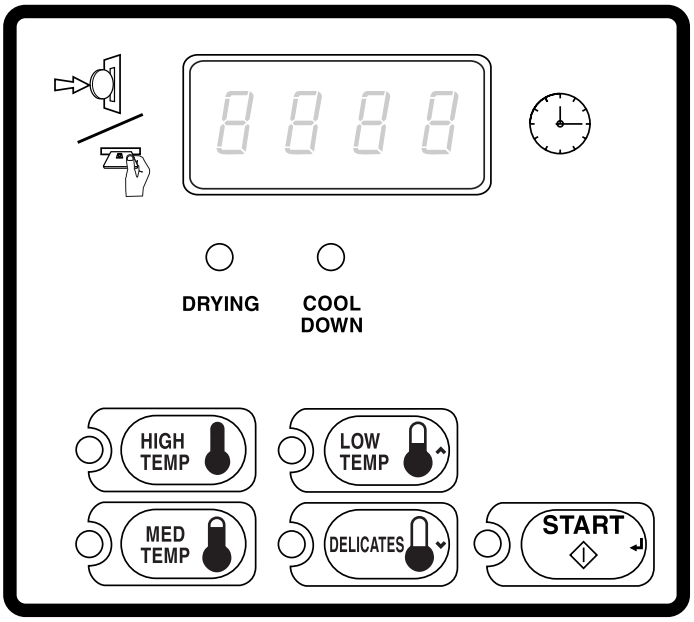
MDC

Dryer

Refer to Page 4 for Model Identification

Programming



DRY543R

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

Part No. 511506R7
July 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 dryers. These factors MUST BE supplied by the person(s) installing, maintaining, or operating the dryer.

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 dryer models:

BFEL07	HFEY07	HTGY19	SDGZ09	SSGX19
BFEX07	HFGX09	HTGY79	SFEL07	SSGY09
BTEL15	HSER17	HTGZ19	SFEL67	SSGY19
BTEL17	HSET17	NFEL47	SFET07	SSGZ09
BTEL75	HSEX17	NFEL67	SFEX07	SSGZ19
BTEL77	HSEY17	NFEX07	SFEX67	STET17
BTEX15	HSEZ17	NFGL49	SFEY07	STET77
BTEX17	HSGR19	NFGX09	SFEZ07	STEX17
BTEX75	HSGT19	NTEL17	SFGL09	STEX77
BTEX77	HSGX19	NTEL77	SFGT09	STEY17
HDER07	HSGY19	NTEX17	SFGX09	STEY77
HDET07	HSGZ19	NTEX77	SFGY09	STEZ17
HDEX07	HTET17	NTGL19	SFGZ09	STGT19
HDEY07	HTET77	NTGL79	SSET07	STGT79
HDEZ07	HTEX17	NTGX19	SSET17	STGX13
HDGR09	HTEX77	NTGX79	SSEX07	STGX19
HDGT09	HTEY17	SDET07	SSEY07	STGX73
HDGX09	HTEY77	SDEX07	SSEY17	STGX79
HDGY09	HTEZ17	SDEY07	SSEZ07	STGY19
HDGZ09	HTGT19	SDEZ07	SSEZ17	STGY79
HFEL47	HTGT79	SDGT09	SSGT09	STGZ19
HFEL67	HTGX19	SDGX09	SSGT19	
HFEX07	HTGX79	SDGY09	SSGX09	

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Preliminary Information

About the Control

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

MDC allows the owner to program cycles, set vend prices, retrieve audit information and run diagnostic tests. Dryers shipped from the factory have a default cycle built in. For software versions less than "S003," the default cycle is LOW TEMP. For software version "S003" or higher, the default cycle is MED TEMP.

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 dryer has a positive ground and that all mechanical and electrical connections to MDC are made before applying power to or operating the dryer.

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 power is restored in less than four seconds, the dryer will automatically resume the cycle. If the length of the power failure is greater than four seconds, the user must press the START keypad to resume the cycle.

Card Reader Communications

Card Models Only

The control will communicate with a third party card reader, available at extra cost from various card reader manufacturers. Contact the card reader manufacturer of your choice for availability and additional information.

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MDC Identification

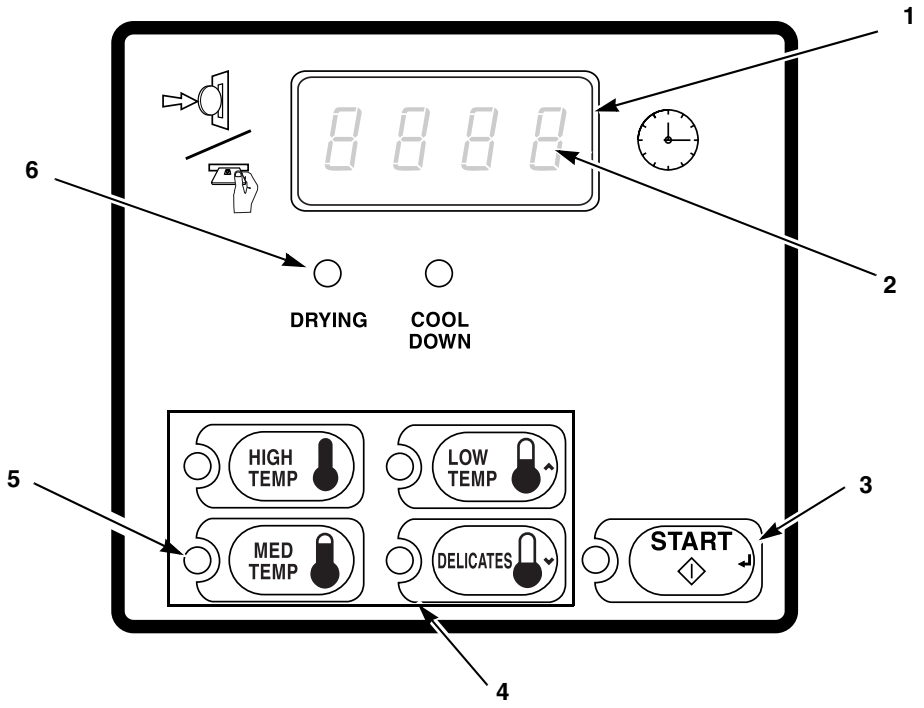
SELECT CYCLE Keypads

SELECT CYCLE keypads are used to select the specific dryer cycle. These keypads include HIGH TEMP, MED TEMP, LOW TEMP, and DELICATES. The selection of one of these keypads will light up the corresponding LED. For software versions less than "S003," the default cycle is LOW TEMP. For software version "S003" or higher, the default cycle is MED TEMP.

START Keypad

The START keypad is used to start the dryer after the full vend price has been satisfied and the dryer door is closed.

Both the START keypad and the SELECT CYCLE keypads are used in various combinations for programming cycles, retrieving audit information, running diagnostic tests, and other operations described in ***Entering the Manual Mode***. During an active cycle (card reader equipped machines only), the START keypad may be pressed (with a card inserted) to add time to a cycle.



DRY543R

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

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 dryer is not in a cycle, the full vend price has been satisfied, and the dryer door is closed. When the START keypad is pressed, the cycle will begin or resume. The START LED will shut off when the START keypad is pressed. The START LED will also flash any time a card is inserted to add time to the current cycle.

DRYING LED

The DRYING LED is lit to indicate that a heated portion of a cycle is currently in operation. The DRYING LED goes off when the COOL DOWN cycle begins.

COOL DOWN LED

The COOL DOWN LED is lit whenever the COOL DOWN portion of a cycle or a no heat cycle is active. The COOL DOWN LED will shut off when a cycle ends or if enough time is added to push the cycle back into the heated portion of a cycle.

Four 7-Segment Digits

The 7-SEGMENT DIGITS are used to display the time remaining in a cycle, vend price, error messages and descriptive codes. 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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Dryer Operation

Start Up

When power is applied to the dryer, 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

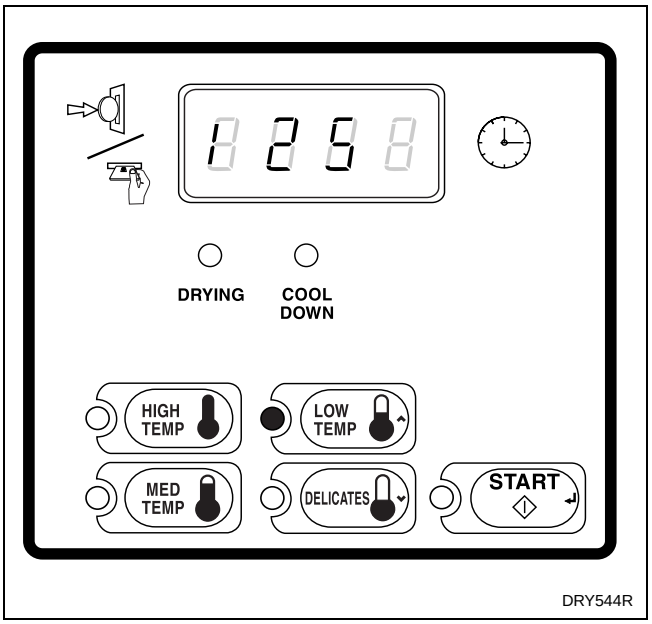

Figure 2

In Ready Mode, the default cycle LED is lit, and the full vend price is displayed as left justified.

NOTE: For software versions less than “S003,” the default cycle is LOW TEMP. For software version “S003” or higher, the default cycle is MED TEMP.

The user may select a different cycle, if desired. (In card reader machines, if the selected cycle has a vend price which differs from the default cycle, the display will be updated to show the new price.) If another cycle is selected, the control will flash the amount needed to satisfy the vend shown on the display. If the vend price is not satisfied within one minute, the dryer control will stop flashing the vend price and return to the Ready Mode. The display will continue to show the remaining vend needed to start a cycle.

Vends may be satisfied by a coin drop, start pulses, or by a third party card reader. 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 is satisfied, the START LED will begin to flash and signal will sound for ten seconds. If a third party card reader is used, the START LED will begin to flash when a valid cash card is entered into the reader.

When the START keypad is pressed, the dryer will start. The START LED will stop flashing and either the DRYING LED or the COOL DOWN LED will be lit. The display will change to show the remaining cycle time on the right side of the display. The DRYING LED will be lit during the heat portion of a heat cycle. The COOL DOWN LED will be lit during the cool down portion of a heat cycle and during an entire no heat cycle.

When a cycle is complete, the Four-Digit Display will show “00” until the door is opened, a key is pressed, a coin or card is entered, or a start pulse is received. When the door is opened, the Four-Digit Display will revert back to the Ready Mode.

Entering Coins

Coins are entered to satisfy the programmed vend price for a selected cycle. Coins may be entered before selecting a cycle or during an active cycle. When coins are entered during an active cycle, the time remaining is increased by the amount programmed by the owner (refer to ***Programming MDC***).

The owner may choose to add additional time for each coin entered. If coins are entered for an active cycle currently in the COOL DOWN Mode, coins entered may push the cycle back into the DRYING Mode. The maximum time for any cycle is 99 minutes.

OPL/Free Vend Mode

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

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Entering Cards

A card is entered to satisfy the programmed vend price for a selected cycle. The card may be entered before selecting a cycle or during an active cycle. When the card is entered during an active cycle and the START keypad is pressed, the time remaining is increased by the amount programmed by the owner. Refer to ***Programming MDC*** section.

The owner may choose to add additional time by deducting a vend from the card or may require an additional full vend price be deducted from the card. If vend is deducted during an active heated cycle that is currently in the COOL DOWN Mode, the additional time added may put the cycle back into the DRYING Mode. The maximum time for any cycle is 99 minutes. Additional time cannot be added if it exceeds the 99 minute limit on a drying cycle.

Changing Active Cycles

In non-card reader machines, the active cycle may be changed at any time during dryer operation. In card reader machines, the active cycle may only be changed if the vend price for all four cycle types is the same. If the price differs for at least one of the cycles (tiered pricing), the cycle type is locked in when the cycle is started.

Opening the Dryer Door

Opening the dryer door in a running cycle will automatically stop the cycle. When the dryer door is opened, the DRYING LED or COOL DOWN LED is turned off.

NOTE: When the door is opened during an active cycle, the time will continue to count down and the Four-Digit Display will toggle every five seconds between showing "door" and the remaining cycle time.

Once the dryer door is closed, the START pad LED flashes at one second intervals until the START pad is pushed. Pressing the START pad will start or resume the active cycle.

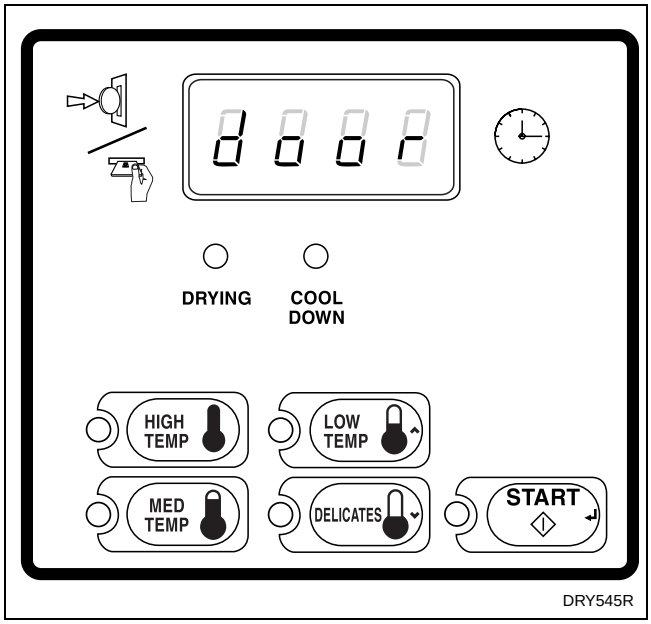

Figure 3

Signals

There are three instances when a signal may sound during dryer operation. The owner may program the signal to be turned on or off (refer to ***Programming MDC, option 16***). 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/Start Pulse Input/Card Insertion Signal**

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

3. **Open/Shorted Thermistor Error**

   If an open or shorted thermistor is detected and the Errors Mode is programmed on, the signal will sound for up to 15 seconds.

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MDC Special Features

Programming MDC

MDC allows the dryer owner to program special features with the use of the keypads. 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 dryer 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, total cycles, and total top-offs performed.

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 dryer 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 (coin vault must be closed):

- Dryer-On Temperature Test
- Thermistor Temperature Test
- Configuration Display
- 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 dryer cycle or advance into a cycle from the Ready Mode. This feature is useful when tests must be performed immediately on a dryer in an active cycle. In this case, the user can quickly advance the cycle to the end, perform the required tests, and return the dryer 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 single or dual coin drop to satisfy vend price. Each 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 and closed coin vault, combined with various keypad presses allows the control to enter manual modes of operation. These modes include Manual Programming, Audit Collection, and Diagnostics.

Opening the coin vault and pressing the START (enter) keypad allows owner to access the audit information. For detailed information on audit features, refer to ***Collecting Audit Information***.

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Opening the Service Door

Stacked Washers and Dryers, Stacked Dryers, Front Control Dryers, and Coin Rear Control Dryers

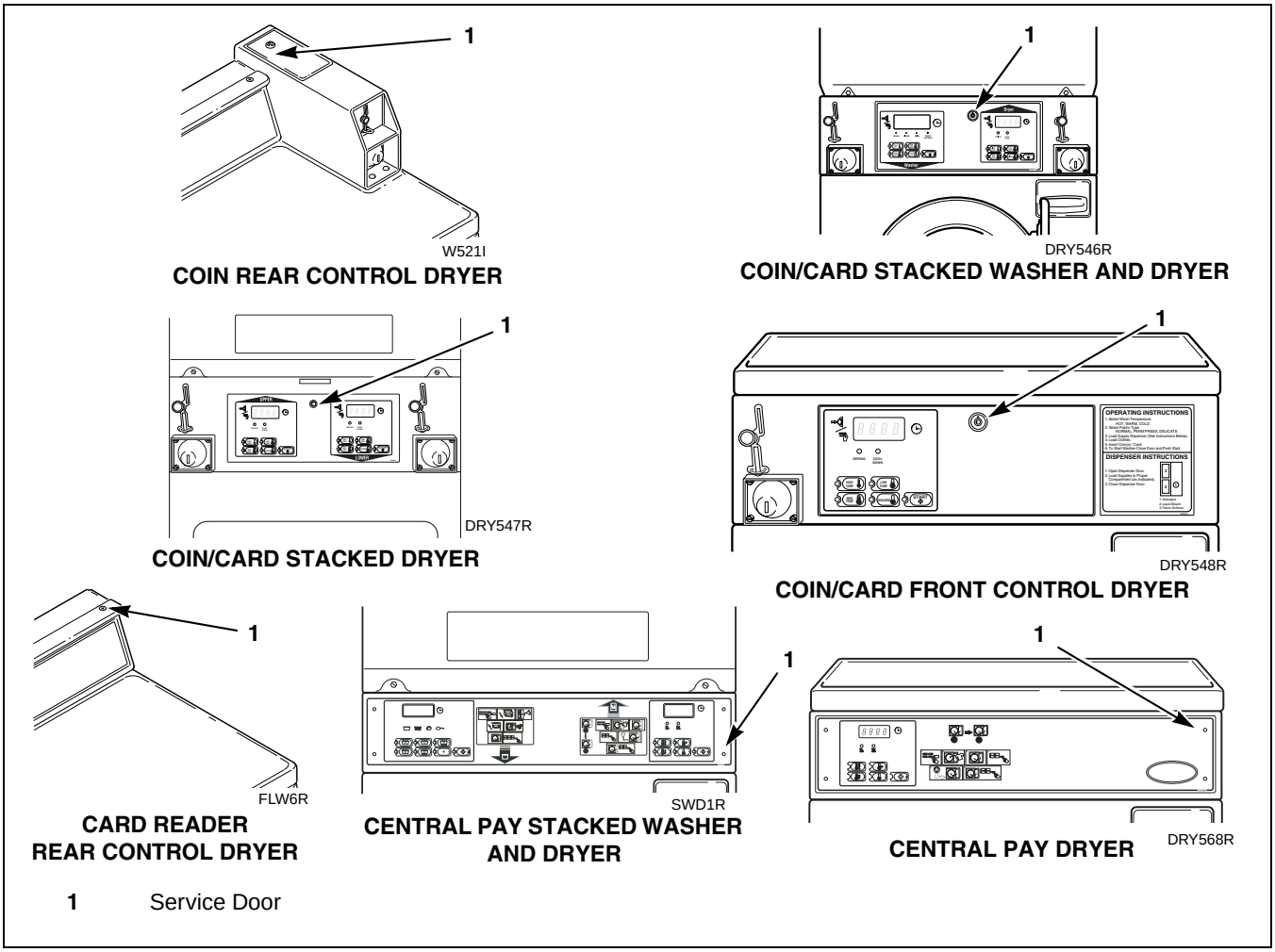
Manually programming MDC requires the user to open and close the service door. Opening and closing the service door trips a switch allowing access to various programming options, diagnostics, and audit capabilities. The coin drawer switch must be closed to enter the Manual Mode.

On stacked dryers, stacked washers and dryers, and front control dryers, the service door is located in the control panel. On rear control dryers, the service door is located on the top of the meter case. Refer to *Figure 4*.

After opening and closing the service door, the programmer has 4.25 minutes to enter Manual Mode. If Manual Mode has not been entered in that time, the control will deny access to Manual Mode. The user will then have to open the service door again for the control to permit access to Manual Mode.

Rear Control Dryers Prepped for Card Reader, Central Pay Dryers and Stacked Washers and Dryers

Manually programming MDC requires the user to open the service door and unplug the bullet connector located between the “white/black” and “red/blue” wires or to insert an appropriate card into the reader (card reader models). This will allow the user to access various programming options, diagnostics and audit capabilities. The service door is located on the top of the meter case or in the control panel. Refer to *Figure 4*.



1 Service Door

Figure 4

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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 six simple steps below.

How to Enter the Manual Mode

1. Check the mode of operation for the machine. Manual Mode cannot be accessed in End of Cycle Mode.
2. Open the service door. Refer to ***Opening the Service Door***. The coin drawer must be closed.
3. While pressing and holding the HIGH TEMP keypad with one hand, press the MED TEMP keypad with the other hand.
4. The Four-Digit Display will show “rAPd”.

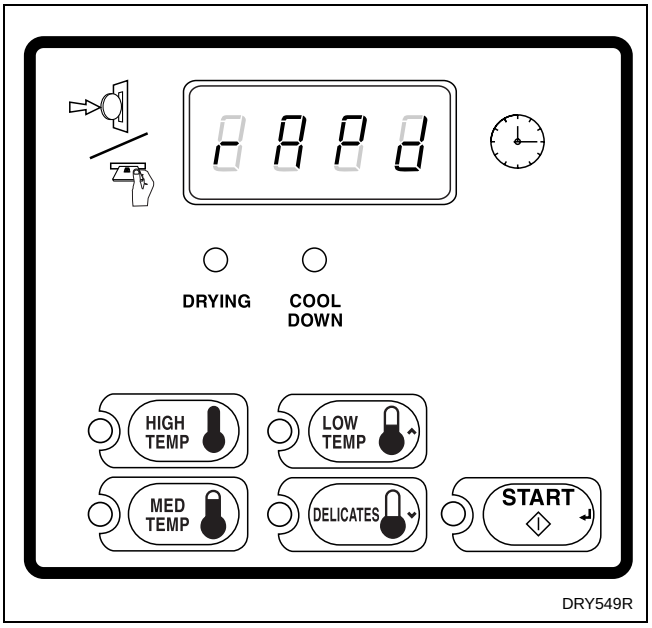

Figure 5

5. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to scroll through the options until the desired option appears in the display.
6. Press the START (enter) keypad.

There are four special features that MDC can enter through Manual Mode. These features are:

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

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 options available for programming.

NOTE: Options listed in boldface type are available on software version "S003" and higher.

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 letters in the Option column of the Programmable Options List are what will show in the Four-Digit Display when that option is selected.

Programmable Options Available

Option	Description
AtS	Vend Price
dEn1	Coin # 1 Amount
dEn2	Coin #2 Amount
PLSE	Start Pulse Value
CyCL	Cycle Time (Minutes)
CyCS	**Cycle Time (Seconds)***
Cd	Cool Down Time
C1tO	Coin #1 TopOff Time (Minutes Per Coin)
1toS	**Coin #1 TopOff Time (Seconds Per Coin)***
C2tO	Coin #2 TopOff Time (Minutes Per Coin)
2toS	**Coin #2 TopOff Time (Seconds Per Coin)***
HI t	High Temperature
nd t	Medium Temperature
LO t	Low Temperature
dELt	Delicate Temperature
CnFg	Configuration Value
dCyC	**Default Cycle**

* Minutes/Seconds must be enabled to see these options. Refer to ***Configuration Display "CnFg"*** section on configuration value.

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1. Vend Price “AtS”

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 LOW TEMP (∧) or the DELICATES (∨) keypad until “PrOg” appears in the Four-Digit Display.

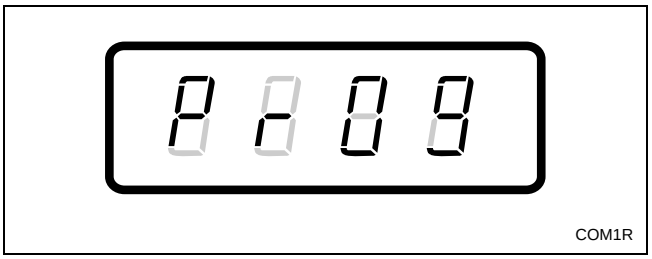

Figure 6

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

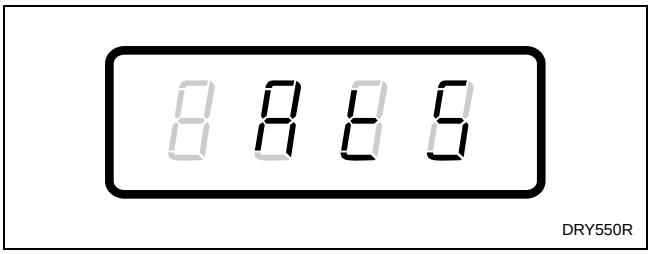

Figure 7

5. When “AtS” 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.

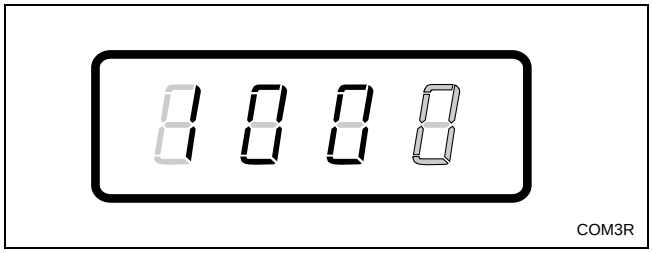

Figure 8

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

6. Press the LOW TEMP (∧) or the DELICATES (∨) 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, “dEn1”, will appear in the Four-Digit Display.

NOTE: To program “dEn1” (Coin #1 Amount), 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 HIGH TEMP keypad with one hand, press the MED TEMP keypad with the other hand. The control will revert back to the previous mode of operation.

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2. Coin #1 Amount “dEn1”

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

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

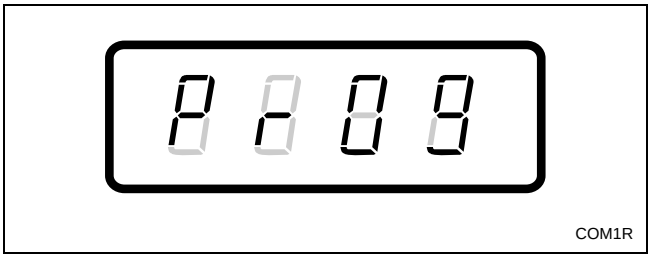

Figure 9

3. Press the START (enter) keypad and “AtS” will appear in the Four-Digit Display.
4. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to scroll through the programmable options until “dEn1” appears in the Four-Digit Display.

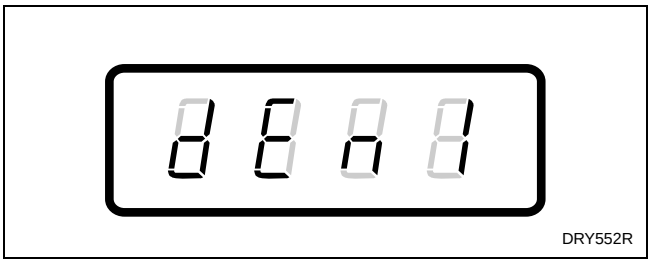

Figure 10

5. When “dEn1” appears in the Four-Digit Display, press the START (enter) keypad. There are four digits in Coin #1 Amount, and the fourth digit will become the active digit. The active digit will flash one second on and one second off.

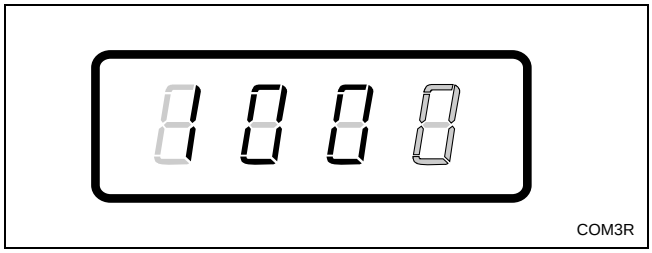

Figure 11

NOTE: The coin amount can be set from 0 to 9999.

6. Press the LOW TEMP (∧) or the DELICATES (∨) 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 amount will be saved into the memory. The next option, “dEn2”, will appear in the Four-Digit Display.

NOTE: To program “dEn2” (Coin #2 Amount), 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 HIGH TEMP keypad with one hand, press the MED TEMP keypad with the other hand. The control will revert back to the previous mode of operation.

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3. Coin #2 Amount “dEn2”

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

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

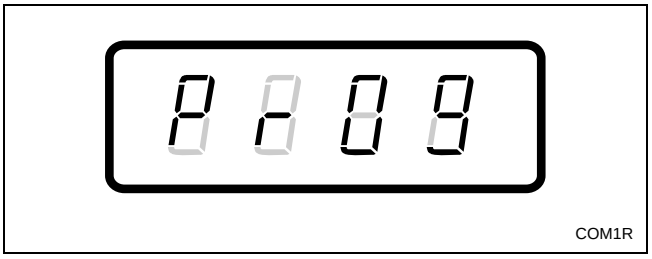

Figure 12

3. Press the START (enter) keypad and “AtS” will appear in the Four-Digit Display.
4. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to scroll through the programmable options until “dEn2” appears in the Four-Digit Display.

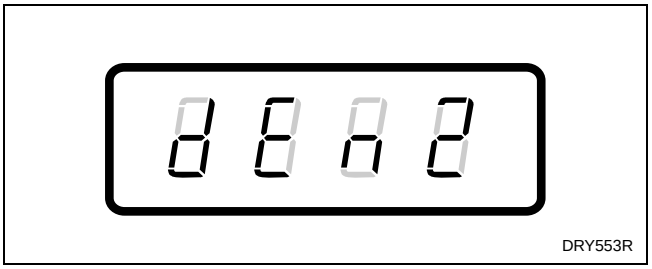

Figure 13

5. When “dEn2” appears in the Four-Digit Display, press the START (enter) keypad. There are four digits in Coin #2 Amount, and the fourth digit will become the active digit. The active digit will flash one second on and one second off.

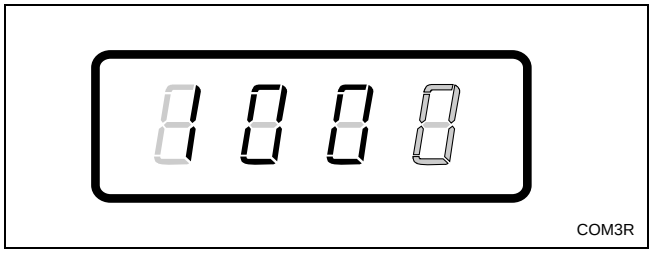

Figure 14

NOTE: The coin amount can be set from 0 to 9999.

6. Press the LOW TEMP (∧) or the DELICATES (∨) 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 amount will be saved into the memory. The next option, “PLSE”, will appear in the Four-Digit Display.

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

How to Exit Programming Feature

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

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4. Start Pulse Value “PLSE”

This option allows the owner to program the value of the start pulse used 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 LOW TEMP (∧) or the DELICATES (∨) keypad until “PrOg” appears in the Four-Digit Display.

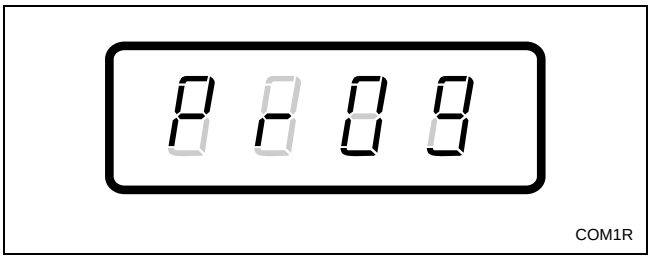

Figure 15

3. Press the START (enter) keypad and “AtS” will appear in the Four-Digit Display.
4. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to scroll through the programmable options until “PLSE” appears in the Four-Digit Display.

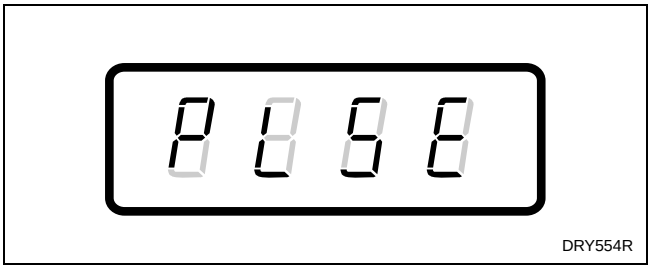

Figure 16

5. When “PLSE” 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.

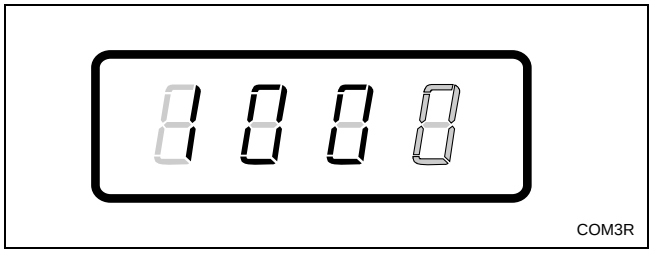

Figure 17

NOTE: The start pulse can be set from 0 to 9999.

6. Press the LOW TEMP (∧) or the DELICATES (∨) 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, “CyCL”, will appear in the Four-Digit Display.

NOTE: To program “CyCL” (Cycle 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 HIGH TEMP keypad with one hand, press the MED TEMP keypad with the other hand. The control will revert back to the previous mode of operation.

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5. Cycle Time “CyCL”

This option allows the owner to set the amount of time in minutes for all cycles.

How to Program Cycle Time

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

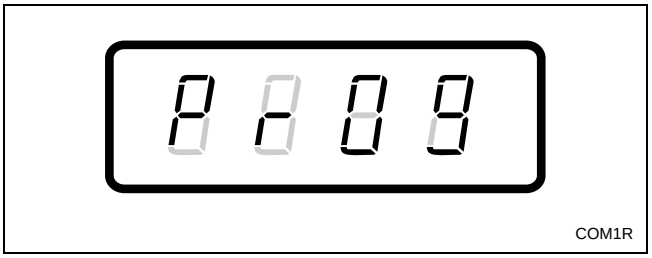

Figure 18

3. Press the START (enter) keypad and “AtS” will appear in the Four-Digit Display.
4. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to scroll through the programmable options until “CyCL” appears in the Four-Digit Display.

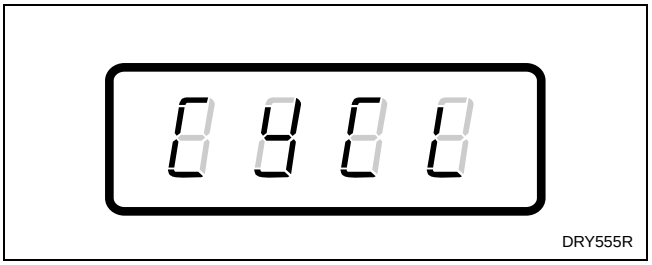

Figure 19

5. When “CyCL” appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for Cycle Time will appear in the Four-Digit Display.
6. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: The cycle time can be set from 1 to 99 minutes. The control will not allow the cycle time to exceed 99 minutes.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option will appear in the Four-Digit Display. (If seconds are enabled, “CyCS” will appear in the Four-Digit Display. If seconds are not enabled, “Cd” will appear in the Four-Digit Display.)

NOTE: To program “CyCS” (Cycle Time [Seconds]), refer to option 6. To program “Cd” (Cool Down 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 HIGH TEMP keypad with one hand, press the MED TEMP keypad with the other hand. The control will revert back to the previous mode of operation.

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6. Cycle Time “CyCS” (Seconds)

NOTE: This option is available on software version “S003” or higher only.

This option allows the owner to program an amount of time in seconds, which will be in addition to the amount of time in minutes, for all cycles. This option is only available if “seconds” is enabled in Configuration parameter (option 16).

The total cycle time will be the sum of cycle minutes (programmed in “CyCL”) and the cycle seconds (“CyCS”).

How to Program Cycle Time

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

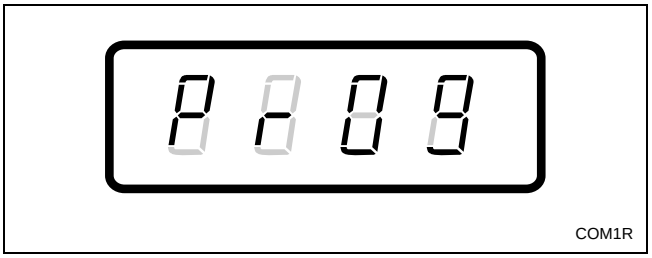

Figure 20

3. Press the START (enter) keypad and “AtS” will appear in the Four-Digit Display.
4. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to scroll through the programmable options until “CyCS” appears in the Four-Digit Display.

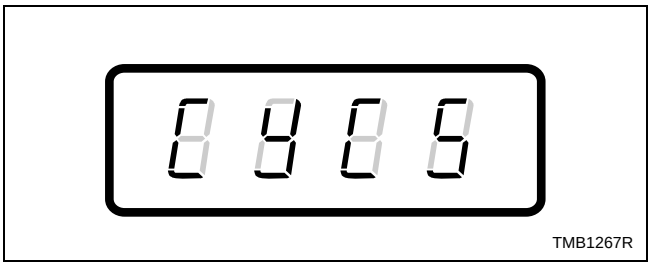

Figure 21

5. When “CyCS” appears in the Four-Digit Display, press the START (enter) keypad. The current number of seconds set for Cycle Time will appear in the Four-Digit Display.
6. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to increase or decrease the current number of seconds displayed in the Four-Digit Display to the desired number of seconds.

NOTE: The cycle time can be set from 0 to 59 seconds. The control will not allow the total cycle time to exceed 99 minutes.

7. Press the START (enter) keypad when the correct number of seconds appears in the Four-Digit Display. The next option, “Cd”, will appear in the Four-Digit Display.

NOTE: To program “Cd” (Cool Down 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 HIGH TEMP keypad with one hand, press the MED TEMP keypad with the other hand. The control will revert back to the previous mode of operation.

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7. Cool Down Time “Cd”

This option allows the owner to set the amount of cool down time in minutes for all cycles.

How to Program Cool Down Time

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

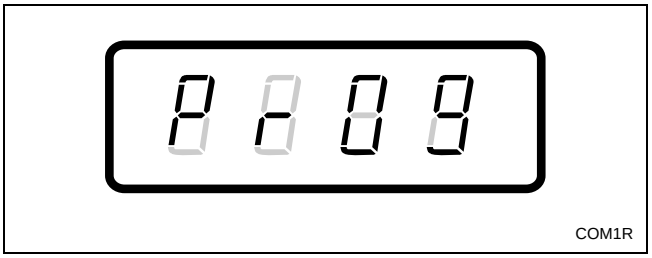

Figure 22

3. Press the START (enter) keypad and “AtS” will appear in the Four-Digit Display.
4. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to scroll through the programmable options until “Cd” appears in the Four-Digit Display.

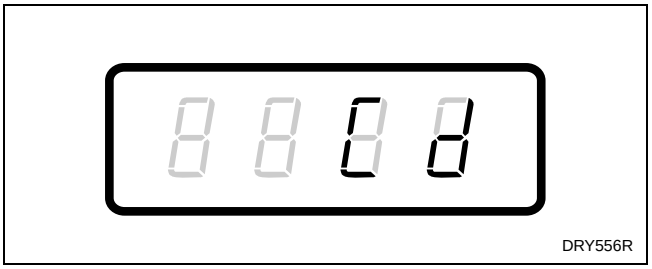

Figure 23

5. When “Cd” appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for Cool Down Time will appear in the Four-Digit Display.
6. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: The cool down time can be set from 1 to 15 minutes.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option, “C1tO”, will appear in the Four-Digit Display.

NOTE: To program “C1tO” (Coin #1 TopOff Time [Minutes Per Coin]), 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 HIGH TEMP keypad with one hand, press the MED TEMP keypad with the other hand. The control will revert back to the previous mode of operation.

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8. Coin #1 TopOff Time (Minutes Per Coin) "C1tO"

This option allows the owner to set the amount of topoff time in minutes for Coin #1 option.

How to Program Coin #1 TopOff Time (Minutes Per Coin)

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

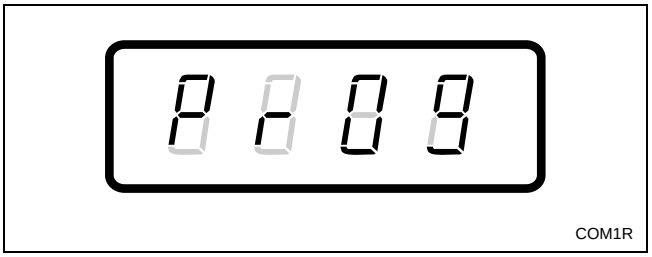

Figure 24

3. Press the START (enter) keypad and "AtS" will appear in the Four-Digit Display.
4. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to scroll through the programmable options until "C1tO" appears in the Four-Digit Display.

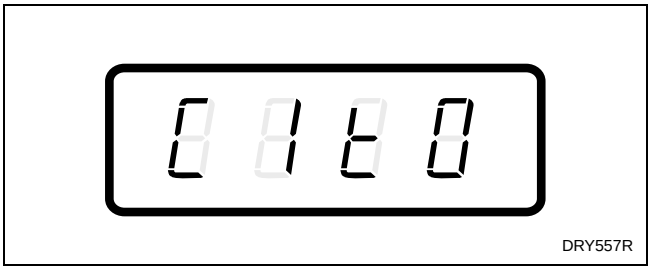

Figure 25

5. When "C1tO" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for Coin #1 TopOff Time will appear in the Four-Digit Display.
6. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: For active topoff, the coin #1 time can be set from 1 to 99 minutes. If the coin #1 topoff time is set to 0 minutes, topoff will be disabled and the user must purchase a full cycle to add time to a running cycle. The maximum amount of cycle time, including the topoff time, is 99 minutes.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option will appear in the Four-Digit Display. (If seconds are enabled, "1toS" will appear in the Four-Digit Display. If seconds are not enabled, "C2tO" will appear in the Four-Digit Display.)

NOTE: To program "1toS" (Coin #1 TopOff Time [Seconds Per Coin]), refer to option 9. To program "C2tO" (Coin #2 TopOff Time [Minutes Per Coin]), 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 HIGH TEMP keypad with one hand, press the MED TEMP keypad with the other hand. The control will revert back to the previous mode of operation.

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9. Coin #1 TopOff Time (Seconds Per Coin) "1toS"

NOTE: This option is available on software version "S003" or higher only.

This option allows the owner to program an amount of time in seconds, which will be in addition to the amount of time in minutes, for the Coin #1 TopOff Time. This option is only available if "seconds" is enabled in Configuration parameter (option 16).

The total topoff time for Coin #1 will be the sum of the topoff time in minutes ("C1tO") and seconds ("1toS").

How to Program Coin #1 TopOff Time (Seconds Per Coin)

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

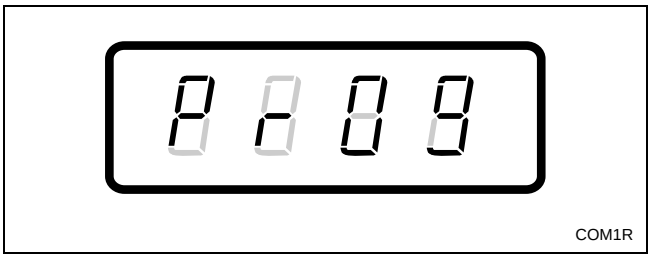

Figure 26

3. Press the START (enter) keypad and "AtS" will appear in the Four-Digit Display.
4. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to scroll through the programmable options until "1toS" appears in the Four-Digit Display.

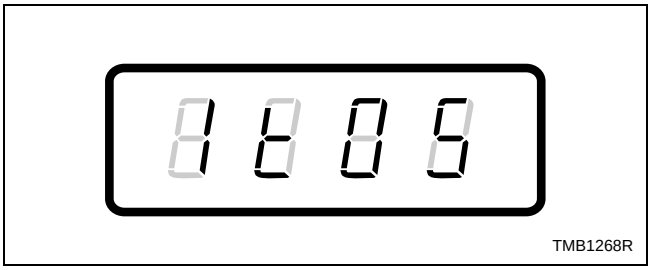

Figure 27

5. When "1toS" appears in the Four-Digit Display, press the START (enter) keypad. The current number of seconds set for Coin #1 TopOff Time will appear in the Four-Digit Display.
6. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to increase or decrease the current number of seconds displayed in the Four-Digit Display to the desired number of seconds.

NOTE: For active topoff, either the coin #1 topoff time in minutes and/or seconds must be non-zero. If both the topoff minutes and seconds are set to zero, topoff will be disabled and the user must purchase a full cycle to add time to a running cycle. The maximum amount of cycle time, including the topoff time, is 99 minutes.

7. Press the START (enter) keypad when the correct number of seconds appears in the Four-Digit Display. The next option, "C2tO", will appear in the Four-Digit Display.

NOTE: To program "C2tO" (Coin #2 TopOff Time [Minutes Per Coin]), 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 HIGH TEMP keypad with one hand, press the MED TEMP keypad with the other hand. The control will revert back to the previous mode of operation.

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10. Coin #2 TopOff Time (Minutes Per Coin) "C2tO"

This option allows the owner to set the amount of topoff time in minutes for the Coin #2 option.

How to Program Coin #2 TopOff Time (Minutes Per Coin)

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

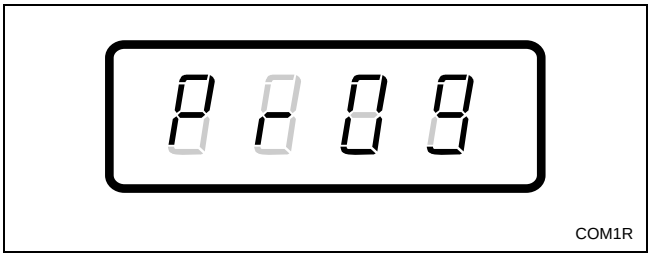

Figure 28

3. Press the START (enter) keypad and "AtS" will appear in the Four-Digit Display.
4. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to scroll through the programmable options until "C2tO" appears in the Four-Digit Display.

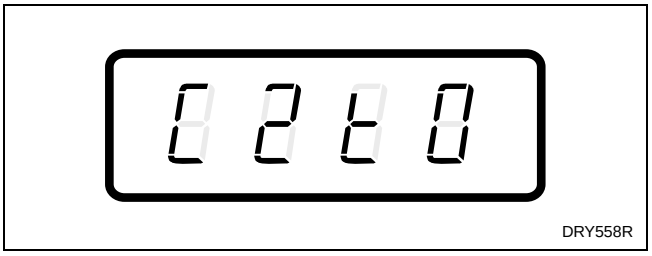

Figure 29

5. When "C2tO" appears in the Four-Digit Display, press the START (enter) keypad. The current number of minutes set for Coin #2 TopOff Time will appear in the Four-Digit Display.
6. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to increase or decrease the current number of minutes displayed in the Four-Digit Display to the desired number of minutes.

NOTE: For active topoff, the coin #2 time can be set from 1 to 99 minutes. If the coin #2 topoff time is set to 0 minutes, topoff will be disabled and the user must purchase a full cycle to add time to a running cycle. The maximum amount of cycle time, including the topoff time, is 99 minutes.

7. Press the START (enter) keypad when the correct number of minutes appears in the Four-Digit Display. The next option will appear in the Four-Digit Display. (If seconds are enabled, "2toS" will appear in the Four-Digit Display. If seconds are not enabled, "HI t" will appear in the Four-Digit Display.)

NOTE: To program "2toS" (Coin #2 TopOff Time [Seconds Per Coin]), refer to option 11. To program "HI t" (High Temperature), 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 HIGH TEMP keypad with one hand, press the MED TEMP keypad with the other hand. The control will revert back to the previous mode of operation.

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11. Coin #2 TopOff Time (Seconds Per Coin) "2toS"

NOTE: This option is available on software version "S003" or higher only.

This option allows the owner to program an amount of time in seconds, which will be in addition to the amount of time in minutes, for the Coin #2 TopOff Time. This option is only available if "seconds" is enabled in Configuration parameter (option 16).

The total topoff time for Coin #2 will be the sum of the topoff time in minutes ("C2tO") and seconds ("2toS").

How to Program Coin #2 TopOff Time (Seconds Per Coin)

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

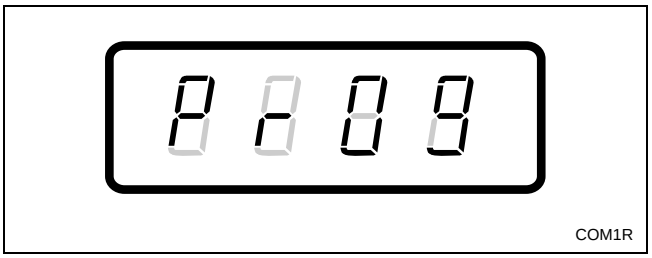

Figure 30

3. Press the START (enter) keypad and "AtS" will appear in the Four-Digit Display.
4. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to scroll through the programmable options until "2toS" appears in the Four-Digit Display.

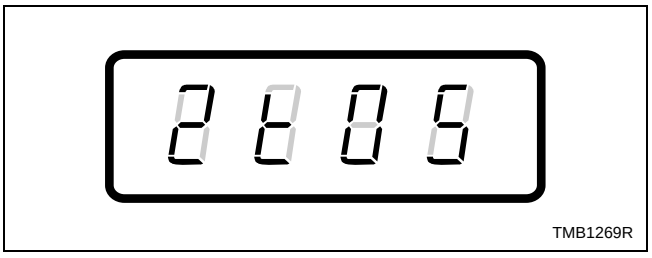

Figure 31

5. When "2toS" appears in the Four-Digit Display, press the START (enter) keypad. The current number of seconds set for Coin #2 TopOff Time will appear in the Four-Digit Display.
6. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to increase or decrease the current number of seconds displayed in the Four-Digit Display to the desired number of seconds.

NOTE: For active topoff, either the coin #2 topoff time in minutes and/or seconds must be non-zero. If both the topoff minutes and seconds are set to zero, topoff will be disabled and the user must purchase a full cycle to add time to a running cycle. The maximum amount of cycle time, including the topoff time, is 99 minutes.

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

NOTE: To program "HI t" (High Temperature), 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 HIGH TEMP keypad with one hand, press the MED TEMP keypad with the other hand. The control will revert back to the previous mode of operation.

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12. High Temperature “HI t”

This option allows the owner to set the temperature of the High Temperature cycle.

NOTE: The temperature in a dryer is programmable in 5°F increments from 100°F to 160°F (38°C to 71°C). No Heat may be programmed for any cycle.

How to Program High Temperature

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

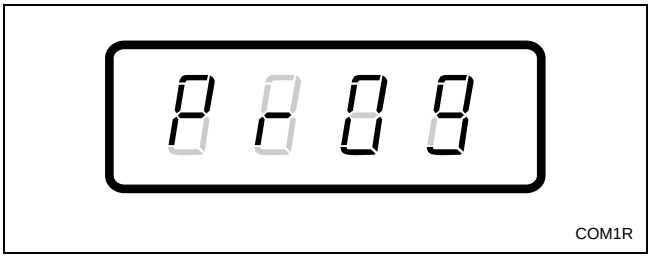

Figure 32

3. Press the START (enter) keypad and “AtS” will appear in the Four-Digit Display.
4. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to scroll through the programmable options until “HI t” appears in the Four-Digit Display.

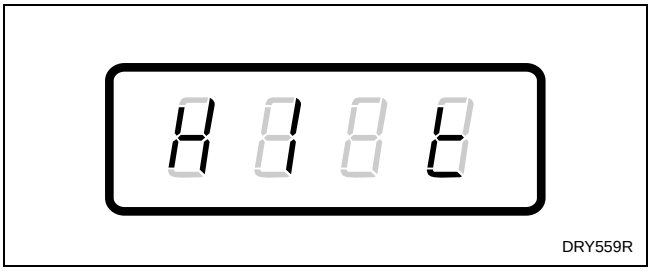

Figure 33

5. When “HI t” appears in the Four-Digit Display, press the START (enter) keypad. The current temperature set for High Temperature will appear in the Four-Digit Display.
6. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to increase or decrease the current temperature displayed in the Four-Digit Display to the desired temperature.

NOTE: Temperatures will be displayed in Fahrenheit or Celsius, depending on the programmed Configuration setting (option 16). A display of “n H” indicates a No Heat cycle.

7. Press the START (enter) keypad when the correct temperature appears in the Four-Digit Display. The next option, “nd t”, will appear in the Four-Digit Display.

NOTE: To program “nd t” (Medium Temperature), 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 HIGH TEMP keypad with one hand, press the MED TEMP keypad with the other hand. The control will revert back to the previous mode of operation.

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13. Medium Temperature “nd t”

This option allows the owner to set the temperature of the Medium Temperature cycle.

NOTE: The temperature in a dryer is programmable in 5°F increments from 100°F to 160°F (38°C to 71°C). No Heat may be programmed for any cycle.

How to Program Medium Temperature

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

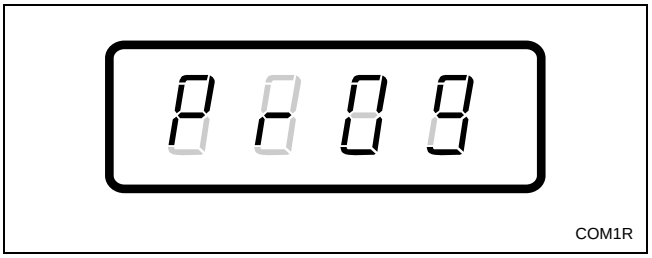

Figure 34

3. Press the START (enter) keypad and “AtS” will appear in the Four-Digit Display.
4. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to scroll through the programmable options until “nd t” appears in the Four-Digit Display.

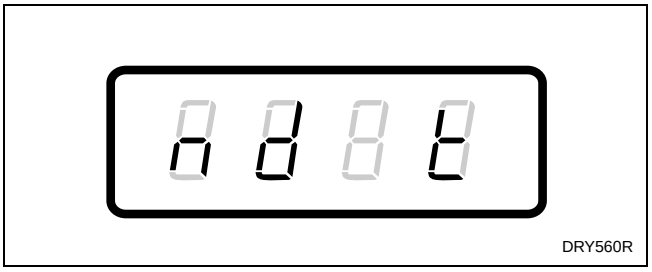

Figure 35

5. When “nd t” appears in the Four-Digit Display, press the START (enter) keypad. The current temperature set for Medium Temperature will appear in the Four-Digit Display.
6. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to increase or decrease the current temperature displayed in the Four-Digit Display to the desired temperature.

NOTE: Temperatures will be displayed in Fahrenheit or Celsius, depending on the programmed Configuration setting (option 16). A display of “n H” indicates a No Heat cycle.

7. Press the START (enter) keypad when the correct temperature appears in the Four-Digit Display. The next option, “LO t”, will appear in the Four-Digit Display.

NOTE: To program “LO t” (Low Temperature), 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 HIGH TEMP keypad with one hand, press the MED TEMP keypad with the other hand. The control will revert back to the previous mode of operation.

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14. Low Temperature “LO t”

This option allows the owner to set the temperature of the Low Temperature cycle.

NOTE: The temperature in a dryer is programmable in 5°F increments from 100°F to 160°F (38°C to 71°C). No Heat may be programmed for any cycle.

How to Program Low Temperature

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

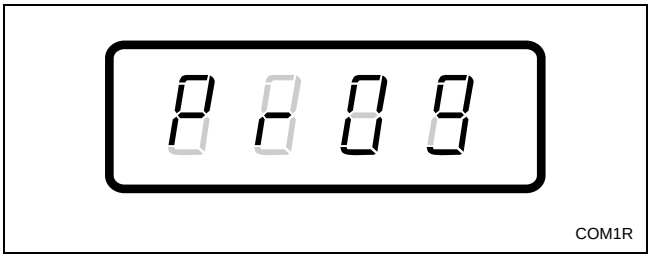

Figure 36

3. Press the START (enter) keypad and “AtS” will appear in the Four-Digit Display.
4. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to scroll through the programmable options until “LO t” appears in the Four-Digit Display.

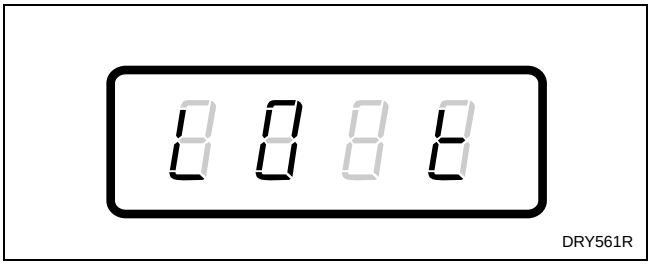

Figure 37

5. When “LO t” appears in the Four-Digit Display, press the START (enter) keypad. The current temperature set for Low Temperature will appear in the Four-Digit Display.
6. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to increase or decrease the current temperature displayed in the Four-Digit Display to the desired temperature.

NOTE: Temperatures will be displayed in Fahrenheit or Celsius, depending on the programmed Configuration setting (option 16). A display of “n H” indicates a No Heat cycle.

7. Press the START (enter) keypad when the correct temperature appears in the Four-Digit Display. The next option, “dELt”, will appear in the Four-Digit Display.

NOTE: To program “dELt” (Delicates Temperature), 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 HIGH TEMP keypad with one hand, press the MED TEMP keypad with the other hand. The control will revert back to the previous mode of operation.

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15. Delicates Temperature “dELt”

This option allows the owner to set the temperature of the Delicates Temperature cycle.

NOTE: The temperature in a dryer is programmable in 5°F increments from 100°F to 160°F (38°C to 71°C). No Heat may be programmed for any cycle.

How to Program Delicates Temperature

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

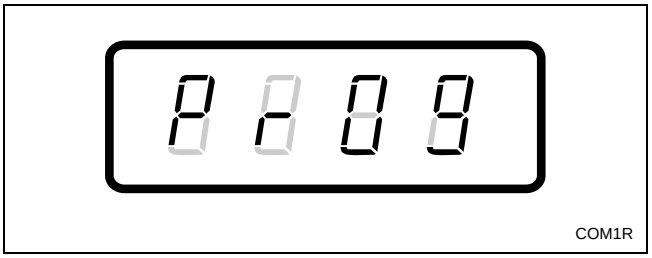

Figure 38

3. Press the START (enter) keypad and “AtS” will appear in the Four-Digit Display.
4. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to scroll through the programmable options until “dELt” appears in the Four-Digit Display.

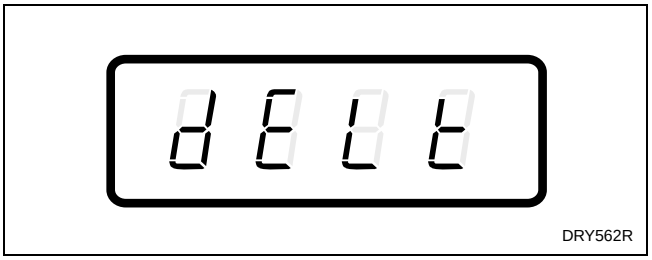

Figure 39

5. When “dELt” appears in the Four-Digit Display, press the START (enter) keypad. The current temperature set for Delicates Temperature will appear in the Four-Digit Display.
6. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to increase or decrease the current temperature displayed in the Four-Digit Display to the desired temperature.

NOTE: Temperatures will be displayed in Fahrenheit or Celsius, depending on the programmed Configuration setting (option 16). A display of “n H” indicates a No Heat cycle.

7. Press the START (enter) keypad when the correct temperature appears in the Four-Digit Display. The next option, “CnFg”, will appear in the Four-Digit Display.

NOTE: To program “CnFg” (Configuration Display), 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 HIGH TEMP keypad with one hand, press the MED TEMP keypad with the other hand. The control will revert back to the previous mode of operation.

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16. Configuration Display “CnFg”

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

How to Program Configuration Display

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

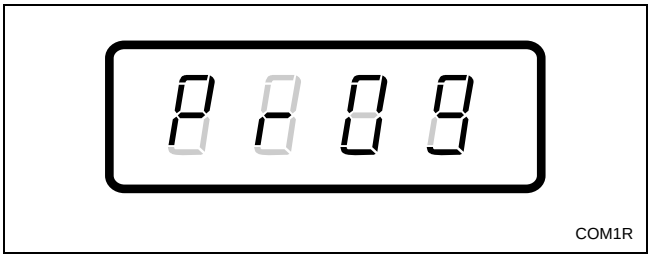

Figure 40

3. Press the START (enter) keypad and “AtS” will appear in the Four-Digit Display.
4. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to scroll through the programmable options until “CnFg” appears in the Four-Digit Display.

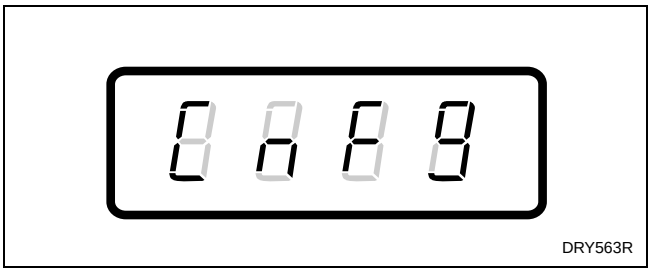

Figure 41

5. When “CnFg” appears in the Four-Digit Display, press the START (enter) keypad. There are three digits in the configuration value and the third digit will become the active digit. The active digit will flash one second on and one second off.
6. Press the LOW TEMP (∧) or the DELICATES (∨) 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.

Software versions less than “S003”:

Configuration values 0-61 are available.

Software version “S003” and higher:

Configuration values 0-63 limit the time remaining display to minutes only. Configuration values 64-125 offer the minutes/seconds option for the time remaining display. Select the appropriate program configuration value between 64 and 125 to enable minutes and seconds capability options.

7. Repeat step 6 for each of the three digits. When the START (enter) keypad is pressed and the last digit is the active digit, the changes to the configuration value will be saved into the memory. The next option will appear in the Four-Digit Display. (On software versions less than “S003”, the first option, “Ats”, will appear in the Four-Digit Display. On software version “S003” and higher, “dCyC” will appear in the Four-Digit Display.)

NOTE: To program “dCyC” (Default Cycle), 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 HIGH TEMP keypad with one hand, press the MED TEMP 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 preprogrammed Minutes/Minutes and Seconds, Card Reader Display Control, Fahrenheit/Celsius, Audio Signal, Errors Mode, Coin Drop #1, and OPL Mode.

To change any or all of these configuration options, review the following descriptions carefully and choose the appropriate configuration value from *Table 1* . Enter the appropriate value in step 5 on the previous page.

Minutes/ Minutes and Seconds*	This option limits the time remaining display to minutes only (MM) or shows the time remaining display in minutes and seconds (MMSS).
	MM = Configuration value limited to minutes
	MMSS = Configuration value available in minutes and seconds
Card Reader Display Control	This option, when enabled, prevents the control from displaying certain card operation-related messages on the Four-Digit Display to allow a third party card reader to display messages on the Four-Digit Display.
	ON = Turns off control generated display messages
	OFF = Turns on control generated display messages
Fahrenheit/Celsius	This option determines whether the temperature will be displayed in Fahrenheit or Celsius.
	Fahrenheit = Turns on Fahrenheit display and turns off Celsius display
	Celsius = Turns on Celsius display and turns off Fahrenheit display
Audio Signal	This option turns on or off the audio signal which, when turned on, sounds for keypad depression, coin/start pulse input and card insertion, and open/shorted thermistor error.
	ON = Turns on audio signal
	OFF = Turns off audio signal
Errors Mode	This option determines whether all errors are displayed. Refer to ***Errors Mode***.
	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
OPL Mode	This option determines whether a vend is required to start a cycle. Refer to ***OPL Mode***.
	ON = No vend is required to start a cycle
	OFF = Vend is required to start a cycle
* The Minutes/Minutes and Seconds option is available in software version “S003” or higher only.	

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Config Value	Minutes/ Minutes and Seconds	Card Reader Display Control	Fahrenheit/ Celsius	Audio Signal	Errors Mode	Coin Drop #1	OPL Mode
0	MM	OFF	Fahrenheit	OFF	OFF	Coin Drop #1	OFF
1	MM	OFF	Fahrenheit	OFF	OFF	Coin Drop #1	ON
4	MM	OFF	Fahrenheit	OFF	ON	Coin Drop #1	OFF
5	MM	OFF	Fahrenheit	OFF	ON	Coin Drop #1	ON
8	MM	OFF	Fahrenheit	ON	OFF	Coin Drop #1	OFF
9	MM	OFF	Fahrenheit	ON	OFF	Coin Drop #1	ON
12	MM	OFF	Fahrenheit	ON	ON	Coin Drop #1	OFF
13	MM	OFF	Fahrenheit	ON	ON	Coin Drop #1	ON
16	MM	OFF	Celsius	OFF	OFF	Coin Drop #1	OFF
17	MM	OFF	Celsius	OFF	OFF	Coin Drop #1	ON
20	MM	OFF	Celsius	OFF	ON	Coin Drop #1	OFF
21	MM	OFF	Celsius	OFF	ON	Coin Drop #1	ON
24	MM	OFF	Celsius	ON	OFF	Coin Drop #1	OFF
25	MM	OFF	Celsius	ON	OFF	Coin Drop #1	ON
28	MM	OFF	Celsius	ON	ON	Coin Drop #1	OFF
29	MM	OFF	Celsius	ON	ON	Coin Drop #1	ON
32	MM	ON	Fahrenheit	OFF	OFF	Coin Drop #1	OFF
33	MM	ON	Fahrenheit	OFF	OFF	Coin Drop #1	ON
36	MM	ON	Fahrenheit	OFF	ON	Coin Drop #1	OFF
37	MM	ON	Fahrenheit	OFF	ON	Coin Drop #1	ON
40	MM	ON	Fahrenheit	ON	OFF	Coin Drop #1	OFF
41	MM	ON	Fahrenheit	ON	OFF	Coin Drop #1	ON
44	MM	ON	Fahrenheit	ON	ON	Coin Drop #1	OFF
45	MM	ON	Fahrenheit	ON	ON	Coin Drop #1	ON
48	MM	ON	Celsius	OFF	OFF	Coin Drop #1	OFF
49	MM	ON	Celsius	OFF	OFF	Coin Drop #1	ON
52	MM	ON	Celsius	OFF	ON	Coin Drop #1	OFF
53	MM	ON	Celsius	OFF	ON	Coin Drop #1	ON
56	MM	ON	Celsius	ON	OFF	Coin Drop #1	OFF
57	MM	ON	Celsius	ON	OFF	Coin Drop #1	ON
60	MM	ON	Celsius	ON	ON	Coin Drop #1	OFF
61	MM	ON	Celsius	ON	ON	Coin Drop #1	ON

Table 1

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Config Value	Minutes/ Minutes and Seconds	Card Reader Display Control	Fahrenheit/ Celsius	Audio Signal	Errors Mode	Coin Drop #1	OPL Mode
64*	MMSS	OFF	Fahrenheit	OFF	OFF	Coin Drop #1	OFF
65*	MMSS	OFF	Fahrenheit	OFF	OFF	Coin Drop #1	ON
68*	MMSS	OFF	Fahrenheit	OFF	ON	Coin Drop #1	OFF
69*	MMSS	OFF	Fahrenheit	OFF	ON	Coin Drop #1	ON
72*	MMSS	OFF	Fahrenheit	ON	OFF	Coin Drop #1	OFF
73*	MMSS	OFF	Fahrenheit	ON	OFF	Coin Drop #1	ON
76*	MMSS	OFF	Fahrenheit	ON	ON	Coin Drop #1	OFF
77*	MMSS	OFF	Fahrenheit	ON	ON	Coin Drop #1	ON
80*	MMSS	OFF	Celsius	OFF	OFF	Coin Drop #1	OFF
81*	MMSS	OFF	Celsius	OFF	OFF	Coin Drop #1	ON
84*	MMSS	OFF	Celsius	OFF	ON	Coin Drop #1	OFF
85*	MMSS	OFF	Celsius	OFF	ON	Coin Drop #1	ON
88*	MMSS	OFF	Celsius	ON	OFF	Coin Drop #1	OFF
89*	MMSS	OFF	Celsius	ON	OFF	Coin Drop #1	ON
92*	MMSS	OFF	Celsius	ON	ON	Coin Drop #1	OFF
93*	MMSS	OFF	Celsius	ON	ON	Coin Drop #1	ON
96*	MMSS	ON	Fahrenheit	OFF	OFF	Coin Drop #1	OFF
97*	MMSS	ON	Fahrenheit	OFF	OFF	Coin Drop #1	ON
100*	MMSS	ON	Fahrenheit	OFF	ON	Coin Drop #1	OFF
101*	MMSS	ON	Fahrenheit	OFF	ON	Coin Drop #1	ON
104*	MMSS	ON	Fahrenheit	ON	OFF	Coin Drop #1	OFF
105*	MMSS	ON	Fahrenheit	ON	OFF	Coin Drop #1	ON
108*	MMSS	ON	Fahrenheit	ON	ON	Coin Drop #1	OFF
109*	MMSS	ON	Fahrenheit	ON	ON	Coin Drop #1	ON
112*	MMSS	ON	Celsius	OFF	OFF	Coin Drop #1	OFF
113*	MMSS	ON	Celsius	OFF	OFF	Coin Drop #1	ON
116*	MMSS	ON	Celsius	OFF	ON	Coin Drop #1	OFF
117*	MMSS	ON	Celsius	OFF	ON	Coin Drop #1	ON
120*	MMSS	ON	Celsius	ON	OFF	Coin Drop #1	OFF
121*	MMSS	ON	Celsius	ON	OFF	Coin Drop #1	ON
124*	MMSS	ON	Celsius	ON	ON	Coin Drop #1	OFF
125*	MMSS	ON	Celsius	ON	ON	Coin Drop #1	ON

Table 1

* Configuration values 64-125 available in software version “S003” or higher only.

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17. Default Cycle “dCyC”

NOTE: This option is available on software version “S003” or higher only.

This option allows the owner to set the default temperature for the unit.

How to Program Default Cycle

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

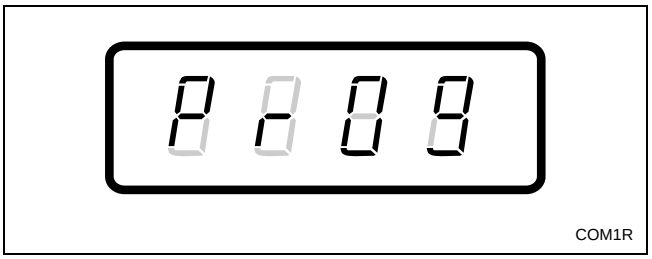

Figure 42

3. Press the START (enter) keypad and “AtS” will appear in the Four-Digit Display.
4. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to scroll through the programmable options until “dCyC” appears in the Four-Digit Display.

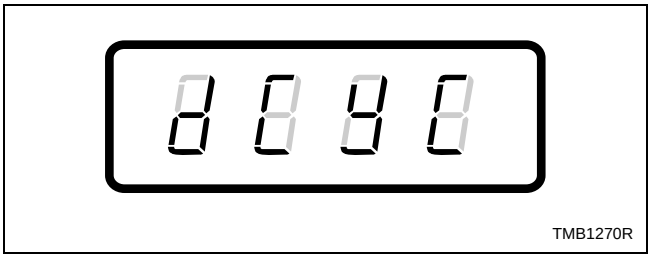

Figure 43

5. When “dCyC” appears in the Four-Digit Display, press the START (enter) keypad. The current default temperature setting will appear.
6. Press the LOW TEMP (∧) or the DELICATES (∨) keypad to scroll through the following cycle temperature options: HI (high), nd (medium), LO (low) or dEL (delicate).
7. Press the START (enter) keypad when the desired cycle temperature is displayed 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 HIGH TEMP keypad with one hand, press the MED TEMP 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 dryer by pressing a sequence of pads on the control. For an explanation of the audit options available, refer to the Audit Options List on this page.

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 LOW TEMP (∧) or the DELICATES (∨) keypad until "AUdt" appears in the Four-Digit Display.

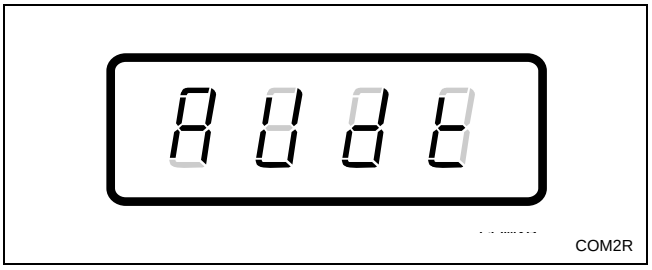

Figure 44

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

Entering the Audit Feature with the Coin Vault Open

(This method is not available if control is in OPL Mode. Refer to ***Programming MDC, option 16,*** for information on turning OPL Mode on and off.)

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 LOW TEMP (∧) or the DELICATES (∨) keypad to scroll through various options until the desired option is displayed in the Four-Digit Display. Refer to *Table 2* 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
TOC1	Total Number of Coin #1 TopOffs
TOC2	Total Number of Coin #2 TopOffs
SP	Total Number of Start Pulses
TOSP	Total Number of Start Pulse TopOffs

Table 2

2. Once the desired option appears in the Four-Digit Display, press the START (enter) keypad **once** to display the audit count. At this point, the display will show the four-digit number of the 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 HIGH TEMP keypad with one hand, press the MED TEMP 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, close coin vault.

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Testing Machine and MDC Functions

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

- Dryer-On Temperature Test
- Thermistor Temperature Test
- Configuration Display

How to Enter Testing Feature

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

How to Start Tests

To start a diagnostic test, refer to *Table 3*. 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 HIGH TEMP keypad with one hand, press the MED TEMP 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	Dryer-On Temperature Test	F--- or C---
d002	Thermistor Temperature Test	FXXX or CXXX
d003	Configuration Display	AXXX

Table 3

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Diagnostic Test Descriptions

Dryer-On Temperature Test

This option tests the temperature inside the cylinder while running a cycle. To start test, control must be in the Testing Mode (control must have entered Testing Mode from the Ready 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 "F---" or "C---" with "---" showing the degrees, "F" showing Fahrenheit and "C" showing Celsius (Fahrenheit/Celsius is selected in Configuration parameter [refer to ***Programming MDC***, ***Option 16***]). The control will show this display while running the cycle, with the temperature increasing as the cylinder temperature increases. The dryer will continue to heat until the temperature for the selected cycle is reached. Once this occurs, the dryer will perform a one-minute cool down. The display will show "01" during the cool down. The display will change to "00" once the cool down is complete.

To exit the Dryer-On Temperature Test, press the HIGH TEMP keypad with one hand and the MED TEMP keypad with the other hand. The control will change to "00" and the cycle will terminate.

Thermistor Temperature Test

This option displays the temperature sensed at the thermistor in 5°F increments. 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" or "CXXX" with "XXX" showing the degrees, "F" showing Fahrenheit, and "C" showing Celsius (Fahrenheit/Celsius is selected in Configuration parameter [refer to ***Programming MDC***, ***Option 16***]).

To exit the Thermistor Temperature Test, press the HIGH TEMP keypad with one hand and the MED TEMP keypad with the other hand. The control will return to the previous mode of operation.

Configuration Display Test

This option will show the machine configuration values. 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 "AXXX" with "XXX" showing the configuration value. The value can be used to determine what type of machine the control recognizes it is installed in.

Configuration Display Value

Machine Type	Value
Single Dryer	0
Stacked Dryer	1

Table 4

NOTE: Values 2-15 are unused at this time.

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Production Test Cycle

The factory Production Test Cycle may be entered by commands from the keypad. The loading door must be closed and the control must be in the Ready Mode.

To Enter Production Test Cycle

1. Be certain control is in Ready Mode and access panel or coin vault are open.
2. While pressing and holding the HIGH TEMP keypad with one hand, press the LOW TEMP 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. The control will remain in this mode until a key is pressed. Refer to *Table 5* for all tests in the Production Test Cycle.
4. The control will advance through the sequence of test steps whenever a keypad is pressed.

To Exit Production Test Cycle

The control must be powered down to end the test.

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Production Test Cycle Quick Reference Table		
Display	**Test Mode**	**Comments**
SXXX	Software Version	XXX is the software version number.
All LEDs and display segments will light	Show Mode	None
AXXX	Configuration Display	XXX is machine configuration value.
CXCX	Coin Test	X is the number of coins entered. If dual coin drops are installed, coin drop #1 will be shown on the left of the display and coin drop #2 will be shown on the right of the display. If single coin drop is used, only one coin count will be displayed and the other side will remain at zero.
U XX	Coin Vault Test	XX is the number of coin vault openings.
A XX	Access Panel Test	XX is the number of access panel openings.
Degrees in 5° increments, SH, OH	Thermistor Temperature Test	The temperature will be displayed in either Fahrenheit or Celsius depending on machine's configuration (refer to ***Programming MDC, option 16***). If control senses a shorted thermistor, SH will be displayed. If control senses an open thermistor, OP will be displayed.
PadX	Keypad Test	When a key is pressed, the control will display the number assigned to the keypad (1 – HIGH TEMP, 2 – LOW TEMP, 3 – MED TEMP, 4 – DELICATES, 5 – 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 10 Minute Test Cycle.
10	10 Minute Test Cycle	Determines if dryer can function in a MED TEMP cycle for 10 minutes. START pad will flash one second on and one second off. The START pad can be used to decrease time remaining. If START pad is not pressed within 4.25 minutes, the control will return to Ready Mode.

Table 5

NOTE: If power to the control is turned off before 10 Minute Test Cycle has ended, the cycle will be cleared from control.

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OPL Mode

The control can be placed in an OPL Mode in which no vend price needs to be satisfied to start the machine. When in OPL Mode, the cycle can be started by selecting the cycle and pressing the START (enter) keypad. If the START (enter) keypad is pressed while a cycle is active, the Coin #1 TopOff Time will be added to the current cycle time. The cycle can be advanced to the end of the cycle by pressing the DELICATES keypad with one hand and pressing the LOW TEMP keypad with the other hand.

Refer to ***Programming MDC, option 16,*** to program the OPL Mode.

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Errors Mode

When Errors Mode is turned on (refer to ***Configuration Programming, option 16***) and an open or shorted thermistor error is sensed, the tumbler control will stop the running cycle, sound the audio signal, and the Four-Digit Display will show “EOP” for open thermistor or “ESH” for shorted thermistor. The audio signal will sound for 15 seconds or until the user presses a keypad. In either case, the error will remain on the Four-Digit Display until the control no longer senses the open or shorted thermistor and the user presses a keypad. Once the error occurs, dryer operation will be locked out until the error clears.

When Errors Mode is turned off (refer to ***Configuration Programming, option 16***), open and shorted thermistor errors will not be shown on the Four-Digit Display. If an open or shorted thermistor is sensed by the control, the cycle will continue but the heat will not turn on. When a new cycle is started, the heat may come on again, but will be forced off as soon as the open or shorted thermistor condition is sensed by the control. Dryer operation is not locked out when Errors Mode is turned off.

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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 LOW TEMP (∧) or the DELICATES (∨) keypad until “rAPd” appears in the display.
3. Press the START (enter) keypad. The Four-Digit Display will show the cycle time and START (enter) keypad LED will flash.
4. Press the START (enter) keypad to start cycle.

While in the Rapid Advance feature, pressing the START (enter) keypad will advance the cycle time by one minute. Pressing and holding the START (enter) keypad will advance the cycle four minutes for every second the START (enter) keypad is held down.

How to Enter Rapid Advance During an Active Cycle

1. Be certain access panel is open and the coin vault is closed.
2. While pressing and holding the HIGH TEMP keypad with one hand, press the MED TEMP keypad with the other hand. The Four-Digit Display will show “rAPd”.

Control must be in the Manual Mode to use the Rapid Advance feature.

While in the Rapid Advance feature, pressing the START (enter) keypad will advance the cycle time by one minute. Pressing and holding the START (enter) keypad will advance the cycle four minutes for every second the START (enter) keypad is held down.

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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Power Fail Recovery

The Power Fail Recovery feature allows the cycle status to be saved in memory in the event of a power failure.

If the power failure lasted less than four (4) seconds, the cycle will resume without requiring the user to press the START (enter) keypad to restart.

If the power failure lasted longer than four (4) seconds, control will enter Start Mode. When the START keypad is pressed, the cycle will resume from the point at which the power failure occurred.

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Default Dryer Settings

Default Settings	Default
Cycle Time (Minutes)	45 minutes
Cycle Time (Seconds)*	0 seconds
Cool Down Time Cycle	3 minutes
High Temperature	160°F
Medium Temperature	155°F
Low Temperature	145°F
Delicates Temperature	115°F
Coin #1 TopOff Time (Minutes Per Coin)	15 minutes
Coin #1 TopOff Time (Seconds Per Coin)*	0 seconds
Coin #2 TopOff Time (Minutes Per Coin)	60 minutes
Coin #2 TopOff Time (Seconds Per Coin)*	0 seconds
Coin #1 Value	25
Coin #2 Value	100
Start Pulse Value	25
Vend Price	100
Control Configurations	
Minutes/Minutes and Seconds **	Minutes
Card Reader Display Control	OFF
Fahrenheit/Celsius	Fahrenheit
Audio Signal	ON
Errors Mode	ON
Coin Drop #1	Coin Drop #1
OPL Mode	OFF
Default Cycle	MED TEMP

* This option available in software version “S003” or higher and if “seconds” is turned on in Configuration parameter (refer to ***Programming MDC, option 16***).

** Available in software version “S003” or higher only.

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