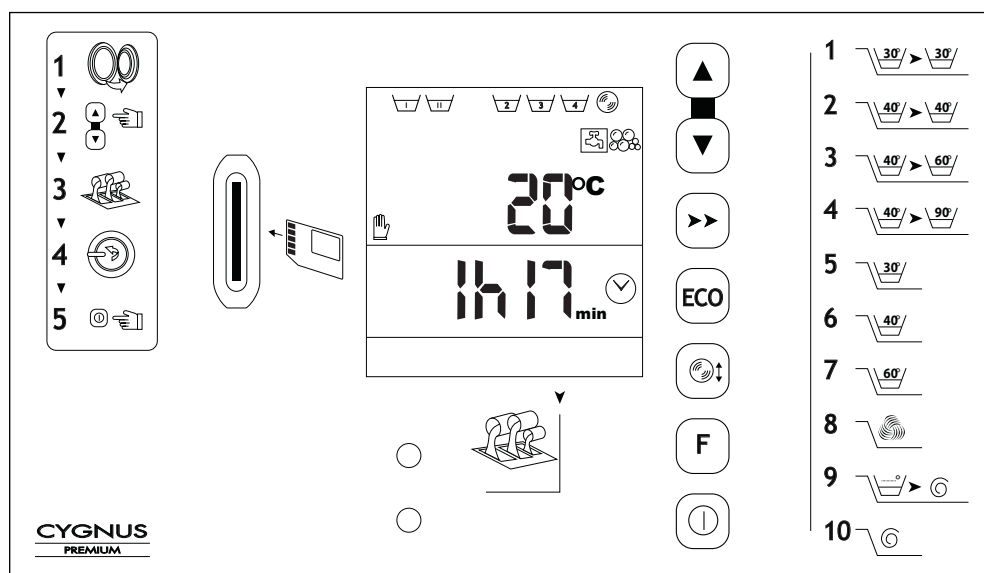


# Washer-Extractor

Cygnus Premium OPL

Refer to Page 4 for Model Numbers


## Programming



**Keep These Instructions for Future Reference.**

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



	<b>WARNING</b>
<p><b>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.</b></p>	
<p>W030</p>	

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

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

# Table of Contents

<b>Model Identification</b> .....	4
<b>Preliminary Information</b> .....	5
About the Control .....	5
Glossary of Terms .....	5
Power Failure Recovery .....	5
Communications .....	5
<b>Control Identification</b> .....	6
Up and Down Keypads .....	6
<b>Display Identification</b> .....	7
<b>Special Features</b> .....	8
Programming Control .....	8
Viewing Control Information .....	8
Testing Machine Components .....	8
Rapid Advance Feature .....	8
Communication Mode .....	8
<b>Washer-Extractor Operation</b> .....	9
Start Up .....	9
Start Mode .....	9
Run Mode .....	9
Stop Mode .....	9
End of Cycle Mode .....	9
<b>The Non-Active Menu</b> .....	11
What is Available in the Non-Active Menu? .....	11
Entering the Non-Active Menu .....	11
Non-Active Menu Navigation .....	11
Non-Active Menu Options .....	12
Non-Active Menu Flowchart .....	13
1. Information Sub-Menu “i n F o” .....	14
Information Sub-Menu Flowchart .....	15
2. Test Sub-Menu “t E S t” (1 of 4) .....	16
Test Sub-Menu Flowchart (1 of 4) .....	17
2. Test Sub-Menu “t E S t” (2 of 4) .....	18
Test Sub-Menu Flowchart (2 of 4) .....	19
2. Test Sub-Menu “t E S t” (3 of 4) .....	20
Test Sub-Menu Flowchart (3 of 4) .....	21
2. Test Sub-Menu “t E S t” (4 of 4) .....	22
Test Sub-Menu Flowchart (4 of 4) .....	23
3. Entry Code Set Sub-Menu “c o d E S E t” .....	24
Entry Code Set Sub-Menu Flowchart .....	25
4. Clock Set Sub-Menu “c l o c k S E t” .....	26
Clock Set Sub-Menu Flowchart .....	27
5. Network Address Sub-Menu “n E t A d d r E S S” .....	28
Network Address Sub-Menu Flowchart .....	29
6. Rapid Advance Enable Sub-Menu “R a p i d A d v a n c e E n A b L e d” .....	30
Rapid Advance Enable Sub-Menu Flowchart .....	31
7. Temperature Indication Enable Sub-Menu “t E m p E n A b L e d” .....	32
Temperature Indication Enable Sub-Menu Flowchart .....	33
8. Edit Programming Sub-Menu “E d i t P r o g” (1 of 2) .....	34
Edit Programming Sub-Menu Flowchart (1 of 2) .....	35
8. Edit Programming Sub-Menu “E d i t P r o g” (2 of 2) .....	36

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9. MMC Sub-Menu “nnL” (1 of 3).....	39
MMC Sub-Menu Flowchart (1 of 3).....	40
9. MMC Sub-Menu “nnL” (2 of 3).....	41
MMC Sub-Menu Flowchart (2 of 3).....	42
9. MMC Sub-Menu “nnL” (3 of 3).....	43
MMC Sub-Menu Flowchart (3 of 3).....	44
10. Service Counters Sub-Menu “SErvice cOUNTErS” .....	45
Service Counters Sub-Menu Flowchart .....	46
11. Weekly Cycle Count Sub-Menu “WEEkLY cOUNTErS” .....	47
Weekly Cycle Count Sub-Menu Flowchart .....	48
12. Last Errors Sub-Menu “LAST ErroRS” .....	49
Last Errors Sub-Menu Flowchart.....	50
13. Out of Order Sub-Menu “out of ordEr” .....	51
Out of Order Sub-Menu Flowchart.....	52
<b>Error Messages</b> .....	53
Error Messages .....	53
Events .....	56
<b>Rapid Advance Feature</b> .....	57
<b>Communication Mode</b> .....	58
Infra-red Communications.....	58

# Model Identification

Information in this manual is applicable to these washer-extractor models:

HD100_CYGNUS- PREM	IHN185Y	IXN075Y	WD400_CYGNUS- PREM
HD135_CYGNUS- PREM	IHN235Y	IXN100Y	WD65_CYGNUS- PREM
HD165_CYGNUS- PREM	IHN305Y	IXN135Y	WD75_CYGNUS- PREM
HD235_CYGNUS- PREM	IHN400Y	IXN165Y	JHW065Y
HD305_CYGNUS- PREM	IHU065Y	IXN235Y	JHW075Y
HD60_CYGNUS- PREM	IHU075Y	IXN305Y	JHW100Y
HD65_CYGNUS- PREM	IHU100Y	IXU060Y	JHW135Y
HD75_CYGNUS- PREM	IHU135Y	IXU065Y	JHW150Y
HF455_CYGNUS- PREM_OPL	IHU150Y	IXU075Y	JHW165Y
HF575_CYGNUS- PREM_OPL	IHU165Y	IXU100Y	JHW185Y
HF730_CYGNUS- PREM_OPL	IHU185Y	IXU135Y	JHW235Y
HF900_CYGNUS- PREM_OPL	IHU235Y	IXU165Y	JHW305Y
IHF455	IHU305Y	IXU235Y	JXW060Y
IHF575	IHU400Y	IXU305Y	JXW065Y
IHF730	IHW065Y	IXW060Y	JXW075Y
IHF900	IHW075Y	IXW065Y	JXW100Y
IHG065Y	IHW100Y	IXW075Y	JXW135Y
IHG075Y	IHW135Y	IXW100Y	JXW165Y
IHG100Y	IHW150Y	IXW135Y	JXW235Y
IHG135Y	IHW165Y	IXW165Y	JXW305Y
IHG150Y	IHW185Y	IXW235Y	PHU065Y
IHG165Y	IHW235Y	IXW305Y	PHU075Y
IHG185Y	IHW305Y	IXZ060Y	PHU100Y
IHG235Y	IHW400Y	IXZ065Y	PHU135Y
IHG305Y	IHZ065Y	IXZ075Y	PHU150Y
IHG400Y	IHZ075Y	IXZ100Y	PHU165Y
IHN065Y	IHZ100Y	IXZ135Y	PHU185Y
IHN075Y	IHZ135Y	IXZ165Y	PHU235Y
IHN100Y	IHZ150Y	IXZ235Y	PHU305Y
IHN135Y	IHZ165Y	IXZ305Y	PHU400Y
IHN150Y	IHZ185Y	WD100_CYGNUS- PREM	PXU060Y
IHN165Y	IHZ235Y	WD135_CYGNUS- PREM	PXU065Y
	IHZ305Y	WD150_CYGNUS- PREM	PXU075Y
	IHZ400Y	WD165_CYGNUS- PREM	PXU100Y
	IXG060Y	WD185_CYGNUS- PREM	PXU135Y
	IXG065Y	WD235_CYGNUS- PREM	PXU165Y
	IXG075Y	WD305_CYGNUS- PREM	
	IXG100Y		
	IXG135Y		
	IXG165Y		
	IXG235Y		
	IXG305Y		
	IXN060Y		
	IXN065Y		

# Preliminary Information

## About the Control

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

The control allows the operator to obtain information from the machine, run test cycles, modify the control's programmable features, set the service counters and view the error code history. Refer to ***The Non-Active Menu*** section for a list of features.

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

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

## Glossary of Terms

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

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

## Power Failure Recovery

If a cycle is in progress and the power fails, the water will be drained from the machine and the door can be opened after approximately 3 minutes. If the door is not opened and the power failure is shorter than 2 weeks, the washer-extractor will resume the previously active cycle.

If the door is opened or if the length of the power failure is longer than 2 weeks, the control will end the cycle and the display will revert back to Start Mode.

## Communications

The control may be programmed manually or by infra-red communication with an external device.

### *Infra-red Communications*

A PC allows the owner to program and retrieve information from the control without using the machine's keypad, which greatly expands the programming options available to the owner. However, it is not required to program and operate the washer-extractor. The operation of a PC and the advanced features available are covered separately in the instructions included with the PC programming software, Cygnus Assist.

# Control Identification

## Up and Down Keypads

### (Refer to *Figure 1*)

The cycle number is shown in the display. Press the up and down keypads to change the cycle number. Press the start keypad to start the cycle.

The up and down keypads are used in various combinations for obtaining information from the machine, running test cycles, modifying the control's programmable features, setting the service counters and viewing the error code history. These instructions cover the manual programming and data retrieval options.

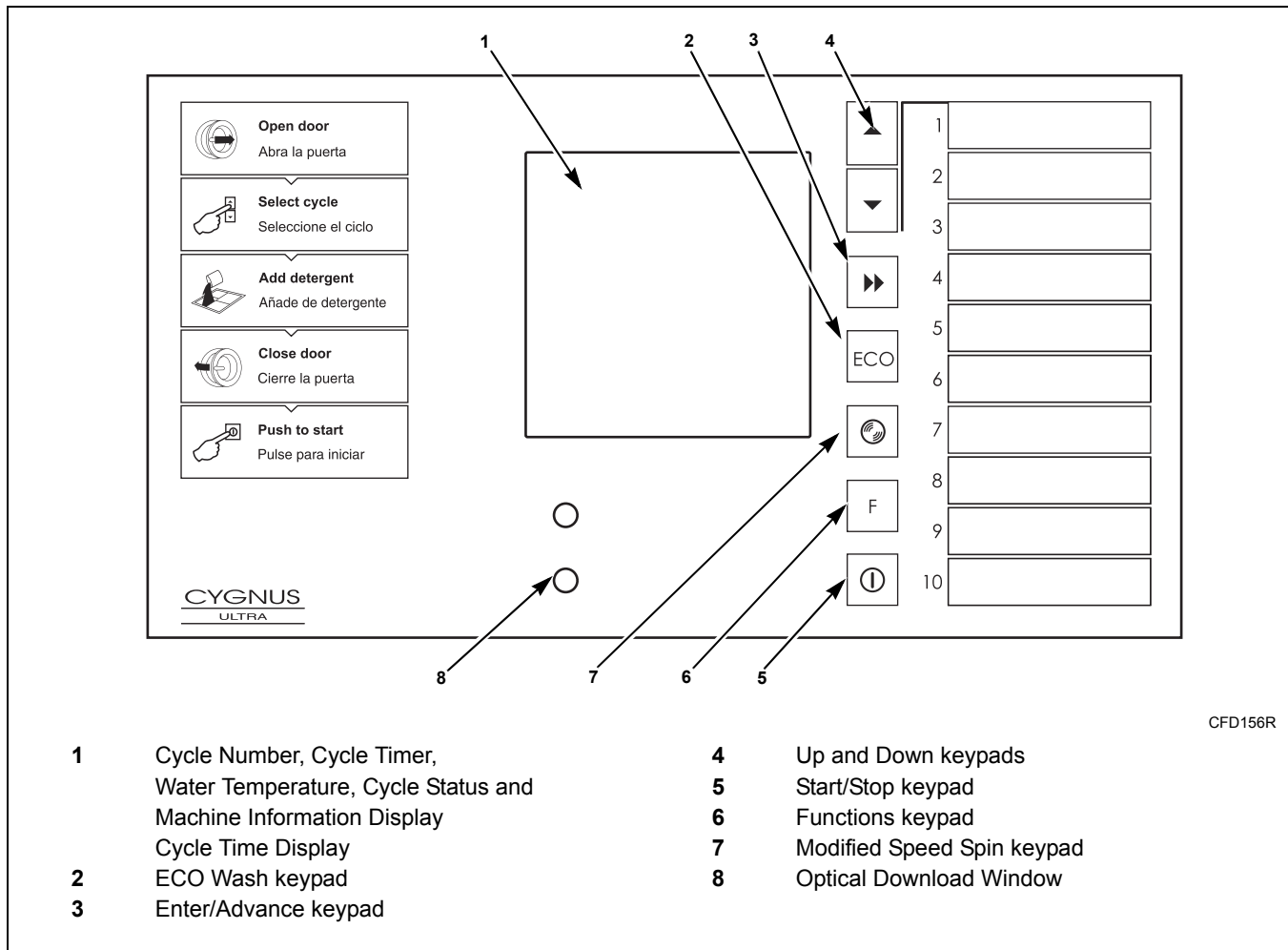
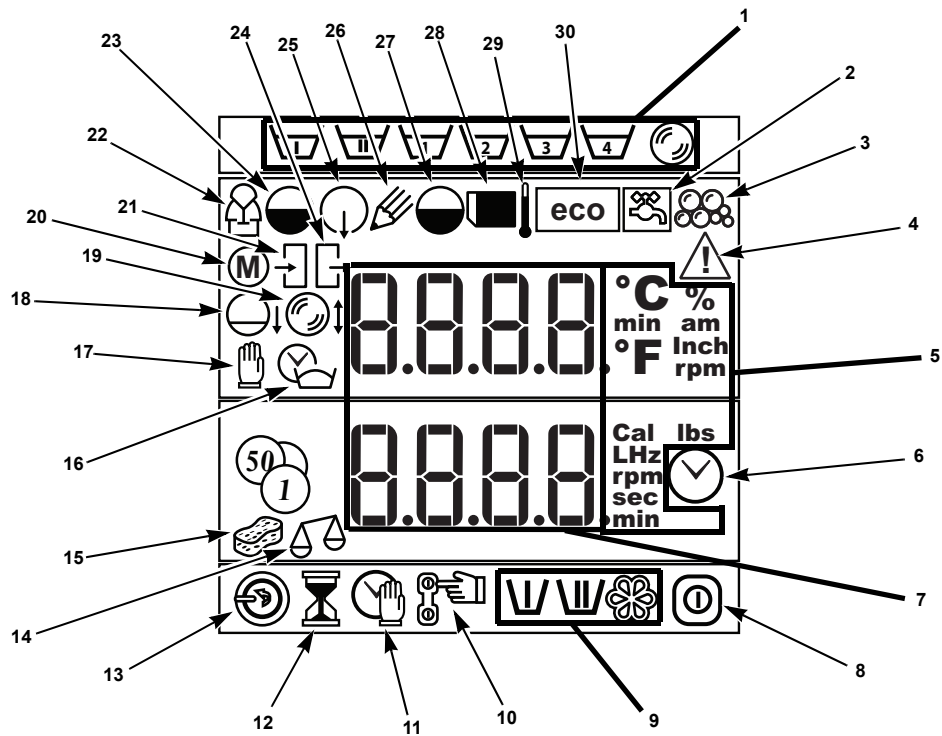


Figure 1



# Display Identification



CFD65R

- |    |                                  |    |                        |
|----|----------------------------------|----|------------------------|
| 1  | Cycle Segments                   | 16 | Soak                   |
| 2  | Water Inlet                      | 17 | Hold                   |
| 3  | Supplies                         | 18 | Reduced Wash Agitation |
| 4  | Error Message                    | 19 | Modified Spin Speed    |
| 5  | Units of Measure                 | 20 | Motor                  |
| 6  | Time                             | 21 | Inputs                 |
| 7  | 7-Segment Display                | 22 | Test Program           |
| 8  | Start/Stop                       | 23 | Wash                   |
| 9  | Supplies                         | 24 | Outputs                |
| 10 | Operator Action Required         | 25 | Drain                  |
| 11 | Delayed Start                    | 26 | Edit                   |
| 12 | Wait                             | 27 | Water Level            |
| 13 | Close Door/Open Door             | 28 | MMC Card               |
| 14 | Load-Dependent Wash (Weight)     | 29 | Water Temperature      |
| 15 | Load-Dependent Wash (SMART WAVE) | 30 | ECO Wash               |

Figure 2

# Special Features

## Programming Control

The control allows the washer-extractor's operator to program the control with the use of the keypad.

For details on programming select cycle options, refer to *The Non-Active Menu* section.

## Viewing Control Information

The control will store information in its memory that can be retrieved by pressing various combinations of keypads. The control will record machine cycles and hours of operation.

For more information, refer to the *1. Information Sub-Menu "iFo"* section.

## Testing Machine Components

By entering the Non-Active Menu's Test Sub-Menu, the operator may perform the following tests:

- Water Level Test
- Water Inlet Test
- Motor Test
- Temperature Sensor Test and Calibration
- Drain Valve Test
- Relay Test
- Door, Door Lock and Out-Of-Balance Switch Test
- Display Test

For detailed information, refer to the *2. Test Sub-Menu "tEst"* section.

## Rapid Advance Feature

This feature allows the operator to manually advance through an active cycle. This feature is useful when tests must be performed immediately on a washer-extractor currently in an active cycle.

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

## Communication Mode

This feature allows the control to communicate with a PC equipped with the Cygnus Assist software using infra-red communication. This allows the control to be programmed and have its data read without using the machine's keypad.

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

# Washer-Extractor Operation

## Start Up

When power is applied to the washer-extractor, if the control was not powered down during a running cycle, it will enter Start Mode.

## Start Mode

The control enters this mode when the machine is ready for operation. The display will show the cycle number.

After pressing the ① keypad with the door closed and locked, the cycle will begin.

## Run Mode

Upon the start of a cycle, the control's display alternates between the cycle number and the water temperature. The display also shows the remaining cycle time, cycle status and machine information.

## Stop Mode

The control enters this mode if the operator ends the cycle before it is completed by pressing the ① keypad. Once the control does not detect water or cylinder rotation, it will enter End Of Cycle mode.

## End of Cycle Mode

When a cycle is complete, the control will display "End" until the door is opened. When the door is opened, the control will return to Start Mode.

[illegible]

# The Non-Active Menu

## What is Available in the Non-Active Menu?

The Non-Active menu can be used to obtain information from the machine, run test cycles, modify the control's programmable features, set the service counters and view the error code history.

## Entering the Non-Active Menu

**NOTE: To enter the Non-Active Menu, a cycle must not be in process.**

1. Press and hold the ▲ keypad.
2. While continuing to press the ▲ keypad, press and release the ▼ keypad.
3. Continue to hold the ▲ keypad until the display shows the entry code.

**NOTE: By default, the entry code is 1000.**

4. Modify the entry code as needed and press the ►► keypad. The display shows “INF0”, which is the abbreviation for the Info Menu, the first option within the Non-Active Menu.

## Non-Active Menu Navigation

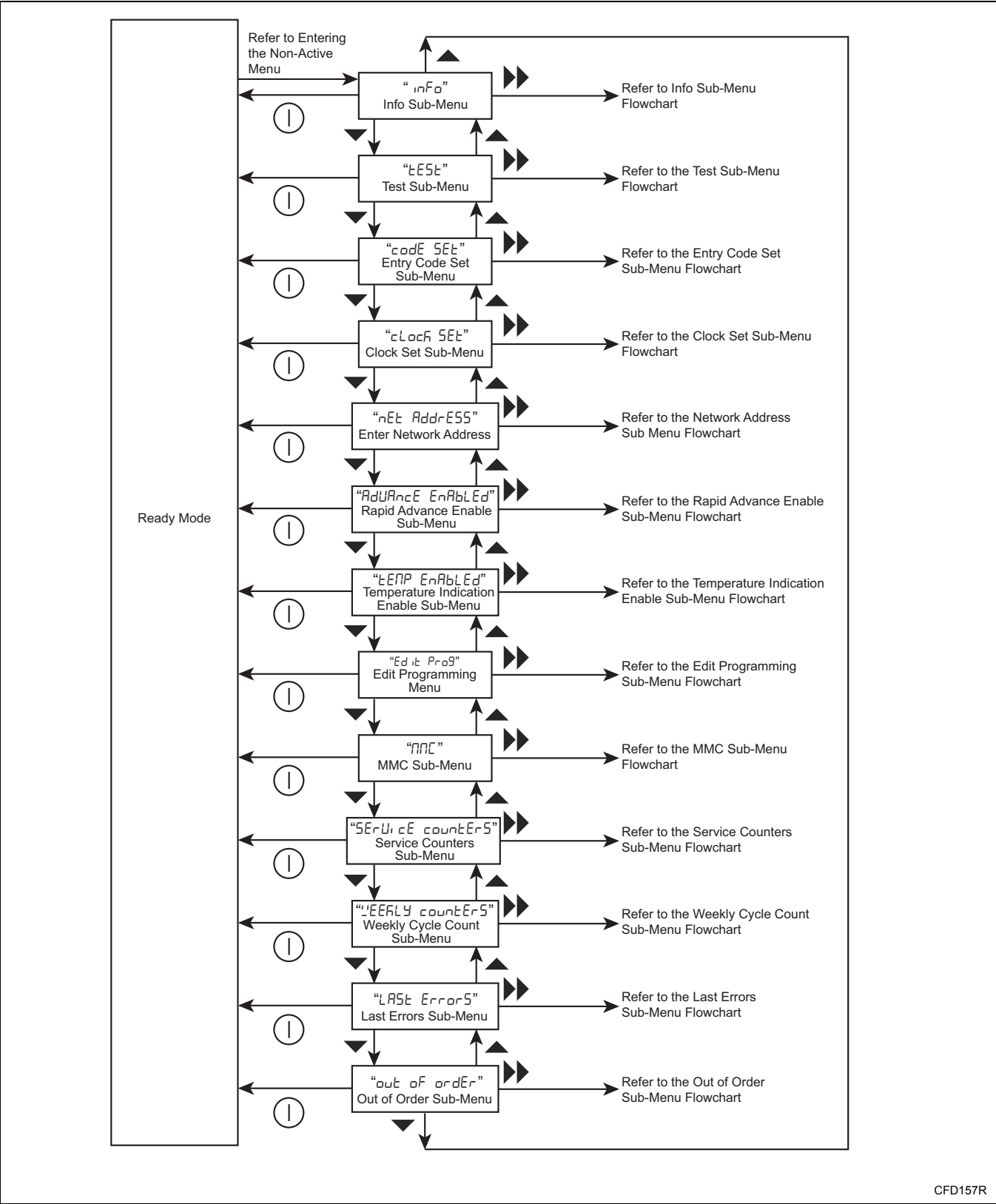
1. Enter the Non-Active Menu (refer to the *Entering the Non-Active Menu* section).
2. Press the ▲ or ▼ keypads to scroll through the Non-Active Menu options (Refer to *Table 1*).
3. Press the ►► keypad to enter a Non-Active Menu option.
4. Press the ⓪ keypad to exit the Non-Active Menu.

## Non-Active Menu Options

Option Number	Option Display	Description
1	"info"	The Information Sub-Menu allows the operator to view information about the control.
a.	"cycles XX"	Total number of cycles performed
b.	"hours XX"	Total hours of operation
c.	"SERIAL nr XXX"	Machine's serial number
d.	"d01 XX-XX-XXXX"	Machine's installation date
e.	"PARAM List XXXX"	Machine's parameter list
2	"test"	The Test Sub-Menu allows the operator to test some of the machine's components.
a.	"LEVEL"	Water level test
b.	"inlets"	Water inlet test
c.	"Motor"	Motor test
d.	"HEAT"	Temperature sensor test and calibration
e.	"drain"	Drain valve test
f.	"RELAYS"	Relay test
g.	"inPuts"	Door, door lock and out-of-balance switch test
h.	"display"	Display test
3	"code Set"	The Entry Code Set Sub-Menu allows the user to modify the machine's entry code.
4	"clock Set"	The Clock Set Sub-Menu allows the user to set the machine's year, month, day, day of the week, hour and minutes.
5	"net Address"	Enter a network address.
6	"RAdvAnce EnAbLEd"	The Rapid Advance Enable Sub-Menu allows the operator to turn the rapid advance option on or off.
7	"TEMP EnAbLEd"	The Temperature Indication Enable Sub-Menu allows the operator to turn the temperature indicator (which appears during a cycle) on or off.
8	"Edit Prog"	The Edit Programming Sub-Menu allows the operator to modify the machine's programmed cycles.
9	"mmc"	The MMC Sub-Menu allows the operator to manage data on the MMC card.
10	"SErvice countErS"	The Service Counters Sub-Menu allows the operator to display service maintenance reminders on the machine's control after the machine has been operated for a specified number of hours or cycles.
11	"WEEkLY countErS"	The Weekly Cycle Count Sub-Menu allows the operator to view the number of times each cycle has been run over the last 7 days.
12	"LASt ErrorS"	The Last Errors Sub-Menu allows the operator to view a list of errors that have occurred during the last cycle that was run on the machine.
13	"out of order"	The Out of Order Sub-Menu allows the operator to place a machine out of service, preventing it from being used.

Table 1

Non-Active Menu Flowchart



## The Non-Active Menu

### 1. Information Sub-Menu “INF0”

The Information Sub-Menu allows the operator to view information about the control.

#### How to Access the Information Sub-Menu

1. Enter the Non-Active menu (refer to the *Entering the Non-Active Menu* section).
2. Press the ▲ or ▼ keypads to scroll through the Non-Active Menu's sub-menus until “INF0” appears in the display.
3. Press the ►► keypad. “CYCLE5 XX” appears in the display.
4. Press the ▲ or ▼ keypads until the desired option appears in the display. Refer to *Table 2*.

Option Display	Description
“CYCLE5 XX”	Total number of cycles performed
“hours XX”	Total hours of operation
“SERIAL nr XX”	Machine's serial number
“da, XX-XX-XXXX”	Machine's installation date <b>NOTE: The date on which the machine completed it's 10<sup>th</sup> cycle will be recorded by the control as the machine's “installation date” (DD-MM-YYYY).</b>
“PARAM LIST”	Machine's parameter list

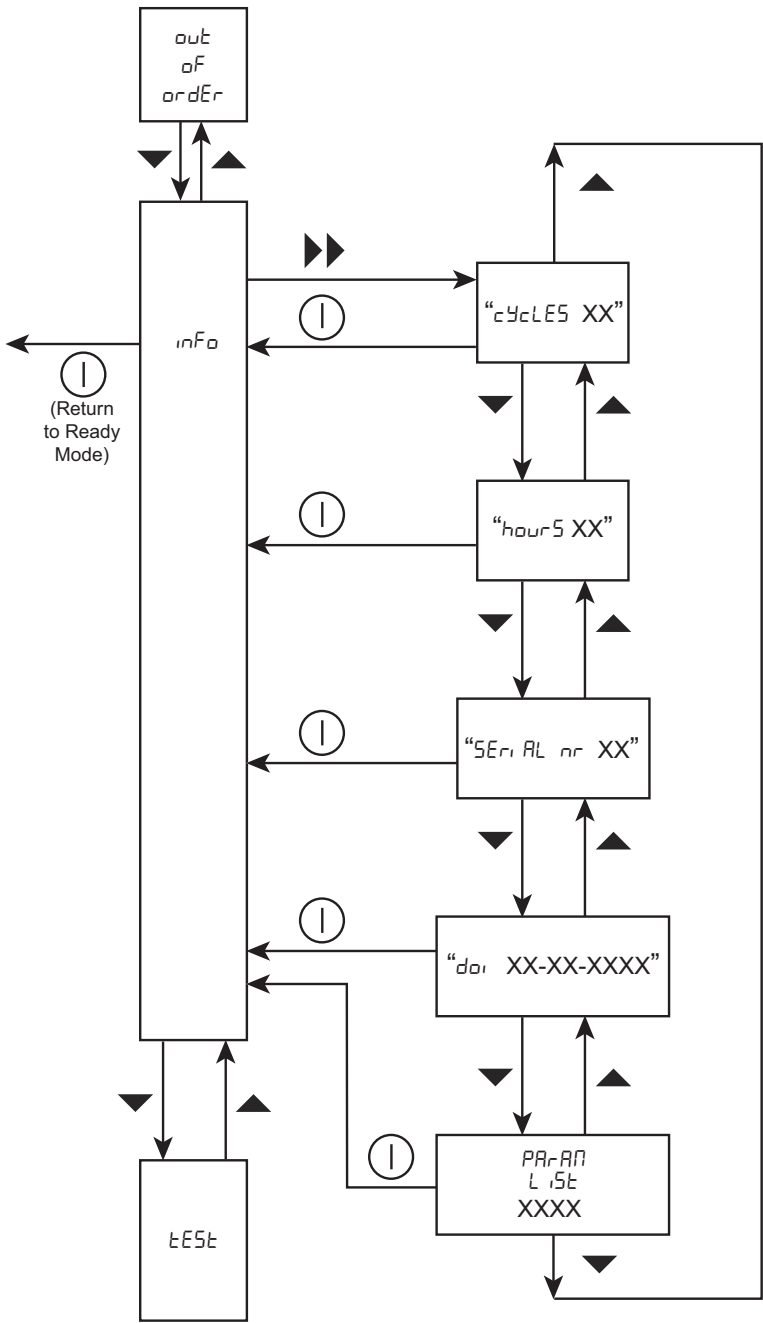
Table 2

#### How to Exit the Information Sub-Menu

Press the ① keypad until the control returns to the Ready Mode.



Information Sub-Menu Flowchart



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## 2. Test Sub-Menu “tEt5t” (1 of 4)

The Test Sub-Menu allows the operator to test some of the machine’s components.

### How to Access the Test Sub-Menu

1. Enter the Non-Active menu (refer to the *Entering the Non-Active Menu* section).
2. Press the ▲ or ▼ keypads to scroll through the Non-Active Menu’s sub-menus until “tEt5t” appears in the display.
3. Press the ►► keypad. “LEUEL” appears in the display.
4. Press the ▲ or ▼ keypads to scroll through the Test Sub-Menu’s options.
5. Press the ►► keypad to access the desired Test Sub-Menu’s option. Refer to the *Using the Test Sub-Menu’s Options* section for details on each option.

### Using the Test Sub-Menu’s Options

#### a. Water Level Test “LEUEL”

**NOTE: Make sure all water has been drained from the machine.**

- i. Press the ►► keypad. “XX.X”, which is the measured water level, appears in the display and flashes.
- ii. Press the ►► keypad. “XX.X”, which is the water level to be measured, appears in the display.
- iii. Note the number shown in the display and mark the middle of the door glass.
- iv. Press the ►► keypad. “FILL” appears in the display and the machine begins to fill with water.
- v. Fill the machine to the mark made on the middle of the door glass. Press the ▼ keypad to turn off the water and the ▲ keypad to turn on the water as needed.
- vi. Press the ►► keypad. “XX.X”, which is the current water level, appears in the display and flashes.
- vii. Compare the number shown in the display to the number that was recorded earlier. If necessary, press the ▲ or ▼ keypads to change the number shown in the display until it matches the number that was recorded earlier.

viii. Press the ►► keypad. “XX.X”, which is the measured water level, is shown in the display.

ix. Press the ① keypad. “LEUEL” appears in the display.

#### b. Water Inlet Test “iLEt5”

- i. Press the ►► keypad. “hot 1 off” appears in the display.
- ii. Press the ▲ or ▼ keypads to scroll through the inlets until the desired inlet is shown in the display. Refer to *Table 3*.

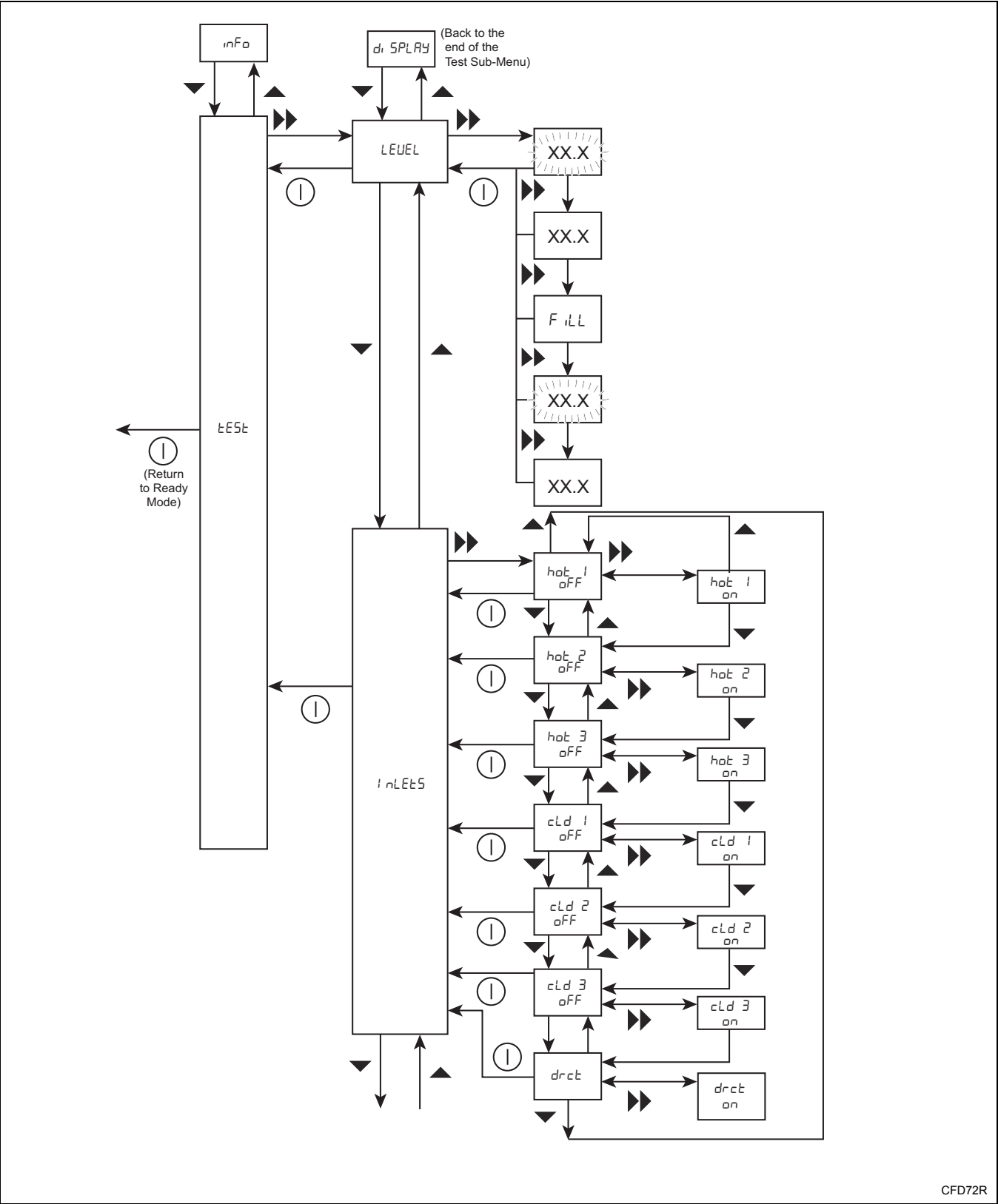
Display	Description
“hot 1 off”	Hot water 1
“hot 2 off”	Hot water 2
“hot 3 off”	Hot water 3
“cld 1 off”	Cold water 1
“cld 2 off”	Cold water 2
“cld 3 off”	Cold water 3
“direct”	Direct

Table 3

- iii. Press the ►► keypad to turn on the desired inlet. The display shows on next to the inlet number (e.g., “hot 1 on.”).
- iv. Press the ►► keypad to turn off the desired inlet.
- v. Press the START keypad. “iLEt5” appears in the display.

(continued)

Test Sub-Menu Flowchart (1 of 4)



## 2. Test Sub-Menu “tESt” (2 of 4)

### c. Motor Test “Motor”

- Press the ►► keypad. “\_lASh” appears in the display.
- Press the ▲ or ▼ keypads to scroll through the Motor Test sub-menu’s options until the desired option is shown in the display. Refer to *Table 4*.

Display	Description
“_lASh”	Motor wash speed
“SPin”	Motor spin speed
“tune”	Autotune the motor with the inverter drive

Table 4

- Press the ►► keypad to select the desired option.
  - “\_lASh”: The motor goes into wash speed and “r XX” or “L XX” appears on the display.
  - “SPin”: The motor goes into spin speed and the speed “XX” appears on the display. The machine will accelerate to 500 RPM (if allowed by the machine) and continue at this speed for a few seconds. The machine will then accelerate to its maximum spin speed and will continue at this speed.
  - “tune”: The display shows “rESEt ing inverter”. The display then flashes “tune” as the inverter drive is autotuned.

**NOTE: The “tune” option will automatically turn off once the autotune is complete.**
- Press the ① keypad to turn off the option.
- Press the ① keypad. “Motor” appears in the display.

### d. Temperature Sensor Test and Calibration “HEAt”

- Press the ►► keypad. The measured temperature “XX°C” appears in the display. The machine is filled with water to the safety level.
- Press the ▲ or ▼ keypads to scroll through the Temperature Sensor Test and Calibration sub-menu’s options until the desired option is shown in the display. Refer to *Table 5*.

Display	Description
“XX°C OFF” or “XX°C on”	Turn the heating off or on <b>NOTE: This option is only visible if the machine is configured for 1 heating type.</b>
“XX°C CAL”	Calibrate the temperature sensor

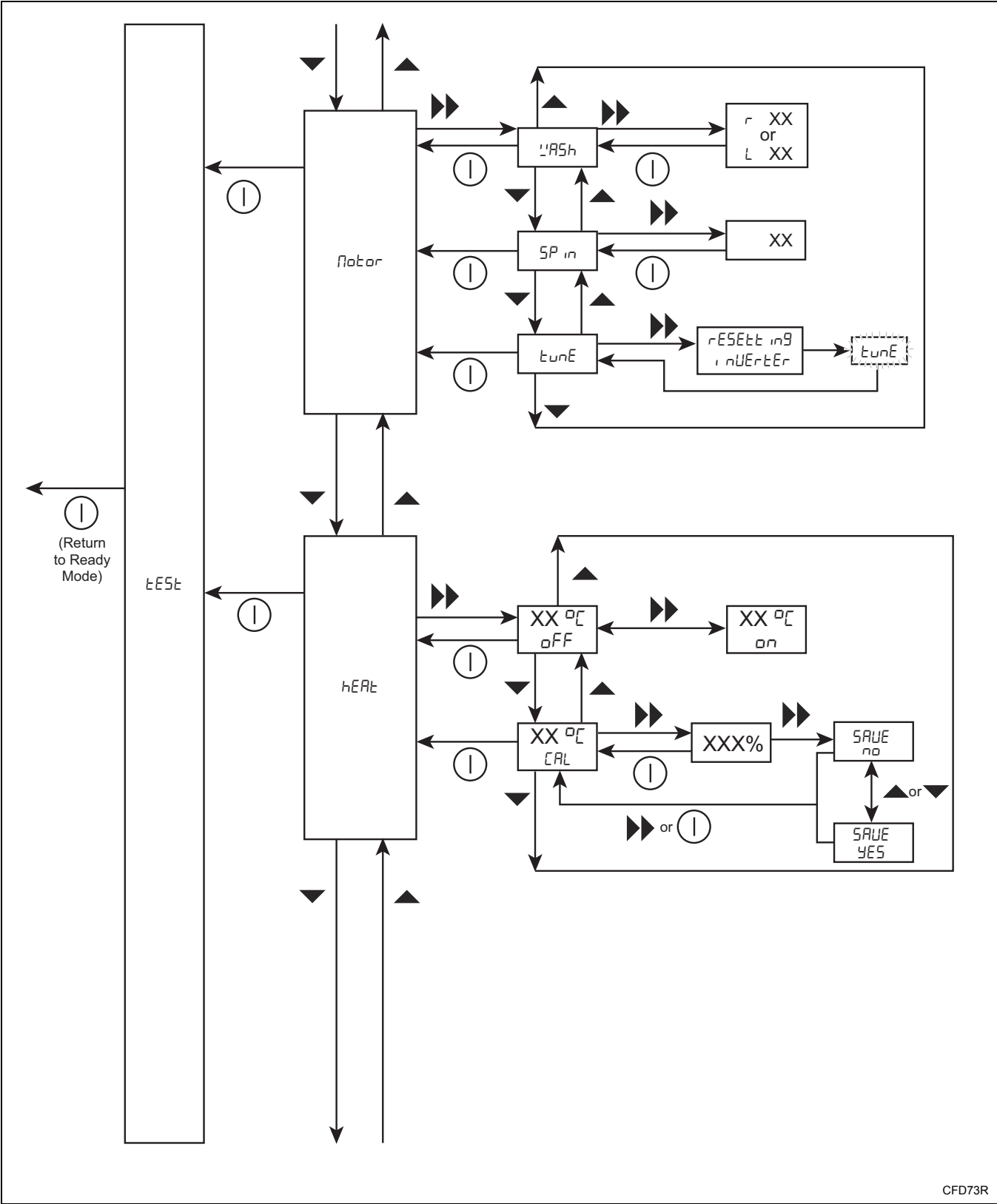
Table 5

- Press the ►► keypad to select the desired option.
  - “XX°C OFF” or “XX°C on”: Turn the heating off or on. “XX°C OFF” is displayed when the heating is turned off and “XX°C on” is displayed when the heating is turned on.
  - “XX°C CAL”:
    - The measured temperature “XX°C CAL” appears in the display.
    - Press the ►► keypad. The calibration percentage and temperature are displayed.
    - Press the ▲ and ▼ keypads to increase or decrease the calibration percentage needed.

**NOTE: 100% is the factory setting calibration.**
  - Press the ►► keypad. “SAUE no” appears in the display.
  - To save the calibration percentage change, press the ▲ or ▼ keypad. “SAUE YES” appears in the display.
  - Press the ►► keypad. “XX°C CAL” appears in the display.
- Press the ① keypad. “HEAt” appears in the display.

(continued)

Test Sub-Menu Flowchart (2 of 4)



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## 2. Test Sub-Menu “tE5t” (3 of 4)

### e. Drain Valve Test “drAin”

- i. Press the ►► keypad. “FiLL X.X” appears in the display.
- ii. Press the ▲ or ▼ keypads to scroll through the Drain Valve Test sub-menu’s options until the desired option is shown in the display. Refer to *Table 6*.

Display	Description
“FiLL X.X”	Fill the machine with water
“drAin X.X”	Open and close the drain valve <b>NOTE: This option is only visible if the machine is configured for 1 drain valve.</b>
“dr 1 X.X”	Open and close the first drain valve <b>NOTE: This option is only visible if the machine is configured for 2 drain valves.</b>
“dr 2 X.X”	Open and close the second drain valve <b>NOTE: This option is only visible if the machine is configured for 2 drain valves.</b>

Table 6

- iii. Press the ►► keypad to turn on the desired option.
  - “FiLL X.X”: Turn the machine’s water inlet valves on and off. The water inlet icon will flash on the display when the water inlet valve is on.
  - “drAin X.X”: Open and close the drain valve. The drain icon will flash on the display when the drain valve is open.

**NOTE: This option is only visible if the machine is configured for 1 drain valve.**

- “dr 1 X.X”: Open and close the first drain valve. The drain icon will flash on the display when the drain valve is open.

**NOTE: This option is only visible if the machine is configured for 2 drain valves.**

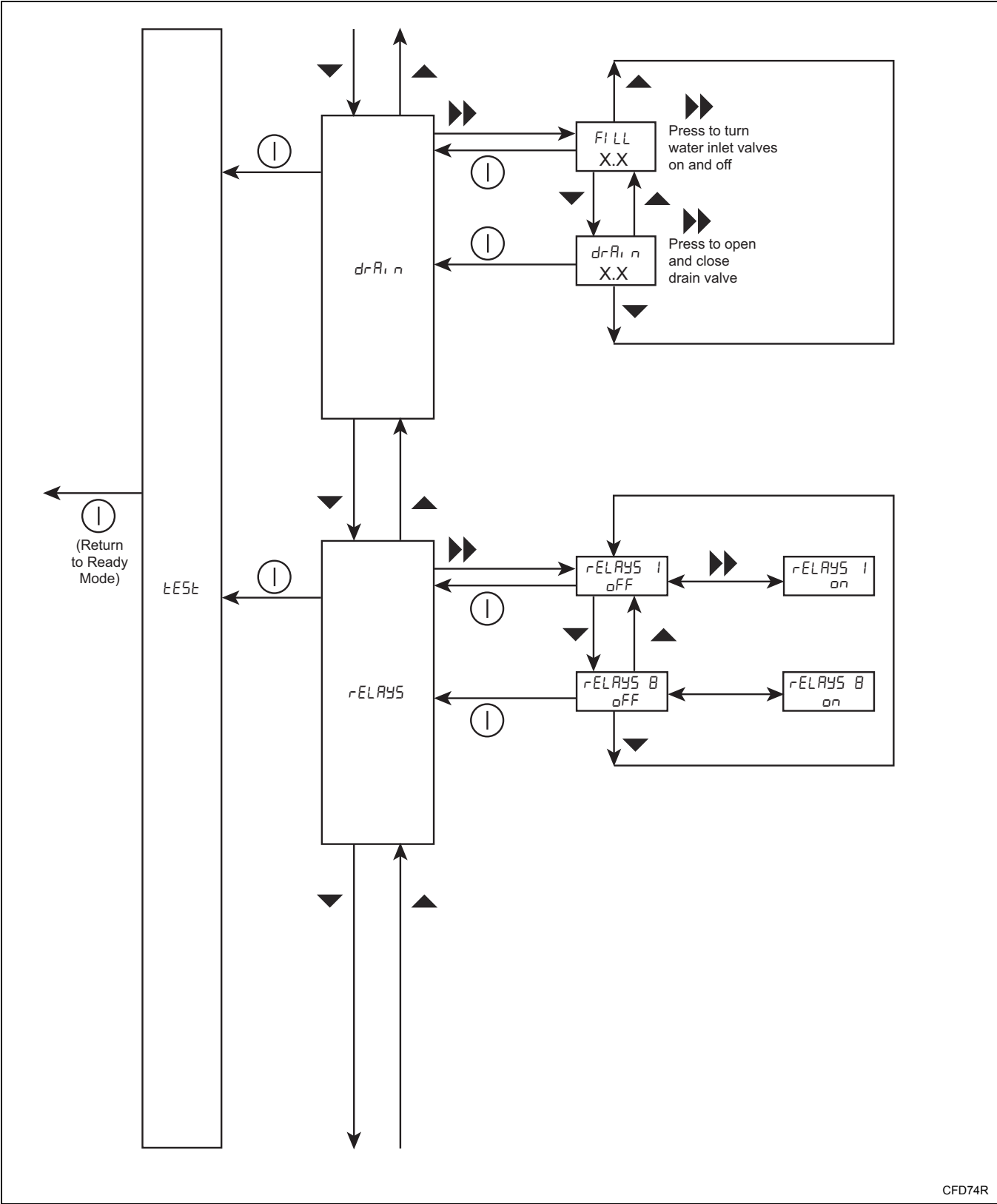
- “dr 2 X.X”: Open and close the second drain valve. The drain icon will flash on the display when the drain valve is open.

**NOTE: This option is only visible if the machine is configured for 2 drain valves.**

- iv. Press the ►► keypad to turn off the desired option.
- v. Press the ① keypad. “drAin” appears in the display.
- f. Relay Test “rELAY5”
  - i. Press the ►► keypad. “rELAY5 B OFF” appears in the display.
  - ii. Press the ▲ or ▼ keypads to scroll through the relays until the desired relay is shown in the display.
  - iii. Press the ►► keypad to turn the desired relay on or off. The display shows that the relay has been turned on (e.g., “rELAY5 B ON”) or off (e.g., “rELAY5 B OFF”).
  - iv. Press the ① keypad. “rELAY5” appears in the display.

(continued)

Test Sub-Menu Flowchart (3 of 4)



CFD74R

## 2. Test Sub-Menu “tE5t” (4 of 4)

### g. Inputs Test “i nPUL5”

- Press the ►► keypad. “cLŁr” appears in the display.
- Press the ▲ or ▼ keypads to scroll through the inputs until the desired inlet is shown in the display. Refer to *Table 7*.

Display	Description
“cLŁr”	Door, lock, out-of-balance switch and rotation sensor <b>NOTE: “c” is displayed when the door is closed, “Ł” is displayed when the door is locked, “t” is displayed when an out-of-balance switch input signal is received and “r” is displayed when a rotation sensor input signal is received.</b>
“i n 1 oFF”	Input 1 <b>NOTE: The display changes to “i n 1 on” when an input signal is received.</b>
“i n 2 oFF”	Input 2 <b>NOTE: The display changes to “i n 2 on” when an input signal is received.</b>
“i n 3 oFF”	Input 3 <b>NOTE: The display changes to “i n 3 on” when an input signal is received.</b>
“i n 4 oFF”	Input 4 <b>NOTE: The display changes to “i n 4 on” when an input signal is received.</b>
“i n 5 oFF”	Input 5 <b>NOTE: The display changes to “i n 5 on” when an input signal is received.</b>

Table 7

- Press the ① keypad. “i nPUL5” appears in the display.

### h. Display Test “diSPLAY”

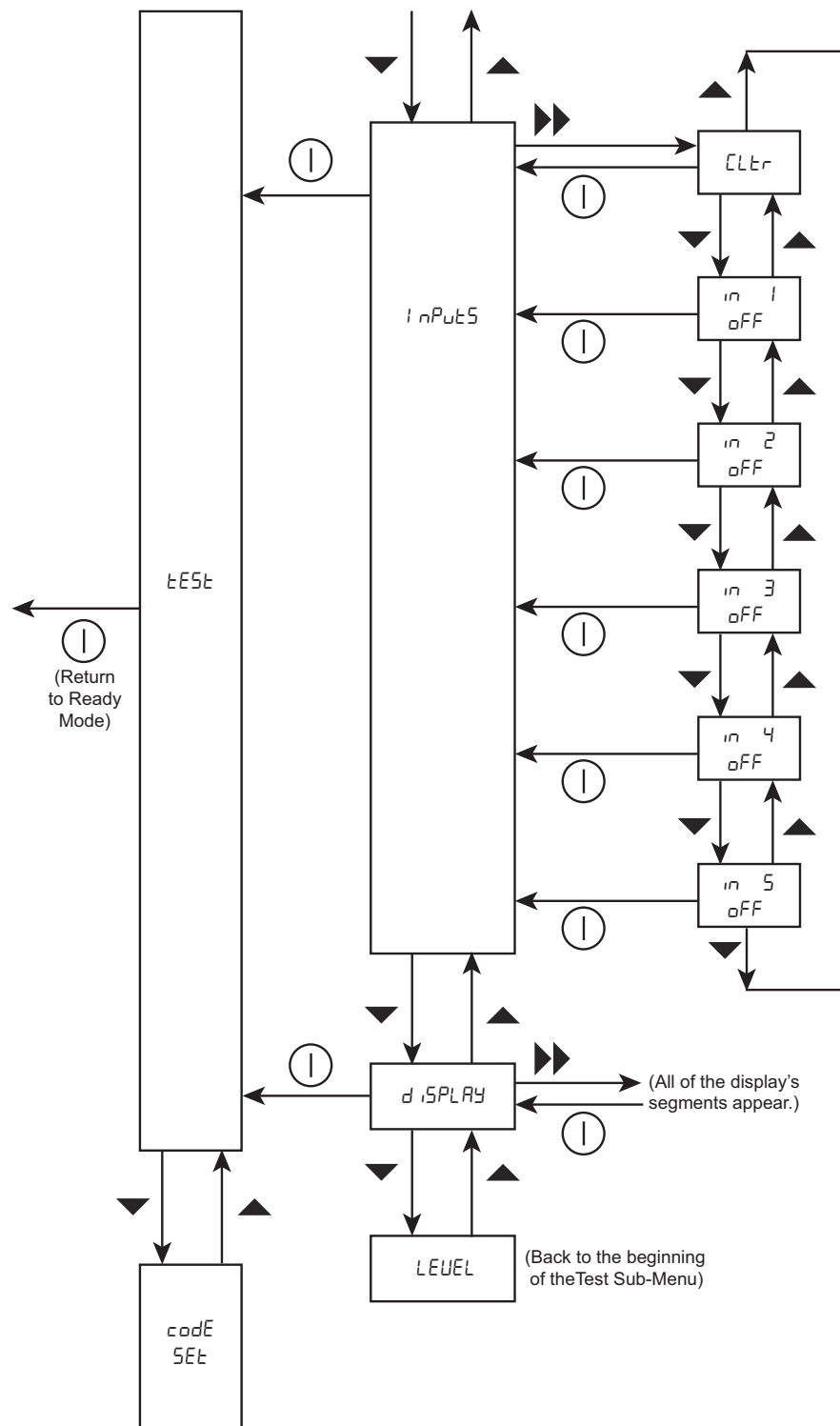
- Press the ►► keypad. All of the display’s segments appear in the display.
- Press the ① keypad. “diSPAY” is displayed.

## How to Exit the Test Sub-Menu

Press the ① keypad until the control returns to the Ready Mode.



### Test Sub-Menu Flowchart (4 of 4)



CFD75R

### 3. Entry Code Set Sub-Menu “codE 5Et”

The Entry Code Set Sub-Menu allows the operator to modify the machine's entry code.

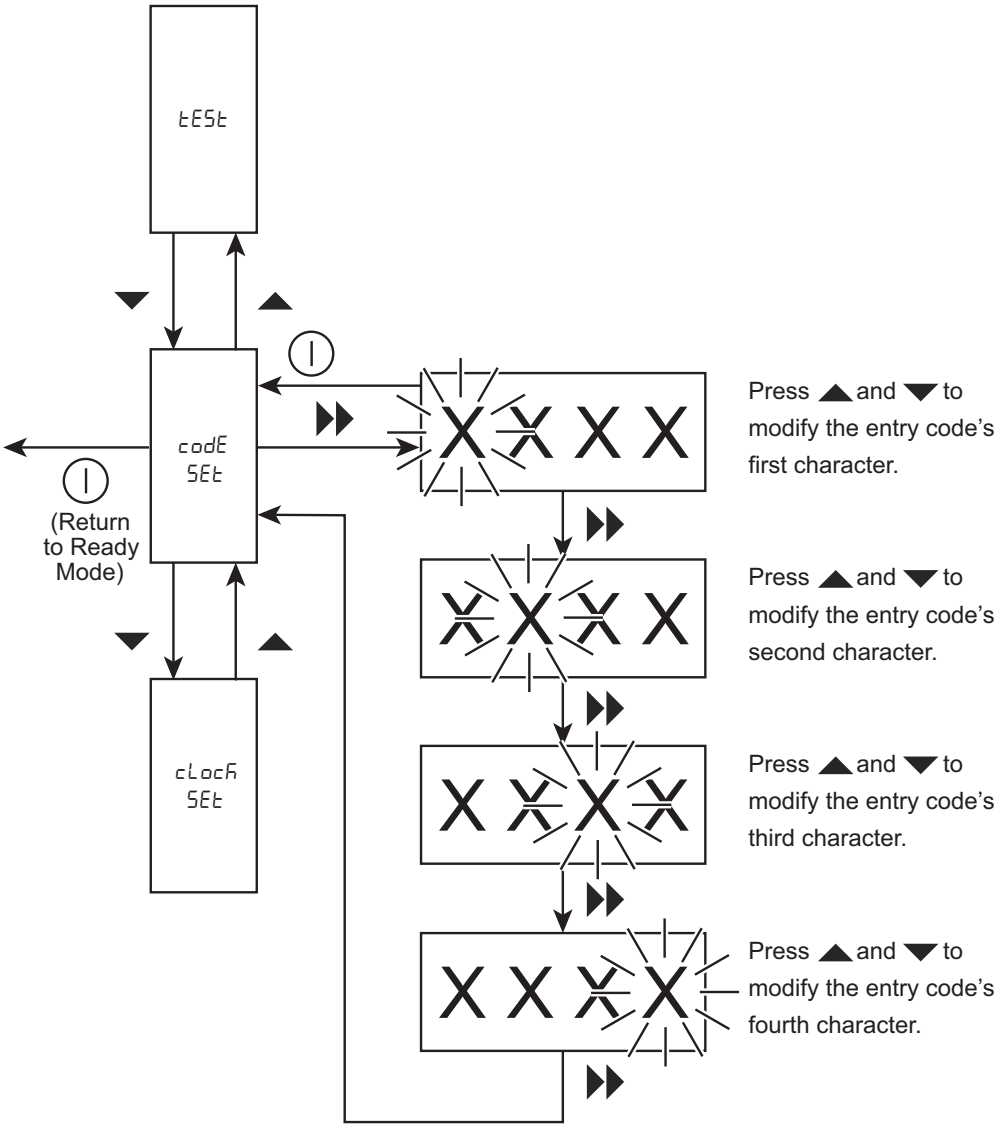
#### How to Access the Entry Code Set Sub-Menu

1. Enter the Non-Active menu (refer to the *Entering the Non-Active Menu* section).
2. Press the ▲ or ▼ keypads to scroll through the Non-Active Menu's sub-menus until “codE 5Et” appears in the display.
3. Press the ►► keypad. The entry code appears in the display. The first character flashes on and off.
4. Press the ▲ or ▼ keypads to modify the entry code's first character as needed.
5. Press the ►► keypad. The second character flashes on and off.
6. Press the ▲ or ▼ keypads to modify the entry code's second character as needed.
7. Press the ►► keypad. The third character flashes on and off.
8. Press the ▲ or ▼ keypads to modify the entry code's third character as needed.
9. Press the ►► keypad. The fourth character flashes on and off.
10. Press the ▲ or ▼ keypads to modify the entry code's fourth character as needed.
11. Press the ►► keypad. “codE 5Et” appears in the display.

#### How to Exit the Entry Code Set Sub-Menu

Press the ① keypad until the control returns to the Ready Mode.

Entry Code Set  
Sub-Menu Flowchart



CFD89R

### 4. Clock Set Sub-Menu “cLoCk SEt”

The Clock Set Sub-Menu allows the operator to set the machine’s year, month, day, day of the week, hour and minutes.

#### How to Access the Clock Set Sub-Menu

1. Enter the Non-Active menu (refer to the *Entering the Non-Active Menu* section).
2. Press the ▲ or ▼ keypads to scroll through the Non-Active Menu’s sub-menus until “cLoCk SEt” appears in the display.
3. Press the ►► keypad. “YEAr XXXX” appears in the display.
4. Press the ►► keypad until the desired option appears in the display. Refer to *Table 8*.

Option Display	Description
“YEAr XXXX”	Set the machine’s year
“Moneth XX”	Set the machine’s month
“dAY XX”	Set the machine’s day
“dAY oF WEeK X”	Set the machine’s day of the week
“hour XX:XX”	Set the machine’s hour
“MinutES XX:XX”	Set the machine’s minutes

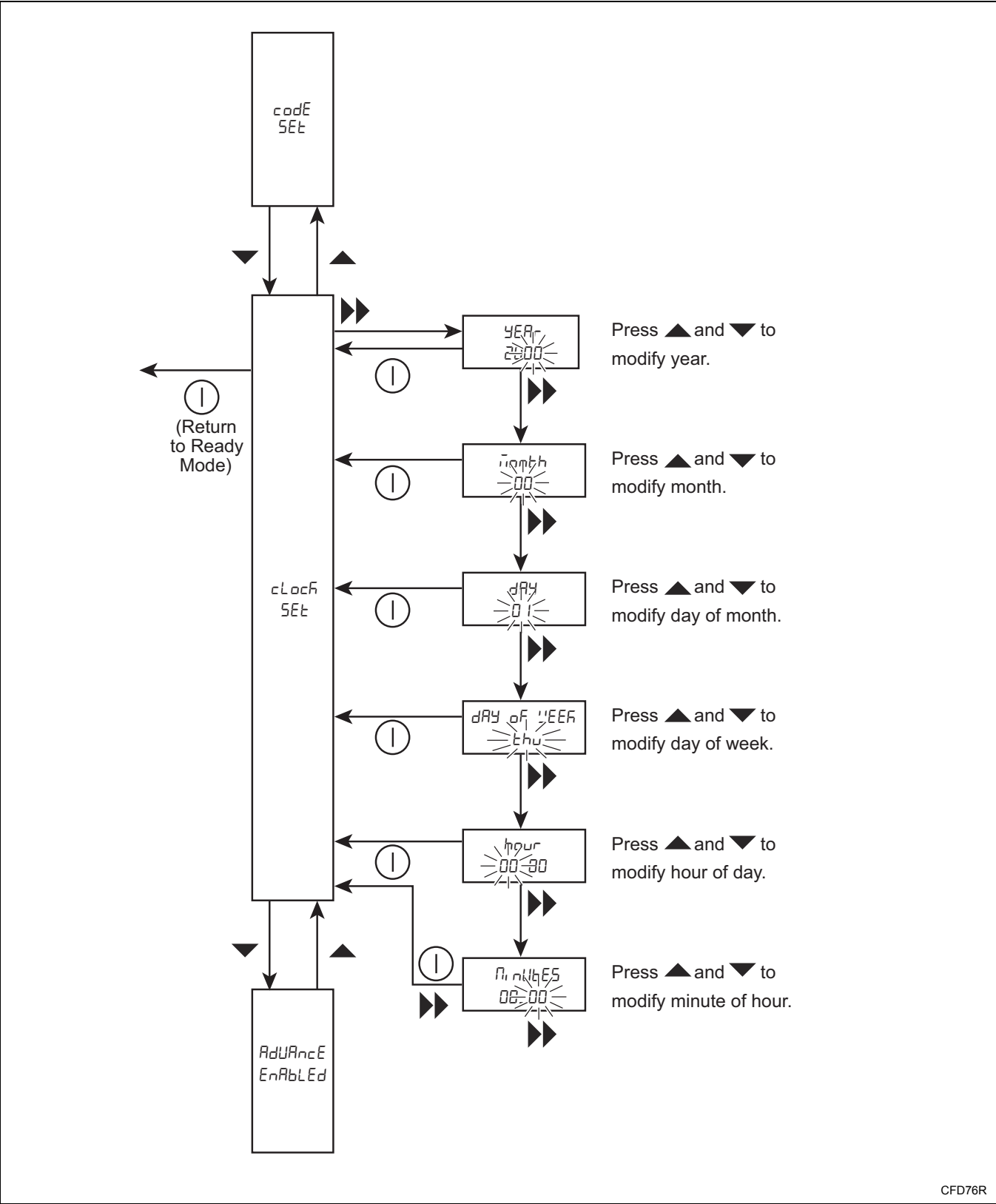
Table 8

5. Press the ▲ or ▼ keypads to edit the option as needed.
6. Press the ►► keypad. “cLoCk SEt” appears in the display.

#### How to Exit the Clock Set Sub-Menu

Press the ① keypad until the control returns to the Ready Mode.

Clock Set Sub-Menu Flowchart



## 5. Network Address Sub-Menu “nEt AddrE55”

The Network Address Sub-Menu allows the operator to enter a network address.

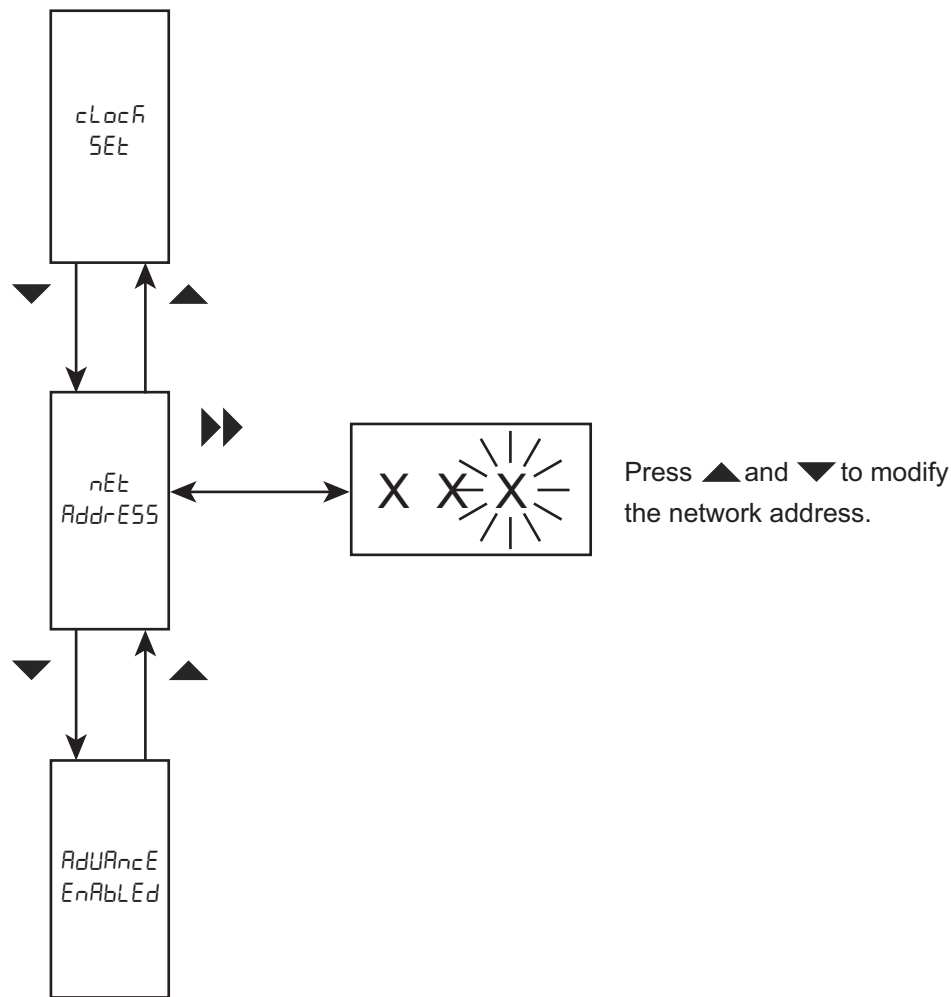
### How to Access the Rapid Advance Enable Sub-Menu

1. Enter the Non-Active menu (refer to the *Entering the Non-Active Menu* section).
2. Press the ▲ or ▼ keypads to scroll through the Non-Active Menu’s sub-menus until “nEt AddrE55” appears in the display.
3. Press the ►► keypad, to turn the rapid advance option on or off. “XXX” appears in the display.
4. Enter the correct network address with the ▲ and ▼ keypads.
5. Enter or confirm with the ►► keypad.

### How to Exit the Rapid Advance Enable Sub-Menu

Press the ① keypad until the control returns to the Ready Mode.

Network Address  
Sub-Menu Flowchart



CFD174R

## 6. Rapid Advance Enable Sub-Menu “*AdVAnCE EnAbLEd*”

The Rapid Advance Enable Sub-Menu allows the operator to turn the rapid advance option on or off.

### How to Access the Rapid Advance Enable Sub-Menu

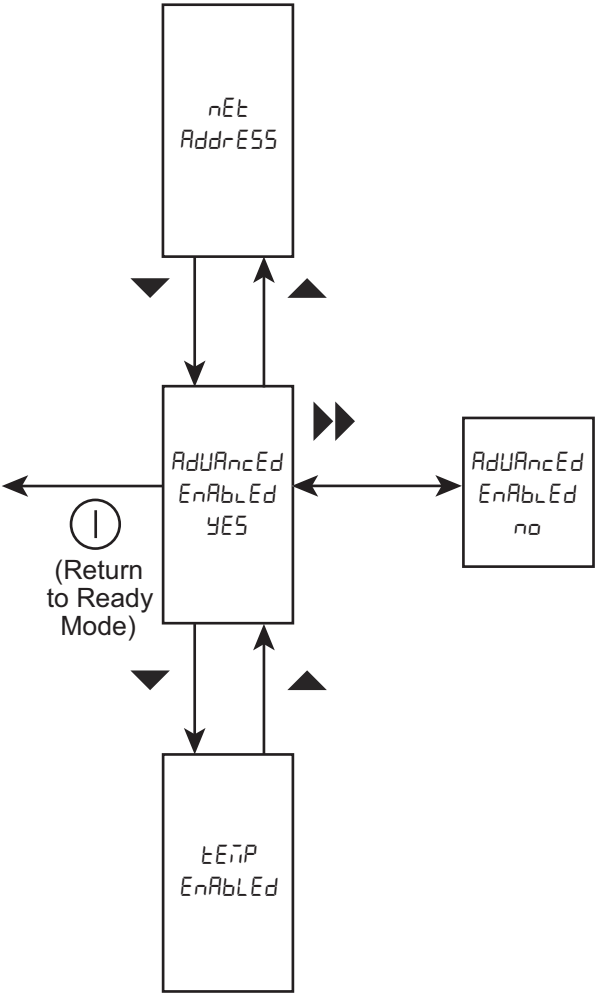
1. Enter the Non-Active menu (refer to the *Entering the Non-Active Menu* section).
2. Press the ▲ or ▼ keypads to scroll through the Non-Active Menu’s sub-menus until “*AdVAnCE EnAbLEd nO*” or “*AdVAnCE EnAbLEd YES*” appears in the display.
3. Press the ►► keypad to turn the rapid advance option on or off. “*AdVAnCE EnAbLEd nO*” appears in the display when the rapid advance option is off and “*AdVAnCE EnAbLEd YES*” appears in the display when the rapid advance option is on.

### How to Exit the Rapid Advance Enable Sub-Menu

Press the ① keypad until the control returns to the Ready Mode.



Rapid Advance Enable  
Sub-Menu Flowchart



CFD175R

## 7. Temperature Indication Enable Sub-Menu “TEMP ENABLE”

The Temperature Indication Enable Sub-Menu allows the operator to turn the temperature indicator (which appears during a cycle) on or off.

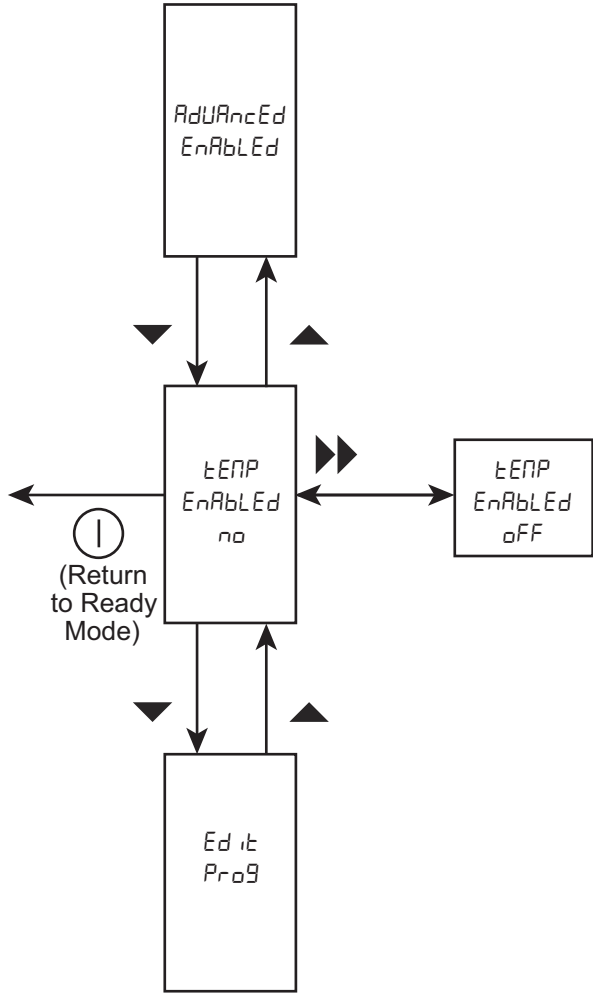
### How to Access the Temperature Indication Enable Sub-Menu

1. Enter the Non-Active menu (refer to the *Entering the Non-Active Menu* section).
2. Press the ▲ or ▼ keypads to scroll through the Non-Active Menu’s sub-menus until “TEMP ENABLE NO” or “TEMP ENABLE YES” appears in the display.
3. Press the ►► keypad to turn the temperature indication option on or off. “TEMP ENABLE NO” appears in the display when the temperature indication option is off and “TEMP ENABLE YES” appears in the display when the temperature indication option is on.

### How to Exit the Temperature Indication Enable Sub-Menu

Press the ① keypad until the control returns to the Ready Mode.

Temperature Indication Enable  
Sub-Menu Flowchart



CFD79R

## 8. Edit Programming Sub-Menu “Edit Prog” (1 of 2)

The Edit Programming Sub-Menu allows the operator to modify the machine’s programmed cycles.

### How to Access the Edit Programming Sub-Menu

1. Enter the Non-Active menu (refer to the *Entering the Non-Active Menu* section).
2. Press the ▲ or ▼ keypads to scroll through the Non-Active Menu’s sub-menus until “Edit Prog” appears in the display.
3. Press the ►► keypad. “Prog 1” appears in the display.
4. Press the ▲ or ▼ keypads to scroll through the available cycles until the desired cycle (e.g., “Prog 1”) appears in the display.
5. Press the ►► keypad. “FASE” appears in the display.
6. Press the ▲ or ▼ keypads to scroll through the cycle options until the desired cycle option appears in the display. Refer to the *Using the Edit Programming Sub-Menu’s Options* section for details on each option.
7. Press the ① keypad. The cycle number (e.g., “Prog 1”) appears in the display.
8. Press the ① keypad. “SAVE NO” appears in the display.
9. To save the cycle programming changes...
  - a. Press the ▲ or ▼ keypad. “SAVE YES” appears in the display.
  - b. Press the ① keypad. The cycle programming changes are saved and “SAVE YES” appears in the display.

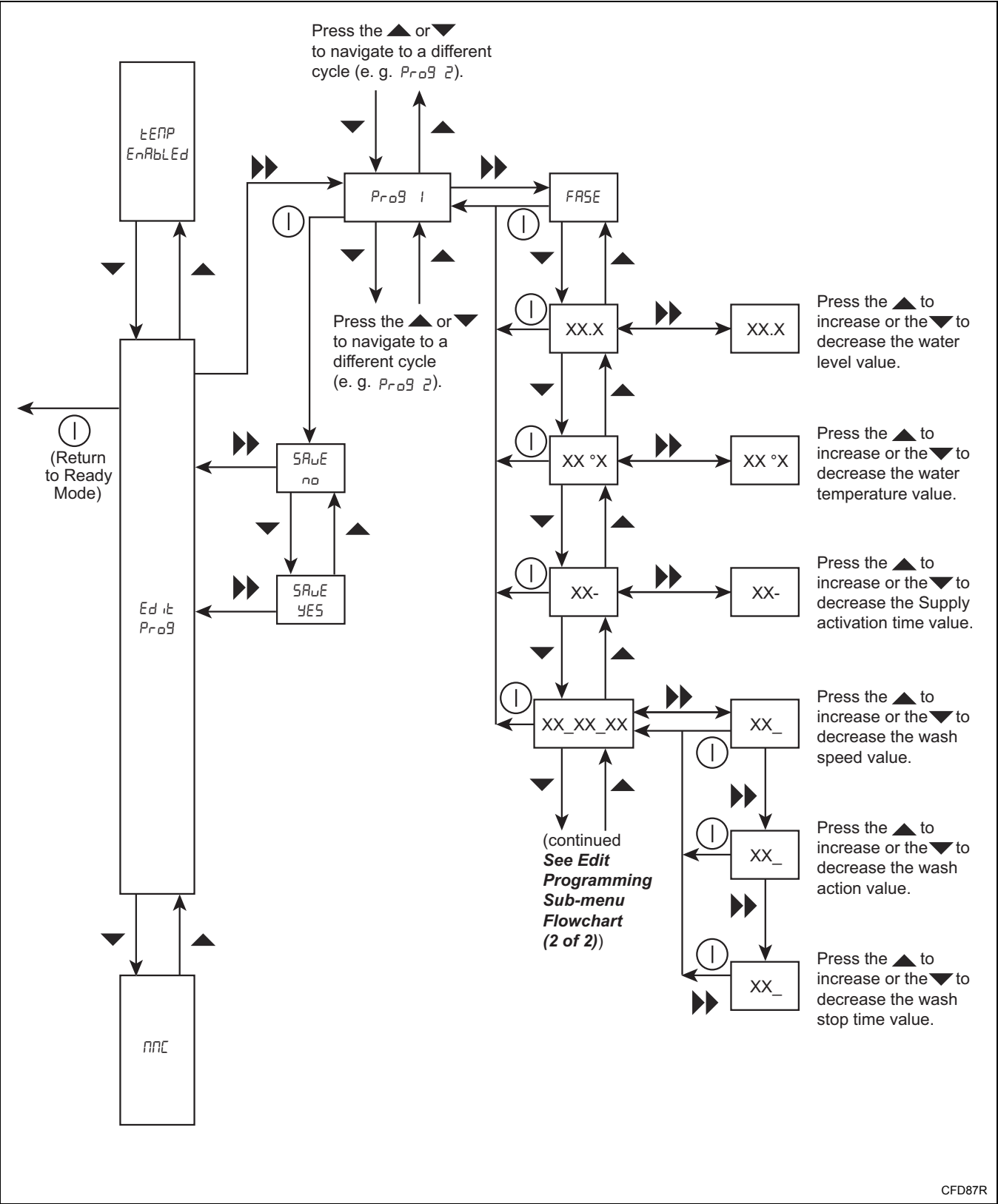
- i. The current water temperature (e.g., XX °X) is shown in the display. Press the ►► keypad to edit the value.
  - ii. Press the ▲ or ▼ keypads to edit the value as needed.
  - iii. Press the ►► keypad.
- c. Supply Injection Time – The supply activation time (in seconds) for the cycle’s step.
- i. The current supply activation time (e.g., XX-) is shown in the display. Press the ►► keypad to edit the value.
  - ii. Press the ▲ or ▼ keypads to edit the value as needed.
  - iii. Press the ►► keypad.
- d. Wash Agitation – The wash speed (in RPM), wash action time (in seconds) and wash stop time (in seconds) for the cycle’s step.
- i. The current wash agitation (e.g., XX-XX-XX) is shown in the display.
  - ii. Press the ►► keypad. The wash speed in RPM (e.g., XX-) is displayed.
  - iii. Press the ▲ or ▼ keypads to edit the value as needed.
  - iv. Press the ►► keypad. The wash action time in seconds (e.g., XX-) is displayed.
  - v. Press the ▲ or ▼ keypads to edit the value as needed.
  - vi. Press the ►► keypad. The wash stop time in seconds (e.g., XX-) is displayed.
  - vii. Press the ▲ or ▼ keypads to edit the value as needed.
  - viii. Press the ►► keypad. The wash agitation (e.g., XX-XX-XX) is displayed.

(continued)

### Using the Edit Programming Sub-Menu’s Options

- a. Water Volume – The water level (in inches or centimeters) for the cycle’s step.
  - i. The current water volume (e.g., XX.X) is shown in the display. Press the ►► keypad to edit the value.
  - ii. Press the ▲ or ▼ keypads to edit the value as needed.
  - iii. Press the ►► keypad.
- b. Water Temperature – The water temperature (in °C or °F) for the cycle’s step.

**Edit Programming Sub-Menu  
Flowchart (1 of 2)**



## 8. Edit Programming Sub-Menu “Edit Prog” (2 of 2)

- e. Water Temperature Time Stop – The water temperature (in °C or °F) that must be reached before the cycle can continue.

- i. The current water temperature time stop (e.g., XX °X) is shown in the display. Press the ►► keypad to edit the value.
- ii. Press the ▲ or ▼ keypads to edit the value as needed.
- iii. Press the ►► keypad.

- f. Water Level Time Stop – The water level (in inches or centimeters) that must be reached before the cycle can continue.

- i. The current water level (e.g., XX.X) is shown in the display. Press the ►► keypad to edit the value.
- ii. Press the ▲ or ▼ keypads to edit the value as needed.
- iii. Press the ►► keypad.

- g. Time – The time (in minutes and seconds) for the cycle’s steps up to this point in the cycle.

- i. The current time (e.g., XX:XX) is shown in the display. Press the ►► keypad to edit the value.
- ii. Press the ▲ or ▼ keypads to edit the value as needed.
- iii. Press the ►► keypad.

- h. Spin

- i. The spin speed and time (e.g., XXX X.XX) are shown in the display. Press the ►► keypad to edit the value. “d, 5t” is shown in the display.
- ii. The distribute function, which opens the drain valve and distributes the load, can either be turned on or off.

1. **To turn the distribute function on**, press the ▲ or ▼ keypad until “d, 5t on” is shown in the display.  
**NOTE: If the distribute function is turned on, the water will drain from the machine with a distribution speed of 2G. The spin speed and function cannot be edited.**

- a. Press the ►► keypad. “Ht-rA”, which represents the extra

distribution step, is shown in the display.

- b. Press the ▲ or ▼ keypad to turn “Ht-rA” on or off.

- c. Press the ►► keypad.

- i. **If “Ht-rA” is off**, the spin speed and time (e.g., XXX X.XX) is shown in the display.
- ii. **If “Ht-rA” is on**, the control displays the drain valve number.

1. Press the ▲ or ▼ keypad to adjust the drain valve number.

2. Press the ►► keypad. The spin speed and time (e.g., XXX X.XX) is shown in the display.

2. **To turn the distribute function off**, press the ▲ or ▼ keypad until “d, 5t off” is shown in the display.

**NOTE: If the distribute function is turned off, the spin speed and time can be edited.**

- a. Press the ►► keypad. “t, 00L” is shown in the display.
- b. Press the ▲ or ▼ keypad to turn the “t, 00L” function on or off.

**NOTE: When the “t, 00L” function is turned on, when there is a spin retry because of an unbalanced load, the motor goes into distribute mode, followed by low spin and then by high spin. When the “t, 00L” function is off, when there is a spin retry because of an unbalanced load, the motor goes into gentle prewash, followed by distribute mode, low spin and then high spin.**

- c. Press the ►► keypad. “HETP”, which represents an extra distribution and spin step, is shown in the display.
- d. Press the ▲ or ▼ keypad to turn “HETP” on or off.
- e. Press the ►► keypad. The control displays the spin speed, in RPMs.
- f. Press the ▲ or ▼ keypad to adjust the spin speed.
- g. Press the ►► keypad. The spin time is shown in the display.
- h. Press the ▲ or ▼ keypad to adjust the spin time.
- i. Press the ►► keypad. “RET”, which represents the number of retries, is shown in the display.
- j. Press the ▲ or ▼ keypad to adjust the number of retries.
- m. Press the ►► keypad. The spin speed and time (e.g., XXX X.XX) is shown in the display.
- i. End of Program – “Prog End”, which represents the end of the cycle’s steps, is shown in the display.

### How to Exit the Edit Programming Sub-Menu

Press the ① keypad until the control returns to the Ready Mode.

**NOTE: The maximum number of retries is 15.**

- k. Press the ►► keypad. The drain valve number is shown in the display.
- l. Press the ▲ or ▼ keypad to adjust the drain valve number.





## 9. MMC Sub-Menu “MMC” (1 of 3)

The MMC Sub-Menu allows the operator to manage data on the MMC card.

### How to Access the MMC Sub-Menu

1. Enter the Non-Active menu (refer to the *Entering the Non-Active Menu* section).
2. Press the ▲ or ▼ keypads to scroll through the Non-Active Menu’s sub-menus until “MMC” appears in the display.
3. Press the ►► keypad. “VIEW FILES” appears in the display.
4. Press the ▲ or ▼ keypads to scroll through the MMC Sub-Menu’s options.
5. Press the ►► keypad to access the desired MMC Sub-Menu’s option. Refer to the *Using the MMC Sub-Menu’s Options* section for details on each option.

### Using the MMC Sub-Menu’s Options

- a. View MMC Card’s Files “VIEW FILES”
  - i. Press the ►► keypad. The first wash program file (“1 XXXX”) appears in the display.

**NOTE: If no wash program files are found on the MMC card, “no FILES” appears in the display. If no MMC card is in the machine’s card reader “noSE card” appears in the display.**

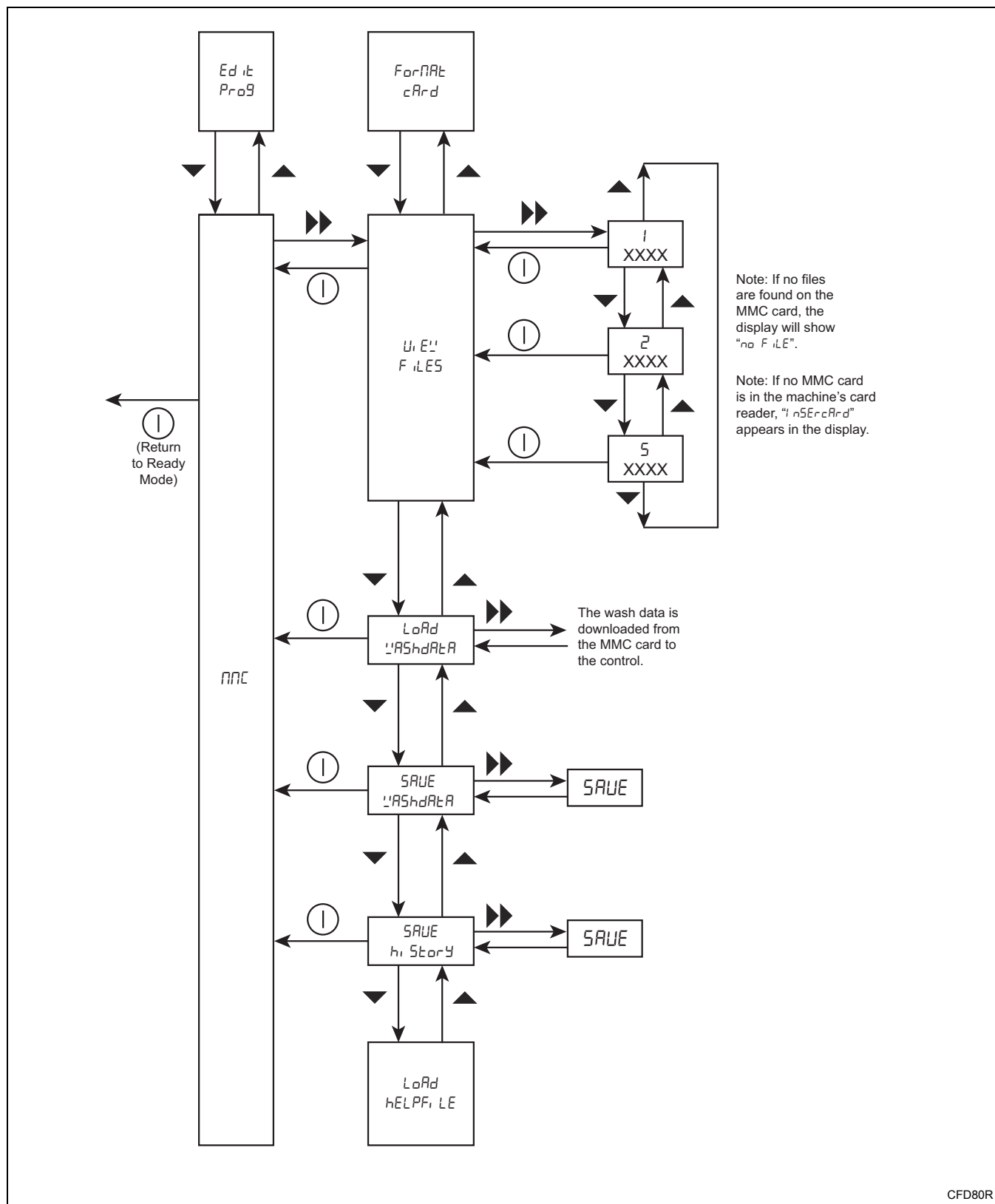
- ii. Press the ▲ or ▼ keypads to scroll through the wash program files.
  - iii. Press the ① keypad. “VIEW FILES” appears in the display.
- b. Load Wash Data “LOAD WASH DATA”
  - i. Press the ►► keypad. The wash data file (“1XXXX”) appears in the display. The first wash data file on the MMC card that is appropriate for the machine’s ID chip and machine type is downloaded to the machine. After the file is downloaded, the machine is rebooted. After the machine is rebooted, the wash data version and the type of machine appear in the display.

**NOTE: Only wash data that is appropriate for a machine can be downloaded to the machine.**

- c. Save Wash Data “SAVE WASH DATA”
    - i. Press the ►► keypad. “SAVE” appears in the display and the machine’s wash data is saved to the MMC card. Once the save is complete, “SAVE WASH DATA” appears in the display.
  - d. Save History “SAVE HISTORY”
    - i. Press the ►► keypad. “HIST” appears in the display and the machine’s history is saved to the MMC card. Once the save is complete, “SAVE HISTORY” appears in the display.

(continued)

## MMC Sub-Menu Flowchart (1 of 3)



CFD80R

## 9. MMC Sub-Menu “MMC” (2 of 3)

### e. Load Help File “LOAD HELPF, LE”

- i. Press the ►► keypad. The first help file (“HELP”) appears in the display.

**NOTE: If no help files are found on the MMC card, “no FILE” appears in the display. If no MMC card is in the machine’s card reader, “insert card” appears in the display.**

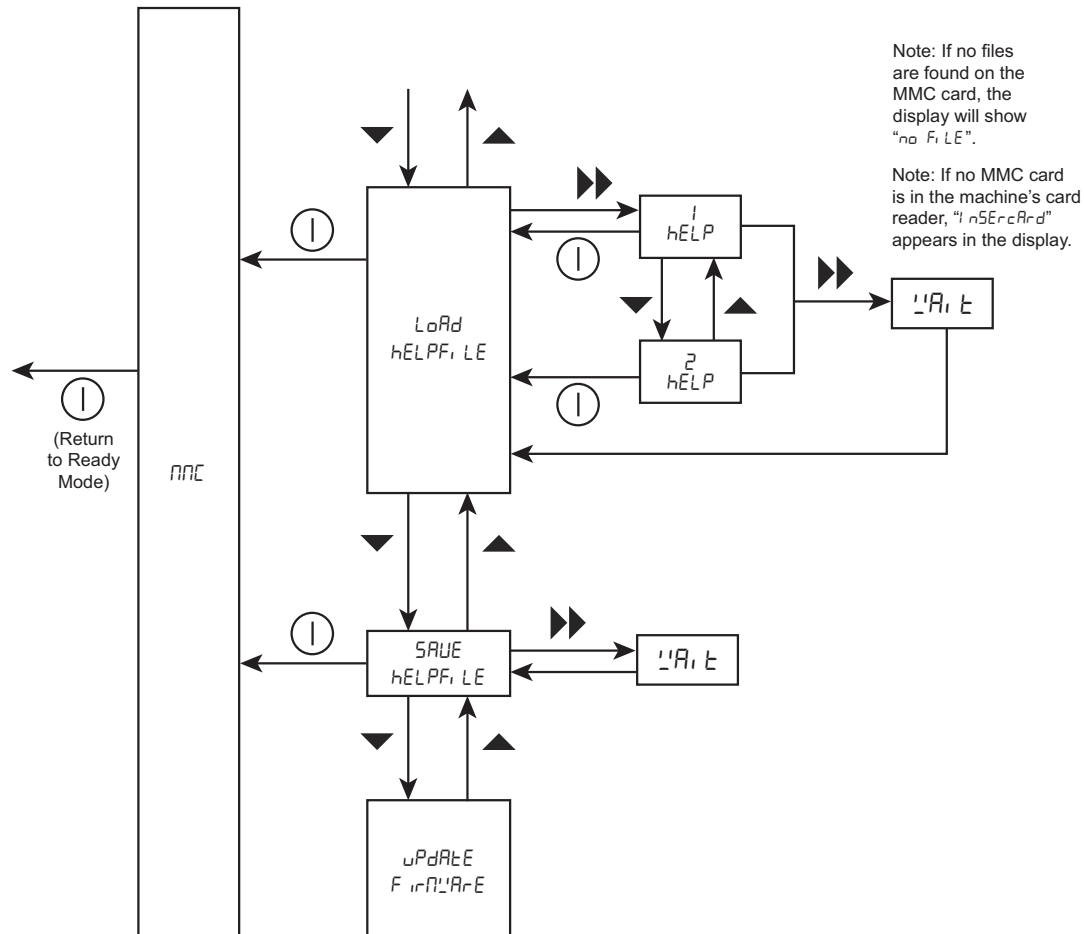
- ii. Press the ▲ or ▼ keypads to scroll through the help files.
- iii. When the desired help file appears in the display, press the ►► keypad. “FILE” appears in the display and the help file is downloaded to the machine. After the file is downloaded, the machine is rebooted.
- iv. Press the ① keypad. “HELP, LELOAD” appears in the display.

### f. Save Help File “SAVE HELPF, LE”

- i. Press the ►► keypad. “FILE” appears in the display and the machine’s help file is saved to the MMC card. Once the save is complete, “SAVE HELPF, LE” appears in the display.

(continued)

## MMC Sub-Menu Flowchart (2 of 3)



CFD81R

## 9. MMC Sub-Menu “MMC” (3 of 3)

### g. Update Firmware “Upd FirMwArE”

- i. Press the ►► keypad. “SurE nO” appears in the display.

**NOTE: If no firmware file is found on the MMC card, “no FirMwArE Found” appears in the display.**

- ii. Press the ▲ or ▼ keypad. “SurE YES” appears in the display.
- iii. Press the ►► keypad. “LIt” appears in the display and the firmware file is downloaded to the machine. After the file is downloaded, the machine is rebooted.

**NOTE: Press the ⓪ keypad to cancel the firmware download.**

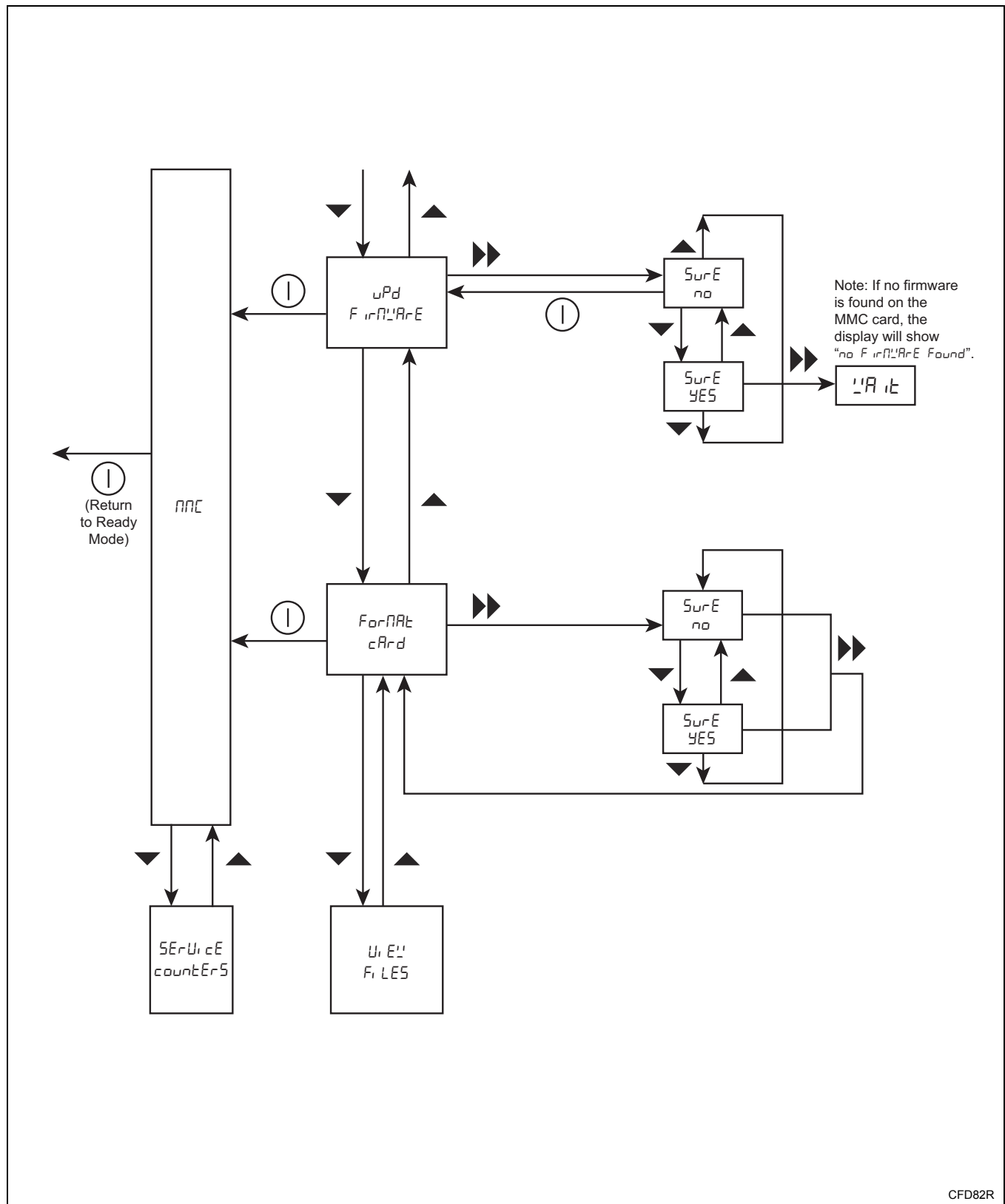
### h. Format Card “ForMAt cArD”

- i. Press the ►► keypad. “SurE nO” appears in the display.
- ii. Press the ▲ or ▼ keypad. “SurE YES” appears in the display.
- iii. Press the ►► keypad. The MMC card is formatted.

## How to Exit the MMC Sub-Menu

Press the ⓪ keypad until the control returns to the Ready Mode.

## MMC Sub-Menu Flowchart (3 of 3)



## 10. Service Counters Sub-Menu “SErVice cOUNTerS”

The Service Counters Sub-Menu allows the operator to display service maintenance reminders on the machine's control after the machine has been operated for a specified number of hours or cycles.

### How to Access the Service Counters Sub-Menu

1. Enter the Non-Active menu (refer to the *Entering the Non-Active Menu* section).
2. Press the ▲ or ▼ keypads to scroll through the Non-Active Menu's sub-menus until “SErVice cOUNTerS” appears in the display.
3. Press the ►► keypad. “hourS off” or “hourS X.X” appears in the display.
4. Press the ▲ or ▼ keypads until the desired option appears in the display. Refer to *Table 9*.

Option Display	Description
“hourS off” or “hourS X.X”	Display service maintenance reminders on the machine's control after the machine has been operated for a specified number of hours.
“cYcLES off” or “cYcLES X.X”	Display service maintenance reminders on the machine's control after the machine has been operated for a specified number of cycles.

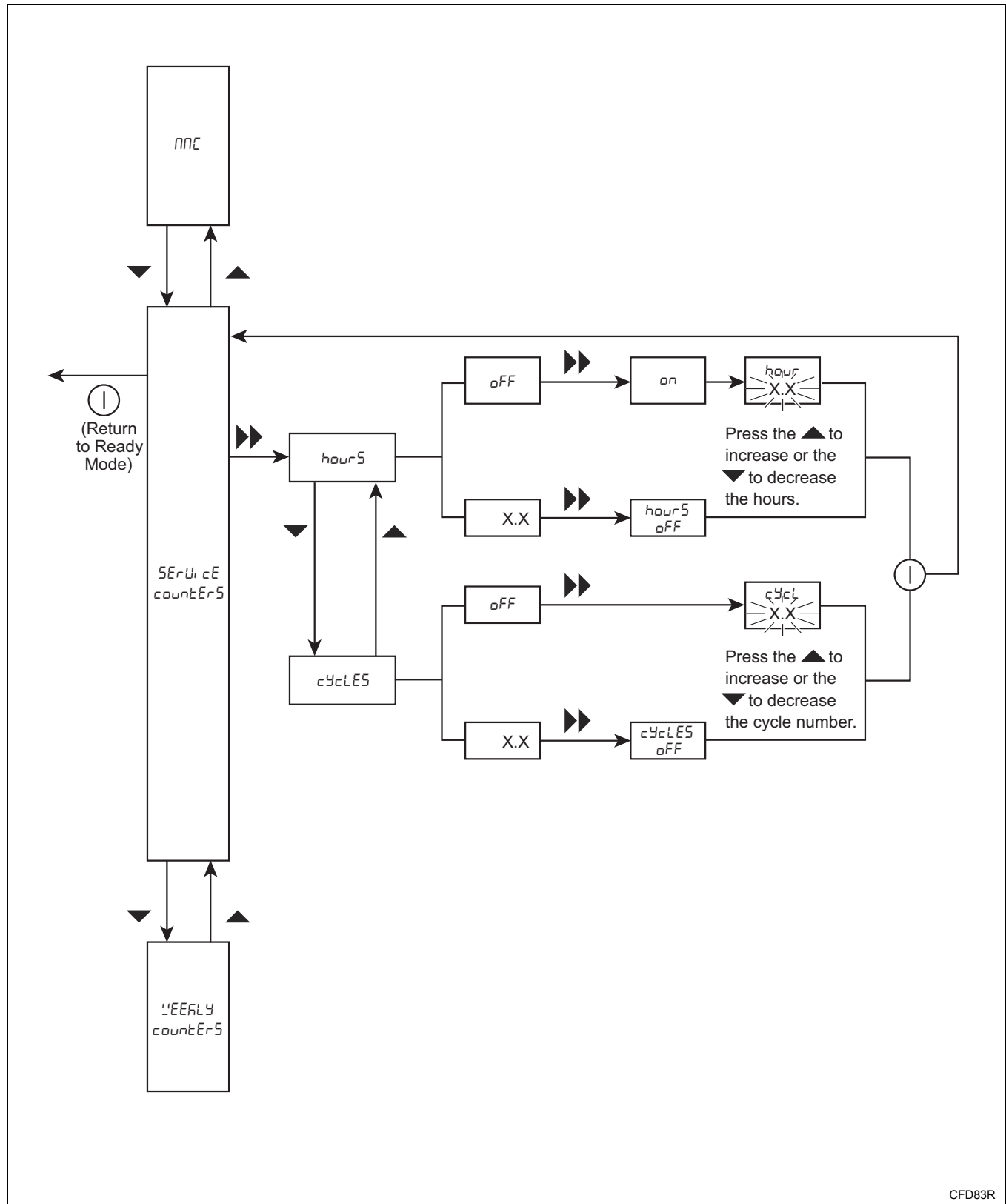
Table 9

5. Press the ►► keypad.
  - If “hourS off” or “cYcLES off” was displayed, “hourS or cYcLES” appears in the display, followed by the number of hours or cycles (“X.X”). Press the ▲ or ▼ keypads as needed to edit the number of hours or cycles
  - If “hourS X.X” or “cYcLES X.X” was displayed, “hourS off” or “cYcLES off” appears in the display.

### How to Exit the Service Counters Sub-Menu

Press the ① keypad until the control returns to the Ready Mode.

## Service Counters Sub-Menu Flowchart



CFD83R



## 11. Weekly Cycle Count Sub-Menu “WEEKLY COUNTS”

The Weekly Cycle Count Sub-Menu allows the operator to view the number of times each cycle has been run over the last 7 days.

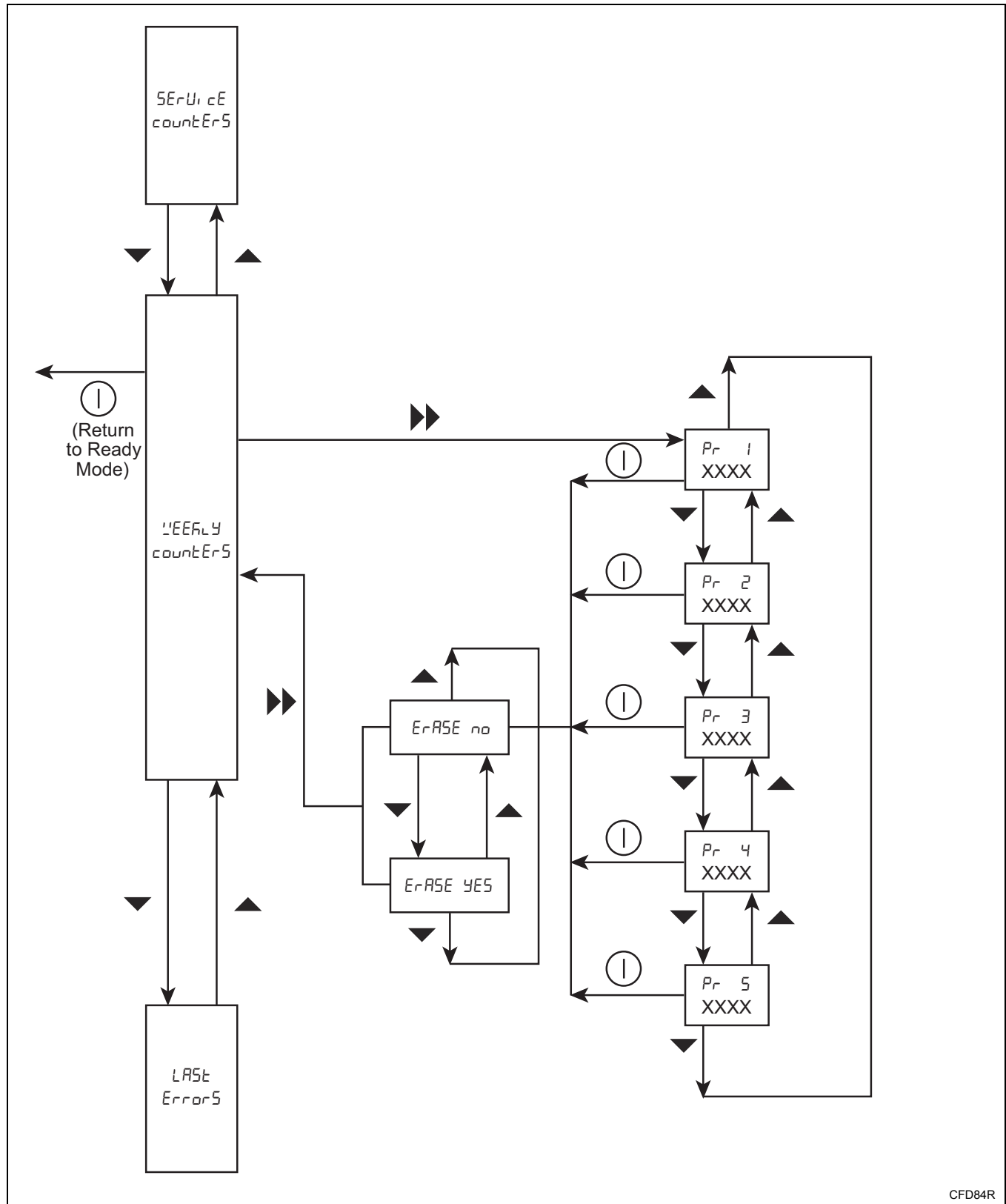
### How to Access the Weekly Cycle Count Sub-Menu

1. Enter the Non-Active menu (refer to the *Entering the Non-Active Menu* section).
2. Press the ▲ or ▼ keypads to scroll through the Non-Active Menu's sub-menus until “WEEKLY COUNTS” appears in the display.
3. Press the ►► keypad. Cycle 1 and the number of times Cycle 1 has been run over the last 7 days (“Pr 1 XXXX”) appears in the display.
4. Press the ▲ or ▼ keypads until the desired cycle number appears in the display.
5. Press the ⓪ keypad. “ERASE NO” appears in the display.
6. To erase the weekly cycle counts...
  - a. Press the ▲ or ▼ keypad. “ERASE YES” appears in the display.
  - b. Press the ►► keypad. The weekly cycle counts are erased and “WEEKLY COUNTS” appears in the display.

### How to Exit the Information Sub-Menu

Press the ⓪ keypad until the control returns to the Ready Mode.

## Weekly Cycle Count Sub-Menu Flowchart



## 12. Last Errors Sub-Menu

### “LAST ERROR5”

The Last Errors Sub-Menu allows the operator to view a list of errors that have occurred during the last cycle that was run on the machine.

#### How to Access the Last Errors Sub-Menu

1. Enter the Non-Active menu (refer to the *Entering the Non-Active Menu* section).
2. Press the ▲ or ▼ keypads to scroll through the Non-Active Menu’s sub-menus until “LAST ERROR5” appears in the display.
3. Press the ►► keypad. The number of recorded errors that have taken place during the last cycle that was run on the machine appears in the display (X ERROR5).

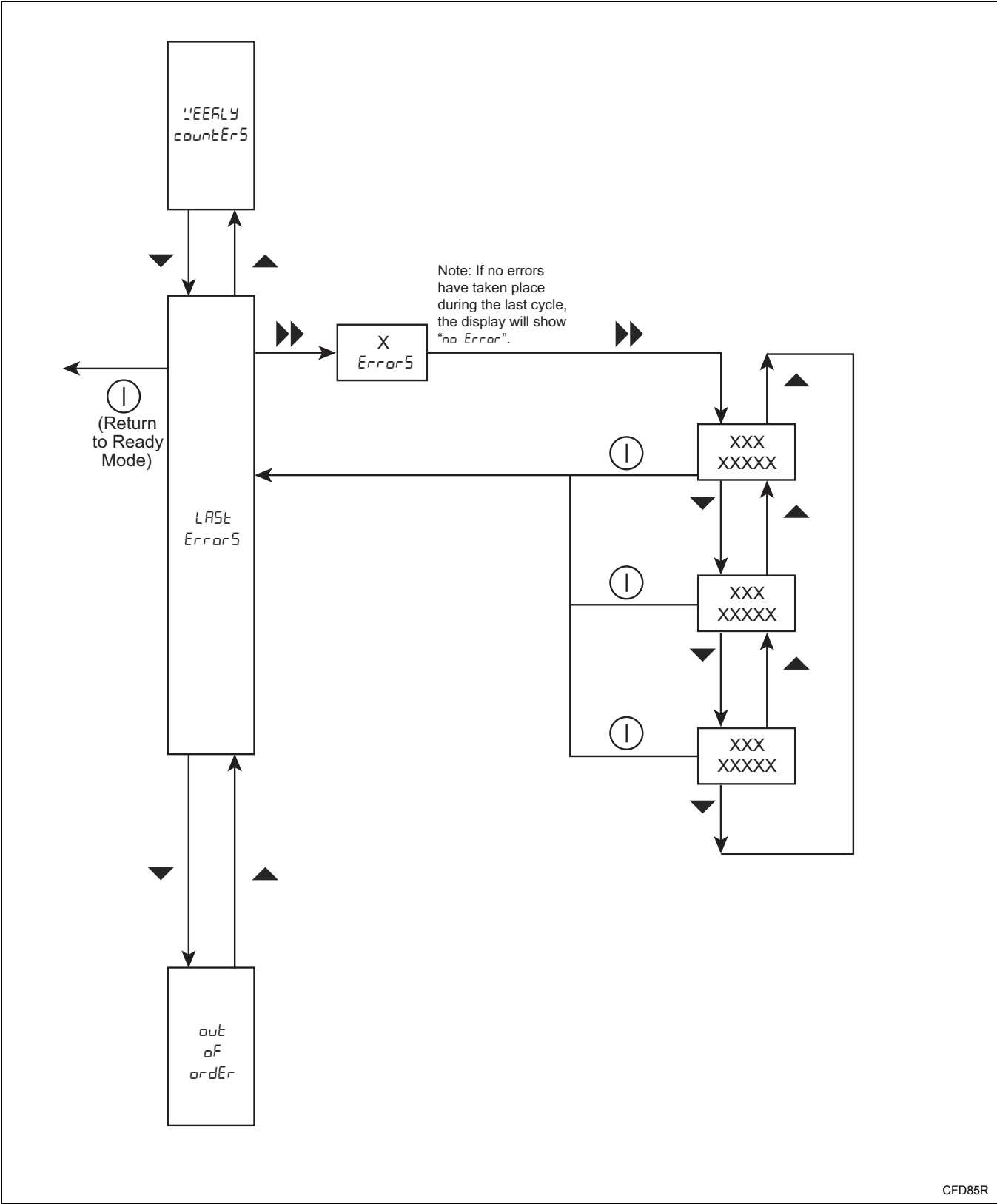
**NOTE: If no errors have taken place during the last cycle that was run on the machine, “no ERROR5” appears in the display.**

4. Press the ►► keypad. The last recorded error appears in the display. Refer to the *Error Messages* section for error definitions.
5. Press the ▲ or ▼ keypads to scroll through all of the errors recorded during the last cycle that was run on the machine.

#### How to Exit the Last Errors Sub-Menu

Press the Ⓢ keypad until the control returns to the Ready Mode.

# Last Errors Sub-Menu Flowchart



### 13. Out of Order Sub-Menu

#### *“out oF ordEr”*

The Out of Order Sub-Menu allows the operator to place a machine out of service, preventing it from being used.

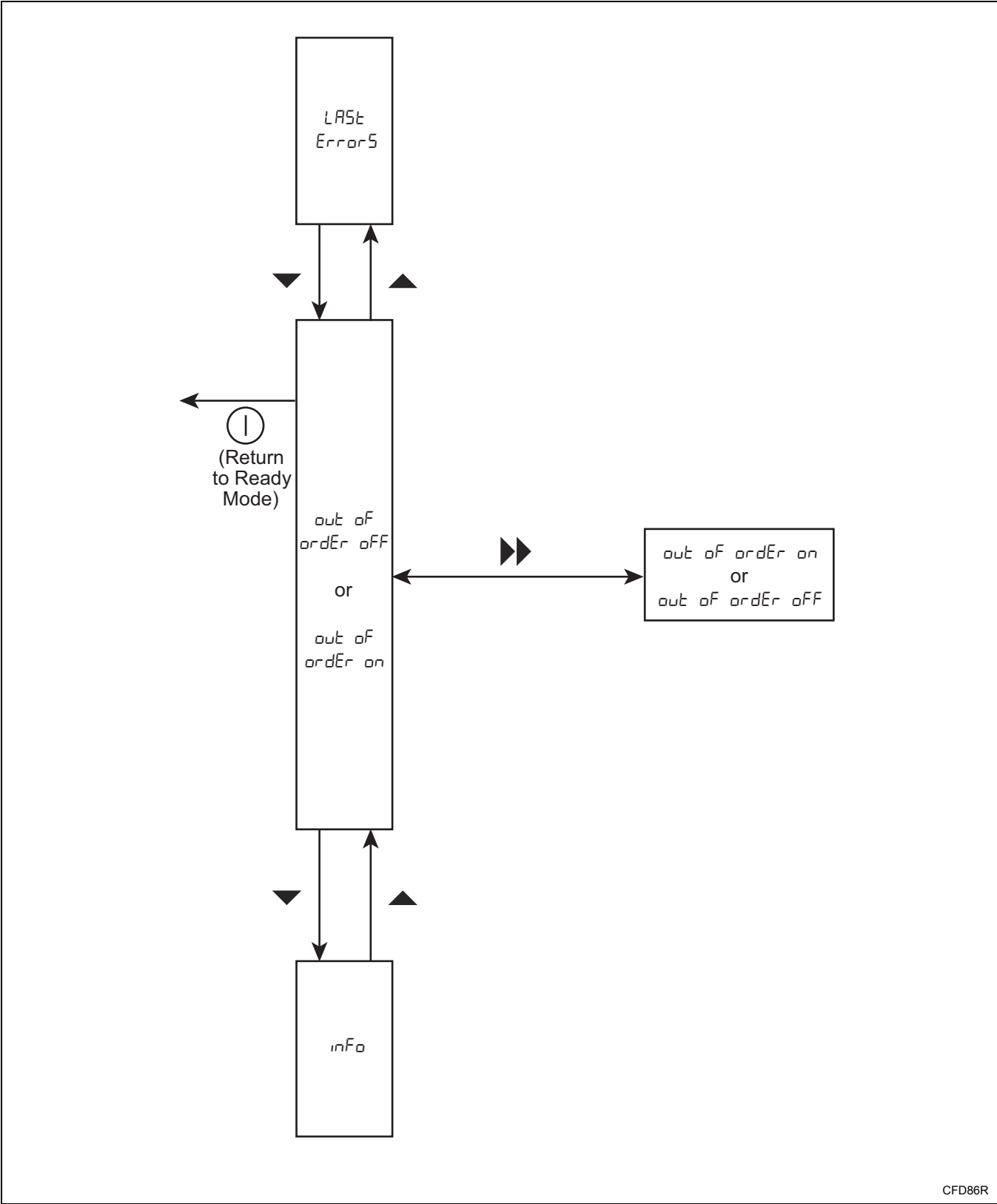
#### How to Access the Out of Order Sub-Menu

1. Enter the Non-Active menu (refer to the *Entering the Non-Active Menu* section).
2. Press the ▲ or ▼ keypads to scroll through the Non-Active Menu's sub-menus until “out oF ordEr oFF” (if the out of order option is currently off) or “out oF ordEr on” (if the out of order option is currently on) appears in the display.
3. Press the ►► keypad. “out oF ordEr on” or “out oF ordEr oFF” appears in the display.

#### How to Exit the Out of Order Sub-Menu

Press the Ⓢ keypad until the control returns to the Ready Mode.

Out of Order Sub-Menu Flowchart



# Error Messages

## Error Messages

Following is a list of possible error messages that may be displayed.

Error Message	Possible Cause/Correction
ERROR 1: PROGRAM TITLE ERROR	Program titles are missing from display board. After installing new display board, program titles were not copied from main board to display board.
ERROR 2: COMPONENT UNKNOWN	Wash program contains unknown component.
ERROR 3: COMPONENT ERROR	Wash program contains component with incorrect length.
ERROR 4: SUBROUTINE NOT FOUND	Wash program contains unknown component.
ERROR 5: WRONG PASSWORD	Incorrect password entered.
ERROR 6: WASH DATA ERROR	Incorrect or incomplete wash data. Restore wash data from display board. Reload wash data using MMC card or PC.
ERROR 7: INVERTER COMMUNICATION ERROR	No communication from main board. Inspect inverter board wiring. No communication between inverter and main board. Inspect inverter wiring.
ERROR 8: INVERTER AUTOTUNING ERROR	Incorrect status during autotuning.
ERROR 9: INVERTER PARAMETER ERROR	Inverter refused parameters. Error while entering parameters into inverter.
ERROR 10: INVERTER STATUS ERROR	Inspect inverter for error messages. <ul style="list-style-type: none"> <li>• OC1: Overcurrent accelerating</li> <li>• OC2: Overcurrent constant speed</li> <li>• OC3: Overcurrent decelerating</li> <li>• OV1: Overvoltage accelerating</li> <li>• OV2: Overvoltage constant speed</li> <li>• OV3: Overvoltage decelerating</li> <li>• PE: EEPROM failure</li> <li>• PUE: Communication error</li> <li>• RET: Retries exceeded</li> <li>• P24: 24V short circuit</li> <li>• E.3: Option fault 3</li> <li>• E.6: CPU error 6</li> <li>• E.7: CPU error 7</li> <li>• THT: Inverter overload</li> <li>• THM: Motor overload</li> <li>• FIN: Heatsink overheat</li> <li>• OLT: Stall prevention</li> <li>• BE: Brake alarm</li> <li>• GF: Ground fault</li> <li>• LF: Output phase failure</li> <li>• OHT: Thermal relay operation</li> <li>• OPT: Option alarm</li> </ul>
ERROR 11: REAL TIME CLOCK ERROR	Check control's date and time setting on the setting menu. Check voltage on main board.
ERROR 12: TILT SWITCH ERROR	Check tilt switch's position. Check connection of tilt switch on display board. Using test program, check tilt switch's input signal.

(continued)

## Error Messages

(continued)

Error Message	Possible Cause/Correction
ERROR 14: TEMPERATURE ERROR	Inspect temperature sensor. Inspect heating resistances/relays and wiring. Check input/output voltage of temperature sensor on main board. Using test program, test temperature sensor.
ERROR 15: LEVEL SENSOR ERROR	Check calibration of water level switch.
ERROR 16: CAN COMMUNICATION ERROR	Inspect wiring between main board and display board.
ERROR 17: WRONG MACHINE TYPE	Check that programmed machine type matches actual machine type.
ERROR 18: WRONG WASH DATA ERROR	Washdata on main board does not correspond with machine type.
ERROR 19: ID CHIP READ ERROR	Inspect ID chip connection on main board.
ERROR 20: ID CHIP WRITE ERROR	Inspect ID chip connection on main board.
ERROR 21: MMC TRANSFER ERROR	Error during MMC card data transfer.
ERROR 22: DOORLOCK ERROR	Door does not lock. Check wiring between door lock board and door lock. Using test program, check input signals S1 and S2.
ERROR 24: WRONG DISPLAY TYPE ERROR	Wash data does not correspond to display type.
ERROR 25: WASH DATA BACKUP ERROR	When the main board is replaced, the wash data cannot be updated from the display board to the main board.
ERROR 26: NEW ID CHIP ERROR	When an ID chip is replaced at the same time as the main board, a programmed ID chip must be installed.
ERROR 27: INVALID FILE SIZE ERROR	An invalid size (larger than 128 kbytes) has been updated.
ERROR 28: RTC READ ERROR	The real time clock cannot be read.
ERROR 29: RTC WRITE ERROR	The real time clock cannot be written.
ERROR 30: EEPROM READ ERROR	The main board's eeprom cannot be read.
ERROR 31: EEPROM WRITE ERROR	The main board's eeprom cannot be written.
ERROR 32: WATER LEVEL TOO LOW	Water level is too low during heating cycle.
ERROR 33: SOFTWARE VERSION ERROR	When the main board or display board is replaced, the cards have different software versions.
ERROR 34: MCU FAILURE ERROR	The processor isn't functioning properly.
ERROR 50: LEVEL STOP ERROR	Programmed water level not reached. Inspect water pressure and water inlet valve filters. Inspect water inlet valves and wiring. Inspect water level sensor and wiring. Inspect drain valve and wiring. Using test program, test water inlet valves, water level sensor and drain valves.
ERROR 51: HEAT STOP ERROR	Programmed temperature not reached. Inspect heating resistances, heating relays, water level switch and wiring. Using test program, test heating resistances and water level switch.
ERROR 52: DRAIN ERROR	Inspect drain valve, drain pipe and water level hose. Using test program, test function of drain valve.
ERROR 53: HEATING ERROR	Programmed temperature not reached. Inspect heating resistances, heating relays, water level switch and wiring. Using test program, test heating resistances and water level switch.
ERROR 54: FILL ERROR	Programmed water level not reached. Inspect water pressure and water inlet valve filters. Inspect water inlet valves and wiring. Inspect water level sensor and wiring. Inspect drain valve and wiring. Using test program, test water inlet valves, water level sensor and drain valve.
ERROR 55: ROTATION SENSOR ERROR	Control does not sense basket rotation. Using test program, test function of rotation sensor. Check position of rotation sensor. Check connection between main board and inverter. Check status of inverter.

(continued)



(continued)

<b>Error Message</b>	<b>Possible Cause/Correction</b>
ERROR 56: SPIN RETRY ERROR	Programmed number of imbalances is reached. Check tilt switch's connection and position of tilt switch. Using test program, test function of tilt switch. Check machine to make sure it is loaded properly. Check machine's shock absorbers (if present).
ERROR 59: DOOR OPEN WHILE WASHING ERROR	Door is open or unlocked during machine operation. Check wiring between door lock board and door lock. Check position of switches S1 and S2. Using test program, test input signals of S1 and S2. Using test program, test function of door lock.

## Error Messages

## Events

Following is a list of events that may be recorded.

Event	Description
EVENT 100: PROGRAM STARTED	Program start time and date.
EVENT 101: PROGRAM ENDED	Program end time and date.
EVENT 102: PROGRAM ABORTED	Program is aborted or stopped.
EVENT 103: LEVEL REACHED	Programmed water level reached.
EVENT 104: TEMPERATURE REACHED	Programmed temperature reached.
EVENT 105: HUMIDITY REACHED	Programmed humidity reached.
EVENT 106: SPIN RETRY	Spin is repeated because of tilt switch or water detection.
EVENT 107: SOAP ACTIVATION	Supplies activated.
EVENT 108: ABSO RESULT	SMART WAVE routine ended.
EVENT 109: WEIGHT ENTERED	Operator has entered load's weight.
EVENT 110: STALLING	The motor is stalling. The control decreases the frequency by 10%.
EVENT 111: SPIN INFO	The total number of spins is written to a log file.
EVENT 112: FINAL SPIN RPM	After the spin, the spin speed is recorded.
EVENT 113: USER HAS ADVANCED	Rapid advance function used.
EVENT 114: INVERTER NOT RUNNING	Inverter is communicating with motor, but motor is not running. Control resets inverter and resumes wash cycle.
EVENT 115: PROGRAM INTERRUPTED	Operator interrupted the cycle (coin models only).
EVENT 116: AUDIT INFO	Operating hours, cycles and the coin counter is stored.
EVENT 150: FIRST EVENT / WASH DATA EDITED	Wash data has been modified using machine's control.
EVENT 151: WASH DATA DOWNLOADED	Wash data has been modified by using PC.
EVENT 152: WASH DATA FROM MMC	Wash data has been modified by using MMC card.
EVENT 153: FIRMWARE FROM MMC	Firmware has been updated by using MMC card.
EVENT 157: HELP FILE DOWNLOADED	A help file has been downloaded via infrared cable.
EVENT 158: HELP FILE FROM MMC	A help file has been copied from MMC card to the machine.
EVENT 159: POWER UP	The machine has been powered up.
EVENT 160: POWER UP WASHING	The machine was powered down during a cycle, but the power was restored.
EVENT 161: NEW ID CHIP	A new ID chip has been installed.
EVENT 163: NEW MAINBOARD	A new main board has been installed.
EVENT 164: NEW DISPLAY BOARD	A new display board has been installed.
EVENT 165: BACKUP WASH DATA	The main board's wash data has been copied to the display board.
EVENT 166: RESTORE WASH DATA	The wash data has been restored from the display board to the main board.
EVENT 167: COPY DISPLAY FIRMWARE	The firmware has been copied from the display board to the main board.
EVENT 168: COPY MAINBOARD FIRMWARE	The firmware has been copied from the main board to the display board.
EVENT 169: RESTORE DISPLAY FIRMWARE	The firmware has been restored from the main board to the display board.
EVENT 170: RESTORE MAINBOARD FIRMWARE	The firmware has been restored from the display board to the main board.
EVENT 171: NEW BOOT	The boot software in the main board has been modified.
EVENT 172: COPY BOOT	The boot software in the main board has been copied to the display board.
EVENT 175: POWER FAILURE	The power was disconnected.
EVENT 176: POWER RESTORED	The power was lost but was then restored.
EVENT 177: BURN IN TEST STARTED	The burn-in test was started.
EVENT 178: CODE RESET	The entry code has been reset.
EVENT 179: TIME/DATE SET	The date and time have been set via infrared cable or network.

# Rapid Advance Feature

The Rapid Advance feature allows the owner to manually advance through active cycles.

## How to Use Rapid Advance

Control must be in an active cycle to use the Rapid Advance feature.

While a cycle is in process, pressing the ►► keypad will advance the washer-extractor to the next cycle step. The cycle indicator lights will tell which cycle step the washer-extractor is in.

For Example, if the washer is in the first fill cycle step, pressing the ►► keypad will advance the washer into the agitate cycle step.

**NOTE: The Rapid Advance feature must be turned on for Rapid Advance to work. Refer to *option 6* (“AdUAnCE EnAbLEd”) in the 6. *Rapid Advance Enable Sub-Menu* “AdUAnCE EnAbLEd” section.**

# Communication Mode

## Infra-red Communications

The Infra-red Communication feature allows the control to communicate with a PC via the Cygnus Assist Software. The control can be programmed and have its data read without using the keypad.