



# Phase 7.6 User's Manual

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## Introduction

### Phase 7.6 Microprocessor Drying System

The American Dryer Corporation's Phase 7.6 Drying System has been designed with super performance in mind to provide for better temperature regulation, efficiency, performance, consistency, and faster drying times.

## Features

**Dependable Microprocessor Solid State Integrated Circuitry** – To eliminate as many moving parts as possible.

**Program Changes Are Easily Made At The Keypad** – Actual programs are viewed at the L.E.D. display for verification.

**Timed (Manual) Drying Cycle** – Programming allows for a specific amount of time in minutes for both drying and Cool Down Cycles.

**Preprogrammed Cycles** – The Phase 7.6 microprocessor controller (computer) can store in its memory six preprogrammed cycles in either the Automatic Drying Mode (Patent No. 4,827,627) or Manual Drying Mode in the "A-F" keys and an additional 41 in the numerical memory of "0-40."

**Manually Loaded Cycles** – For occasional or onetime special loads, the user can set a specific program in Manual Timed Drying Cycle.

**Cool Down** – Cool down lowers the temperature of the exhaust to make the material cool enough to handle.

**L.E.D. Display** – Informs user of cycle status, programs and displays important diagnostic and fault codes.

**Diagnostics** – Major circuits, including the door switch(es), microprocessor temperature sensor and heat output circuits, and more are individually monitored, give precise messages of your failure.

**Audio Alert Signal** – The tone will sound at the end of a complete drying cycle at a 1-second rate for the duration programmed. It will also sound for any fault conditions at a quarter second rate for 4-beeps.

**Temperature Conversion Status** – Temperature related programs can be set in either Fahrenheit (°F) or Celsius (°C). All temperatures will automatically convert to the corresponding values (+/- 1°) when changes are made.

**Cycle Preview** – Entire dryer parameters (programs) or the preprogrammed cycles are displayed for verification upon a coded entry to the keypad.

**Language Selection** – Phase 7.6 has the ability to display five different languages, English, French, Spanish, Italian, and German.

**Model Selection** – The Phase 7.6 can be programmed to be used on three modes of heat: gas, steam, and electric.

**Default Factory Settings** – This feature will set all programmed parameters to their default values.

### Keypad Symbols

 = "STOP/CLEAR" key     = "START/ENTER" key

 = "UP ARROW" key (scroll up)

 = "DOWN ARROW" key (scroll down)

## Program Selections

### Preprogrammed Cycles

#### "A-F" Cycles

The Phase 7.6 microprocessor controller (computer) can store in its memory six preprogrammed cycles (keys "A-F" on the keypad). This allows the user to have the six most commonly used cycles, requiring only the push of a single keypad entry to start the dryer.

#### "0-40" Cycles

The Phase 7.6 microprocessor controller (computer) can store 41 preprogrammed cycles in its numerical memory. (Use keys "0-9" on the keypad). This allows the user to have up to 41 customized programmed cycles that may not be as commonly used as the six "A-F." These are not one touch entries to start the dryer like the "A-F." They are selected by entering the number, which represents the cycle desired and pressing the "START/ENTER" key to start the cycle.

Once the heating cycle is completed, the Phase 7.6 microprocessor controller (computer) then goes into the Cool Down Cycle where the articles are blown at room temperature.

**NOTE:** To enter program mode, press "STOP/CLEAR" key and the "UP ARROW" key.

### Preprogrammed Cycle Menu Selections

(Cycles "A-F" or "0-40"):

#### Timed (Manual) Cycle

**Drying Time** – Programmable from 0 to 250 minutes in 1 minute increments.

**Drying Temperature** – Programmable from 100° F to 150° F (38° C to 66° C) in one-degree increments.

**Cool Down Time** – Programmable from 0 to 99 minutes in 1 minute increments.

**Cool Down Temperature** – Programmable from 70° F to 100° F (21° C to 38° C) in one-degree increments.

All six "A-F" preprogrammed cycles along with cycles "0-40" have been programmed by the factory as outlined in Factory Preset Parameters section. However, even though cycles "A-F" are the most common cycles used, they should be reviewed to ensure they meet the location application or needs. Should changes be found necessary, refer to the Programming section of this manual.

### Manually Loaded Cycles

For occasional or onetime special loads, the operator must enter the specific program features needed. This cycle is not stored within the Phase 7.6 microprocessor controller (computer) and must be entered each and every time.

### Timed (Manual) Drying Cycle Operation

This drying cycle is intended for special loads where a specific amount of drying time and cooling time is needed, especially for fine, delicate items which require very low temperatures and long drying and/or Cool Down Time periods.

The program limitation is the same as in Program Selections section.

**NOTE:** The Cool Down Cycle will run either until the Cool Down Temperature is reached or until the Cool Down Time has expired, whichever comes first.

**NOTE:** If there has been no Drying Time selected, then the Cool Down Cycle will ignore the Cool Down Temperature and do the Cool Down Time only.

### L.E.D. Dot Matrix Display

The L.E.D. display informs the user of cycle status, program verification, and displays important diagnostic and fault information. A complete listing of the various display messages and their meanings are shown in L.E.D. Display Messages section of this manual.

### Cycle in Progress Display Status

During the Drying Cycle, the display will indicate the type of cycle in progress by presenting either one of the following:

“MANUAL DRYING CYCLE” – Manually Loaded Manual Cycle.

“MANUAL DRYING CYCLE #” – The “#” is replaced with “A-F” or “0-40.”

### Cycle In Progress Temperature Display

While the dryer cycle is in progress, the temperature in the cabinet can be displayed by pressing and holding the “UP ARROW” key. The temperature will be displayed in either Fahrenheit (°F) or Celsius (°C), depending on what the system temperature has been set for in “DRYER SETUP.”

### Temperature Conversion Status

Temperature related programs are programmable to be operated in either Fahrenheit (°F) or Celsius (°C). The temperature selection is made in “SYSTEM TEMP.” Programs affected are:

Temperature Display Mode

Drying Temperatures

Cool Down Temperatures

**IMPORTANT:** When changing the temperature conversion status from Fahrenheit to Celsius or vice versa, all the Temperature Selections and Cool Down Temperatures will be changed accordingly. The Phase 7.6 microprocessor controller (computer) automatically calculates and converts the temperatures in these programs to the previously set value. For example, when changing from °F to °C, if the preprogrammed Cycle “A” drying temperature was set for 150° F, the Phase 7.6 microprocessor controller (computer) will change to 66° C (+/- one-degree Celsius).

### Audio Alert On Times 0 To 10

The tone will sound at the end of the Cool Down Cycle to indicate that the cycle is complete. Programming also allows the beeps to be set from 0 to 10 times in increments of one. This is done in “DRYER SETUP.”

### Preprogrammed Cycle Preview

The parameters of the preprogrammed cycles can be displayed for verification. To view an “A-F” preset program (parameter), simply press the “START/ENTER” key and the desired preset program “A-F.” The L.E.D. display will read the program parameter settings, then return to the “READY” display mode. To view a “0-40” preset program parameter, simply press the “START/ENTER” key and the desired preset program number “0-40” followed by “START/ENTER” key again. The L.E.D. display will read the program parameter settings, then return to the “READY” display mode.

### Diagnostics

The Phase 7.6 microprocessor controller (computer) monitors “Drying function,” which is the following:

Drying Functions: These include temperatures, burners, sail switches, and blower.

### Program Locations

This is where system parameters are programmed. These system parameters (programs) are stored in memory. Access to this location is acquired by pressing the “STOP/CLEAR” and the “UP ARROW” together. To exit the Programming Location, simply press the “STOP/CLEAR” key. If you are several menu layers deep, continue to press the “STOP/CLEAR” key to back up the menu until you are all the way out of the programming mode.

0. SELECT LANGUAGE – This menu allows the selection of five different languages to operate the dryer. The language that is selected will be used for every displayed message as well as faults and menus.

ENGLISH  
FRENCH  
SPANISH  
ITALIAN  
GERMAN

1. SELECT SYSTEM PARAMETERS – This menu level has four sections. All programmable parameters other than preprogrammed cycles are done here.

0. DRYER SETUP – All parameters that pertain to drying are in this menu level.

0. SELECT MODEL – This allows the selection of the heat source applied to the dryer as well as if the dryer is reversing or non-reversing.

GAS STEAM ELECTRIC

1. SYSTEM TEMP – This selection controls whether the temperature related programs will be operated in Fahrenheit (°F) or Celsius (°C). The programs affected are as follows:

Temperature Display Mode

**IMPORTANT:** The Phase 7.6 microprocessor controller (computer) automatically calculates and converts the temperatures in these programs to the previously set value. For example, when changing from °F to °C, if the preprogrammed Cycle “A” drying temperature was set for 150° F, the Phase 7.6 microprocessor controller (computer) will change to 66° C (+/- one-degree Celsius).

2. ENTER AUDIO ALERT ON TIMES 0 TO 10 – This selection allows the operator to adjust the amount of signal tones. This parameter (program) affects the tone at the end of the Cool Down Cycle.
3. BOARD ADDRESS 00 TO ZZ – This location is where the board address is defined. This is only used when the control is interfaced to a network.
2. PROGRAM “A-F” CYCLE – This menu allows the programming of cycle “A-F.” The parameters selected in this menu for each letter will be stored in memory for that key. This will allow the operator to utilize one touch drying through keys “A-F.”
3. PROGRAM “0-40” CYCLE – This menu allows the programming of cycle “0-40.” The parameters selected in this menu for each number will be stored in memory for that number key(s). This will allow the operator to utilize preprogrammed drying cycles stored in memory under a numerical location.

**NOTE:** BOTH THE “A-F” AND “0-40” ALLOWS FOR A TOTAL OF 47 PREPROGRAMMED LOCATIONS FOR CUSTOM DRYING.

4. DEFAULT SETTINGS – This menu allows the operator to set all the programmable parameters to the default settings. This option has a password selection of 1 2 3. It will then ask to confirm settings. It will default to “NO.” Use the arrow keys to select “YES.”

**CAUTION:** Once the settings have been set to their default settings, there is no way to retrieve the old settings. Use caution when using this feature.

## Operating Instructions \_\_\_\_\_

The Phase 7.6 microprocessor controller (computer) allows the operator to choose from six preprogrammed cycles (keys “A-F”). These have been preprogrammed by the factory with the parameters (programs) shown in Factory Preset Parameters section. There are an additional (“0-40”) preprogrammable cycles that are preprogrammed by the factory with the parameters (programs) shown in Factory Preset Parameters section. For occasional or onetime special loads, the Manually Loaded Cycles can be used where the operator must set the specific program(s) needed.

**NOTE:** Refer to Program Selections section of this manual for a complete explanation of the various cycles/selections available.

After the load is put into the cabinet and the dryer is ready to dry, determine which cycle will best suit the application (type of load).

### Operating Sequence

#### Timed (Manual) Drying Cycle

L.E.D. display reads “READY” (no cycle in progress).

Press the letter on the keypad corresponding to the cycle desired (i.e., key “D”).

**NOTE:** “0-40” WILL REQUIRE THE “START/ENTER” KEY TO BE PRESSED AFTER THE NUMBER IS SELECTED IN ORDER TO ACCEPT THE SELECTION AND START DRYING.

The dryer will then start. (I.E., blower, cabinet, and heat).

The L.E.D. display will read MANUAL DRYING CYCLE D, 00:00 MIN REMAIN.

**NOTE:** Press and hold the “UP ARROW” to view the cabinet temperature at any time.

The dryer can be stopped at any time by pressing the “STOP/CLEAR” key, at this time the dryer will go into a cycle pause. If the “STOP/CLEAR” key is pressed again at this point, the cycle that was in progress will be cancelled and returned to the “READY” state.

Press and hold the “DOWN ARROW” to view the cabinet RPM.

When the programmed drying time has expired, the Phase 7.6 microprocessor controller (computer) will proceed into the Cool Down Cycle.

Once the Cool Down Cycle begins at the end of the heat cycle, the L.E.D. display will read COOL DOWN TEMP \_\_\_/\_\_\_ MINUTES remaining. At the end of the heat cycle, the dryer will shut off the heat and continue the fan until the Cool Down Time or temperature is reached.

### Manually Loaded Cycles

#### Timed (Manual) Drying Cycle

L.E.D. display reads “READY” (no cycle in progress).

Press MAN key.

L.E.D. display will now read “ENTER DRY TIME 0 TO 99 MINUTES” (defaults to 0). I.E., for 40 minutes, press key “4,” key “0,” and then press the “START/ENTER” key to accept the value.

L.E.D. display will now read “ENTER DRY TEMP \_\_\_ TO \_\_\_” (defaults to 100° F [38° C]). Enter the temperature desired (from 100° F to 150° F [38° C to 66° C] in one-degree increments). I.E., for 142° F (61° C), press key “1,” key “4,” key “2,” and then press the “START/ENTER” key to accept the value.

L.E.D. display will now read “ENTER COOL DOWN TIME 0 TO 99 MINUTES.” I.E., for 10 minutes, press key “1,” key “0,” and then press the “START/ENTER” key to accept the value.

L.E.D. display will now read “ENTER COOL DOWN TEMP” 70 TO 100. Enter the temperature desired (from 70°F to 100°F [21°C to 38°C] IE, for 75°F (24°C), press key “7,” key “S” and then press “START/ENTER” key to accept the value.”

The dryer will now display “PRESS START.” Press the “START/ENTER” key to start the dryer. The L.E.D. display will read MANUAL DRYING CYCLE, \_\_\_MINUTES REMAIN.

**NOTE:** The dryer can be stopped at any time by pressing the “STOP/CLEAR” key, at this time the dryer will go into a cycle pause. If the “STOP/CLEAR” key is pressed again at this point, the cycle that was in progress will be cancelled and returned to the “READY” state.

Once the programmed drying time has expired, the Phase 7.6 microprocessor controller (computer) will proceed into the Cool Down Cycle (Mode).

Once the Cool Down Cycle begins at the end of the heat cycle, the L.E.D. display will read COOL DOWN TEMP \_\_\_/\_\_\_ MINUTES remaining. At the end of the heat cycle, the dryer will shut off the heat and continue the fan until the Cool Down Time or temperature is reached.

## Operating Notes

The dryer can be stopped at any time by pressing the "STOP/CLEAR" key, at this time the dryer will go into a cycle pause. If the "STOP/CLEAR" key is pressed again at this point, the cycle that was in progress will be cancelled and returned to the "READY" state.

When programming a Manually Loaded Cycle, if an error is made making an entry, press the "STOP/CLEAR" key ONCE, and the entry will be cancelled. Reenter the selection. If the selection is entered and an error is made, the "STOP/CLEAR" key will cancel the program and return to the "READY" state.

Use the "UP ARROW" and "DOWN ARROW" to scroll through menus or increase/decrease number values or toggle between choices.

In the programming mode, the number of keys can be used to jump to menu levels without scrolling through them all. I.E., from 0 select Model in "DRYER SETUP"; you can jump to menu level three. Enter lint count under "DRYER SETUP" by pressing the two keys followed by the "START/ENTER" key to accept value. L.E.D. display will read 2: ENTER AUDIO ALERT ON TIMES 0 TO 10.

The cabinet temperature can be displayed by pressing and holding the "UP ARROW" key.

The programmed cycle parameter can be viewed by pressing the "START/ENTER" key followed by the "A-F" key. To view "0-40" cycles, press "START/ENTER" key followed by the number desired to view followed by "START/ENTER" key. The viewing can be stopped by pressing the "STOP/CLEAR" key at any time.

## L.E.D. Display Messages

The L.E.D. display informs the operator of cycle status, program verification, and displays important diagnostic messages and fault information.

### L.E.D. Display Operating Status

#### Cycles in Progress

While the dryer is operating, the L.E.D. display will read, which cycle is in progress. I.E., in a Manual Drying Cycle (Mode), the L.E.D. display will read "MANUAL DRYING CYCLE." In the Cool Down Cycle (Mode) the L.E.D. display will read "COOL DOWN TEMP \_\_, \_\_ MINUTES REMAIN."

#### Cycle Status

While a cycle is in progress, the L.E.D. display will show the progress of the cycle that is being processed.

#### Timed (Manual) Drying Cycle

While a cycle is in progress the cycle status will display \_\_ MINUTES REMAIN.

#### Alternate Display Programs

The temperature can be displayed by pressing and holding the "UP ARROW" key at any time.

## Programming Instructions

### Introduction To Programming

The various program selections are stored in the Phase 7.6 microprocessor controller (computer) and are broken down into five categories:

0. Language  
(ENGLISH, FRENCH, SPANISH, ITALIAN, and GERMAN)

1. System Parameters (Dryer Setup)

2. Preprogrammed Cycles (Key "A-F")

This feature allows the operator to have six most commonly used cycle selections awaiting the push of a single keypad entry to start the dryer.

3. Preprogrammed Cycles ("0-40")

This feature allows the operator to have an added 41 preprogrammed cycle selections. These can be started by selecting the number and pressing the "START/ENTER" key.

4. Default Settings (returns all the programmable parameters to the default settings)

Both the preprogrammed cycles and the system parameters (programs) have been preprogrammed by the factory with the parameters shown in Factory Preset Parameters section of this manual. The various program selections for the preprogrammed cycles and system parameters are outlined in Program Selections section of this manual.

All program changes for the preprogrammed cycles and system parameters (programs) are done through the keypad selection keys on the front of the control panel.

### Entering The Programming Mode:

First, make sure that no cycle is in progress and that the L.E.D. display reads "READY," then press the "STOP/CLEAR" key and the "UP ARROW" key together. This will put you into the programming mode.

### Exiting The Programming Mode:

The "STOP/CLEAR" key will return you to the previous menu level. Continue to press the "STOP/CLEAR" key until you are all the way out of the Programming Mode.

To alter the programming parameters, the operator will locate the parameter (program) that is to be changed. If the change is a numerical one (i.e., time and/or temperature), the operator will simply enter the numerical value desired. If an error is made, press the "STOP/CLEAR" key ONCE, and the incorrect entry that was made will be cancelled. Once the entry is made, and the parameter (program) set does not need to be changed, press the "START/ENTER" key and the Phase 7.6 microprocessor controller (computer) will advance to the next program selected.

If the parameter (program) change is a feature change, such as changing the temperature conversion from degree Fahrenheit (°F) to degree Celsius (°C), the operator will press and hold the "UP ARROW" or "DOWN ARROW" key. This will toggle between choices. Once the entry is made or if the parameter (program) does not need to be changed, press the "START/ENTER" key and the Phase 7.6 microprocessor controller (computer) will advance to the next program selection.

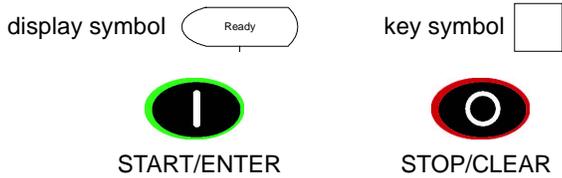
When making numerical changes, please keep in mind to stay within the programming limits shown. If an erroneous entry is made, the Phase 7.6 microprocessor controller (computer) will display "ERROR ERROR" and ignore the entry made when the "START/ENTER" key is pressed and will return to the numerical value previously set.

The Phase 7.6 microprocessor controller (computer) allows the operator to scroll through the various parameters (programs) and select the parameter to be changed. At this point, the operator can go to the next Program Location (system parameter) to be changed. If no other programs (parameters) need to be changed, the user can get out of the program mode by pressing the "STOP/CLEAR" key until it is out of the programming mode. The Phase 7.6 microprocessor controller (computer) will be returned to the operating mode, and the L.E.D. display will read "READY."

### Programming Flowcharts

The following section of this manual explains the programming of the preprogrammed cycles and Program Locations (system parameters) through the use of flowcharts. A flowchart is nothing more than a diagram of the programming process.

Four different symbols will be used in these flowcharts:



Each display symbol will represent a readout on the Phase 7.6 microprocessor controller (computer) L.E.D. display, and each key symbol will represent a key that is pressed. For example:

If the flowchart shows the symbol , the Phase 7.6 microprocessor controller (computer) L.E.D. display will read the same.

If the flowchart shows the symbol  you will press that specific key on the keypad label.

This symbol  represents "STOP/CLEAR."

This symbol  represents "START/ENTER."

The flowchart arrows (i.e., ) represents the program path.

On the sides of these flowcharts are explanations of the flowchart procedure, and in some cases the programming limits.

Listed below, is an index of the flowcharts on the following pages.

### Flowchart Titles

	Page
Entering and Exiting Program Mode .....	7
System Parameters (Program):	
0 LANGUAGES .....	9
1 SYSTEM PARAMETERS .....	10
2 "A-F" CYCLES .....	19
3 "0-40" CYCLES .....	19
4 DEFAULT SETTINGS .....	25

**NOTE:** To review the preset Program Locations, simply press the "START/ENTER" key followed by the letter location while the L.E.D. display reads "READY." To review a number location, simply follow the same process as a letter with the addition of the "START/ENTER" key being pressed again after the number is selected.

### Phase 7.6 Menu Programming Procedure

EVERY INDENTED STEP REPRESENTS THE "START/ENTER" KEY BEING PRESSED TO SELECT A MENU ITEM. EVERY MESSAGE WITH A NUMBER BEFORE IT, INDICATES THAT IT IS A MENU SELECTION CHOICE. EVERY MESSAGE WITHOUT A NUMBER BEFORE IT, INDICATES THAT IT IS THE LAST MENU LEVEL.

#### I. E. MENU FLOW

FROM ("1: SELECT SYSTEM PARAMETERS")  
 PRESSING "START/ENTER" PUTS YOU AT  
 (0: DRYER SETUP)  
 PRESSING "UP ARROW" PUTS YOU AT  
 (1: COOL DOWN SETUP)  
 PRESSING "DOWN ARROW" PUTS YOU  
 BACK AT (0: DRYER SETUP)

#### PROGRAMMING MODE:

##### ENTERING:

MUST BE IN THE "READY" STATE.  
 PRESS "STOP/CLEAR" and "UP ARROW" KEY  
 TOGETHER.  
 (THIS WILL GET YOU INTO THE PROGRAMMING  
 MODE.)

##### EXITING:

PRESSING THE "STOP/CLEAR" KEY  
 REPEATEDLY UNTIL YOU ARE BACK TO THE  
 "READY" DISPLAY. THE "STOP/CLEAR" KEY WILL  
 BRING YOU BACK ONE MENU LEVEL AT A  
 TIME. AT THE FIRST MENU LEVEL, IT WILL EXIT  
 YOU FROM THE PROGRAMMING MODE and  
 RETURN TO THE "READY" STATE.

##### NOTES:

THE "UP ARROW" and "DOWN ARROW" KEYS ARE USED  
 TO SCROLL UP and DOWN A MENU SELECTION.

THE NUMBER KEYS CAN ALSO BE USED TO BRING YOU  
 DIRECTLY TO A KNOWN MENU ITEM. PRESS THE NUMBER  
 YOU WANT FOLLOWED BY THE "START/ENTER" KEY TO  
 BRING YOU RIGHT TO THE MENU CHOICE ASSIGNED TO  
 THE NUMBER SELECTED.

## Programming Menu

### 0: SELECT LANGUAGE

ENGLISH  
FRENCH  
SPANISH  
ITALIAN  
GERMAN

### 1: SELECT SYSTEM PARAMETERS

#### 0: DRYER SETUP

##### 0: SELECT MODEL

GAS (Default GAS)  
ELECTRIC  
STEAM

##### 1: SYSTEM TEMP

DEG F (Default DEG F)  
DEG C

#### 2: PROGRAM A - F CYCLES

##### SELECT A - F KEY

\* (“\*\*”) Display The Letter Chosen.  
Defaults To “A”.)

##### SELECT CYCLE TYPE

\* (“\*\*”) Display The Cycle Type “Auto”  
Or “Manual”  
(Default AUTO)

## MANUAL

### 1: ENTER DRY TIME 0 TO 99 MINUTES

\*\* (“\*\*”) Display The Number Chosen.  
Defaults To “0”.)

### 2: ENTER DRY TEMP 100 TO 150 °F

\*\*\* (“\*\*\*”) Display The Number Chosen.  
Defaults To “100”.)

### 4: ENTER COOL DOWN TIME 0 TO 99 MINUTES

\*\* (“\*\*”) Display The Number Chosen.  
Defaults To “2”.)

### 5: ENTER COOL DOWN TEMP 70 TO 100 °F

\*\*\* (“\*\*\*”) Display The Number Chosen.  
Defaults To “100”.)

**NOTE:** When Enter is pressed here, jump back to 2: PROGRAM A – F CYCLE

### 3: PROGRAM 0 - 40 CYCLES

#### ENTER 0 - 40

\*\* (“\*\*”) Display The Number Chosen.  
Defaults To “0”.)

##### SELECT CYCLE TYPE

\* (“\*\*”) Display The Cycle Type “Auto”  
Or “Manual”

## MANUAL

### 1: ENTER DRY TIME 0 TO 99 MINUTES

\*\* (“\*\*”) Display The Number Chosen.  
Defaults To “0”.)

### 2: ENTER DRY TEMP 100 TO 150 °F

\*\*\* (“\*\*\*”) Defaults To “100”.)

### 4: ENTER COOL DOWN TIME 0 TO 99 MINUTES

\*\* (“\*\*”) Display The Number Chosen.  
Defaults To “2”.)

### 5: ENTER COOL DOWN TEMP 70 TO 100 °F

\*\*\* (“\*\*\*”) Display The Number Chosen.  
Defaults To “100”.)

**NOTE:** When Enter is pressed here, jump back to 3: PROGRAM 0 - 40 CYCLES

### 4: DEFAULT SETTINGS

#### ENTER PASSWORD

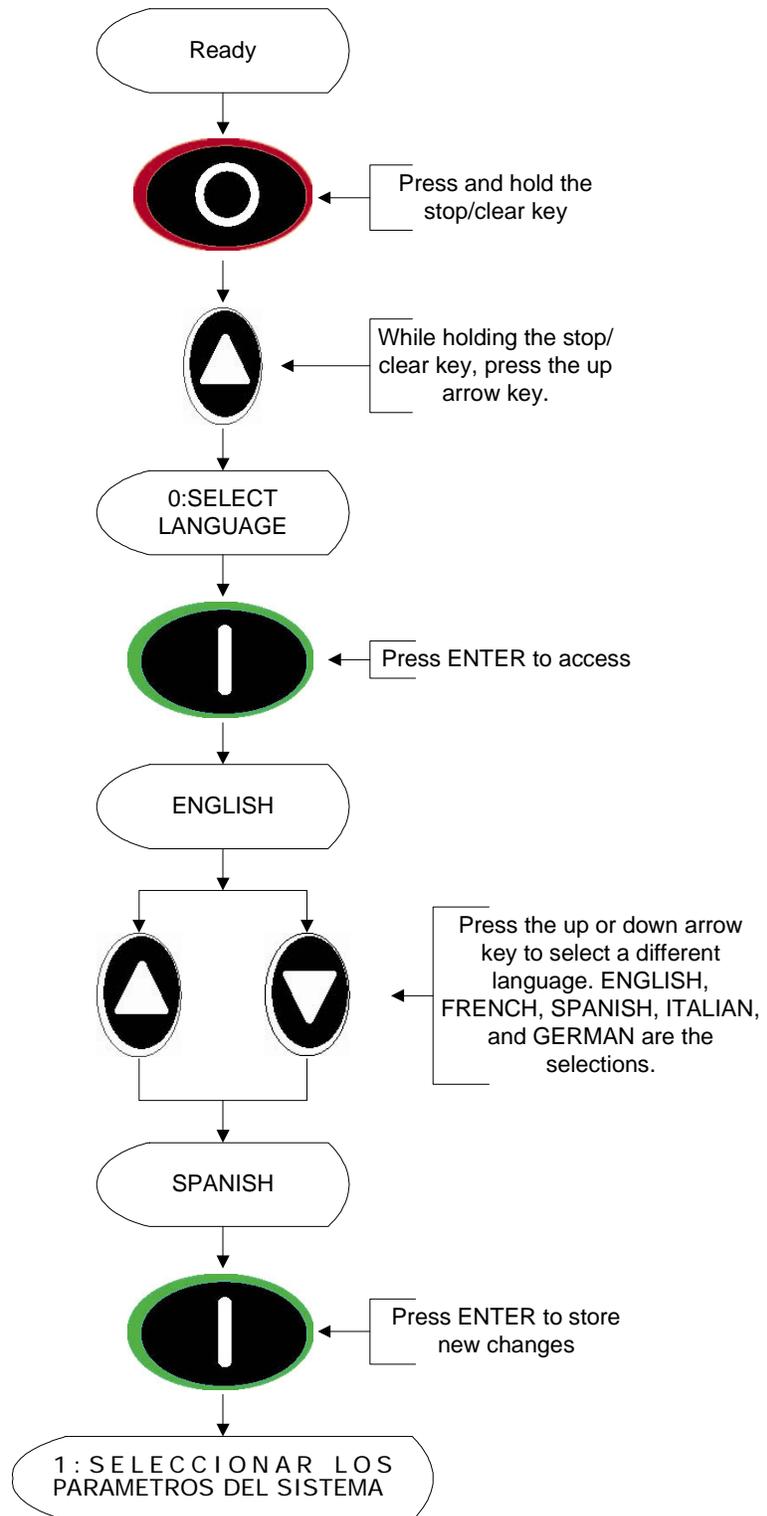
(PRESS “1” “2” “3”)

#### CONFIRM DEFAULTS

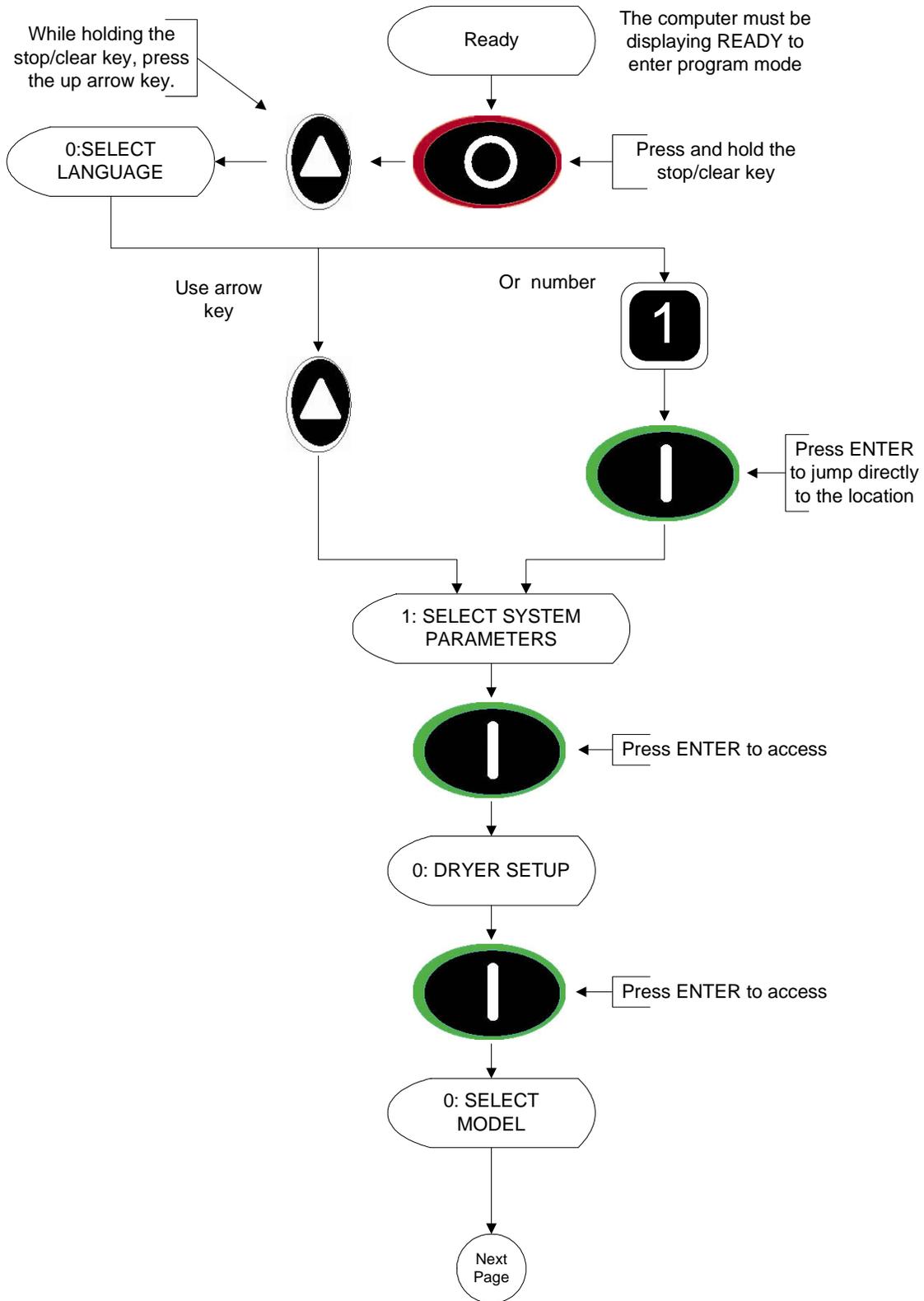
NO (Default NO)  
YES

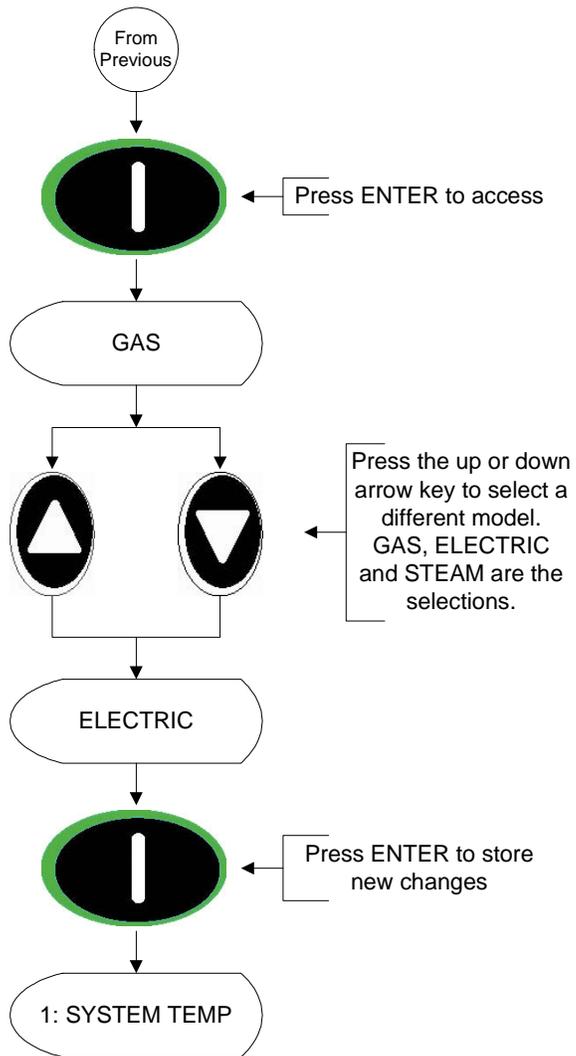
**NOTE:** Selecting “NO” will return you back to “4: DEFAULT SETTINGS”. Selecting “YES” will set all the parameters to the default settings and the display will read “DEFAULTS SET” then return to “4: DEFAULT SETTINGS”.

# Selecting Languages

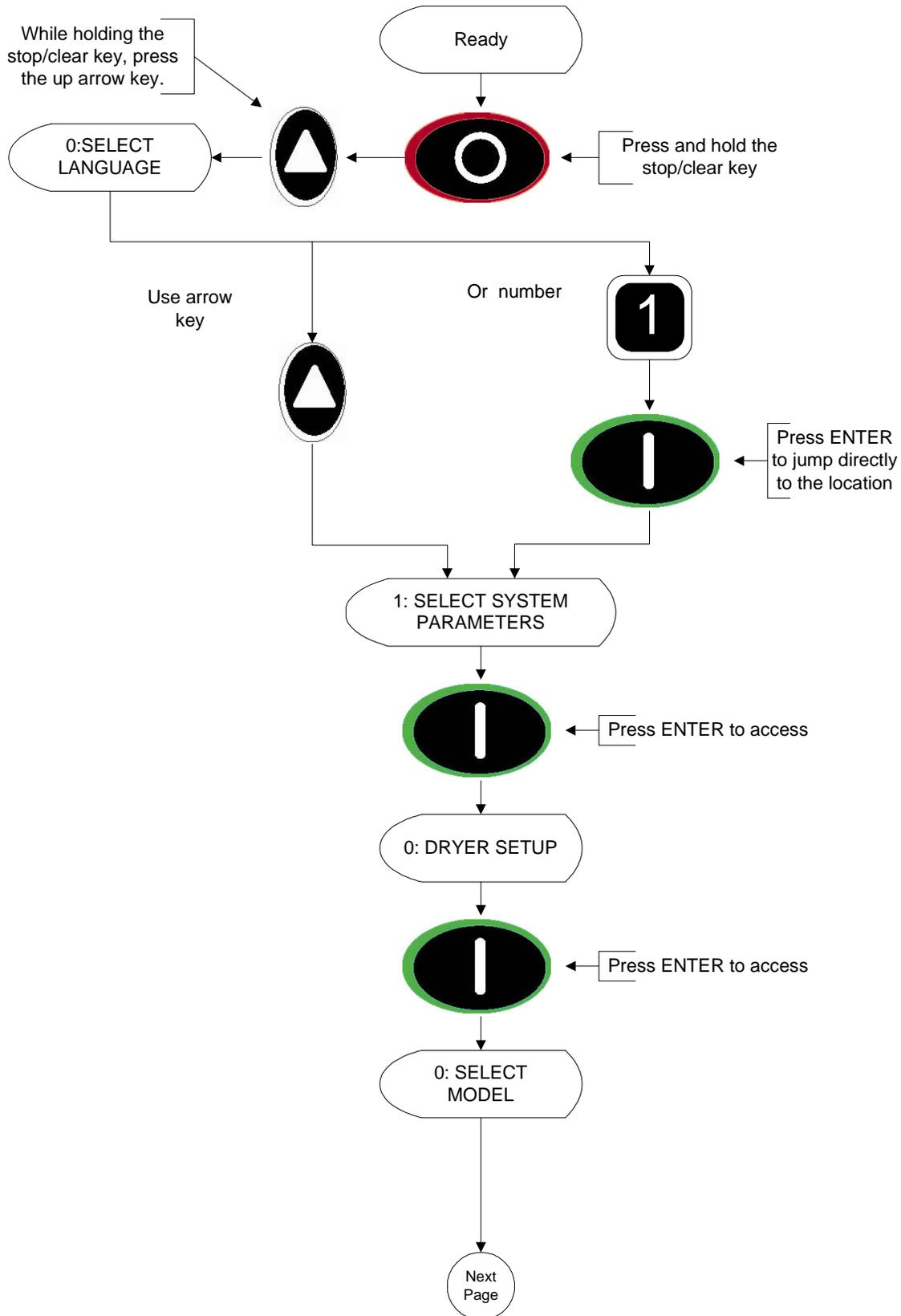


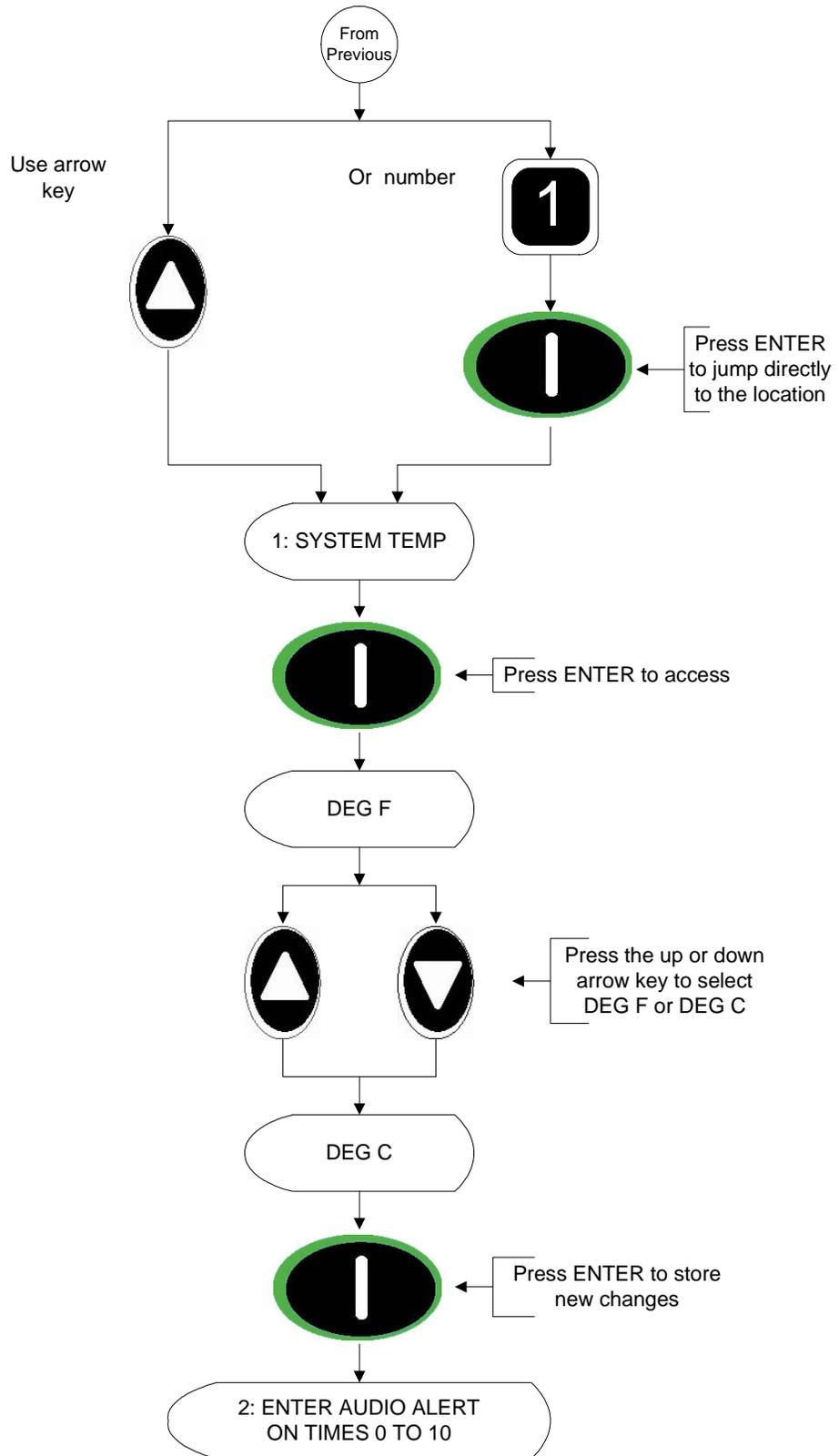
# Selecting a Dryer Model



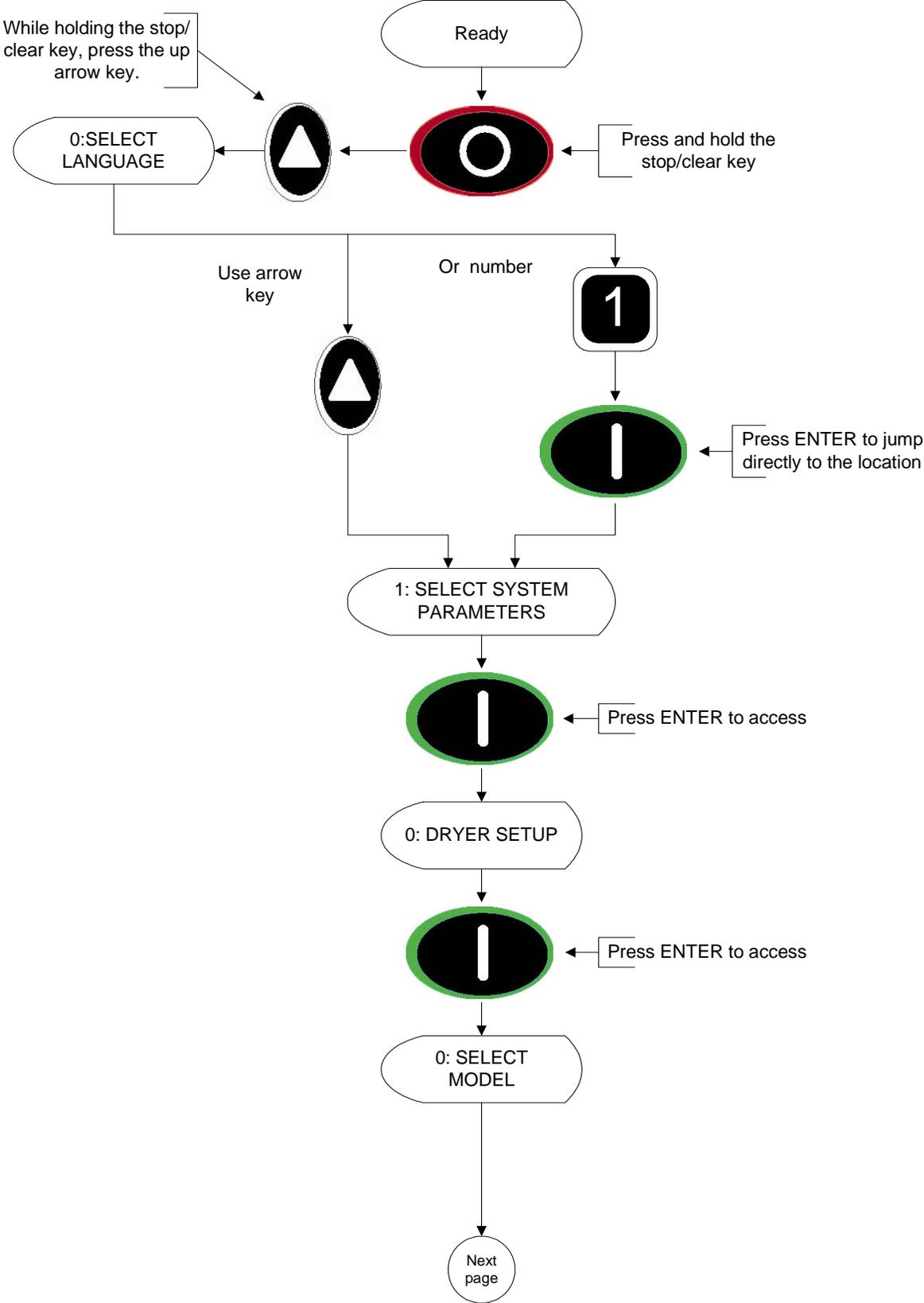


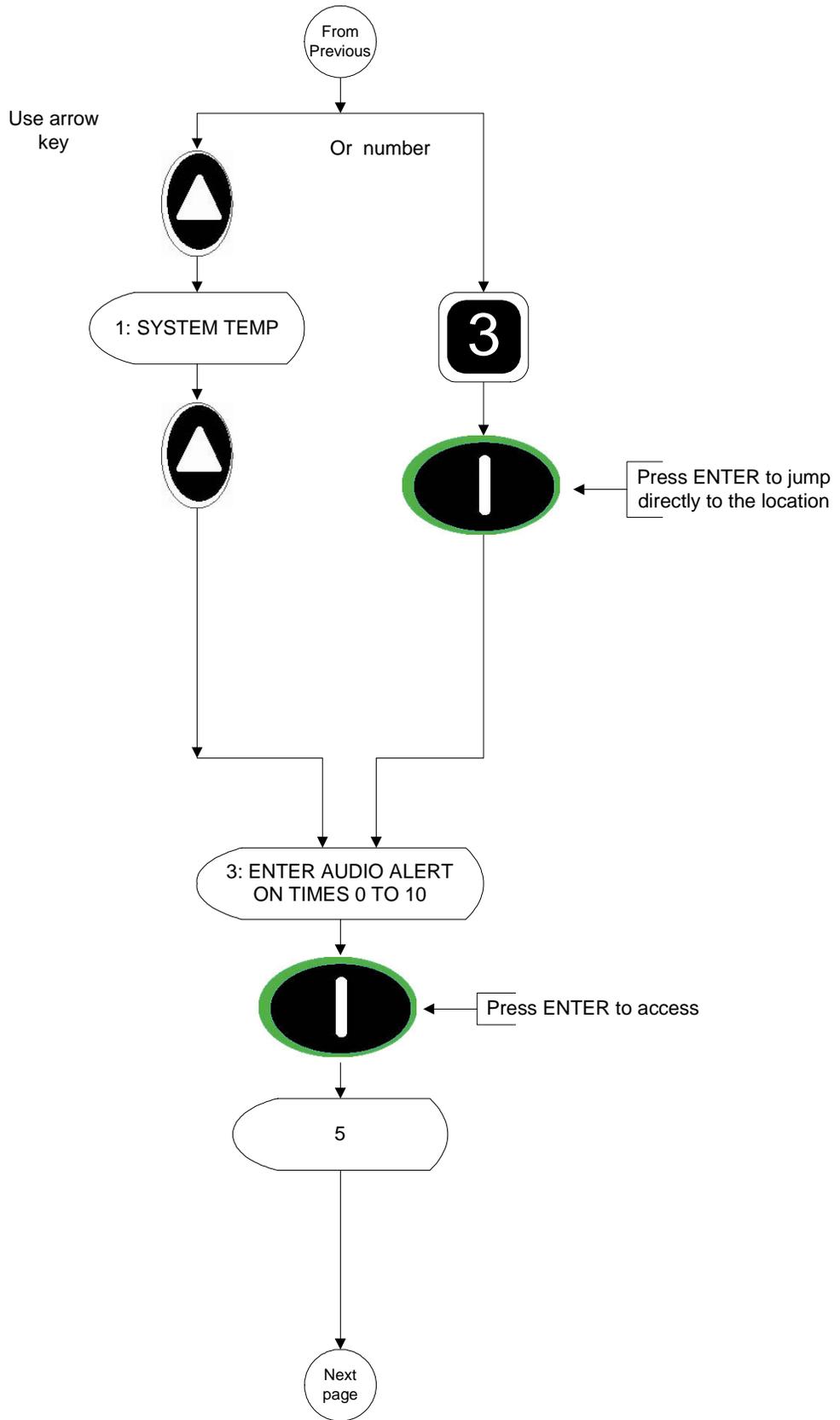
# Selecting the System Temperature

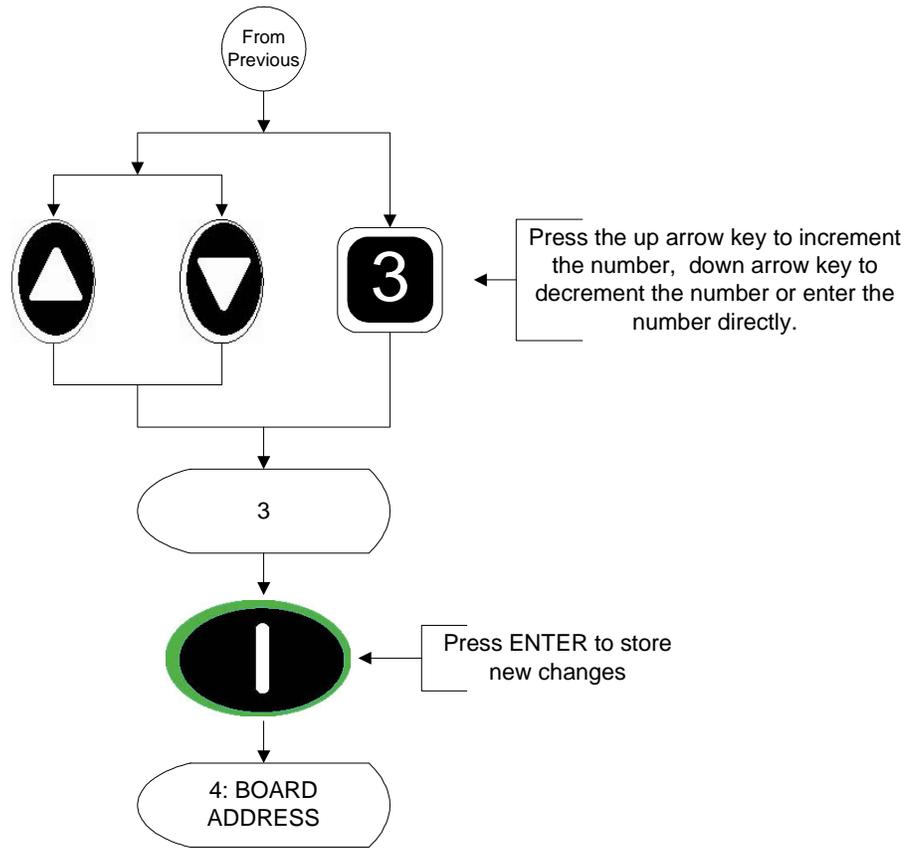




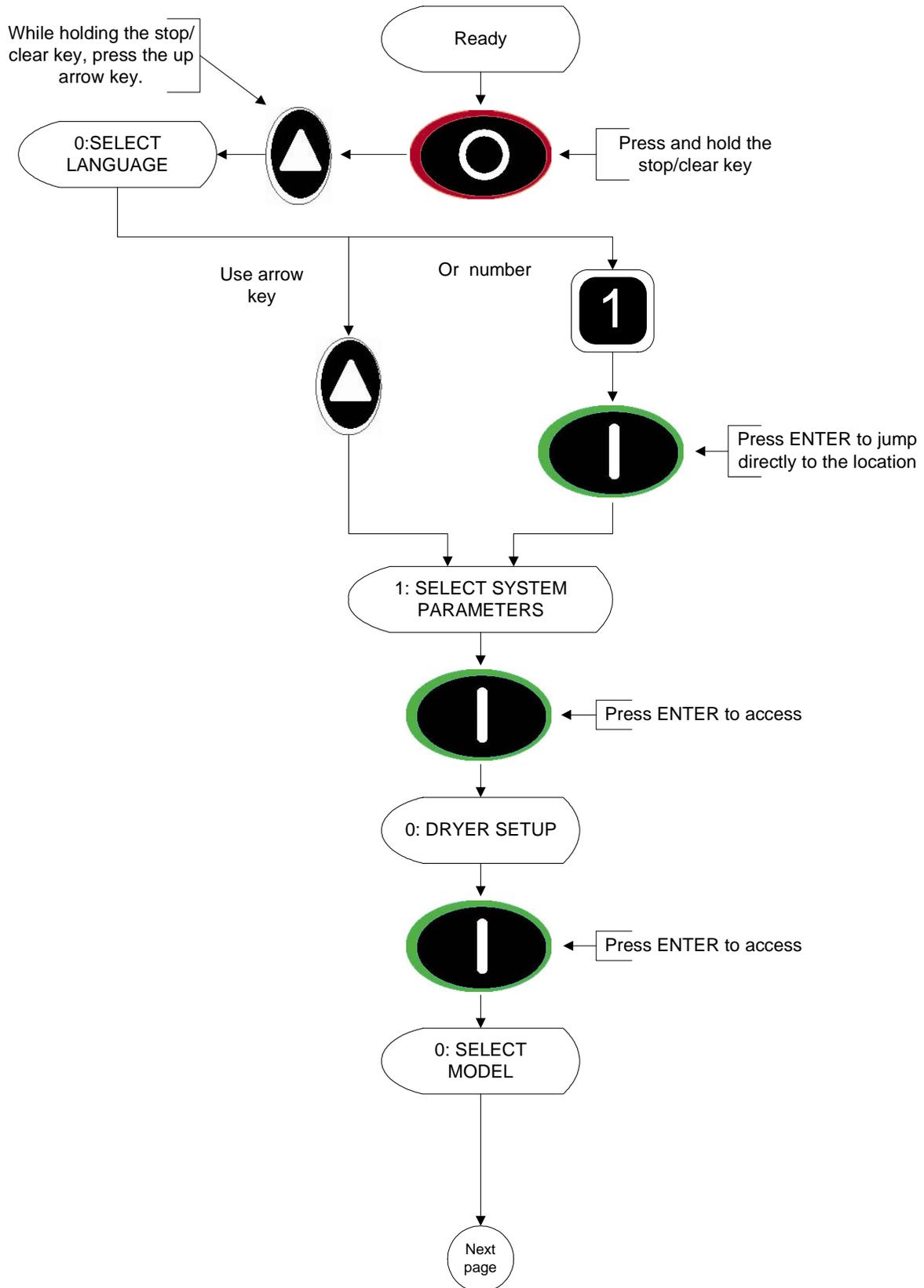
# Adjusting the Audio Alert On Times

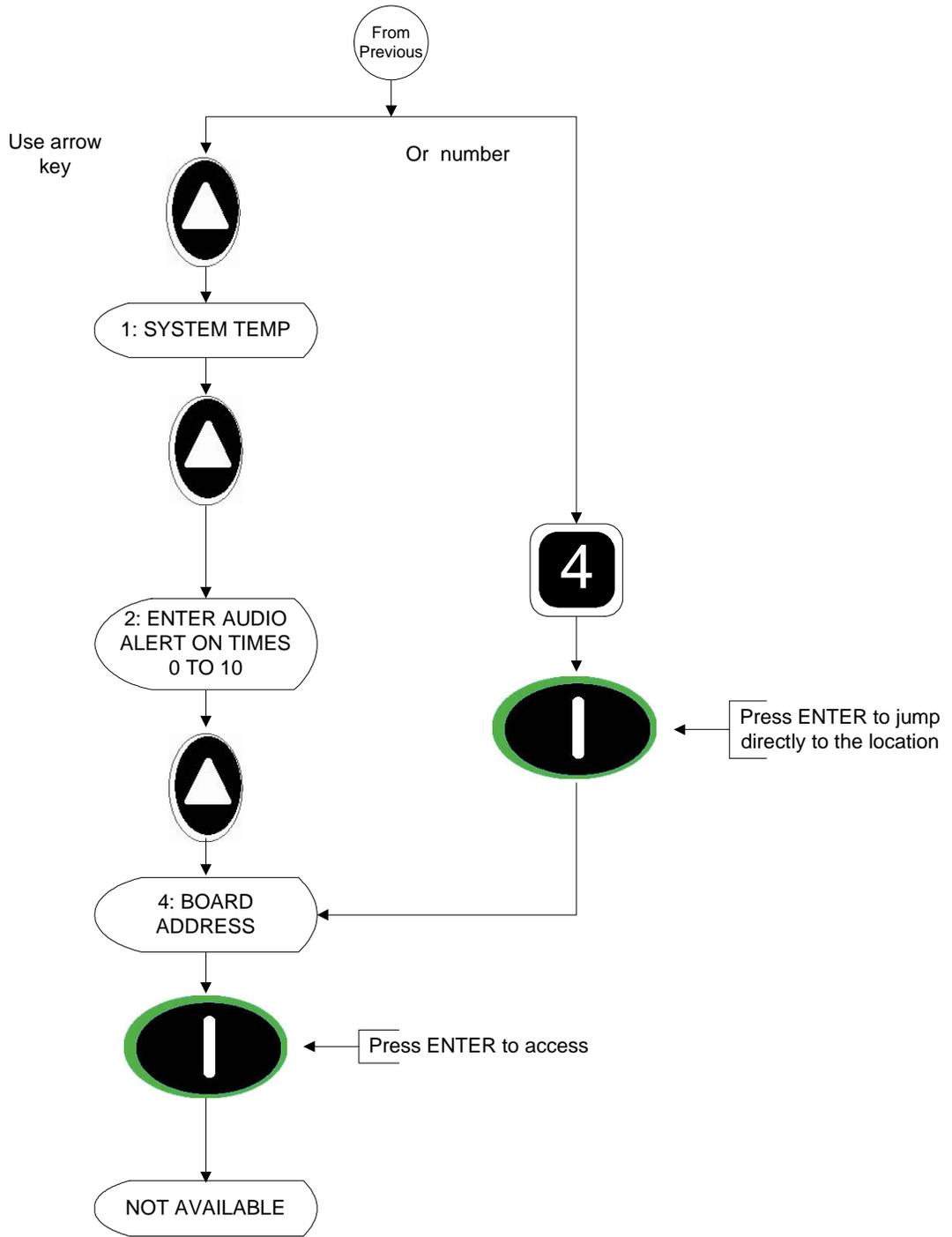




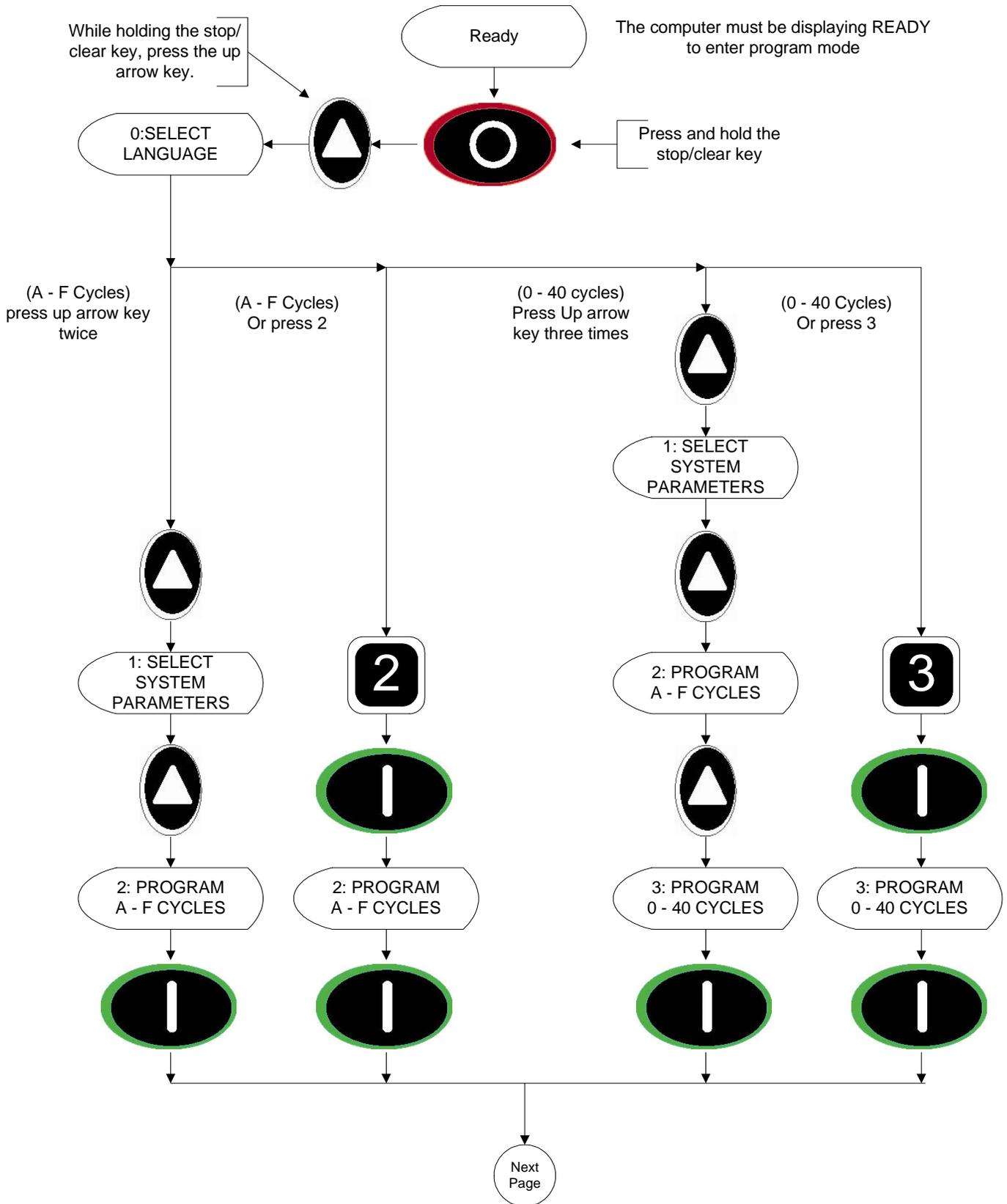


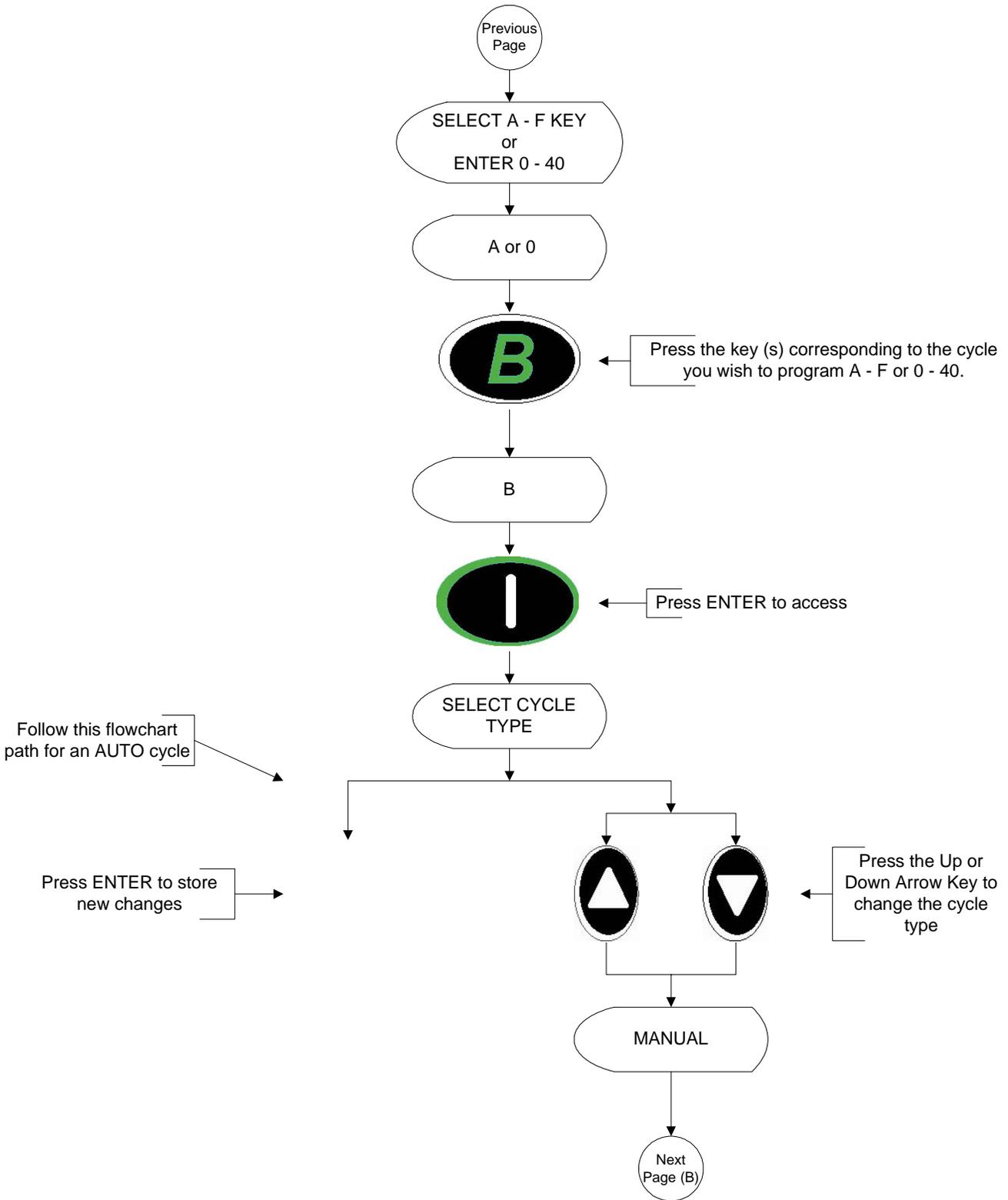
# Board Address

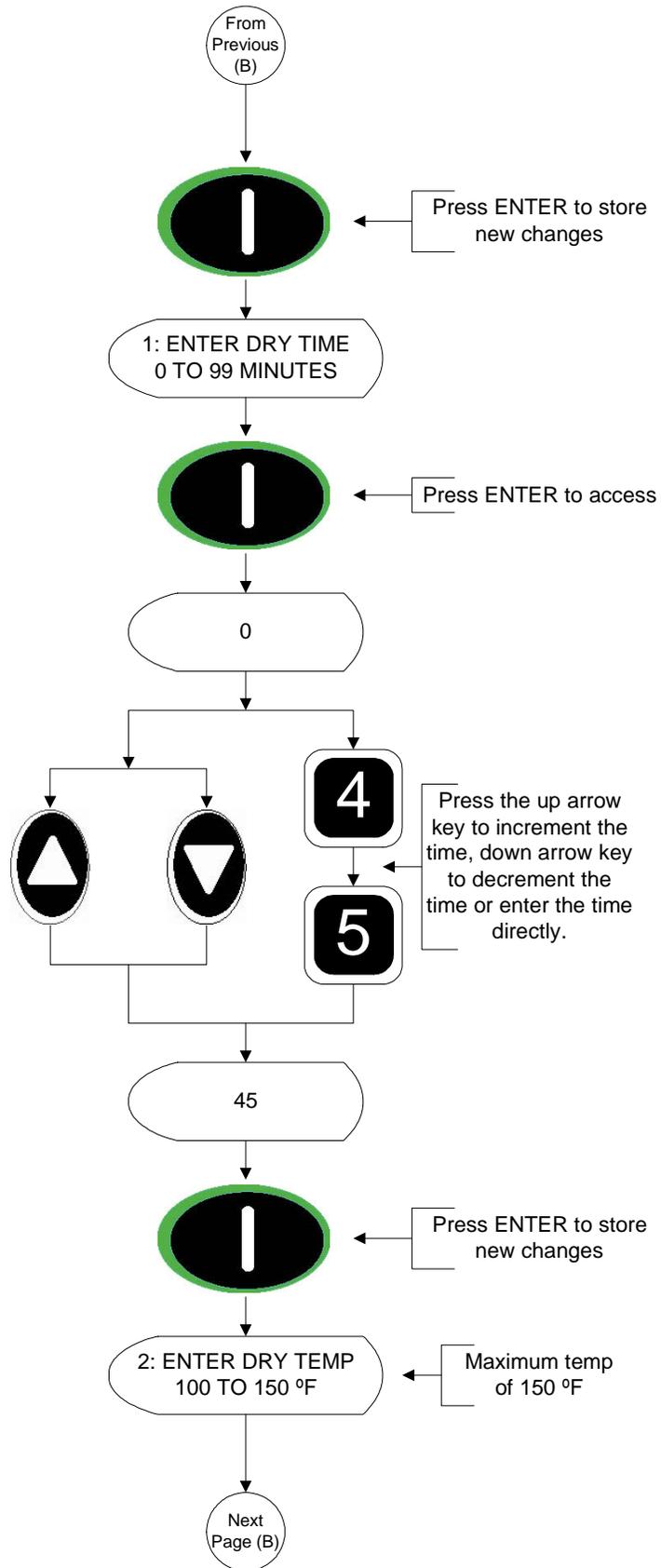


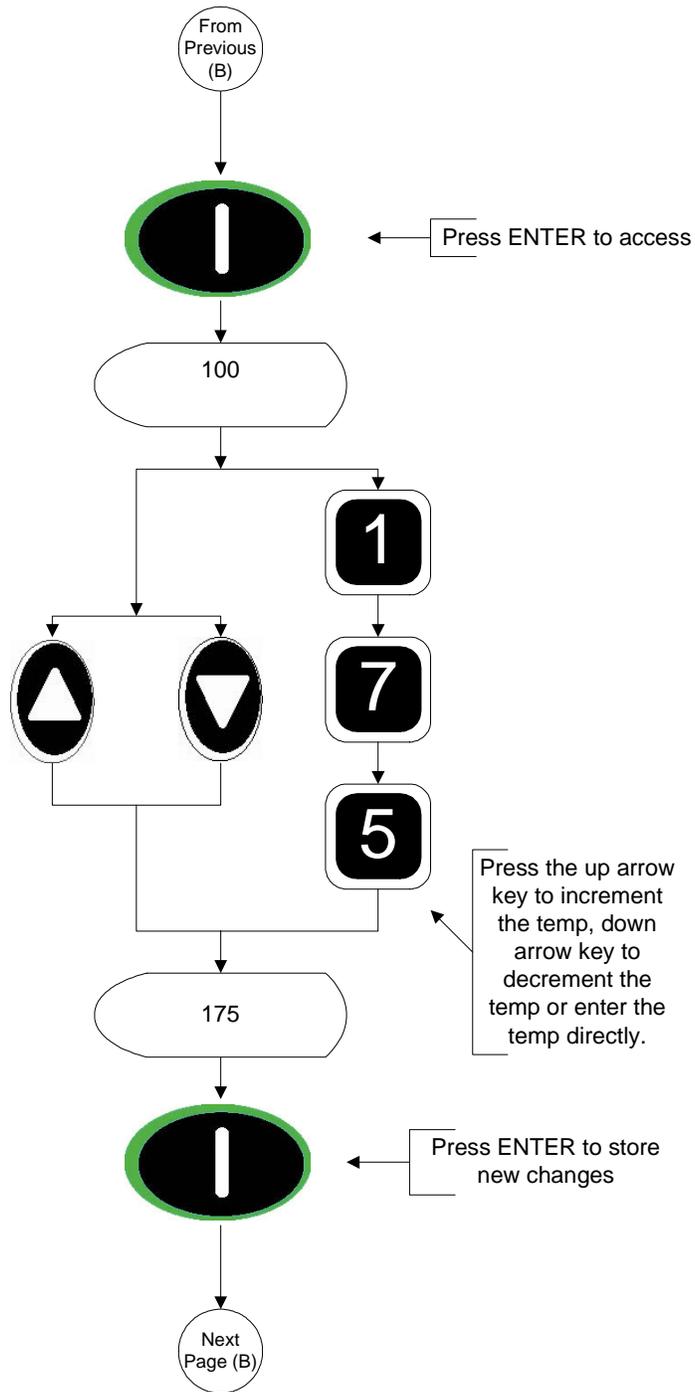


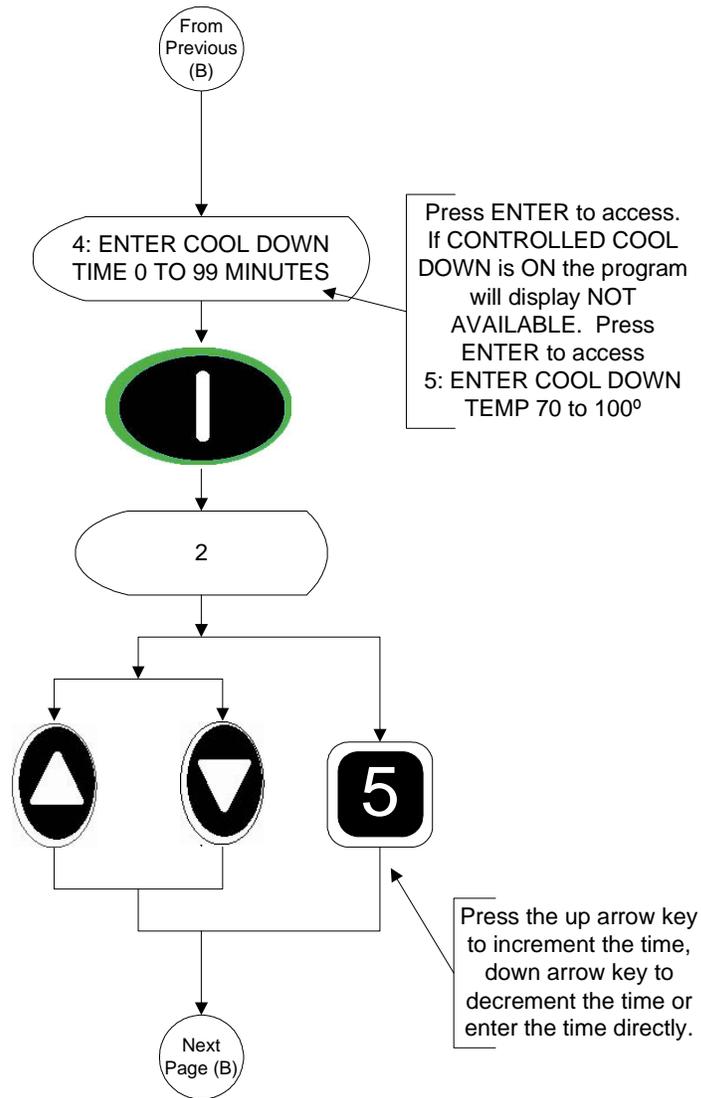
# Programming A - F Cycles or 0 - 40 Cycles

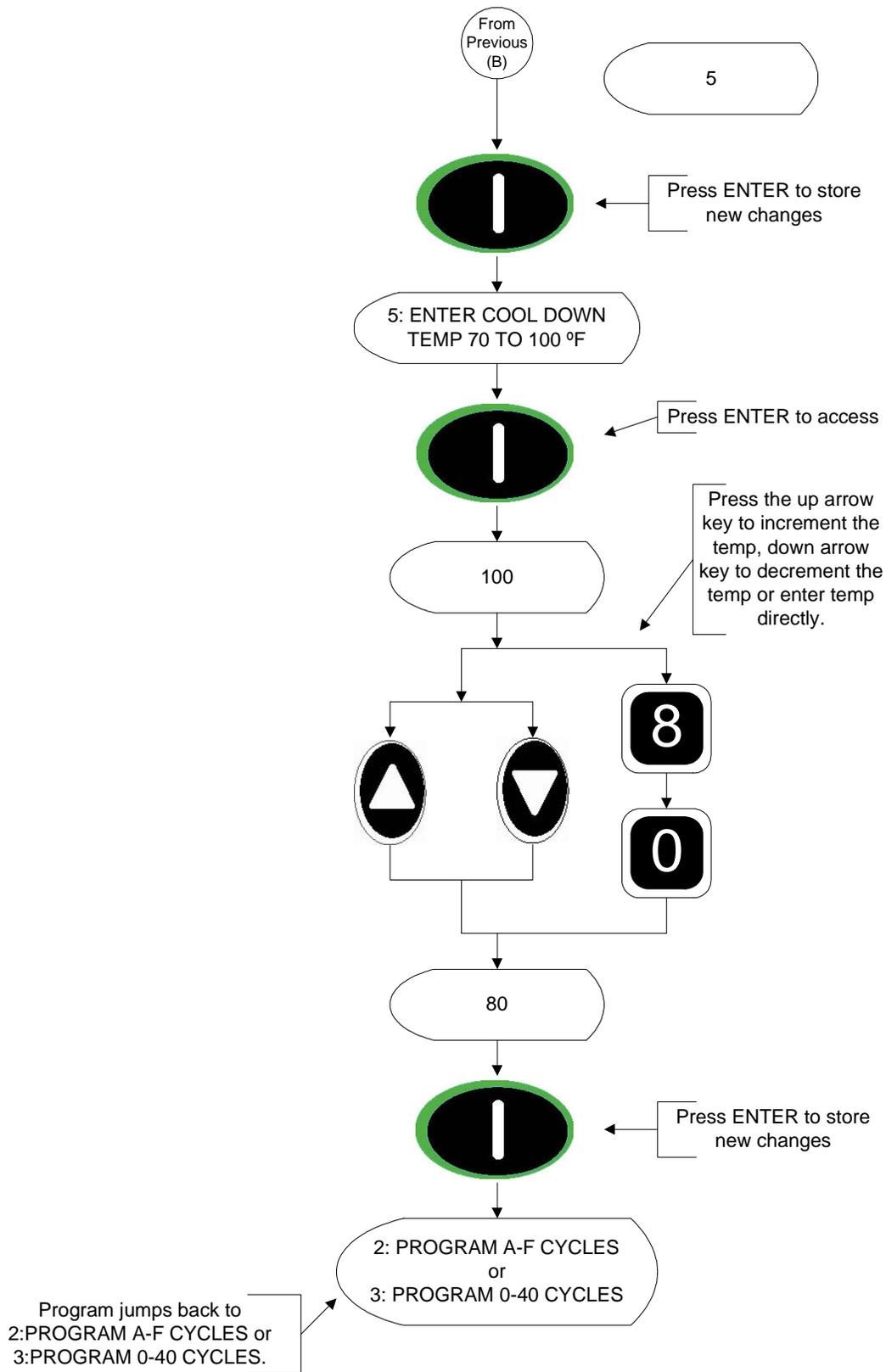




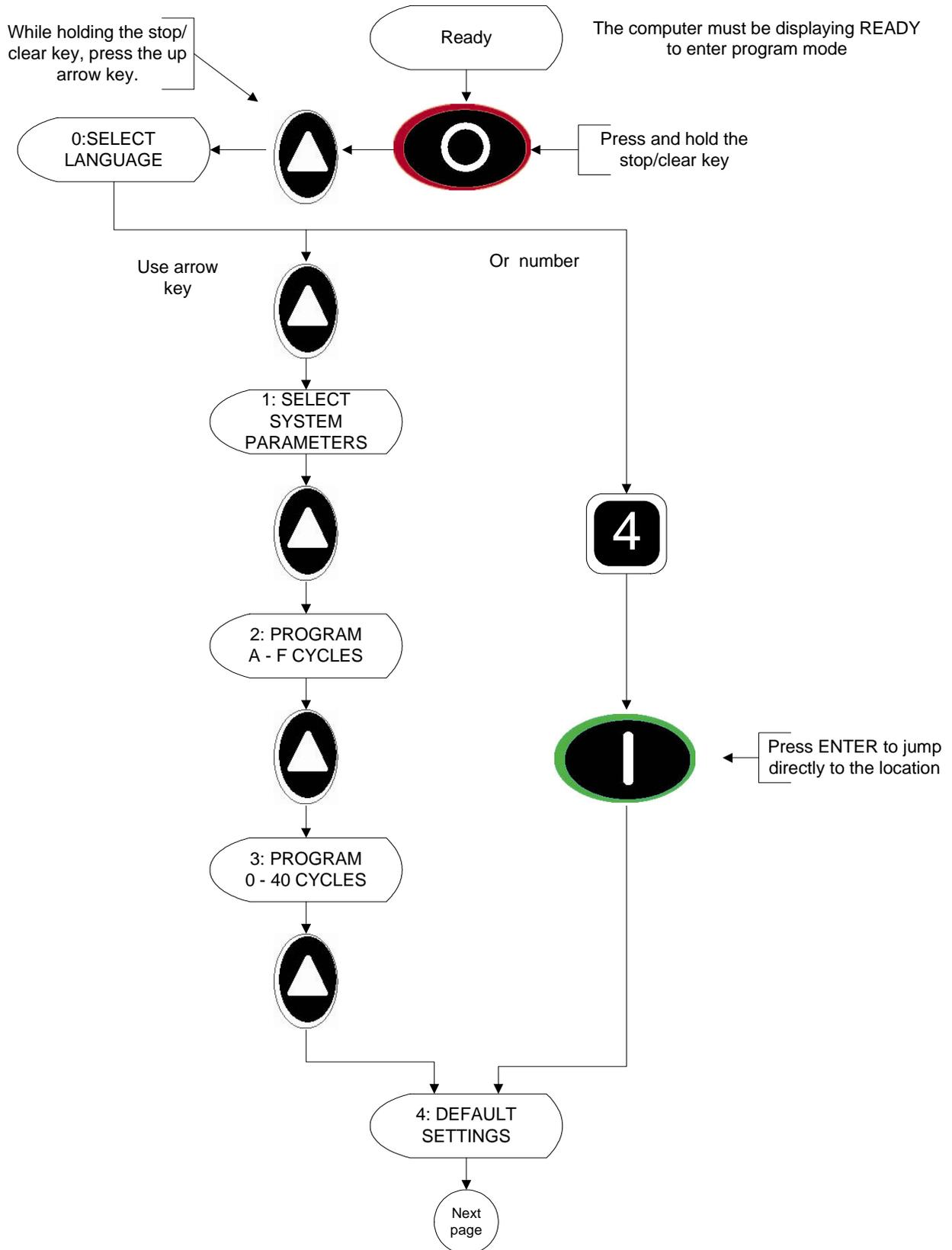


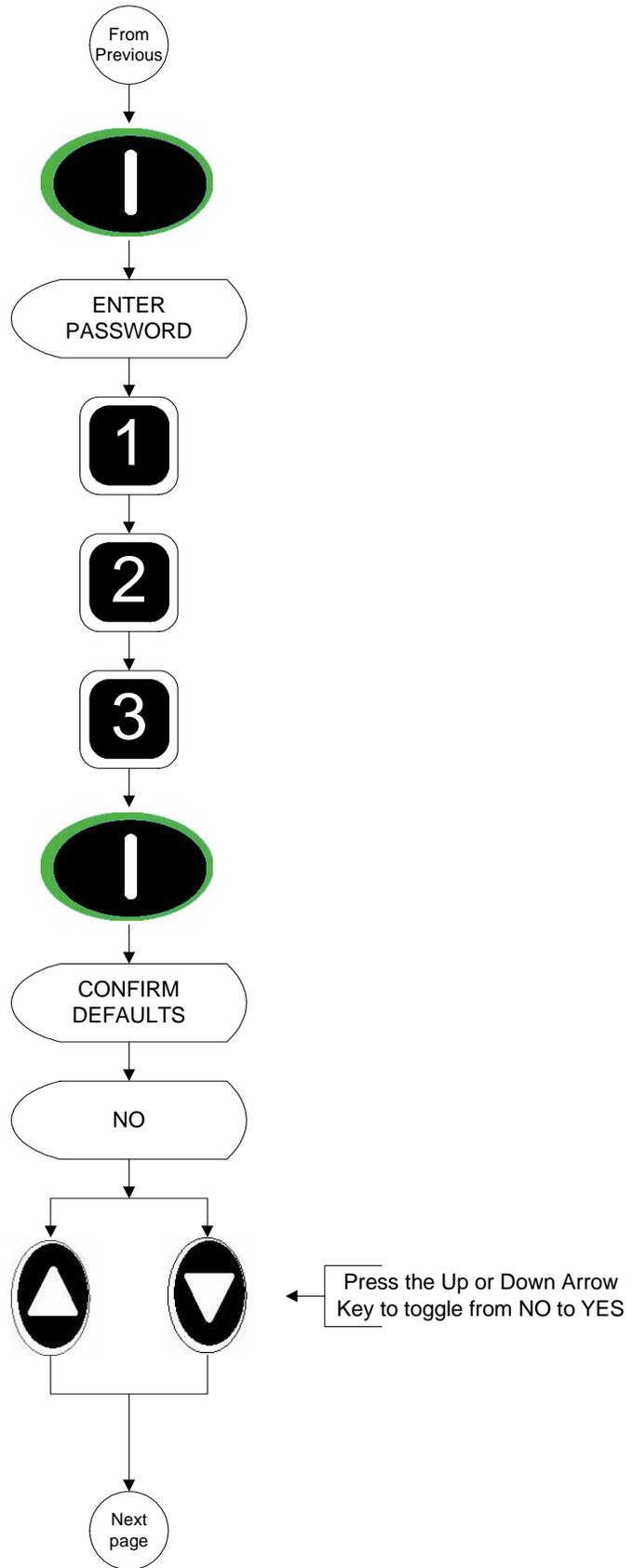


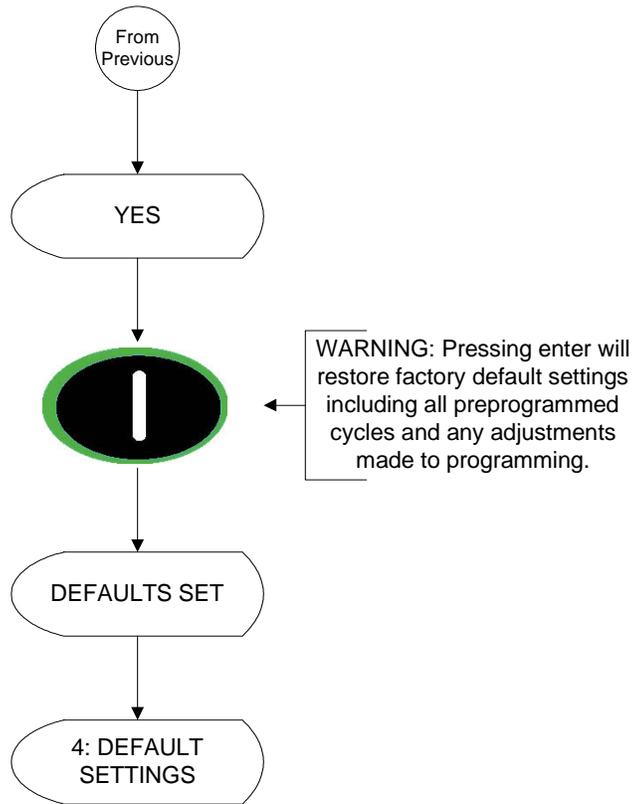




# Restoring Factory Default Settings







## Factory Preset Parameters (Programs) \_\_\_\_\_

**NOTE:** To enter program mode press and hold the stop and press the up arrow.

### Cycle "A-F" Parameters (Programs) Preset By The Factory

**CYCLE A:** ENTER DRY TIME = 90 MINUTES, ENTER DRY TEMP = 110° F, ENTER COOL DOWN TIME = 2 MINUTES, ENTER COOL DOWN TEMP = 70° F.

**CYCLE B:** ENTER DRY TIME = 120 MINUTES, ENTER DRY TEMP = 110° F, ENTER COOL DOWN TIME = 2 MINUTES, ENTER COOL DOWN TEMP = 70° F.

**CYCLE C:** ENTER DRY TIME = 150 MINUTES, ENTER DRY TEMP = 110° F, ENTER COOL DOWN TIME = 2 MINUTES, ENTER COOL DOWN TEMP = 70° F.

**CYCLE D:** ENTER DRY TIME = 180 MINUTES, ENTER DRY TEMP = 110° F, ENTER COOL DOWN TIME = 2 MINUTES, ENTER COOL DOWN TEMP = 70° F.

**CYCLE E:** ENTER DRY TIME = 45 MINUTES, ENTER DRY TEMP = 110° F, ENTER COOL DOWN TIME = 2 MINUTES, ENTER COOL DOWN TEMP = 70° F.

**CYCLE F:** ENTER DRY TIME = 20 MINUTES, ENTER DRY TEMP = 110° F, ENTER COOL DOWN TIME = 2 MINUTES, ENTER COOL DOWN TEMP = 70° F.

### Cycle "0-40" Parameters (Programs) Preset By The Factory

**CYCLE "0-40":** Manual (Timed) Mode, Reverse, Dry Time = 0, Dry Temp = 100, Cool Down Time = 4 Minutes, Cool Down Temp = 100, Spin Time = 60, Stop Time = 7.

## Phase 7.6 Programming Limits \_\_\_\_\_

### Preprogrammed Cycles

#### Timed (Manual) Drying Cycle

Drying Temperature from 100° F to 150° F (38° C to 66° C) in one-degree increments.

Drying Time from 0 to 250 minutes in 1 minute increments.

Cool Down Time from 0 to 99 minutes in 1 minute increments for preprogrammed cycle.

Cool Down Temperature from 70° F to 100° F (21° C to 38° C) in one-degree increments.

### System Parameters (Program Locations)

Audio Alert 0-10.

## Phase 7.6 System Diagnostics \_\_\_\_\_

**IMPORTANT:** YOU MUST DISCONNECT and LOCKOUT THE ELECTRIC SUPPLY and THE GAS SUPPLY or THE STEAM supply BEFORE ANY COVERS or GUARDS ARE REMOVED FROM THE MACHINE TO ALLOW ACCESS FOR CLEANING, ADJUSTING, INSTALLATION, or TESTING OF ANY EQUIPMENT per OSHA STANDARDS.

All major circuits, including door, microprocessor temperature sensor, heat and motor circuits are monitored. The Phase 7.6 microprocessor controller (computer) will inform the user, via the L.E.D. display of certain failure messages, along with L.E.D. indicators on the I/O board on the back panel of the front right control door.

### Diagnostic (L.E.D. Display) Fault Messages

**MAIN DOOR opened** – A main door is open when it should be closed.

**EXHAUST HIGH TEMP FAULT** – Indicates the temperature in the cabinet is above 220° F (104° C).

**EXHAUST HIGH LIMIT FAULT** – Indicates the temperature disk in the exhaust has opened.

**SAIL SWITCH CLOSED FAULT** – Sail switch is closed and should be opened.

**SAIL SWITCH OPEN FAULT** – Sail switch is open and should be closed.

**BURNER HIGH LIMIT FAULT** – Indicates the temperature disk in the burner has opened.

**BURNER control fault** – No signal to gas valve from DSI module during trial for ignition time.

**IGNITION FAULT** – Gas valve did not remain open after trial for ignition. Indicates that no flame was detected.

**FLAME FAULT** – Indicates flame was detected during trial for ignition but failed sometime after. This condition must reoccur for five retries before fault occurs.

**EXHAUST PROBE FAULT** – Indicates the exhaust temperature probe is open or shorted.

**LOW VOLTAGE FAULT** – Indicates power has dropped below the operating values and will shutdown.

**BURNER PURGE FAULT** – The gas valve signal is present during the prepurge time.

**MODEL ERROR, ENTER CORRECT MODEL** – The wrong model was selected for the dryer.

**EE PROM FAULT ###** – Error in memory location. The ### indicates the location of the fault.

## I/O Board L.E.D. Indicators

### INPUTS (RED L.E.D.)

**ESTOP** – This L.E.D. will indicate the status of the E-STOP. If the E-STOP has been pressed, then the L.E.D. is ON.

**GAS\_V** – This L.E.D. will indicate the status of the gas valve. If the gas valve is open (ON), then the L.E.D. is ON.

**BRHL** – This L.E.D. will indicate the status of the burner high limit disk. If the disk is closed (temperature below 330° F [166° C]), then the L.E.D. is ON.

**SAIL** – This L.E.D. will indicate the status of the sail switch. If the switch is closed, then the L.E.D. is ON.

**EXHL** – This L.E.D. will indicate the status of the exhaust high limit disk. If the disk is closed (temperature below 225° F [107° C]), then the L.E.D. is ON.

**MAIN** – This L.E.D. will indicate the status of the main door. If the door is closed, then the L.E.D. is ON.

**LINT** – This L.E.D. will indicate the status of the lint drawer. If the drawer is closed, then the L.E.D. is ON.

**FUSE** – This L.E.D. will indicate the status of the control voltage. If the power on button is pressed (green button light is on), then the L.E.D. is ON.

**H<sub>2</sub>O** – This L.E.D. will indicate the status of water pressure switch on the S.A.F.E. system water line. If water pressure is present, then the L.E.D. is ON.

### OUTPUTS (GREEN L.E.D.)

**F.S.S.** – This L.E.D. will indicate the F.S.S./S.A.F.E. system output is activated.

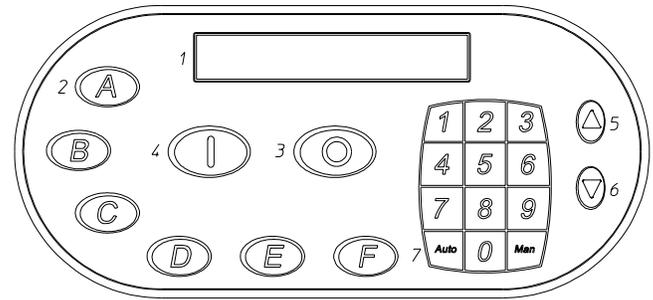
**HEAT** – This L.E.D. will indicate the status of the heat output. If the request to turn on the heater is made, then the L.E.D. is ON.

**REV** – This L.E.D. will indicate the status of the cabinet reverse direction output. If the request to tumble the drum in the reverse direction is made, then the L.E.D. is ON.

**FWD** – This L.E.D. will indicate the status of the cabinet forward direction output. If the request to tumble the drum in the forward direction is made, then the L.E.D. is ON.

**FAN** – This L.E.D. will indicate the status of the fan output. If the request to turn on the fan (blower) is made, then the L.E.D. is ON.

## Keypad Layout

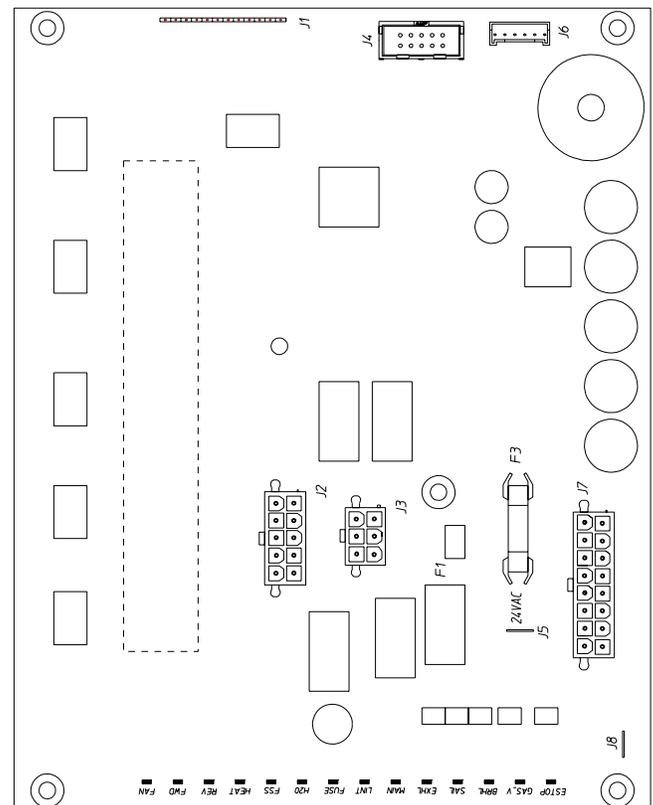


DC 7/7/03

MAN6779

1. Dot Matrix Display
2. A-F Preprogrammed Cycles
3. Stop/Pause Button
4. Start Button
5. Increment Button
6. Decrement Button
7. One time Auto (Dryness level) and Manual (timed) Cycle

**NOTE:** Fuse 1 (F1) is a self-resetting upon power cycle. If fuse 1 is opened, the display will be blank. Fuse 2 (F3) is for 24V control power rated at 5-amps. If fuse 2 blows it is a 24V control fault.



MAN6780

DC 7/8/03

# Customer Custom Parameter Settings

This section is set aside for customer use where customer or specific parameters/settings can be documented, as programmed by them for their specific dryer. It is suggested that any parameter changes or customer cycles be documented here for future reference.

## CUSTOMER USE

- LANGUAGE: \_\_\_\_\_
- MODEL: \_\_\_\_\_
- SYSTEM TEMP: \_\_\_\_\_
- AUDIO ALERT: \_\_\_\_\_
- 1ST ON TIME: \_\_\_\_\_
- OFF TIME: \_\_\_\_\_
- 2ND ON TIME: \_\_\_\_\_
- OFF TIME: \_\_\_\_\_
- 3RD ON TIME: \_\_\_\_\_
- OFF TIME: \_\_\_\_\_
- 4TH ON TIME: \_\_\_\_\_
- OFF TIME: \_\_\_\_\_
- 5TH ON TIME: \_\_\_\_\_
- OFF TIME: \_\_\_\_\_

## Programmed Cycle A-F:

- Cycle Type: **MANUAL**
- Dry Time: \_\_\_\_\_
- Dry Temp: \_\_\_\_\_
- Cool Down Time: \_\_\_\_\_
- Cool Down Temp: \_\_\_\_\_
- 1ST ON TIME: \_\_\_\_\_
- OFF TIME: \_\_\_\_\_
- 2ND ON TIME: \_\_\_\_\_
- OFF TIME: \_\_\_\_\_
- 3RD ON TIME: \_\_\_\_\_
- OFF TIME: \_\_\_\_\_
- 4TH ON TIME: \_\_\_\_\_
- OFF TIME: \_\_\_\_\_
- 5TH ON TIME: \_\_\_\_\_
- OFF TIME: \_\_\_\_\_

## Programmed Cycle 0-40:

- Cycle Type: **MANUAL**
- Dry Time: \_\_\_\_\_
- Dry Temp: \_\_\_\_\_
- Cool Down Time: \_\_\_\_\_
- Cool Down Temp: \_\_\_\_\_
- 1ST ON TIME: \_\_\_\_\_
- OFF TIME: \_\_\_\_\_
- 2ND ON TIME: \_\_\_\_\_
- OFF TIME: \_\_\_\_\_
- 3RD ON TIME: \_\_\_\_\_
- OFF TIME: \_\_\_\_\_
- 4TH ON TIME: \_\_\_\_\_
- OFF TIME: \_\_\_\_\_
- 5TH ON TIME: \_\_\_\_\_
- OFF TIME: \_\_\_\_\_



