Heat (if enabled)									
Drain									
Spin (min.)									
Rinse 2 (ON/OFF)									
Time for agitation (min.)									
Fill Temperature									
Fill Level									
Supply									
Heat (if enabled)									
Drain									
Spin (min.)									
Rinse 3 (ON/OFF)									
Time for agitation (min.)									
Fill Temperature									
Fill Level									
Supply									
Heat (if enabled)									
Drain									
Spin (min.)									
Rinse 4 (ON/OFF)									
Time for agitation (min.)									
Fill Temperature									
Fill Level									
Supply									
Heat (if enabled)									
Drain									
Spin (min.) (spin speed)									
Default Cycle	2 speed								
Time (hh:mm:ss)	F and V-speed (Design 1)								
	F and V-speed (Design 2)								

Default Cycles

Blank Cycle Chart									
Cycle Stops	Normal Hot	Normal Warm	Normal Cold	Perm Press Hot	Perm Press Warm	Perm Press Cold	Delicate Hot	Delicate Warm	Delicate Cold
Cycle reference (display in Program Mode)	CYC1	CYC2	CYC3	CYC4	CYC5	CYC6	CYC7	CYC8	CYC9
Agitation type	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	3/12/3 Gentle	3/12/3 Gentle	3/12/3 Gentle
Wash 1 (ON/OFF)									
Time for agitation (min.)									
Fill Temperature									
Fill Level									
Supply									
Heat (if enabled)									
Drain									
Spin (min.)									
Wash 2 (ON/OFF)									
Time for agitation (min.)									
Fill Temperature									
Fill Level									
Supply									
Heat (if enabled)									
Drain									
Spin (min.)									
Wash 3 (ON/OFF)									
Time for agitation (min.)									
Fill Temperature									
Fill Level									
Supply									
Heat (if enabled)									
Drain									
Spin (min.)									
Wash 4 (ON/OFF)									
Time for agitation (min.)									
Fill Temperature									
Fill Level									
Supply									
Heat (if enabled)									
Drain									
Spin (min.)									

(continued)

(continued)

Blank Cycle Chart									
Cycle Stops	Normal Hot	Normal Warm	Normal Cold	Perm Press Hot	Perm Press Warm	Perm Press Cold	Delicate Hot	Delicate Warm	Delicate Cold
Cycle reference (display in Program Mode)	CYC1	CYC2	CYC3	CYC4	CYC5	CYC6	CYC7	CYC8	CYC9
Agitation type	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	3/12/3 Gentle	3/12/3 Gentle	3/12/3 Gentle
Rinse 1 (ON/OFF)									
Time for agitation (min.)									
Fill Temperature									
Fill Level									
Supply									
Heat (if enabled)									
Drain									
Spin (min.)									
Rinse 2 (ON/OFF)									
Time for agitation (min.)									
Fill Temperature									
Fill Level									
Supply									
Heat (if enabled)									
Drain									
Spin (min.)									
Rinse 3 (ON/OFF)									
Time for agitation (min.)									
Fill Temperature									
Fill Level									
Supply									
Heat (if enabled)									
Drain									
Spin (min.)									
Rinse 4 (ON/OFF)									
Time for agitation (min.)									
Fill Temperature									
Fill Level									
Supply									
Heat (if enabled)									
Drain									
Spin (min.) (spin speed)									
Default Cycle									
Time (hh:mm:ss)	2 speed								
	F and V-speed (Design 1)								
	F and V-speed (Design 2)								

Default Cycles

Blank Cycle Chart									
Cycle Stops	Normal Hot	Normal Warm	Normal Cold	Perm Press Hot	Perm Press Warm	Perm Press Cold	Delicate Hot	Delicate Warm	Delicate Cold
Cycle reference (display in Program Mode)	CYC1	CYC2	CYC3	CYC4	CYC5	CYC6	CYC7	CYC8	CYC9
Agitation type	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	3/12/3 Gentle	3/12/3 Gentle	3/12/3 Gentle
Wash 1 (ON/OFF)									
Time for agitation (min.)									
Fill Temperature									
Fill Level									
Supply									
Heat (if enabled)									
Drain									
Spin (min.)									
Wash 2 (ON/OFF)									
Time for agitation (min.)									
Fill Temperature									
Fill Level									
Supply									
Heat (if enabled)									
Drain									
Spin (min.)									
Wash 3 (ON/OFF)									
Time for agitation (min.)									
Fill Temperature									
Fill Level									
Supply									
Heat (if enabled)									
Drain									
Spin (min.)									
Wash 4 (ON/OFF)									
Time for agitation (min.)									
Fill Temperature									
Fill Level									
Supply									
Heat (if enabled)									
Drain									
Spin (min.)									

(continued)

(continued)

Blank Cycle Chart									
Cycle Stops	Normal Hot	Normal Warm	Normal Cold	Perm Press Hot	Perm Press Warm	Perm Press Cold	Delicate Hot	Delicate Warm	Delicate Cold
Cycle reference (display in Program Mode)	CYC1	CYC2	CYC3	CYC4	CYC5	CYC6	CYC7	CYC8	CYC9
Agitation type	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	18/3/18 Normal	3/12/3 Gentle	3/12/3 Gentle	3/12/3 Gentle
Rinse 1 (ON/OFF)									
Time for agitation (min.)									
Fill Temperature									
Fill Level									
Supply									
Heat (if enabled)									
Drain									
Spin (min.)									
Rinse 2 (ON/OFF)									
Time for agitation (min.)									
Fill Temperature									
Fill Level									
Supply									
Heat (if enabled)									
Drain									
Spin (min.)									
Rinse 3 (ON/OFF)									
Time for agitation (min.)									
Fill Temperature									
Fill Level									
Supply									
Heat (if enabled)									
Drain									
Spin (min.)									
Rinse 4 (ON/OFF)									
Time for agitation (min.)									
Fill Temperature									
Fill Level									
Supply									
Heat (if enabled)									
Drain									
Spin (min.) (spin speed)									
Default Cycle Time (hh:mm:ss)	2 speed								
	F and V-speed (Design 1)								
	F and V-speed (Design 2)								