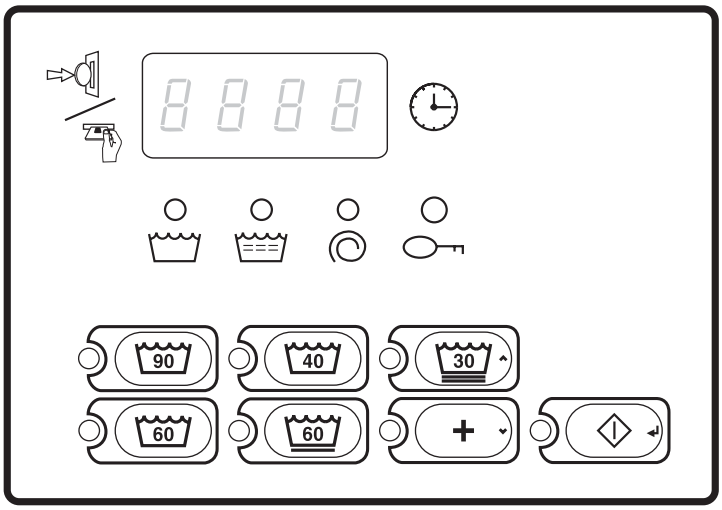
MDC

Frontload Washers

Refer to Page 4 for Model Numbers

Programming



FLW8R

Keep These Instructions for Future Reference.
(If this machine changes ownership, this manual must accompany machine.)

Part No. 801293R9
September 2007

WARNING

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

W030

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

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

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Model Identification

Information in this manual is applicable to these washer models:

BTEL15*N4065	NTGL19*N4067
BTEL17*N4065	NTGL79*N4067
BTEL75*N4065	NTGX19*N4067
BTEL77*N4065	NTGX79*N4067
BTEX15*N4065	NWFL44*N4000
BTEX17*N4065	NWFL45*N4000
BTEX75*N4065	NWFL64*N4000
BTEX77*N4065	NWFL84*N4000
BWFLE4*N4000	NWFL85*N4000
BWFLE5*N4000	NWFX64*N4000
BWFL74*N4000	NWFX65*N4000
BWFL75*N4000	NWFX74*N4000
BWFXE4*N4000	NWFX75*N4000
BWFXE5*N4000	STEX17*N4064
BWFX74*N4000	STEX17*N5754
BWFX75*N4000	STEX77*N4064
HTEX17*N4064	STEY17*N4064
HTEY17*N4064	STEY17*N5754
HWFX64*N4000	STEY77*N4064
HWFY64*N4000	SWFL74*N4000
HWFY65*N4000	SWFX64*N4000
NTEL17*N4064	SWFX65*N4000
NTEL77*N4064	SWFX74*N4000
NTEX17*N4064	SWFX75*N4000
NTEX17*N4067	SWFY64*N4000
NTEX77*N4064	SWFY65*N4000
NTEX77*N4067	

*Add Letter To Designate Color. W – White Q – Bisque N – Stainless Steel

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Preliminary Information

About the Control

MDC on the commercial washer is a programmable control that lets the owner control machine features by pressing sequences of SELECT CYCLE keypads.

MDC allows the owner to program cycle steps, set vend prices, retrieve audit information and run diagnostic tests. Washers shipped from the factory have a default cycle (PERM PRESS 60) built in.

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

IMPORTANT: It is extremely important that the washer has a positive ground and that all mechanical and electrical connections to MDC are made before applying power to or operating the washer.

Glossary of Terms

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

Four-Digit Display – This term refers to the window area of the control that displays values.

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

Power Failure Recovery

If power fails during an active cycle, the cycle status is saved in memory. If door is locked when power is restored, the washer will automatically resume the cycle. If door is unlocked when power is restored, the user must press the START keypad to resume the cycle.

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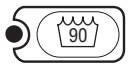
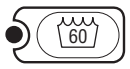
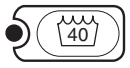
MDC Identification

SELECT CYCLE Keypads

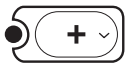
SELECT CYCLE keypads are used to select the specific washer cycle. These keypads include NORMAL 90, NORMAL 60, NORMAL 40, PERM PRESS 60, and DELICATES 30. The selection of one of these keypads will light up the corresponding LED. The SELECT CYCLE keypads are not active after the first fill cycle of the washer. Pressing the flashing START keypad will confirm selection and cycle will begin when vend is satisfied.

 FLW1946N	NORMAL 90
 FLW1947N	NORMAL 60
 FLW1948N	NORMAL 40
FLW1949N	PERM PRESS 60
FLW1950N	DELICATES 30

NOTE: The number on each keypad corresponds to the wash temperature in °C.

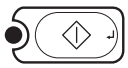
PREWASH Keypad

The PREWASH keypad is used to add a prewash setting to any select cycle. The PREWASH keypad must be pressed when the control is in the Start Mode. The PREWASH LED will light when PREWASH is active.

 FLW13R	PREWASH

START Keypad

The START keypad is used to start the washer after the full vend price has been satisfied.

 FLW14R	START

The SELECT CYCLE, PREWASH, and START keypads are used in various combinations for programming cycles, retrieving audit information, running diagnostic tests, and other operations described in ***Entering Manual Mode***.

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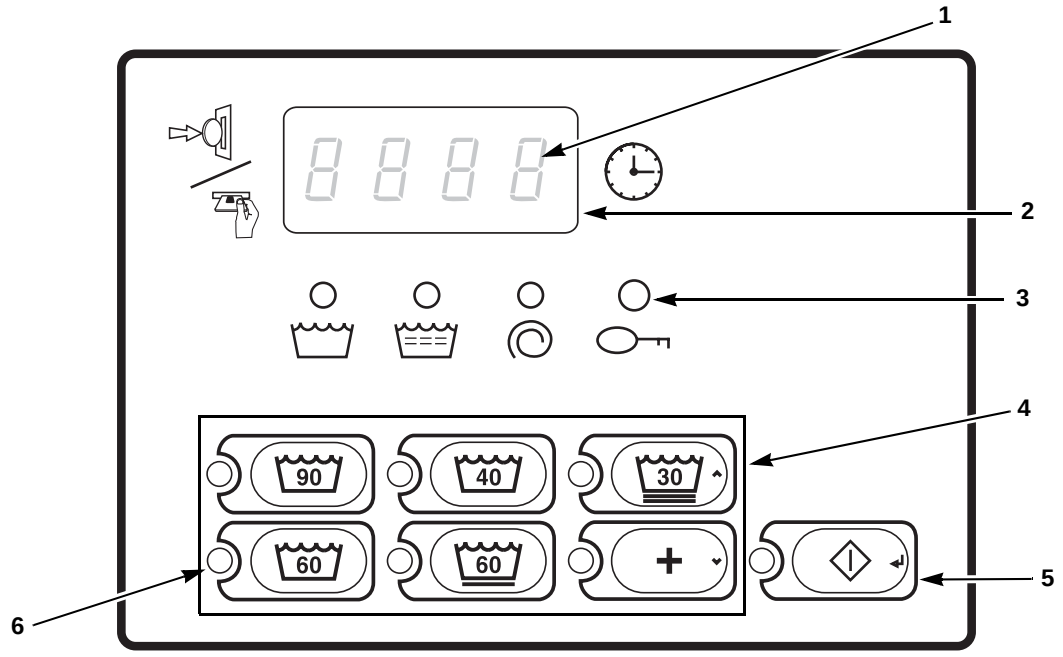

1 Four 7-Segment Digits
2 Four-Digit Display
3 LED Status Lights
4 SELECT CYCLE Keypads
5 START Keypad
6 LED Light

Figure 1

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Display Identification

Light Emitting Diodes (LEDs)

LIGHT EMITTING DIODES (LEDs) are used to indicate the chosen cycle status. Refer to LED descriptions below.

START LED

The START keypad LED flashes whenever the washer is not in a cycle and the full vend price has been satisfied. When the START keypad is pressed, the cycle will begin or resume. The START LED will shut off when the START keypad is pressed.

WASH LED

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

RINSE LED

RINSE LED is lit at the beginning of the rinse or extra rinse cycle and will remain lit until the cycle is complete.

SPIN LED

SPIN LED is lit for all spins.

DOOR LOCKED LED

DOOR LOCKED LED is lit whenever the door is locked. The door cannot be opened when the DOOR LOCKED LED is lit.

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. When displaying the time remaining, the time value is displayed on the right side of the display. When displaying the vend price, the value is displayed on the left side of the display. During diagnostic testing or manual programming of the control, these digits will display descriptive codes and values (as described in ***Entering the Manual Mode***).

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Washer Operation

Start Up

When power is applied to the washer, the control will display its software version as “SXXX” (“XXX” is the version number) for two seconds. If the control was not powered down during a running cycle, it will enter the Ready Mode.

Ready Mode

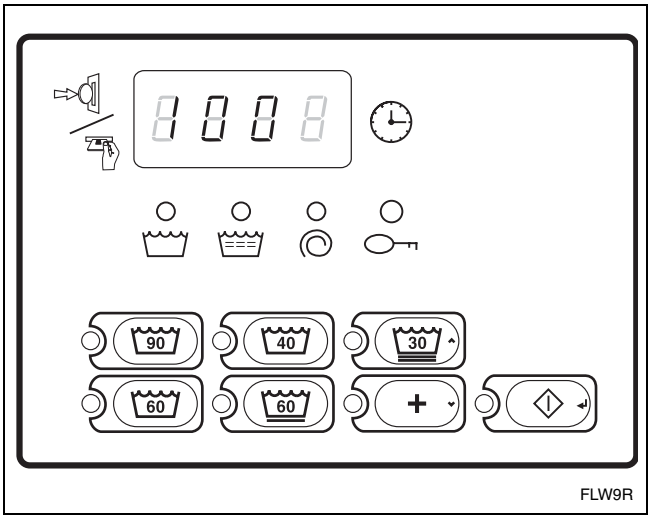

Figure 2

In Ready Mode, the PERM PRESS 60 (default cycle) LED is lit, and the full vend price is displayed as left justified. The user may select a different cycle, if desired. If another cycle is selected or if a vend entry is made which does not satisfy the full vend price, the control will flash the amount needed to satisfy the vend price shown on the display.

Vends may be satisfied by a coin drop or start pulses. If a coin drop is used, the remaining vend price will decrease with each coin entry. If start pulses are used, the remaining vend price will decrease with each received pulse. Once the vend price is satisfied, the START LED will begin to flash. If PREWASH is not selected and the PREWASH time for the selected cycle is non-zero, the PREWASH LED will flash.

When the START keypad is pressed, the door will lock and the washer will start. The START LED will stop flashing and the WASH LED will be lit. The display will change to show the remaining cycle time on the right side of the display. 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.

When a cycle is complete, the Four-Digit Display will show “00” until the washer door is opened, a key is pressed, a coin is entered, or a start pulse is received. When one of these instances occurs, the Four-Digit Display will revert back to the Ready Mode. If there was a heater error during the cycle, the display will show “E Ht”.

OPL/Free Vend Mode

To program the washer so it can be operated manually (without vending), the vend price must be set to zero. Refer to ***Programming MDC, option 1***.

Closing Washer Door

If the door is not closed when the vend price is satisfied, the Four-Digit Display will show “door” until the door is closed. Once the door is closed, the START keypad must be pressed again to lock door and start cycle. If the door does not lock within 15 seconds of being closed, “E dl” will be displayed indicating a door lock error. If a keypad is pressed or the door is opened, the control will return to the Start Mode.

Signals

There are three instances when a signal may sound during washer operation. The owner may program the signal to be turned on or off (refer to ***Programming MDC***). These three instances are listed below:

1. **Keypad Depression Signal**

   The signal will sound for .25 seconds each time a keypad is pressed.

2. **Coin Input or Start Pulse Input Signal**

   The signal will sound for .25 seconds each time a coin or start pulse is received.

3. **Machine Error Signal**

   The signal will sound for 15 seconds if an error occurs.

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MDC Special Features

Programming MDC

MDC allows the washer owner to program special features with the use of the keypad. Audit, diagnostic, cycle and vend information may be programmed and retrieved by pressing keypad combinations.

For details on programming cycle and vend information, refer to ***Programming MDC***.

Collecting Audit Information

With MDC, the washer owner is able to access valuable audit information by manual access or by a third party card reader. Audit information recorded and available to be displayed to the owner includes total coins entered, total start pulses received, and total cycles.

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

Testing Machine and MDC Functions

Special programmable diagnostic features built into MDC allow the owner to test specific information with the washer in the Ready Mode. By opening and closing the service door and then pressing various sequences of keypads, the owner may perform the following tests:

- Show Fill Time Test
- Show Drain Time Test
- Temperature Sensor Display Test
- Production Test

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

Rapid Advance Feature

This feature allows the user to quickly advance through an active cycle or advance into a cycle from the Ready Mode. This feature is useful when tests must be performed immediately on a washer in an active cycle. In this case, the user can quickly advance the cycle to the end, perform the required tests, and return the washer to the active cycle.

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

Coin Drop

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

Start Pulse Operation

The control will accept pulses from a central card reader system (available at extra cost). The machine can be programmed for the value of each start pulse received. Refer to ***Programming MDC, option 4***.

Service Door and Coin Vault Openings

An open service door or coin vault combined with various keypad presses allows the control to enter manual modes of operation. These modes include Manual Rapid Advance, Manual Programming, Audit Collection, and Diagnostics.

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Opening the Service Door

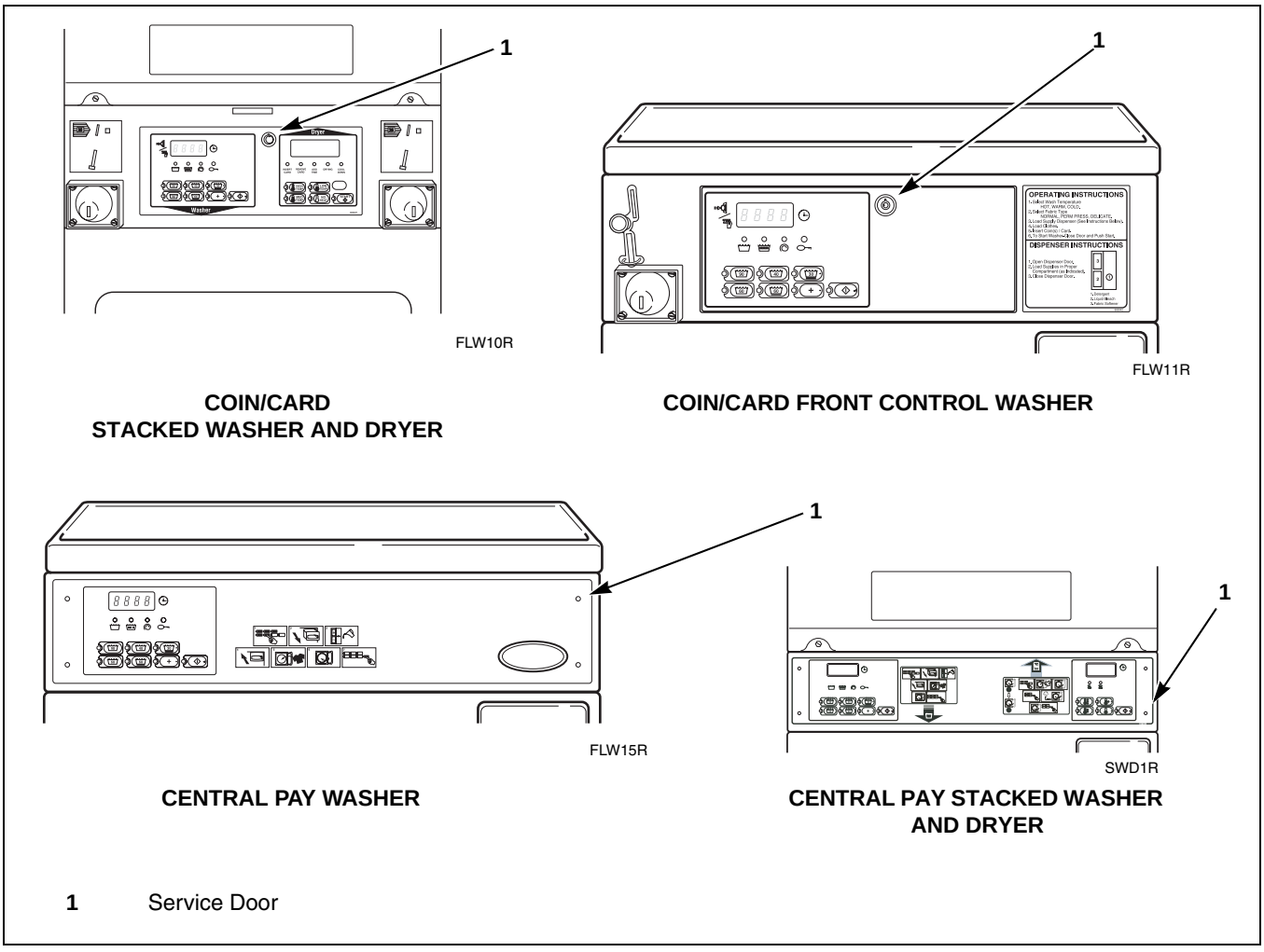
Manually programming MDC requires the user to open and close the service door. Opening and closing the service door trips a switch allowing access to various programming options, diagnostics, and audit capabilities.

The service door is located in the control panel. Refer to *Figure 3*.

After opening and closing the service door, the programmer has 4.25 minutes to begin programming. If a SELECT CYCLE keypad has not been pressed in that time, the control will revert back to the Ready Mode.

Washers Prepped for Central Pay System

Manually programming MDC requires the user to remove the control panel and unplug the bullet connector located between the “white/black” and “red/blue” wires. This will allow the user to access various programming options, diagnostics, and audit capabilities. Refer to *Figure 3*.



1 Service Door

Figure 3

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Entering the Manual Mode

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

How to Enter the Manual Mode

1. Open the service door. Refer to ***Opening the Service Door***. The coin vault switch must be closed.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand.

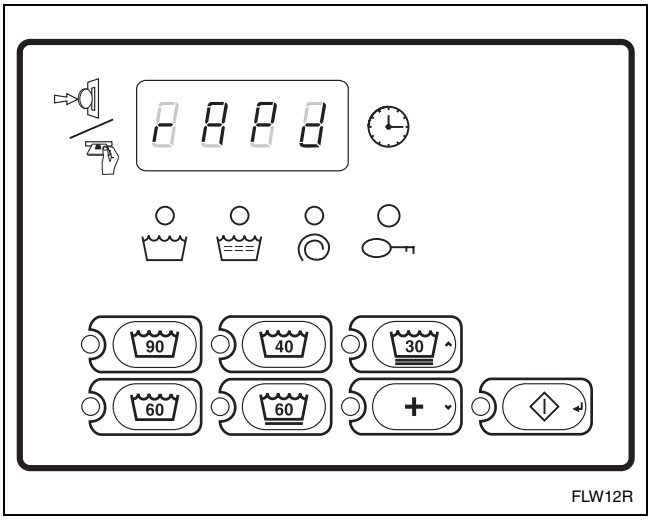

Figure 4

3. The Four-Digit Display will show “rAPd”.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the options until the desired option appears in the display.
5. Press the START (enter) keypad.

There are four manual features available. They are as follows:

1. Manual Rapid Advance (rAPd)
2. Manual Programming (PrOg)
3. Manual Audit (AUdt)
4. Diagnostic Tests (dIAg)

NOTE: The Audit feature can also be accessed by removing the coin vault and pressing the START (enter) keypad.

Once in the Manual Mode, continue on into one of the features described in detail on the following pages.

Instructions on how to exit each feature are found at the end of each feature description.

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Programming MDC

What Can Be Programmed?

This feature allows the owner to program cycle parameters, standard vend pricing, and other features by using the keypads.

This section offers a detailed description of all 31 options available for programming.

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 of the options available through the Programming Mode is located on this page.

NOTE: The digits in the Display column of the Programmable Options list are what will show in the Four-Digit Display when that option is selected.

Programmable Options Available

Display	Description
-001	Vend Price
-002	Coin #1 Value
-003	Coin #2 Value
-004	Start Pulse Value
-005	NORMAL 90 Prewash Fill/Agitate Time
-006	NORMAL 90 Wash Fill/Agitate Time
-007	NORMAL 90 Rinse Fill/Agitate Time
-008	NORMAL 90 Extra Rinse Fill/Agitate Time
-009	NORMAL 90 Final Rinse Fill/Agitate Time
-010	NORMAL 60 Prewash Fill/Agitate Time
-011	NORMAL 60 Wash Fill/Agitate Time
-012	NORMAL 60 Rinse Fill/Agitate Time
-013	NORMAL 60 Extra Rinse Fill/Agitate Time
-014	NORMAL 60 Final Rinse Fill/Agitate Time
-015	NORMAL 40 Prewash Fill/Agitate Time
-016	NORMAL 40 Wash Fill/Agitate Time
-017	NORMAL 40 Rinse Fill/Agitate Time
-018	NORMAL 40 Extra Rinse Fill/Agitate Time
-019	NORMAL 40 Final Rinse Fill/Agitate Time
-020	PERM PRESS 60 Prewash Fill/Agitate Time
-021	PERM PRESS 60 Wash Fill/Agitate Time
-022	PERM PRESS 60 Rinse Fill/Agitate Time
-023	PERM PRESS 60 Extra Rinse Fill/Agitate Time
-024	PERM PRESS 60 Final Rinse Fill/Agitate Time
-025	DELICATES 30 Prewash Fill/Agitate Time
-026	DELICATES 30 Wash Fill/Agitate Time
-027	DELICATES 30 Rinse Fill/Agitate Time
-028	DELICATES 30 Extra Rinse Fill/Agitate Time
-029	DELICATES 30 Final Rinse Fill/Agitate Time
-030	Configuration
-031	Default Cycle

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1. Vend Price “-001”

This option allows the owner to set the vend price. The vend price will be displayed in the Four-Digit Display.

Program this option whenever the vend price needs to be changed.

How to Program Vend Price

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until “PrOg” appears in the Four-Digit Display.

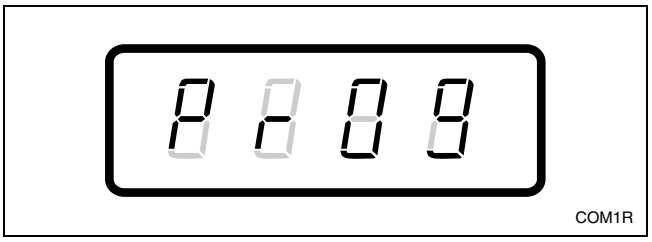

Figure 5

3. Press the START (enter) keypad.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until “-001” appears in the Four-Digit Display.

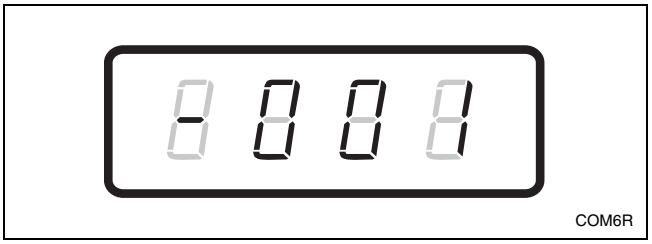

Figure 6

5. When “-001” appears in the Four-Digit Display, press the START (enter) keypad. There are four digits in Vend Price and the fourth digit will become the active digit. The active digit will flash one second on and one second off.

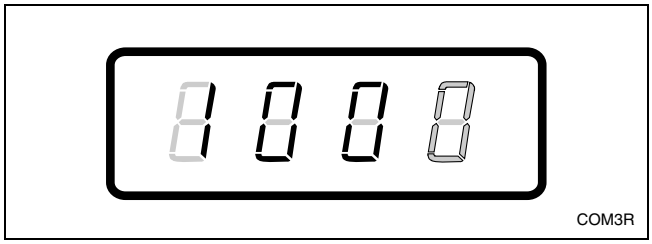

Figure 7

NOTE: The vend price can be set from 0 to 9999.

6. Press the DELICATES 30 (∧) or the PREWASH (∨) 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.
7. Repeat step 6 for each of the four digits. When the START (enter) keypad is pressed and the last digit is the active digit, the changes to the vend price will be saved into the memory. The next option, “-002”, will appear in the Four-Digit Display.

NOTE: To program “-002” (Coin #1 Value), refer to option 2. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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2. Coin #1 Value “-002”

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 amount entered for one quarter would be 0025.

If the Vend Price (option 1) is set for “75”, and the Coin Amount is set for “0025”, 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 DELICATES 30 (∧) or the PREWASH (∨) keypad until “PrOg” appears in the Four-Digit Display.

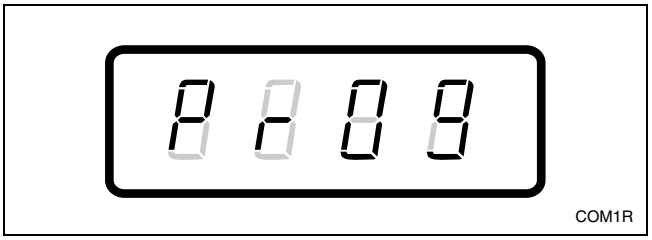

Figure 8

3. Press the START (enter) keypad and “-001” will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until “-002” appears in the Four-Digit Display.

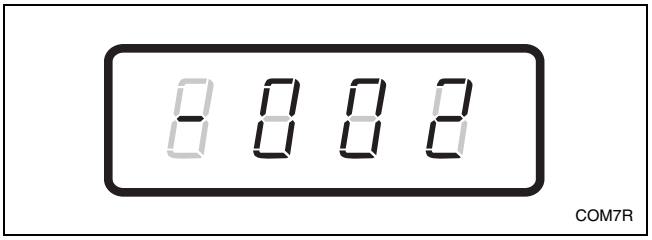

Figure 9

5. When “-002” appears in the Four-Digit Display, press the START (enter) keypad. There are four digits in Coin #1 Value, and the fourth digit will become the active digit. The active digit will flash one second on and one second off.

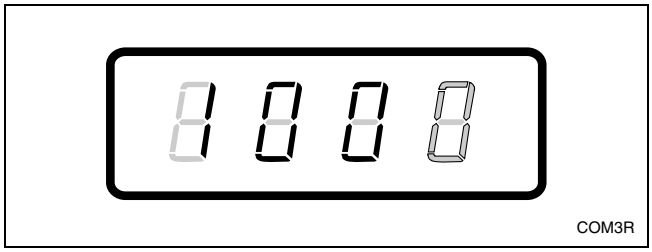

Figure 10

NOTE: The coin amount can be set from 1 to 9999.

6. Press the DELICATES 30 (∧) or the PREWASH (∨) 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.
7. Repeat step 6 for each of the four digits. When the START (enter) keypad is pressed and the last digit is the active digit, the changes to the coin #1 value will be saved into the memory. The next option, “-003”, will appear in the Four-Digit Display.

NOTE: To program “-003” (Coin #2 Value), refer to option 3. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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3. Coin #2 Value “-003”

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 (100). Therefore, the coin amount entered for one dollar coin would be 0100.

If the Vend Price (option 1) is set for “200”, and the Coin Amount is set for “0100”, the vend price displayed will decrease by 100 for each coin entered.

How to Program Coin #2 Value

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until “PrOg” appears in the Four-Digit Display.

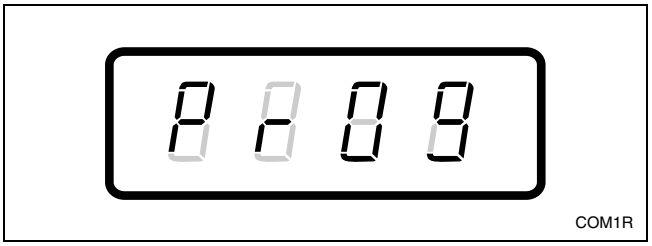

Figure 11

3. Press the START (enter) keypad and “-001” will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until “-003” appears in the Four-Digit Display.

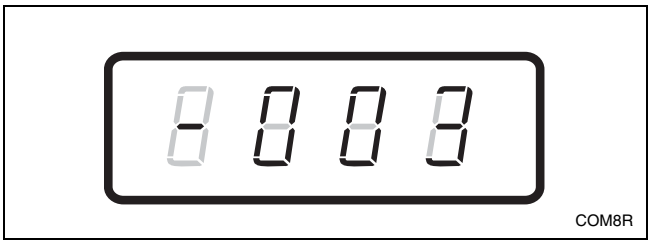

Figure 12

5. When “-003” appears in the Four-Digit Display, press the START (enter) keypad. There are four digits in Coin #2 Value, and the fourth digit will become the active digit. The active digit will flash one second on and one second off.

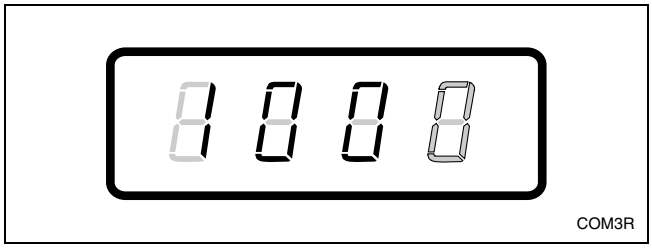

Figure 13

NOTE: The coin amount can be set from 1 to 9999.

6. Press the DELICATES 30 (∧) or the PREWASH (∨) 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.
7. Repeat step 6 for each of the four digits. When the START (enter) keypad is pressed and the last digit is the active digit, the changes to the coin #2 value will be saved into the memory. The next option, “-004”, will appear in the Four-Digit Display.

NOTE: To program “-004” (Start Pulse Value), refer to option 4. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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4. Start Pulse Value “-004”

This option allows the owner to program the value of the Start Pulse with an aftermarket central card reader or pay system.

How to Program Start Pulse Value

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until “PrOg” appears in the Four-Digit Display.

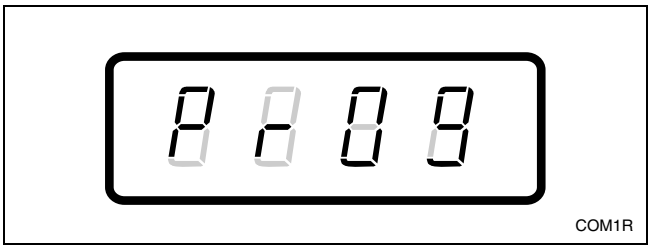

Figure 14

3. Press the START (enter) keypad and “-001” will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until “-004” appears in the Four-Digit Display.

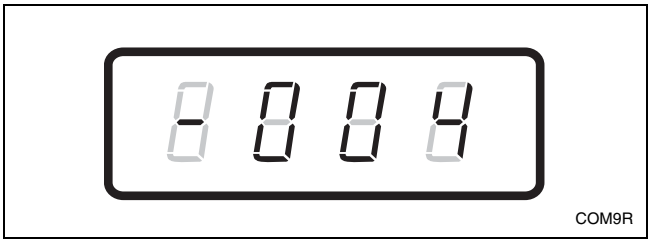

Figure 15

5. When “-004” appears in the Four-Digit Display, press the START (enter) keypad. There are four digits in Start Pulse Value, and the fourth digit will become the active digit. The active digit will flash one second on and one second off.

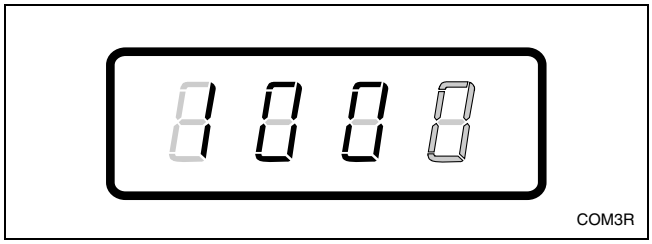

Figure 16

NOTE: The start pulse can be set from 1 to 9999.

6. Press the DELICATES 30 (∧) or the PREWASH (∨) 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.
7. Repeat step 6 for each of the four digits. When the START (enter) keypad is pressed and the last digit is the active digit, the changes to the start pulse value will be saved into the memory. The next option, “-005”, will appear in the Four-Digit Display.

NOTE: To program “-005” (NORMAL 90 Prewash Fill/Agitate Time), refer to option 5. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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5. NORMAL 90 Prewash Fill/Agitate Time "-005"

This option allows the owner to set the amount of prewash fill/agitate time for the NORMAL 90 cycle.

How to Program NORMAL 90 Prewash Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

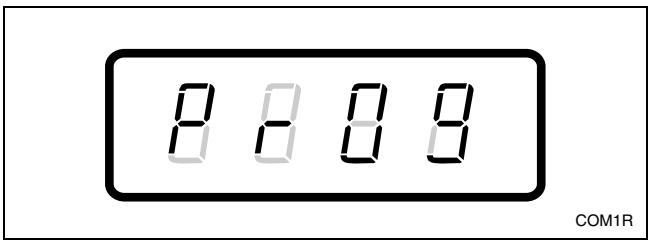

Figure 17

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-005" appears in the Four-Digit Display.

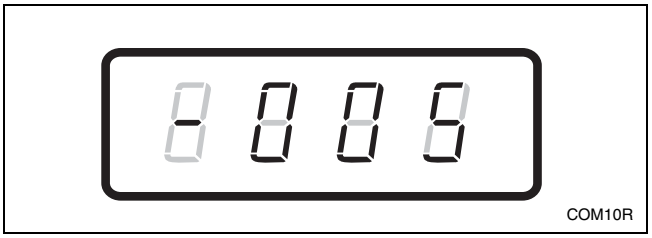

Figure 18

5. When "-005" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for NORMAL 90 Prewash Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: NORMAL 90 Prewash Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, the NORMAL 90 Prewash setting will not be available.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-006", will appear in the Four-Digit Display.

NOTE: To program "-006" (NORMAL 90 Wash Fill/Agitate Time), refer to option 6. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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6. NORMAL 90 Wash Fill/Agitate Time "-006"

This option allows the owner to set the amount of wash fill/agitate time for the NORMAL 90 cycle.

How to Program NORMAL 90 Wash Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

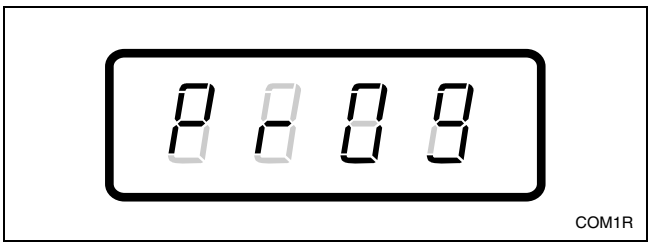

Figure 19

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-006" appears in the Four-Digit Display.

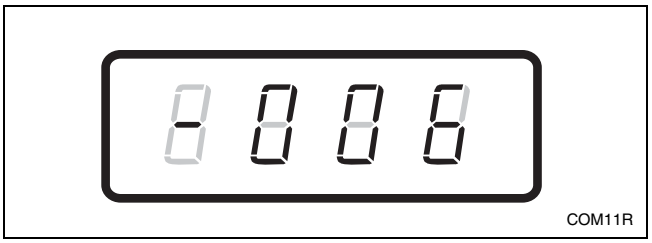

Figure 20

5. When "-006" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for NORMAL 90 Wash Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: NORMAL 90 Wash Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, NORMAL 90 Wash cycle will be skipped.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-007", will appear in the Four-Digit Display.

NOTE: To program "-007" (NORMAL 90 Rinse Fill/Agitate Time), refer to option 7. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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7. NORMAL 90 Rinse Fill/Agitate Time "-007"

This option allows the owner to set the amount of rinse fill/agitate time for the NORMAL 90 cycle.

How to Program NORMAL 90 Rinse Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

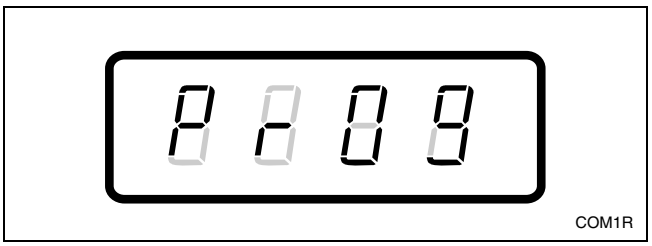

Figure 21

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-007" appears in the Four-Digit Display.

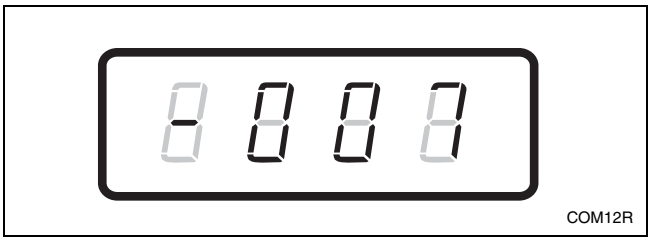

Figure 22

5. When "-007" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for NORMAL 90 Rinse Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: NORMAL 90 Rinse Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, NORMAL 90 Rinse cycle will be skipped.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-008", will appear in the Four-Digit Display.

NOTE: To program "-008" (NORMAL 90 Extra Rinse Fill/Agitate Time), refer to option 8. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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8. NORMAL 90 Extra Rinse Fill/Agitate Time "-008"

This option allows the owner to set the amount of extra rinse fill/agitate time for the NORMAL 90 cycle.

How to Program NORMAL 90 Extra Rinse Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

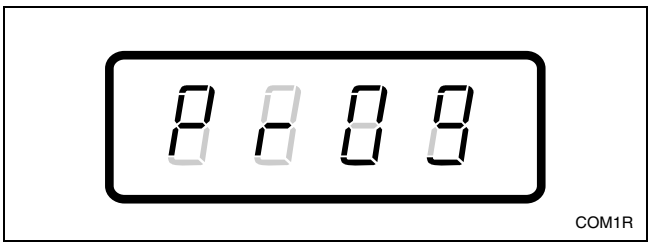

Figure 23

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-008" appears in the Four-Digit Display.

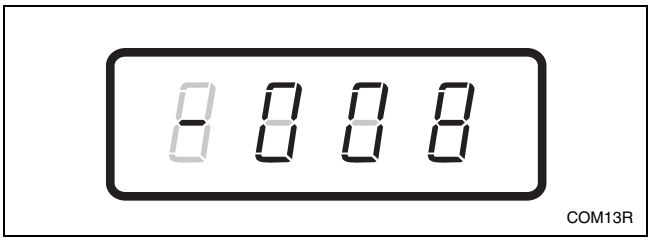

Figure 24

5. When "-008" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for NORMAL 90 Extra Rinse Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: NORMAL 90 Extra Rinse Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, NORMAL 90 Extra Rinse cycle will be skipped.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-009", will appear in the Four-Digit Display.

NOTE: To program "-009" (NORMAL 90 Final Rinse Fill/Agitate Time), refer to option 9. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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9. NORMAL 90 Final Rinse Fill/Agitate Time "-009"

This option allows the owner to set the amount of final rinse fill/agitate time for the NORMAL 90 cycle.

How to Program NORMAL 90 Final Rinse Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

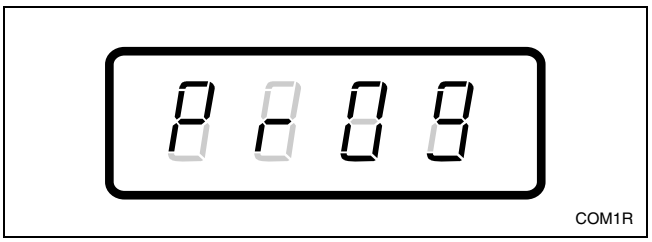

Figure 25

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-009" appears in the Four-Digit Display.

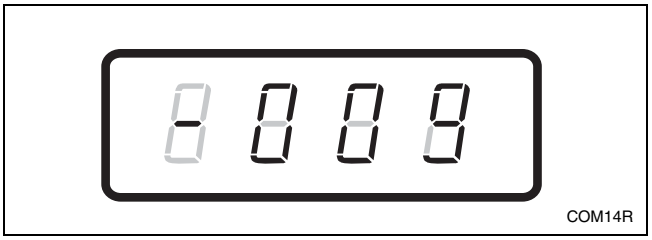

Figure 26

5. When "-009" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for NORMAL 90 Final Rinse Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: NORMAL 90 Final Rinse Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, NORMAL 90 Final Rinse cycle will be skipped.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-010", will appear in the Four-Digit Display.

NOTE: To program "-010" (NORMAL 60 Prewash Fill/Agitate Time), refer to option 10. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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10. NORMAL 60 Prewash Fill/Agitate Time "-010"

This option allows the owner to set the amount of prewash fill/agitate time for the NORMAL 60 cycle.

How to Program NORMAL 60 Prewash Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

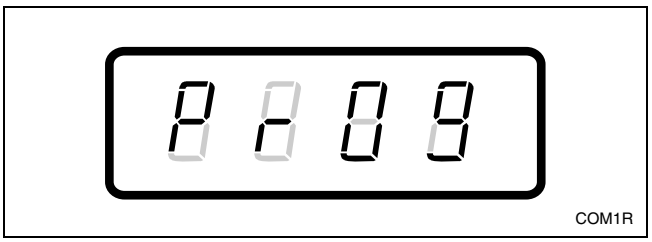

Figure 27

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-010" appears in the Four-Digit Display.

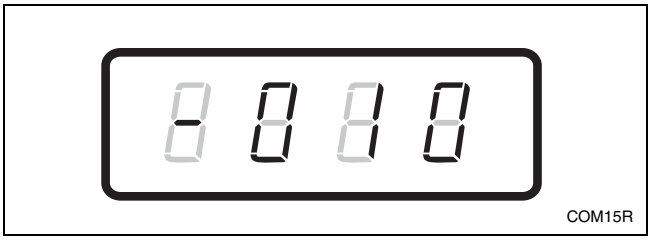

Figure 28

5. When "-010" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for NORMAL 60 Prewash Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: NORMAL 60 Prewash Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, NORMAL 60 Prewash setting will not be available.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-011", will appear in the Four-Digit Display.

NOTE: To program "-011" (NORMAL 60 Wash Fill/Agitate Time), refer to option 11. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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11. NORMAL 60 Wash Fill/Agitate Time "-011"

This option allows the owner to set the amount of wash fill/agitate time for the NORMAL 60 cycle.

How to Program NORMAL 60 Wash Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

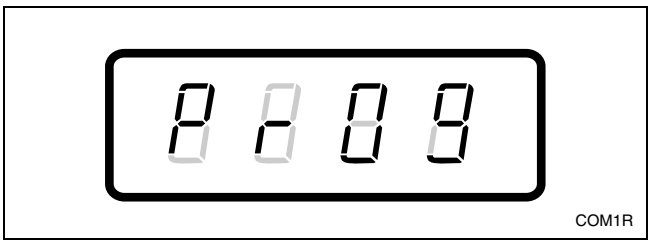

Figure 29

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-011" appears in the Four-Digit Display.

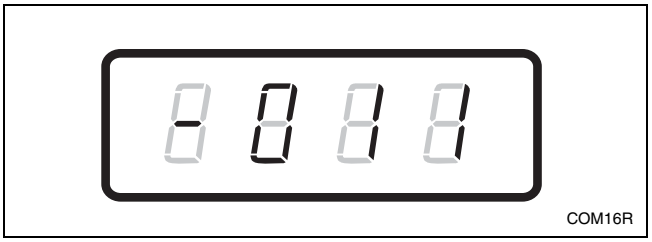

Figure 30

5. When "-011" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for NORMAL 60 Wash Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: NORMAL 60 Wash Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, NORMAL 60 Wash cycle will be skipped.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-012", will appear in the Four-Digit Display.

NOTE: To program "-012" (NORMAL 60 Rinse Fill/Agitate Time), refer to option 12. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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12. NORMAL 60 Rinse Fill/Agitate Time "-012"

This option allows the owner to set the amount of rinse fill/agitate time for the NORMAL 60 cycle.

How to Program NORMAL 60 Rinse Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

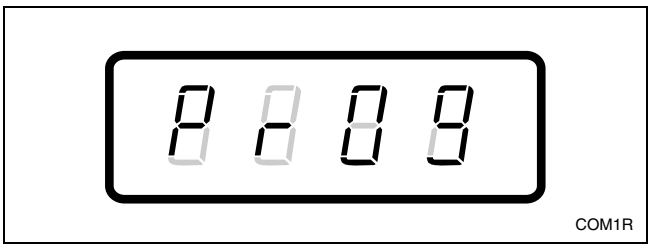

Figure 31

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-012" appears in the Four-Digit Display.

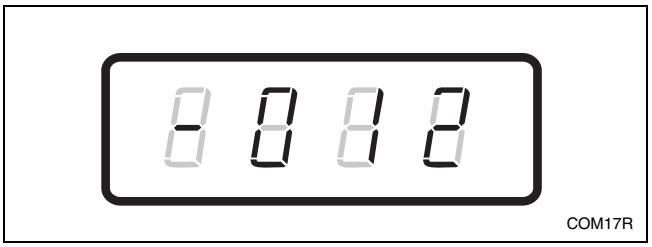

Figure 32

5. When "-012" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for NORMAL 60 Rinse Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: NORMAL 60 Rinse Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, NORMAL 60 Rinse cycle will be skipped.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-013", will appear in the Four-Digit Display.

NOTE: To program "-013" (NORMAL 60 Extra Rinse Fill/Agitate Time), refer to option 13. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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13. NORMAL 60 Extra Rinse Fill/Agitate Time "-013"

This option allows the owner to set the amount of extra rinse fill/agitate time for the NORMAL 60 cycle.

How to Program NORMAL 60 Extra Rinse Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

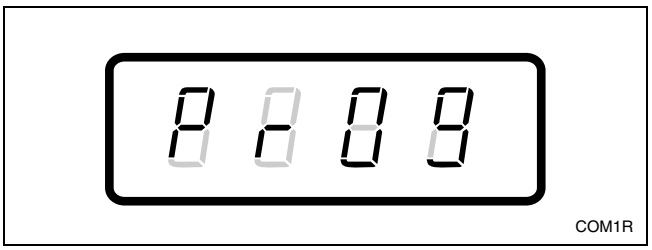

Figure 33

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-013" appears in the Four-Digit Display.

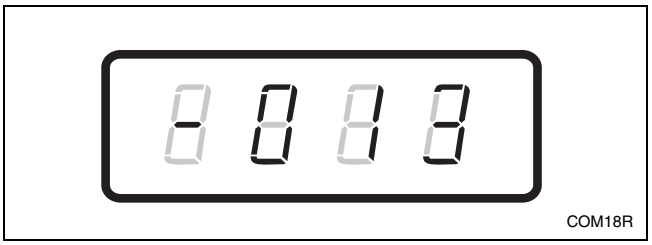

Figure 34

5. When "-013" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for NORMAL 60 Extra Rinse Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: NORMAL 60 Extra Rinse Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, NORMAL 60 Extra Rinse cycle will be skipped.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-014", will appear in the Four-Digit Display.

NOTE: To program "-014" (NORMAL 60 Final Rinse Fill/Agitate Time), refer to option 14. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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14. NORMAL 60 Final Rinse Fill/Agitate Time "-014"

This option allows the owner to set the amount of final rinse fill/agitate time for the NORMAL 60 cycle.

How to Program NORMAL 60 Final Rinse Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

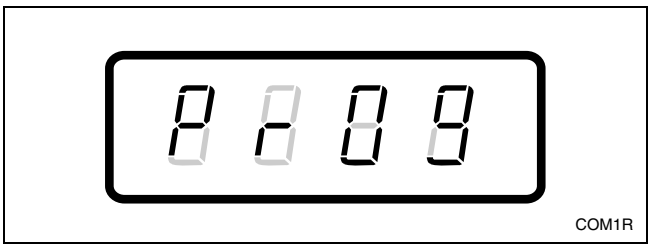

Figure 35

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-014" appears in the Four-Digit Display.

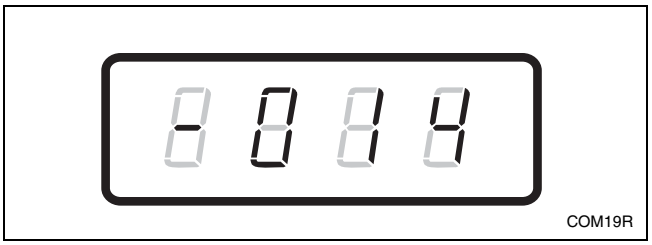

Figure 36

5. When "-014" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for NORMAL 60 Final Rinse Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: NORMAL 60 Final Rinse Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, NORMAL 60 Final Rinse cycle will be skipped.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-015", will appear in the Four-Digit Display.

NOTE: To program "-015" (NORMAL 40 Prewash Fill/Agitate Time), refer to option 15. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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15. NORMAL 40 Prewash Fill/Agitate Time "-015"

This option allows the owner to set the amount of prewash fill/agitate time for the NORMAL 40 cycle.

How to Program NORMAL 40 Prewash Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

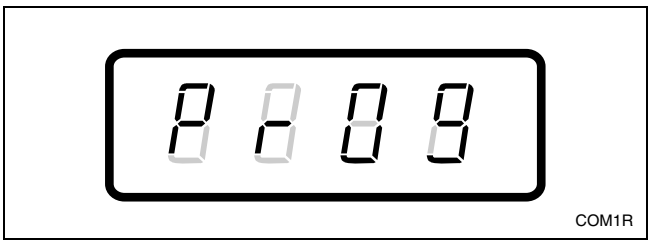

Figure 37

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-015" appears in the Four-Digit Display.

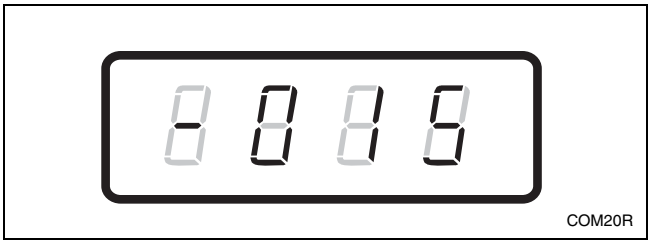

Figure 38

5. When "-015" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for NORMAL 40 Prewash Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: NORMAL 40 Prewash Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, NORMAL 40 Prewash setting will not be available.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-016", will appear in the Four-Digit Display.

NOTE: To program "-016" (NORMAL 40 Wash Fill/Agitate Time), refer to option 16. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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16. NORMAL 40 Wash Fill/Agitate Time "-016"

This option allows the owner to set the amount of wash fill/agitate time for the NORMAL 40 cycle.

How to Program NORMAL 40 Wash Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

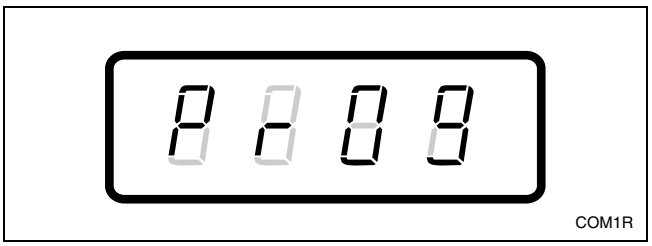

Figure 39

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-016" appears in the Four-Digit Display.

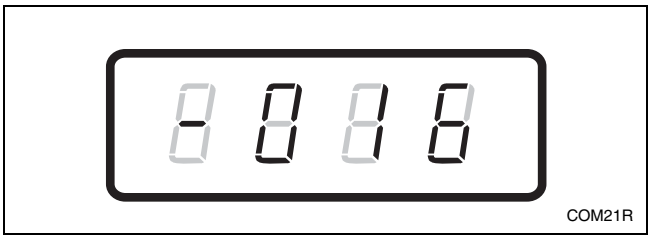

Figure 40

5. When "-016" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for NORMAL 40 Wash Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: NORMAL 40 Wash Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, NORMAL 40 Wash cycle will be skipped.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-017", will appear in the Four-Digit Display.

NOTE: To program "-017" (NORMAL 40 Rinse Fill/Agitate Time), refer to option 17. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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17. NORMAL 40 Rinse Fill/Agitate Time "-017"

This option allows the owner to set the amount of rinse fill/agitate time for the NORMAL 40 cycle.

How to Program NORMAL 40 Rinse Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

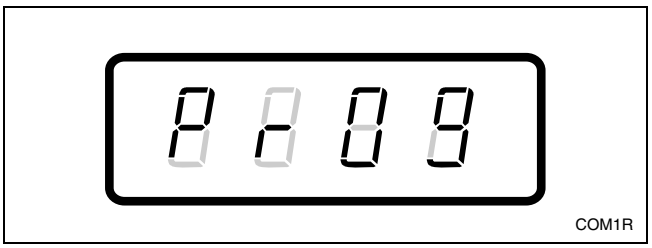

Figure 41

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-017" appears in the Four-Digit Display.

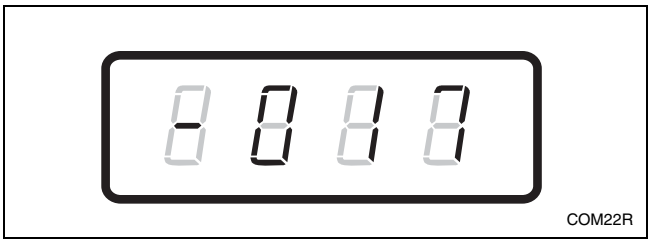

Figure 42

5. When "-017" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for NORMAL 40 Rinse Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: NORMAL 40 Rinse Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, NORMAL 40 Rinse cycle will be skipped.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-018", will appear in the Four-Digit Display.

NOTE: To program "-018" (NORMAL 40 Extra Rinse Fill/Agitate Time), refer to option 18. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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18. NORMAL 40 Extra Rinse Fill/Agitate Time "-018"

This option allows the owner to set the amount of extra rinse fill/agitate time for the NORMAL 40 cycle.

How to Program NORMAL 40 Extra Rinse Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

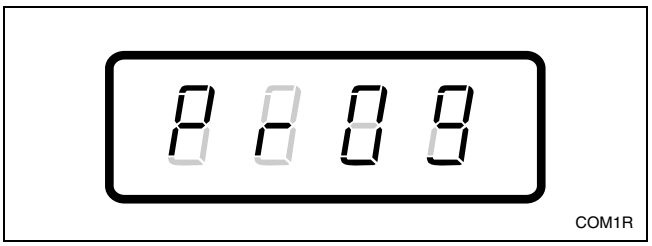

Figure 43

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-018" appears in the Four-Digit Display.

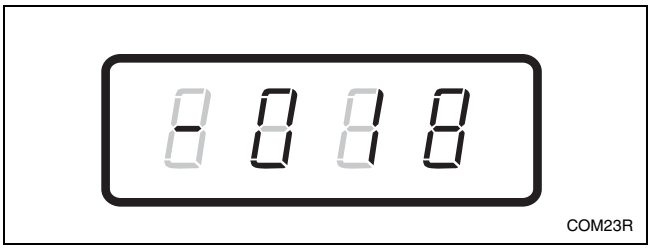

Figure 44

5. When "-018" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for NORMAL 40 Extra Rinse Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: NORMAL 40 Extra Rinse Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, NORMAL 40 Extra Rinse cycle will be skipped.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-019", will appear in the Four-Digit Display.

NOTE: To program "-019" (NORMAL 40 Final Rinse Fill/Agitate Time), refer to option 19. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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19. NORMAL 40 Final Rinse Fill/Agitate Time "-019"

This option allows the owner to set the amount of final rinse fill/agitate time for the NORMAL 40 cycle.

How to Program NORMAL 40 Final Rinse Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

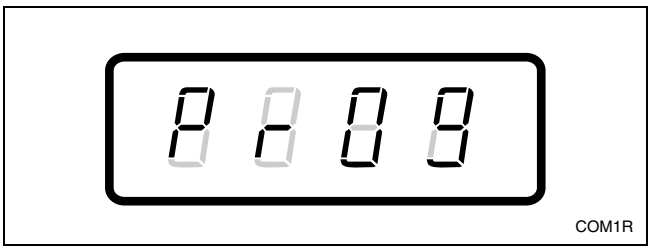

Figure 45

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-019" appears in the Four-Digit Display.

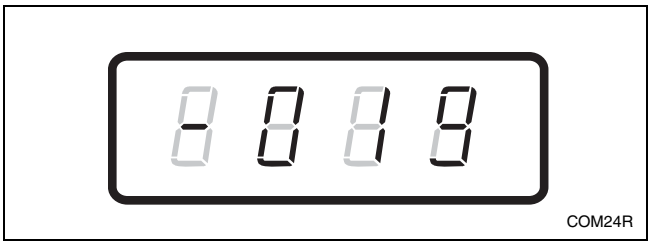

Figure 46

5. When "-019" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for NORMAL 40 Final Rinse Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: NORMAL 40 Final Rinse Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, NORMAL 40 Final Rinse cycle will be skipped.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-020", will appear in the Four-Digit Display.

NOTE: To program "-020" (PERM PRESS 60 Prewash Fill/Agitate Time), refer to option 20. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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20. PERM PRESS 60 Prewash Fill/Agitate Time "-020"

This option allows the owner to set the amount of prewash fill/agitate time for the PERM PRESS 60 cycle.

How to Program PERM PRESS 60 Prewash Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

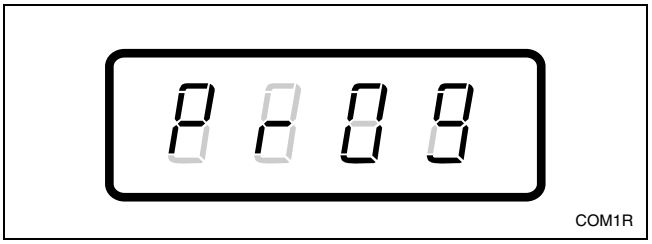

Figure 47

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-020" appears in the Four-Digit Display.

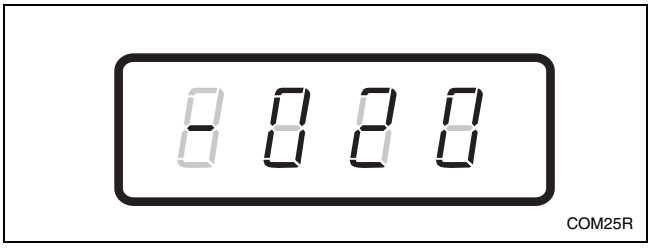

Figure 48

5. When "-020" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for PERM PRESS 60 Prewash Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: PERM PRESS 60 Prewash Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, PERM PRESS 60 Prewash setting will not be available.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-021", will appear in the Four-Digit Display.

NOTE: To program "-021" (PERM PRESS 60 Wash Fill/Agitate Time), refer to option 21. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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21. PERM PRESS 60 Wash Fill/Agitate Time "-021"

This option allows the owner to set the amount of wash fill/agitate time for the PERM PRESS 60 cycle.

How to Program PERM PRESS 60 Wash Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

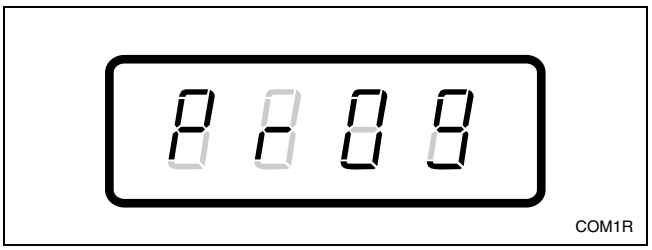

Figure 49

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-021" appears in the Four-Digit Display.

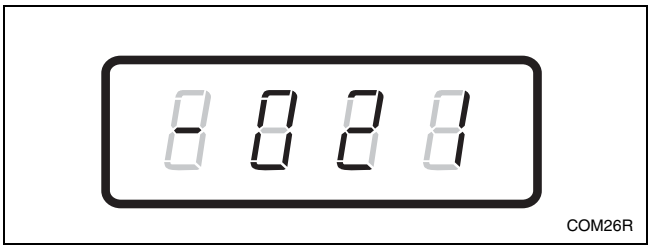

Figure 50

5. When "-021" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for PERM PRESS 60 Wash Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: PERM PRESS 60 Wash Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, PERM PRESS 60 Wash cycle will be skipped.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-022", will appear in the Four-Digit Display.

NOTE: To program "-022" (PERM PRESS 60 Rinse Fill/Agitate Time), refer to option 22. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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22. PERM PRESS 60 Rinse Fill/Agitate Time "-022"

This option allows the owner to set the amount of rinse fill/agitate time for the PERM PRESS 60 cycle.

How to Program PERM PRESS 60 Rinse Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

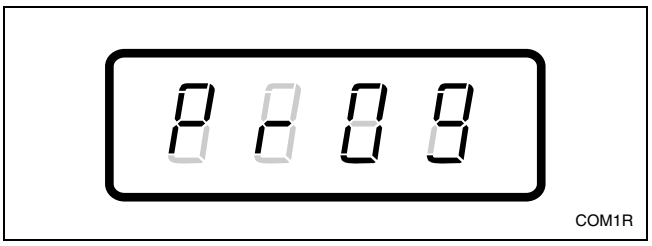

Figure 51

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-022" appears in the Four-Digit Display.

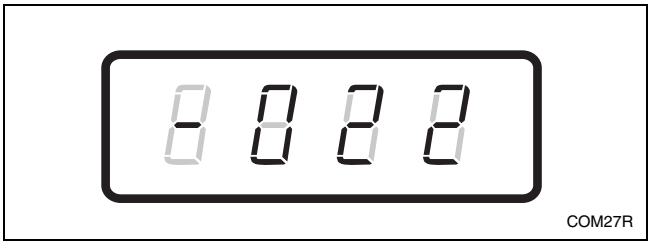

Figure 52

5. When "-022" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for PERM PRESS 60 Rinse Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: PERM PRESS 60 Rinse Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, PERM PRESS 60 Rinse cycle will be skipped.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-023", will appear in the Four-Digit Display.

NOTE: To program "-023" (PERM PRESS 60 Extra Rinse Fill/Agitate Time), refer to option 23. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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23. PERM PRESS 60 Extra Rinse Fill/Agitate Time "-023"

This option allows the owner to set the amount of extra rinse fill/agitate time for the PERM PRESS 60 cycle.

How to Program PERM PRESS 60 Extra Rinse Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

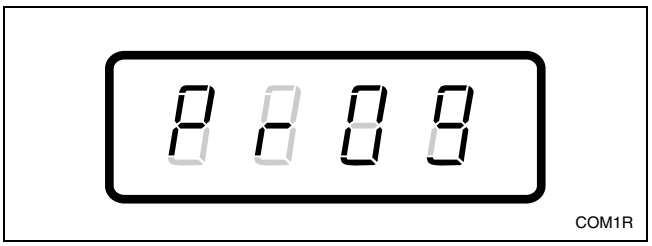

Figure 53

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-023" appears in the Four-Digit Display.

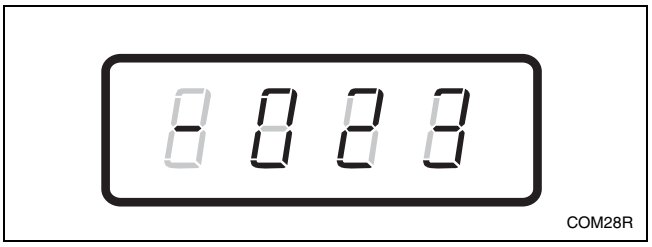

Figure 54

5. When "-023" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for PERM PRESS 60 Extra Rinse Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: PERM PRESS 60 Extra Rinse Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, PERM PRESS Extra Rinse cycle will be skipped.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-024", will appear in the Four-Digit Display.

NOTE: To program "-024" (PERM PRESS 60 Final Rinse Fill/Agitate Time), refer to option 24. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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24. PERM PRESS 60 Final Rinse Fill/Agitate Time "-024"

This option allows the owner to set the amount of final rinse fill/agitate time for the PERM PRESS 60 cycle.

How to Program PERM PRESS 60 Final Rinse Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

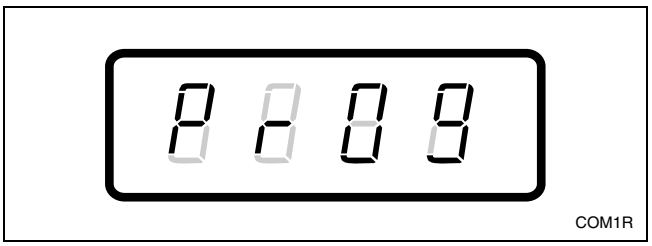

Figure 55

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-024" appears in the Four-Digit Display.

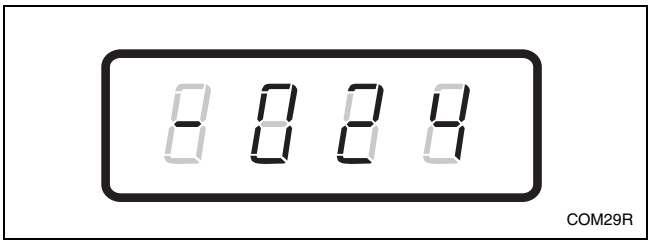

Figure 56

5. When "-024" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for PERM PRESS 60 Final Rinse Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: PERM PRESS 60 Final Rinse Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, PERM PRESS 60 Final Rinse cycle will be skipped.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-025", will appear in the Four-Digit Display.

NOTE: To program "-025" (DELICATES 30 Prewash Fill/Agitate Time), refer to option 25. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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25. DELICATES 30 Prewash Fill/Agitate Time "-025"

This option allows the owner to set the amount of prewash fill/agitate time for the DELICATES 30 cycle.

How to Program DELICATES 30 Prewash Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

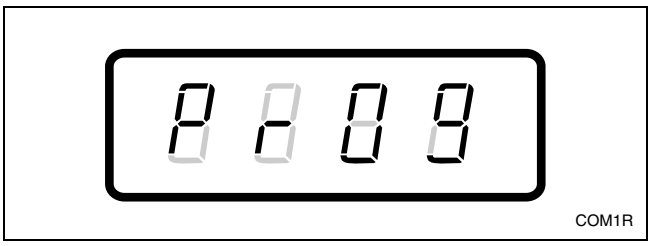

Figure 57

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-025" appears in the Four-Digit Display.

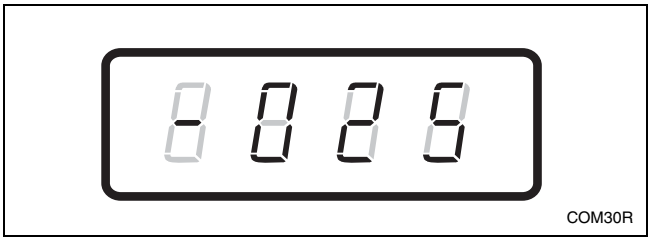

Figure 58

5. When "-025" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for DELICATES 30 Prewash Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: DELICATES 30 Prewash Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, DELICATES 30 Prewash setting will not be available.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-026", will appear in the Four-Digit Display.

NOTE: To program "-026" (DELICATES 30 Wash Fill/Agitate Time), refer to option 26. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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26. DELICATES 30 Wash Fill/Agitate Time "-026"

This option allows the owner to set the amount of wash fill/agitate time for the DELICATES 30 cycle.

How to Program DELICATES 30 Wash Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

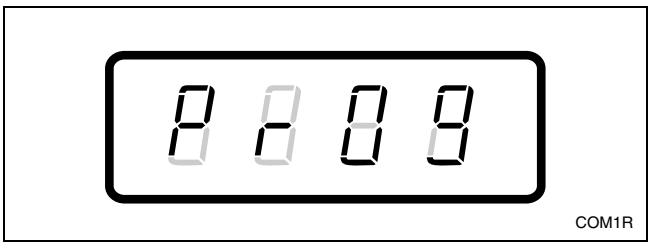

Figure 59

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-026" appears in the Four-Digit Display.

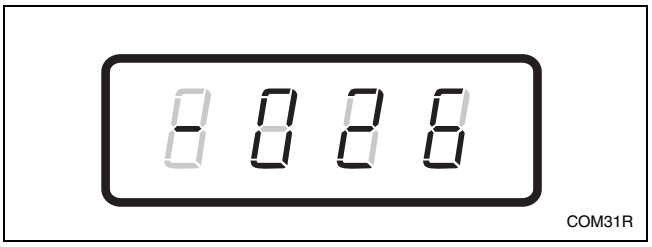

Figure 60

5. When "-026" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for DELICATES 30 Wash Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: DELICATES 30 Wash Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, DELICATES 30 Wash cycle will be skipped.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-027", will appear in the Four-Digit Display.

NOTE: To program "-027" (DELICATES 30 Rinse Fill/Agitate Time), refer to option 27. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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27. DELICATES 30 Rinse Fill/Agitate Time "-027"

This option allows the owner to set the amount of rinse fill/agitate time for the DELICATES 30 cycle.

How to Program DELICATES 30 Rinse Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

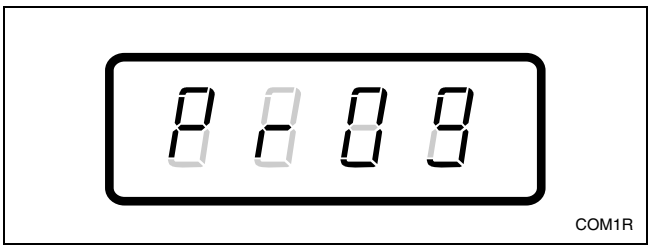

Figure 61

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-027" appears in the Four-Digit Display.

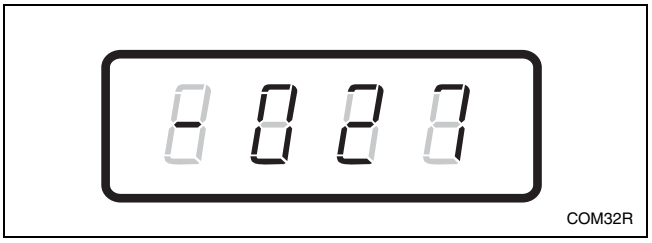

Figure 62

5. When "-027" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for DELICATES 30 Rinse Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: DELICATES 30 Rinse Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, DELICATES 30 Rinse cycle will be skipped.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-028", will appear in the Four-Digit Display.

NOTE: To program "-028" (DELICATES 30 Extra Rinse Fill/Agitate Time), refer to option 28. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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28. DELICATES 30 Extra Rinse Fill/Agitate Time "-028"

This option allows the owner to set the amount of extra rinse fill/agitate time for the DELICATES 30 cycle.

How to Program DELICATES 30 Extra Rinse Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

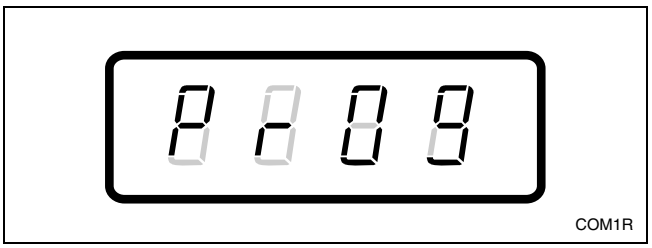

Figure 63

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-028" appears in the Four-Digit Display.

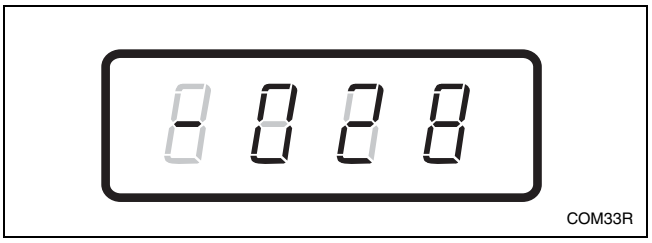

Figure 64

5. When "-028" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for DELICATES 30 Extra Rinse Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: DELICATES 30 Extra Rinse Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, DELICATES 30 Extra Rinse cycle will be skipped.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-029", will appear in the Four-Digit Display.

NOTE: To program "-029" (DELICATES 30 Final Rinse Fill/Agitate Time), refer to option 29. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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29. DELICATES 30 Final Rinse Fill/Agitate Time "-029"

This option allows the owner to set the amount of final rinse fill/agitate time for the DELICATES 30 cycle.

How to Program DELICATES 30 Final Rinse Fill/Agitate Time

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

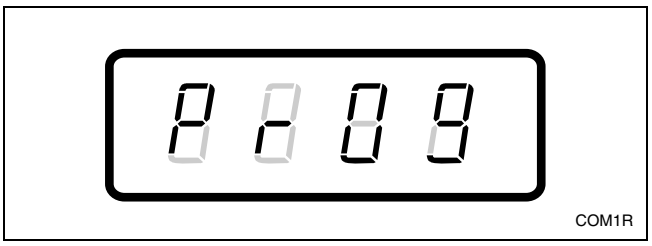

Figure 65

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-029" appears in the Four-Digit Display.

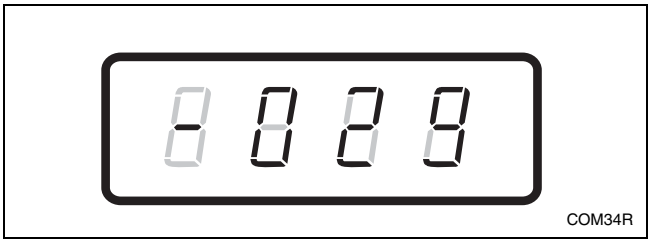

Figure 66

5. When "-029" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for DELICATES 30 Final Rinse Fill/Agitate Time will appear in the Four-Digit Display.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: DELICATES 30 Final Rinse Fill/Agitate Time can be set from zero (0) to 15 minutes. If time is set to zero, DELICATES 30 Final Rinse cycle will be skipped.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, "-030", will appear in the Four-Digit Display.

NOTE: To program "-030" (Configuration), refer to option 30. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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30. Configuration "-030"

This option allows the owner to turn ON or turn OFF preprogrammed capabilities within MDC.

How to Program Configuration

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

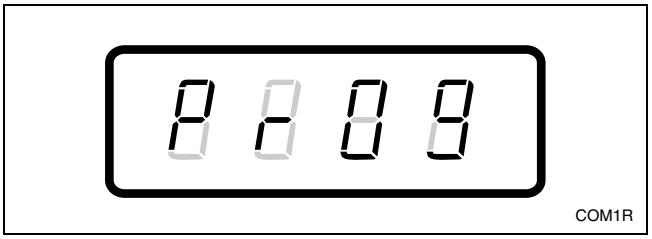

Figure 67

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-030" appears in the Four-Digit Display.

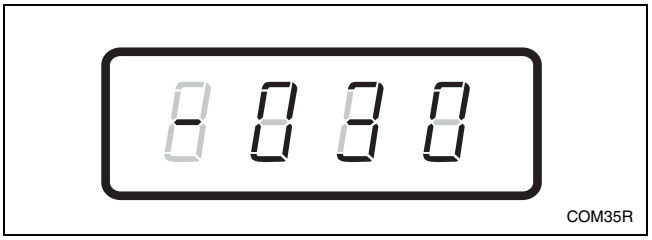

Figure 68

5. When "-030" appears in the Four-Digit Display, press the START (enter) keypad. A number will appear in the Four-Digit Display. This number corresponds to the current Configuration value.
6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current value to the desired value selected from *Table 2*.
7. Press the START (enter) keypad when the correct value appears in the Four-Digit Display. The next option will appear in the Four-Digit Display. (On software versions less than "S003", the first option, "-001", will appear in the Four-Digit Display. On software version "S003" and higher, "-031" will appear in the Four-Digit Display.)

NOTE: To program "-031" (Default Cycle), refer to option 31. To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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Configuration Programming

Use *Table 1* to turn on or turn off the preprogrammed Cool Down, Heater, Audio Signal, Error Mode, Coin Drop #1 and Pump/Gravity Drain options in MDC.

To change any or all of these configuration options, review the following descriptions carefully and choose the appropriate configuration value from *Table 2*. Enter the appropriate value in step 6 on the previous page.

Cool Down	This option, when enabled, adds cold water to the load before pumping out if the water is sensed to be above 65° Celsius. Water is added until the temperature is sensed below 65° Celsius.
	ON = Turns on Cool Down option
	OFF = Turns off Cool Down option
Heater	This option, when enabled, turns on the heater in the wash cycles until the selected temperature is reached.
	ON = Turns on heater
	OFF = Turns off heater
Audio Signal	This option turns on or off the audio signal which when turned on, sounds for keypad depression, coin/start pulse input, and machine errors.
	ON = Turns on audio signal
	OFF = Turns off audio signal
Error Mode	This option determines whether all errors are displayed.
	ON = Turns on errors in Four-Digit Display
	OFF = Turns off errors in Four-Digit Display
Coin Drop #1	This option determines whether the control will accept pulses from coin drop #1.
	Coin Drop #1 = Turns on coin drop #1
Pump/Gravity Drain	This option determines whether the machine will use the pump or the gravity drain. (Gravity drain must be installed to match configuration or machine will not function correctly.)
	Pump = Turns pump on and turns gravity drain off
	Gravity Drain = Turns gravity drain on and turns pump off

Table 1

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Configuration Values

Config Value	Cool Down	Heater	Audio Signal	Error Mode	Coin Drop #1	Pump/Gravity Drain
0	OFF	OFF	OFF	OFF	Drop	Pump
1	OFF	OFF	OFF	OFF	Drop	Gravity Drain
4	OFF	OFF	OFF	**ON**	Drop	Pump
5	OFF	OFF	OFF	**ON**	Drop	Gravity Drain
8	OFF	OFF	**ON**	OFF	Drop	Pump
9	OFF	OFF	**ON**	OFF	Drop	Gravity Drain
12	OFF	OFF	**ON**	**ON**	Drop	Pump
13	OFF	OFF	**ON**	**ON**	Drop	Gravity Drain
16	OFF	**ON**	OFF	OFF	Drop	Pump
17	OFF	**ON**	OFF	OFF	Drop	Gravity Drain
20	OFF	**ON**	OFF	**ON**	Drop	Pump
21	OFF	**ON**	OFF	**ON**	Drop	Gravity Drain
24	OFF	**ON**	**ON**	OFF	Drop	Pump
25	OFF	**ON**	**ON**	OFF	Drop	Gravity Drain
28	OFF	**ON**	**ON**	**ON**	Drop	Pump
29	OFF	**ON**	**ON**	**ON**	Drop	Gravity Drain
32	**ON**	OFF	OFF	OFF	Drop	Pump
33	**ON**	OFF	OFF	OFF	Drop	Gravity Drain
36	**ON**	OFF	OFF	**ON**	Drop	Pump
37	**ON**	OFF	OFF	**ON**	Drop	Gravity Drain
40	**ON**	OFF	**ON**	OFF	Drop	Pump
41	**ON**	OFF	**ON**	OFF	Drop	Gravity Drain
44	**ON**	OFF	**ON**	**ON**	Drop	Pump
45	**ON**	OFF	**ON**	**ON**	Drop	Gravity Drain
48	**ON**	**ON**	OFF	OFF	Drop	Pump
49	**ON**	**ON**	OFF	OFF	Drop	Gravity Drain
52	**ON**	**ON**	OFF	**ON**	Drop	Pump
53	**ON**	**ON**	OFF	**ON**	Drop	Gravity Drain
56	**ON**	**ON**	**ON**	OFF	Drop	Pump
57	**ON**	**ON**	**ON**	OFF	Drop	Gravity Drain
60	**ON**	**ON**	**ON**	**ON**	Drop	Pump
61	**ON**	**ON**	**ON**	**ON**	Drop	Gravity Drain

Table 2

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31. Default Cycle "-031"

This option allows the owner to set the default cycle type.

How to Program Default Cycle

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "PrOg" appears in the Four-Digit Display.

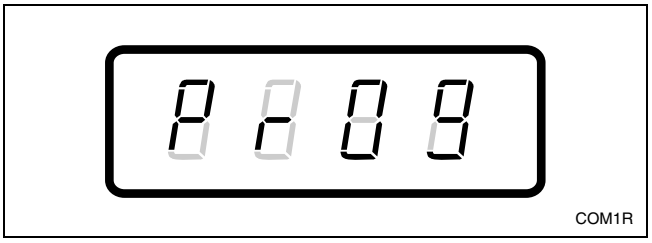

Figure 69

3. Press the START (enter) keypad and "-001" will appear in the Four-Digit Display.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the programmable options until "-031" appears in the Four-Digit Display.

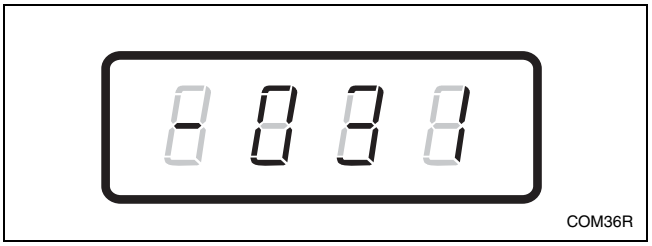

Figure 70

5. When "-031" appears in the Four-Digit Display, press the START (enter) keypad. A number will appear in the Four-Digit Display. This number (found below) corresponds to the cycle type. The factory default cycle is 3 (PERM PRESS 60).

   0 = Default cycle is NORMAL 90

   1 = Default cycle is NORMAL 60

   2 = Default cycle is NORMAL 40

   3 = Default cycle is PERM PRESS 60

   4 = Default cycle is DELICATES 30

6. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to increase or decrease the current number displayed in the Four-Digit Display to the desired number.
7. Press the START (enter) keypad when the correct code appears in the Four-Digit Display.

NOTE: To program other options, refer to the appropriate section.

How to Exit Programming Feature

1. Be sure the control shows a programmable option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will revert back to the previous mode of operation.

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Collecting Audit Information

This feature allows the owner to retrieve audit information stored in the washer by pressing a sequence of keypads on the control. For an explanation of the audit options available, refer to *Table 3*.

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 the Manual Mode to start. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until "AUdt" appears in the Four-Digit Display.

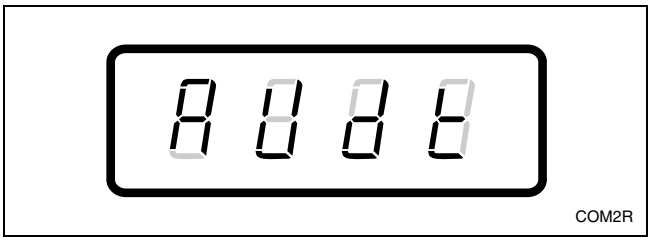

Figure 71

3. Press the START (enter) keypad. "C1" will appear in the Four-Digit Display.

Entering the Audit Feature with the Coin Vault Open

1. Open coin vault.

NOTE: The service door must be closed on machines with controls that have software version "S003" or higher.

2. Press START (enter) keypad.

How to Read Audit Data

1. Use the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through various options until the desired option is displayed in the Four-Digit Display. Refer to the Audit Options List for an explanation of the audit options available.

Audit Options List	
Four-Digit Display	**Description**
C1	Total Number of Coins #1
C2	Total Number of Coins #2
CyC	Total Number of Machine Cycles
SP	Total Number of Start Pulses

Table 3

2. Once the desired option appears in the Four-Digit Display, press the START (enter) keypad to start the audit count. At this point, the display will show the four-digit audit value.
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 – 3.

How to Exit Audit Feature When Using Manual Mode

1. Be sure the control shows an audit option, not a value.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The control will return to the previous mode of operation.

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

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Testing Machine and MDC Functions

This feature allows the owner to run diagnostic tests on various washer operations without servicing the washer. The following tests are available:

- Show Fill Time Test
- Show Drain Time Test
- Temp Sensor Display Test

How to Enter Testing Feature

1. Control must be in Manual Mode. Refer to ***Entering the Manual Mode***.
2. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad until “dIAg” appears in the Four-Digit Display.
3. Press the START (enter) keypad. Display will change to “d001”.
4. Press the DELICATES 30 (∧) or the PREWASH (∨) keypad to scroll through the diagnostic test options.

How to Start Tests

To start a diagnostic test, refer to *Table 4*. Press the START (enter) keypad when the desired test number is displayed. For detailed information on each test, read the appropriate description on the following page.

How to Exit Testing Feature

While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The display will return to the previous mode of operation.

Diagnostic (Testing) Mode – Quick Reference Table

Test Number	Diagnostic Mode	Four-Digit Display
d001	Show Fill Time Test	FXXX
d002	Show Drain Time Test	dXXX
d003	Temp Sensor Display Test	CXXX

Table 4

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Diagnostic Test Descriptions

Show Fill Time Test

This test will display the average fill time. The average will be calculated by taking the average of the last four fill times.

To start test, control must be in the Testing Mode. Refer to ***How to Start Tests*** at the beginning of this section.

To enter, press the START (enter) keypad. The Four-Digit Display will show “FXXX”. The “XXX” will be the average fill time in minutes and seconds for that machine.

To exit the Show Fill Time Test, press and hold the NORMAL 90 keypad with one hand, then press the NORMAL 60 keypad with the other hand. The control will return to the previous mode of operation. Refer to *Figure 2*.

Show Drain Time Test

This test will display the average drain time. The average will be calculated by taking the average of the last four drain times.

To start test, control must be in the Testing Mode. Refer to ***How to Start Tests*** at the beginning of this section.

To enter, press the START (enter) keypad. The Four-Digit Display will show “dXXX”. The “XXX” will be the average drain time in minutes and seconds for that machine.

To exit the Show Drain Time Test, press and hold the NORMAL 90 keypad with one hand, then press the NORMAL 60 keypad with the other hand. The control will return to the previous mode of operation. Refer to *Figure 2*.

Temperature Sensor Display Test

This test will display the temperature sensed at the temperature sensor in degrees Celsius. If the control senses a shorted sensor, it will display “SH”. If the control senses an open sensor, it will display “OP”.

To start test, control must be in the Testing Mode. Refer to ***How to Start Tests*** at the beginning of this section.

To enter, press the START (enter) keypad. The Four-Digit Display will show “CXXX”. The “XXX” will be degrees Celsius.

To exit the Temperature Sensor Display Test, press and hold the NORMAL 90 keypad with one hand, then press the NORMAL 60 keypad with the other hand. The control will return to the previous mode of operation. Refer to *Figure 2*.

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Production Test Cycle

To Enter Production Test Cycle

1. Be certain control is in Ready Mode and access panel or coin vault is open.
2. While pressing and holding the NORMAL 60 keypad with one hand, press the DELICATES 30 keypad with the other hand.
3. When the control enters the Production Test Cycle, it will first display “SXXX” with the “XXX” showing the software version of the control.
4. The control will advance through the sequence of test steps whenever the NORMAL 60 keypad is pressed, with the exception of the Keypad Test. Refer to Production Test Quick Reference Chart on following page for all tests in the Production Test Cycle.

To Exit Production Test Cycle

Pressing the NORMAL 60 keypad at the final step (Breakaway) will return the control to Ready Mode. If the control is left in the breakaway step, it will exit the test when the door is unlocked. If the control is powered down, the test will be exited.

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Production Test Cycle Quick Reference Chart		
Display	**Test Mode**	**Comments**
SXXX	Software Version	XXX is the software version number.
All LEDs and display segments will light	Show Mode	When PERM PRESS 60 keypad is pressed, the test will advance to the next step.
PAdX	Keypad Test	When a key is pressed, the control will display the number assigned to the keypad (1 – NORMAL 90, 2 – NORMAL 40, 3 – DELICATES 30, 4 – NORMAL 60, 5 – PERM PRESS 60, 6 – PREWASH, 7 - START). As each keypad is pressed, its corresponding LED will be lit and remain on for the duration of the test. When all keypads have been pressed, the control will advance to Door Switch Test step.
drOP or drCL	Door Switch Test	"drOP" is displayed when loading door is open. "drCL" is displayed when loading door is closed.
drLO or drUL	Door Lock Test	When step is entered, control will lock door and will then check to make sure door is locked. "drLO" is displayed if door is locked. "drUL" is displayed if door is unlocked.
U XX	Coin Vault Test	XX is the number of coin vault openings.
S XX	Service Door Test	XX is the number of service door openings.
CXCX	Coin Drop Input Test	X is the number of coins entered. Coin drop #1 is shown on the left of the display and coin drop #2 is shown on the right of the display.
CLdE	Cold/Detergent Fill	Cold water fill valve and detergent/bleach valve are turned on.
HoSF	Hot/Softener Fill	Hot water fill valve and softener valve are turned on.
PSL	Pressure Switch Low	All water valves are turned on. When the pressure switch low level is satisfied, the water valves are turned off. The control will not advance to next step until pressure switch low level is satisfied and NORMAL 60 keypad is pressed.
CXXX	Heater	Heater is turned on. XXX is temperature in degrees Celsius. Test will advance to next step when NORMAL 60 keypad is pressed. If temperature sensor is open, display will show "OP". If temperature sensor is shorted, display will show "SH". Heater will turn off when 40° Celsius is reached.
PSH	Pressure Switch High	All water valves are turned on. When the pressure switch high level is satisfied, the water valves are turned off. The control will not advance to next step until pressure switch high level is satisfied and NORMAL 60 keypad is pressed.
OFLo	Overflow Test	All water and dispenser valves are turned on. When the overflow level is reached the water valves are turned off.
LoAg	Low Agitate	Machine enters low agitate.
rEAg	Regular Agitate	Machine enters regular agitate.
PunP or drAI	Pump/Gravity Drain Test	Pump is turned on or gravity drain is opened. The control will not advance to next step until pressure switch is closed indicating drum is empty and NORMAL 60 keypad is pressed.
Step Time in Minutes*	Clothes Spin	The control runs a spin step. The drum will ramp up to 650 RPM for 4 minutes then 1000 RPM for 1 minute. The control will advance to the next step when finished.

Table 5 (continued)

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Table 5 (continued)

Production Test Cycle Quick Reference Chart		
Display	**Test Mode**	**Comments**
UnLo*	Unlock Door	Door Lock is unpowered. The door will take approximately 1 minute to unlock. The motor will run at Regular Agitate speed. The control will remain in this step until the door unlocks.
LoAd*	Load Weight	The control will remain in this step until the loading door is closed and the NORMAL/60 keypad is pressed.
LoAd*	Lock Door	Door Lock is powered. Machine will remain in this step until door is locked.
RPM speed displayed	Spin Test	Machine steps through all spin speeds for 30 seconds at each speed. Speeds are 90, 500, 650, and 1000 RPM. After 1000 RPM step, motor will stop.
brAy	Breakaway	Motor runs at regular agitate speed until door is unlocked. When door unlocks, control will exit test.

* These test steps are only on controls with software versions “S003” or higher.

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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 from Ready Mode

1. If control is in Ready Mode, control must be put into Manual Mode. Refer to ***Entering the Manual Mode.***
2. Press the START (enter) keypad. The Four-Digit Display will display “PFIL” or “UFIL” for three seconds and then the cycle time will be displayed (the desired cycle or prewash setting must be selected).
3. Press the START (enter) keypad to start cycle.

NOTE: If the Rapid Advance feature is attempted while the door is open, the Four-Digit Display will show “door” until the door is closed.

How to Enter Rapid Advance During an Active Cycle

1. Be certain service door is open and coin vault is closed.
2. While pressing and holding the NORMAL 90 keypad with one hand, press the NORMAL 60 keypad with the other hand. The Four-Digit Display will show “rAPd”.
3. Press the START (enter) keypad.

How to Use Rapid Advance

While in the Rapid Advance feature, pressing the START (enter) keypad will advance the washer to the next cycle step. The Four-Digit Display will show which cycle step the washer is in for three seconds and will then show the cycle time remaining. Refer to *Table 6* for cycle steps.

NOTE: When the Rapid Advance feature is used to end a cycle, the loading door will stay locked for one minute after the cycle has ended.

Four-Digit Display	Cycle Step
PFIL	Prewash Fill/Agitate Cycle Step
PdIS	Prewash Distribute Cycle Step
PSPI	Prewash Pulse Spin Cycle Step
UFIL	Wash Fill/Agitate Cycle Step
UdIS	Wash Distribute Cycle Step
USPI	Wash Pulse Spin Cycle Step
rFIL	Rinse Fill/Agitate Cycle Step
rdIS	Rinse Distribute Cycle Step
rSPI	Rinse Pulse Spin Cycle Step
EFIL	Extra Rinse Fill/Agitate Cycle Step
EdIS	Extra Rinse Distribute Cycle Step
ESPI	Extra Rinse Pulse Spin Cycle Step
FFIL	Final Fill/Agitate Cycle Step
FdIS	Final Distribute Cycle Step
FSPI	Final Pulse Spin Cycle Step
SPIn	Final High Spin Cycle Step
brAy	Breakaway Cycle Step

Table 6

Continue pressing the START (enter) keypad until the cycle is completed.

How to Exit Rapid Advance Feature

Advance through the cycles until reaching the Ready Mode.

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Default Washer Settings

Default Settings

Default Settings	Default
Vend Price	100
Coin #1 Value	25
Coin #2 Value	100
Start Pulse Value	100
NORMAL 40 Cycle Parameters	
Prewash Fill/Agitate Time	4 minutes
Wash Fill/Agitate Time	6 minutes
Rinse Fill/Agitate Time	2 minutes
Extra Rinse Fill/Agitate Time	2 minutes
Final Rinse Fill/Agitate Time	2 minutes
Control Configuration	60
Cool Down	ON
Heater	ON
Audio Signal	ON
Error Mode	ON
Coin Drop #1	Coin Drop #1
Pump/Gravity Drain	Pump

Default Cycle

The PERM PRESS 60 cycle is the default cycle and is programmed in at the factory. This cycle can be made longer or shorter by reprogramming the cycle times. Refer to ***Programming MDC*** to change these times. The default cycle can be changed from PERM PRESS 60 to another cycle. Refer to ***Programming MDC, option 31,*** to change the default cycle.

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