



# PROGRAMMING MANUAL

## 120 SELECT CONTROLLER SOFTWARE

This manual contains only the programming instructions for the 120 Select Controller used on the vending machines listed below. Please refer to your service manual for other information.

VENDOR	MODEL	SOFTWARE
COMBO 3/6	3155, 3155A	67185-8
SNACK MART VI	3157, 3157A 3158, 3158A 3159, 3159A	67185-8
SM5700	3160, 3160A	67185-8
CF1000	3162, 3162A	67210-5
RFS CHILLED	3168, 3168A 3169, 3169A 3170, 3170A	67185-8 67217-10 67257-3
RFS AMBIENT	3183, 3183A 3184, 3184A 3185, 3185A	67231-3 67185-8
RSQF 2000	3175, 3175A 3176, 3176A 3177, 3177A	67185-8
FF2000	3182, 3182A	67209-5
SC100	3187	67185-8 67212-1 67209-5
DUAL ZONE SNACK	3195, 3195A 3193, 3193A	67232-7 67234-3
SINGLE ZONE (SZF) /DUAL ZONE (DZF) (DZF) FOAMED SNACK	3207, 3207A 3208, 3208A	67256-3 67234-3

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## SERVICE MODE

The **SERVICE MODE** is used by the operator to program and service the machine. The keypad is used as an input device while the display is used to communicate with the operator.

### SERVICE MODE BUTTON

To begin the **SERVICE MODE**, press the **SERVICE MODE BUTTON** located on the upper right corner of the controller (cover). See **Figure 1**.

To exit the **SERVICE MODE**, press the **SERVICE MODE BUTTON**.

#### NOTES

*If credit exists when entering the **SERVICE MODE**, then it will be restored when the machine is returned to **SALES MODE**.*

*While in **SERVICE MODE**, the controller will automatically exit back to **SALES MODE** if no key is pressed for approximately 25 seconds.*

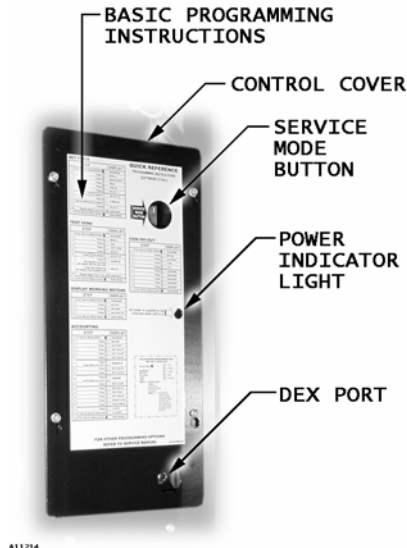


Figure 1. Controller Cover

### KEYPAD

Press the buttons on the keypad as instructed by the step-by-step instructions in this manual.

#### NOTE

*If the program is not requiring you to input a letter or range value, then buttons **A**, **B**, **C** and **E** are used to move between the various modes, menus and sub-menus; while the **D** button is used to confirm and save a setting. See **Figure 2**.*

### DISPLAY

Watch the display after pressing the **SERVICE MODE BUTTON** and/or **KEYPAD BUTTONS** to make sure that the program is responding correctly.

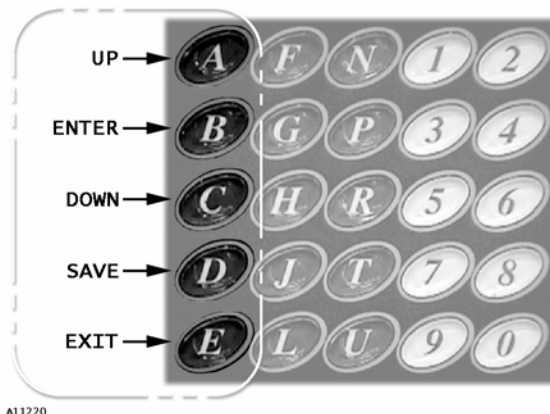
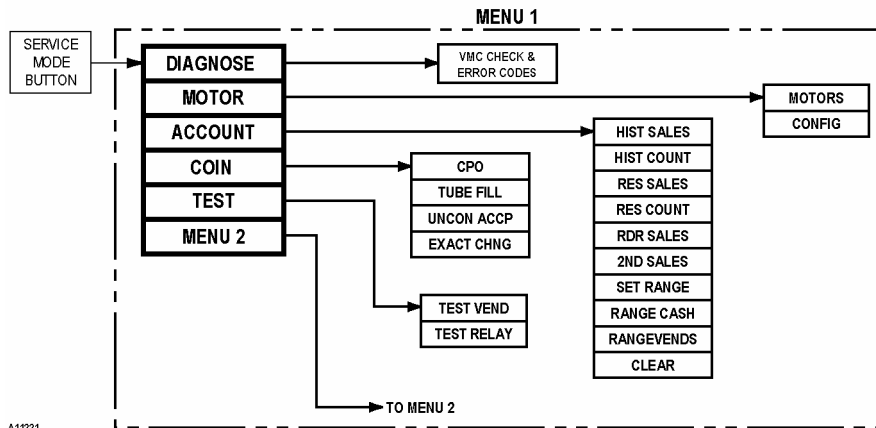


Figure 2. Keypad Buttons in Service Mode



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Figure 3 . MENU 1 Diagram

## MENU 1

**MENU 1** is the first group of service mode menus and it contains the following:

- **DIAGNOSE** - Perform self-diagnostic check and display possible errors.
- **MOTOR** - Displays working motors and configures currently working motors.
- **ACCOUNT** - Displays various types of cash and vend totals.
- **COIN** - For loading or unloading the coin mech tubes and set unconditional acceptance and exact change.
- **TEST** - Test vend a selection motor or range of selection motors, and test relays.
- **MENU 2** - Access to **MENU 2** (and **MENU 3**) main menus.

STEP	DISPLAY
1. Press Service Button <input type="checkbox"/> .	<b>DIAGNOSE</b>
2. Press <input type="button" value="A"/> or <input type="button" value="C"/> to scroll available menus.	<b>MOTOR</b> <b>ACCOUNT</b> <b>COIN</b> <b>TEST</b> <b>MENU 2</b>
3. Press Service Button <input type="checkbox"/> .	(Sales Mode)

## DIAGNOSE

This menu is used to perform a self-diagnostics check and display results. The steps are listed at right.

It is possible that a sequence of error codes could follow the **VMC** display if multiple errors are found with that device.

	STEP	DISPLAY
1.	Press Service Button <b>[■]</b> .	<b>DI AGNOSE</b>
2.	Press <b>[B]</b> . See Table 1 on page 3.	<b>VMC OK</b> <b>CHANGER OK</b> <b>VALIDATOR OK</b> <b>READER OK</b>
3.	Press Service Button <b>[■]</b> .	(Sales Mode)

The diagnostics for the VMC will include an error code if any motor in the configuration has been flagged as bad. In addition, the error code for the bad motor will indicate why. A definition of possible error codes is shown in Table 1 on page 3.

For software versions 67149-1, 67149-2, and 67154-1, the diagnostics provides no indication as to which motor has failed.

**Table 1. Error Codes**

ERROR CODE	ERROR DESCRIPTION
<b>VMC 1</b>	Too little motor current (under 100mA). For an example, the display will show <b>VMC AT 1</b> ; (software versions 67149-2 and earlier display only <b>VMC 1</b> if any motor in the configuration exhibits this problem).
<b>VMC 2</b>	Too much time to complete vend (9 seconds). For an example, the display will show <b>VMC C2 2</b> ; (software versions 67149-2 and earlier display only <b>VMC 2</b> if any motor in the configuration exhibits this problem).
<b>VMC 4</b>	NOVRAM checksum error. The display would read <b>VMC 4</b> .
<b>VMC 5</b>	Health & safety error on temperature sensor 1. The display would read <b>VMC 5</b> .
<b>VMC 6</b>	Health & safety error on temperature sensor 2. The display would read <b>VMC 6</b> .
<b>VMC 7</b>	The door is still open after 30 minutes <b>VMC 7</b> .
<b>VMC 8</b>	Eyes on the activated optical sensor are blocked.
<b>VMC 9</b>	Selection was not detected by optical sensor and, as such, is considered sold out. ). For an example, the display will show <b>VMC AT 9</b> .
<b>CHANGER 3</b> (see Note)	Loss of changer communications or no changer. The display would show <b>CHANGER 3</b> .
<b>VALIDATOR7</b> (see Note)	Loss of bill validator communications or no bill validator. The display would read <b>VALIDATOR7</b> (Applies only to the MDB version of the controller)
<b>READER 8</b> (see Note)	Loss of card reader communications or no card reader. The display would read <b>READER 8</b> (Applies only to the MDB version of the controller)

**NOTE:** For software version 67256-3 and 67257-3 if the VMC 8 iVend optics error is present the controller will beep once per second until the error is cleared. The service mode time out is also increased to 5 minutes to allow time for optics error correction.

Also, if no motors are detected or if no credit can be accepted by any of the attached MDB devices due to the errors listed below, being reported to the

control board, the machine is taken out of service and the message **FUERA DE SERVICIO** is displayed.

Changer - Acceptor unplugged or Coin Jam.

Validator - Defective Motor, Sensor Bad, ROM checksum or Validator Jammed.

Cord Reader - Malfunction Errors

- 0x0A and
- 0x80 - 0xBF.

## MOTOR

This menu is used to display the number of working motors or to configure the vendor to currently working motors.

### MOTORS

This menu is used to display the number of working motors.

STEP	DISPLAY
1. Press Service Button <input type="checkbox"/>	<i>DIAGNOSE</i>
2. Press <input type="checkbox"/> <input type="checkbox"/>	<i>MOTOR</i>
3. Press <input type="checkbox"/>	<i>MOTORS</i>
4. Press <input type="checkbox"/>	<i>MOTORS 005</i>
5. Press Service Button <input type="checkbox"/>	(Sales Mode)

**NOTE:** Software revisions 67232-7, 67256-3 and 67257-3 only. Any motors not at home during sales mode will be moved to home after a motor count.

### CONFIG

This menu is used to configure the vendor to currently working motors.

STEP	DISPLAY
1. Press Service Button <input type="checkbox"/>	<i>DIAGNOSE</i>
2. Press <input type="checkbox"/> <input type="checkbox"/>	<i>MOTORS</i>
3. Press <input type="checkbox"/> or <input type="checkbox"/>	<i>CONFIG</i>
4. Press <input type="checkbox"/>	<i>CONFIGURED</i>
5. Press Service Button <input type="checkbox"/>	(Sales Mode)

## ACCOUNT

This menu is used to gain access to additional menus that display, set ranges, or clear (reset) data for various types of cash and vend totals.

Note: For large values of resettable cash and vends use RANGE CASH and RANGE VENDS.

ACTION	DISPLAY
1. Press Service Button <input type="checkbox"/>	<i>DIAGNOSE</i>
2. Press <input type="checkbox"/> <input type="checkbox"/>	<i>ACCOUNT</i>
3. Press <input type="checkbox"/>	<i>HIST SALES</i> <i>HIST COUNT</i> <i>RES SALES</i> <i>RES COUNT</i> <i>RDR SALES</i> <i>2ND VEND</i> <i>SET RANGE</i> <i>RANGE CASH</i> <i>RANGEVENDS</i> <i>CLEAR</i>
4. Press <input type="checkbox"/> or <input type="checkbox"/> to scroll through submenus.	
5. Press Service Button <input type="checkbox"/>	(Sales Mode)

**HIST SALES**

This menu displays the total sales value since initialization of the control board.

STEP	DISPLAY
1. Press Service Button <input type="checkbox"/>	<i>DIAGNOSE</i>
2. Press <input type="checkbox"/> <input type="checkbox"/>	<i>ACCOUNT</i>
3. Press <input type="checkbox"/>	<i>HIST SALES</i>
4. Press <input type="checkbox"/> to display <b>Total Sales Value</b> .	<i>\$00000. 00</i>
5. Press <input type="checkbox"/>	<i>HIST SALES</i>
6. Press Service Button <input type="checkbox"/>	(Sales Mode)

**HIST COUNT**

This menu displays the total vend count since initialization of the control board.

STEP	DISPLAY
1. Press Service Button <input type="checkbox"/>	<i>DIAGNOSE</i>
2. Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>HIST SALES</i>
3. Press <input type="checkbox"/>	<i>HIST COUNT</i>
4. Press <input type="checkbox"/> to display <b>Total Vend Count</b> .	<i>00000000</i>
5. Press <input type="checkbox"/>	<i>HIST COUNT</i>
6. Press Service Button <input type="checkbox"/>	(Sales Mode)

**RES SALES**

This menu displays the total sales value since the last reset.

STEP	DISPLAY
1. Press Service Button <input type="checkbox"/>	<i>DIAGNOSE</i>
2. Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>HIST COUNT</i>
3. Press <input type="checkbox"/>	<i>RES SALES</i>
4. Press <input type="checkbox"/> <b>Total Sales</b> since last reset.	<i>\$000000. 00</i>
5. Press <input type="checkbox"/>	<i>RES SALES</i>
6. Press Service Button <input type="checkbox"/>	(Sales Mode)

**RES COUNT**

This menu displays the total vend count since the last reset.

STEP	DISPLAY
1. Press Service Button <input type="checkbox"/>	<i>DIAGNOSE</i>
2. Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>HIST SALES</i>
3. Press <input type="checkbox"/> <input type="checkbox"/>	<i>RES SALES</i>
4. Press <input type="checkbox"/>	<i>RES COUNT</i>
5. Press <input type="checkbox"/> <b>Total Vends</b> since last reset.	<i>00000000</i>
6. Press <input type="checkbox"/>	<i>RES COUNT</i>
7. Press Service Button <input type="checkbox"/>	(Sales Mode)

**RDR SALES**

This menu displays the total card reader sales value.

STEP	DISPLAY
1. Press Service Button <input type="checkbox"/>	<i>DI AGNOSE</i>
2. Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>HI ST SALES</i>
3. Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>RES COUNT</i>
4. Press <input type="checkbox"/>	<i>RDR SALES</i>
5. Press <input type="checkbox"/>	<i>\$000000.00</i>
6. Press <input type="checkbox"/>	<i>RDR SALES</i>
7. Press Service Button <input type="checkbox"/>	(Sales Mode)

**2ND VEND**

This menu displays total number of successful vends that required a second vend cycle. This value is resettable. Product must be detected as being delivered by the optical sensor.

STEP	DISPLAY
1. Press Service Button <input type="checkbox"/>	<i>DI AGNOSE</i>
2. Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>HI ST SALES</i>
3. Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>RES COUNT</i>
4. Press <input type="checkbox"/> <input type="checkbox"/>	<i>2ND VEND</i>
5. Press <input type="checkbox"/>	<i>00000000</i>
6. Press <input type="checkbox"/>	<i>2ND VEND</i>
7. Press Service Button <input type="checkbox"/>	(Sales Mode)

**SET RANGE**

This menu allows the operator to define a specific range of selections to display total value or total vends since last reset. Use *RANGE CASH* or *RANGEVENDS* to display totals. Ranges can only be defined by row and not by selections.

STEP	DISPLAY
1. Press Service Button <input type="checkbox"/>	<i>DI AGNOSE</i>
2. Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>HI ST SALES</i>
3. Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>RES COUNT</i>
4. Press <input type="checkbox"/> <input type="checkbox"/>	<i>2ND VEND</i>
5. Press <input type="checkbox"/>	<i>SET RANGE</i>
6. Press <input type="checkbox"/>	<i>SR/ER A-L</i>
7. Press starting row letter.	
8. Press ending row letter.	
9. Press <input type="checkbox"/> to save.	<i>SET RANGE</i>
10. Press Service Button <input type="checkbox"/>	(Sales Mode)

**RANGE CASH**

This menu displays total value for the defined range.

STEP	DISPLAY
1. Press Service Button <input type="checkbox"/>	<i>DIAGNOSE</i>
Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>HIST SALES</i>
2. Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>RES COUNT</i>
Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>SET RANGE</i>
3. Press <input type="checkbox"/>	<i>RANGE CASH</i>
4. Press <input type="checkbox"/>	<i>\$000000.00</i>
5. Press <input type="checkbox"/>	<i>RANGE CASH</i>
6. Press Service Button <input type="checkbox"/>	(Sales Mode)

**RANGEVENDS**

This menu displays the number of vended products for the defined range.

STEP	DISPLAY
1. Press Service Button <input type="checkbox"/>	<i>DIAGNOSE</i>
Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>HIST SALES</i>
2. Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>RES COUNT</i>
Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>SET RANGE</i>
3. Press <input type="checkbox"/> <input type="checkbox"/>	<i>RANGEVENDS</i>
4. Press <input type="checkbox"/>	<i>00000000</i>
5. Press <input type="checkbox"/>	<i>RANGEVENDS</i>
6. Press Service Button <input type="checkbox"/>	(Sales Mode)

**CLEAR**

This menu clears all reset-table values.

STEP	DISPLAY
1. Press Service Button <input type="checkbox"/>	<i>DIAGNOSE</i>
2. Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>HIST SALES</i>
3. Press <input type="checkbox"/>	<i>CLEAR</i>
4. Press <input type="checkbox"/> to clear all reset-able values.	<i>CLEARED</i>
5. Press Service Button <input type="checkbox"/>	(Sales Mode)

**COIN**

Coin mode is used to gain access to additional menus that can load or unload the coin mech coin tubes, or sets Unconditional Acceptance and Exact Change values.

STEP	DISPLAY
1. Press Service Button <input type="checkbox"/>	<i>DIAGNOSE</i>
2. Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>COIN</i>
3. Press <input type="checkbox"/>	<i>CPO</i>
4. Press <input type="checkbox"/> or <input type="checkbox"/> to scroll through submenus.	<i>TUBE FILL</i> <i>UNCON ACCP</i> <i>EXACT CHNG</i>
5. Press Service Button <input type="checkbox"/>	(Sales Mode)

*CPO*

**Coin Pay Out** - Pays out coins from the coin mech coin tubes.

STEP	DISPLAY
1. Press Service Button <input type="checkbox"/>	<i>DIAGNOSE</i>
2. Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>COIN</i>
3. Press <input type="checkbox"/> <input type="checkbox"/>	<i>DISPENSE</i>
Press <input type="checkbox"/> to dispense most significant coin. Press <input type="checkbox"/> for next lower significant coin.	
4. Press <input type="checkbox"/> to dispense next lower significant coin. Press <input type="checkbox"/> to dispense least significant coin.	
<i>Note: Press and hold down to rapidly dispense coins.</i>	
5. Press Service Button <input type="checkbox"/>	(Sales Mode)

*TUBE FILL*

**Tube Fill Mode** - This mode allows the controller to accurately track the amount of available coins for change.

The display will show an increasing total as coins are entered through the coin mech.

Manually ejecting coins will not subtract from the total.

STEP	DISPLAY
1. Press Service Button <input type="checkbox"/>	<i>DIAGNOSE</i>
2. Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>COIN</i>
Press <input type="checkbox"/> <input type="checkbox"/>	<i>TUBE FILL</i>
3. Press <input type="checkbox"/>	<i>FILL COINS</i>
4. Begin loading coins through the coin slot.	<i>00.000</i>
5. Press Service Button <input type="checkbox"/>	(Sales Mode)

*UNCON ACCP*

**Unconditional Acceptance** - Sets the unconditional acceptance value. All coins or bills equal to or less than this set value will be accepted even if the changer cannot return an equal amount of change.

The Unconditional Acceptance set value is adjustable but the maximum value is equal to the largest denomination of currency or coin accepted by the changer or validator.

If the operator attempts to save a value that exceeds this amount, a warning message *"MAXIMUM VALUE"* will appear and the displayed setting will revert to this maximum value.

STEP	DISPLAY
1. Press Service Button <input type="checkbox"/>	<i>DIAGNOSE</i>
Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>COIN</i>
Press <input type="checkbox"/> <input type="checkbox"/>	<i>TUBE FILL</i>
3. Press <input type="checkbox"/>	<i>UNCON ACCP</i>
4. Press <input type="checkbox"/>	<i>00.000</i>
5. Press numbers on keypad.	
6. Press <input type="checkbox"/> to save.	<i>UNCON ACCP</i>
7. Press Service Button <input type="checkbox"/>	(Sales Mode)

**EXACT CHNG**

**Exact Change** - Sets the exact change value which also triggers the display of the *INSERT EXACT CHANGE* message.

STEP	DISPLAY
1. Press Service Button <b>[■]</b> .	<i>DIAGNOSE</i>
2. Press <b>[C]</b> , <b>[C]</b> , <b>[C]</b> .	<i>COIN</i>
Press <b>[B]</b> , <b>[C]</b> , <b>[C]</b> .	<i>UNCON ACCP</i>
3. Press <b>[C]</b> .	<i>EXACT CHNG</i>
4. Press <b>[B]</b> .	<i>000.00</i>
5. Press numbers on keypad.	
6. Press <b>[D]</b> to save.	<i>EXACT CHNG</i>
7. Press Service Button <b>[■]</b> .	(Sales Mode)

**TEST**

This menu provides access to menu functions that allow the operator to test motors or test relay output control lines.

STEP	DISPLAY
1. Press Service Button <b>[■]</b> .	<i>DIAGNOSE</i>
2. Press <b>[A]</b> , <b>[A]</b> .	<i>TEST</i>
3. Press <b>[B]</b> .	<i>TEST VEND</i>
4. Press <b>[A]</b> or <b>[C]</b> to scroll through submenus.	<i>TEST RELAY</i>
5. Press Service Button <b>[■]</b> .	(Sales Mode)

**TEST VEND**

**Test Vend Motors** - This menu provides functions that allow the operator to test vend individual motors or a range of motors. The selection and price will display with the test vend.

If a test vend attempt on a particular motor fails, then the controller will beep 3 times.

A successful test vend on a motor clears all errors associated with that selection.

STEP	DISPLAY
1. Press Service Button <b>[■]</b> .	<i>DIAGNOSE</i>
2. Press <b>[A]</b> , <b>[A]</b> , <b>[B]</b> .	<i>TEST VEND</i>
Press <b>[B]</b> .	<i>SELECT --</i>
3. Press selection letter and number or starting and ending selection row letters. <i>Example: [A][1] for selection A1, or [A][G] selection rows A through G.</i>	<i>SELECT A1</i>
4. Press <b>[D]</b> to begin test.	<i>A1\$001.00</i>
5. Repeat <b>steps 3</b> and <b>4</b> for other selections.	<i>SELECT --</i>
6. Press <b>[E]</b> three (3) times to exit.	<i>TEST VEND</i>
7. Press Service Button <b>[■]</b> .	(Sales Mode)

**TEST RELAY**

**Testing of Relays** - This menu provides functions that allow the operator to test the operation of the individual relay lines 1 through 3.

- **RELAY1** - Refrigeration Compressor.

**Dual Zone (software 67232 & 67234) only:** If machine is located in a high ambient temperature environment, the condenser fan can be run all the time by turning off the Energy Saver Mode switch. This switch is located on the power panel.

- **RELAY2** - Evaporator Fan
- **RELAY3** - Heater

Upon exit from the function, the state of the corresponding relay control line will revert to a state that is dependent on the controller's normal relay control algorithm.

STEP	DISPLAY
1. Press Service Button <input type="checkbox"/>	<i>DIAGNOSE</i>
2. Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>TEST VEND</i>
3. Press <input type="checkbox"/> or <input type="checkbox"/>	<i>TEST RELAY</i>
4. Press <input type="checkbox"/>	<i>RELAY1</i>
5. Press <input type="checkbox"/>	<i>OFF *</i>
6. Press <input type="checkbox"/> to test.	<i>ON *</i>
7. Press <input type="checkbox"/> or <input type="checkbox"/> to exit.	<i>RELAY1</i>
8. Press <input type="checkbox"/>	<i>RELAY2</i>
9. Press <input type="checkbox"/>	<i>OFF *</i>
10. Press <input type="checkbox"/> to test.	<i>ON *</i>
11. Press <input type="checkbox"/> or <input type="checkbox"/> to exit.	<i>RELAY2</i>
12. Press <input type="checkbox"/>	<i>RELAY3</i>
13. Press <input type="checkbox"/>	<i>OFF *</i>
14. Press <input type="checkbox"/> to test.	<i>ON *</i>
15. Press <input type="checkbox"/> or <input type="checkbox"/> to exit.	<i>RELAY3</i>
16. Press Service Button <input type="checkbox"/>	(Sales Mode)

**WARNING:**

The operator should be aware that operations of the functions within this menu have direct control over whatever device(s) is/are connected to those lines. With some devices (such as compressors), there is the potential for damaging the device with frequent toggling of this line.

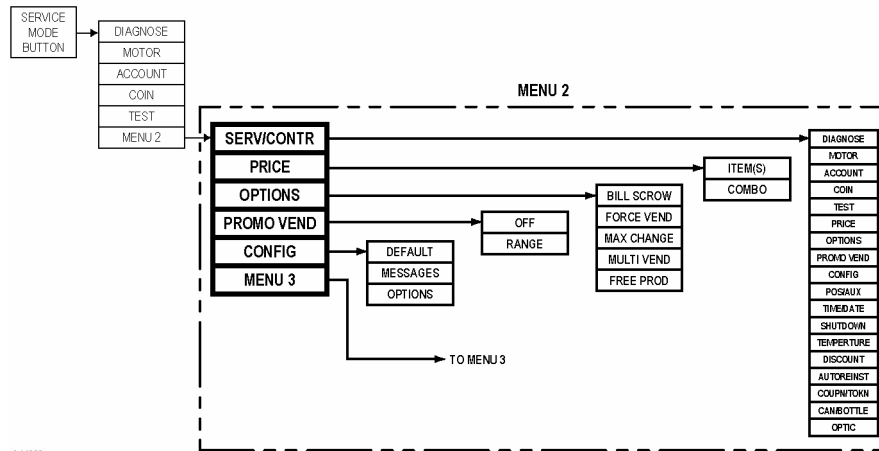


Figure 4. MENU 2 Diagram

## MENU 2

**MENU 2** is the second group of service mode menus and it contains the following:

- **SERV/CONTR** Hides or displays service menus.
- **PRICE** Assign prices to selections.
- **OPTIONS** Sets various options on the coin mech and the validator.
- **PROMO VEND** Allows free vend of promotional items.
- **CONFIG** Sets vendor to original factory settings.
- **MENU 3** Access to **MENU 3**.

### SERV/CONTR

**Service Mode Menu Control** - This password accessible menu allows the operator to control which menus to hide or display during navigation of the service mode. The only menus not under this control are **MENU 2**, **MENU 3** and **SERV/CONTR**.

The user enters this menu by pressing the **[B]** button after navigating to the menu item labeled **SERV/CONTR**. Upon entry to this menu, the controller will request that the operator enter a password (**DBCA**) and the display will read **PASS ---**.

If password entry is exited or if the password entered is incorrect then control passes back to **SERV/CONTR**.

**NOTE:** For software revisions 67256-3 and 67257-3 the default password is (2462). Also the password can be changed to any numeric sequence desired, after the correct password has been entered.

Refer to **Figures 3, 4 & 5** for a diagram of all menus. The following steps set all the menus to factory default. The main menus **DIAGNOSE**, **MOTOR**, **ACCOUNT**, **COIN**, **TEST** and **PRICE** to display and hides all other menus.

STEP	DISPLAY
1. Press Service Button <b>[■]</b> .	<i>DIAGNOSE</i>
2. Press <b>[A]</b> .	<i>MENU 2</i>
3. Press <b>[B]</b> .	<i>SERV/CONTR</i>
4. Press <b>[B]</b> .	<i>PASS ----</i>
5. Press <b>[D]</b> <b>[B]</b> <b>[C]</b> <b>[A]</b> .	<i>PASS ****</i>
6. See Note below.	<i>PRG CLAVE?</i>
7. Press any key once or <b>[H]</b> twice.	<i>DIAGNOSE</i>
8. Press <b>[C]</b> 6 times.	<i>OPTI ONS</i>
9. Press <b>[B]</b> .	<i>ON *</i>
10. Press <b>[B]</b> .	<i>OFF *</i>
11. Press <b>[D]</b> .	<i>OPTI ONS</i>
12. Press <b>[C]</b> .	<i>PROMO VEND</i>
13. Press <b>[B]</b> .	<i>ON *</i>
14. Press <b>[B]</b> .	<i>OFF *</i>
15. Press <b>[D]</b> .	<i>PROMO VEND</i>
16. Press <b>[C]</b> .	<i>CONF I G</i>
17. Press <b>[B]</b> .	<i>ON *</i>
18. Press <b>[B]</b> .	<i>OFF *</i>
19. Press <b>[D]</b> .	<i>CONF I G</i>
20. Press <b>[C]</b> .	<i>POS/AUX</i>
21. Press <b>[B]</b> .	<i>ON *</i>
22. Press <b>[B]</b> .	<i>OFF *</i>
23. Press <b>[D]</b> .	<i>POS/AUX</i>
24. Press <b>[C]</b> .	<i>TI ME/DATE</i>
25. Press <b>[B]</b> .	<i>ON *</i>
26. Press <b>[B]</b> .	<i>OFF *</i>
27. Press <b>[D]</b> .	<i>TI ME/DATE</i>

STEP	DISPLAY
28. Press <b>[C]</b> .	<i>SHUTDOWN</i>
29. Press <b>[B]</b> .	<i>ON *</i>
30. Press <b>[B]</b> .	<i>OFF *</i>
31. Press <b>[D]</b> .	<i>SHUTDOWN</i>
32. Press <b>[C]</b> .	<i>TEMPERTURE</i>
33. Press <b>[B]</b> .	<i>ON *</i>
34. Press <b>[B]</b> .	<i>OFF *</i>
35. Press <b>[D]</b> .	<i>TEMPERTURE</i>
36. Press <b>[C]</b> .	<i>DI SCOUNT</i>
37. Press <b>[B]</b> .	<i>ON *</i>
38. Press <b>[B]</b> .	<i>OFF *</i>
39. Press <b>[D]</b> .	<i>DI SCOUNT</i>
40. Press <b>[C]</b> .	<i>AUTOREI NST</i>
41. Press <b>[B]</b> .	<i>ON *</i>
42. Press <b>[B]</b> .	<i>OFF *</i>
43. Press <b>[D]</b> .	<i>AUTOREI NST</i>
44. Press <b>[C]</b> .	<i>COUP/TOKN</i>
45. Press <b>[B]</b> .	<i>ON *</i>
46. Press <b>[B]</b> .	<i>OFF *</i>
47. Press <b>[D]</b> .	<i>COUP/TOKN</i>
48. Press <b>[C]</b> .	<i>CAN/BOTTLE</i>
49. Press <b>[B]</b> .	<i>ON *</i>
50. Press <b>[B]</b> .	<i>OFF *</i>
51. Press <b>[D]</b> .	<i>CAN/BOTTLE</i>
52. Press <b>[C]</b> .	<i>OPTI C</i>
53. See Note Below Press <b>[B]</b> .	<i>ON *</i>
54. Press <b>[B]</b> .	<i>OFF *</i>
55. Press <b>[D]</b> .	<i>OPTI C</i>
56. Press Service Button <b>[■]</b> .	(Sales Mode)

**NOTE:** For software revisions 67256-3 and 67257-3 the *OPTICS* menu is *OFF* by default. See additional notes on Page 13.

For Software version 67256-3 and 67257-3 the default password is

**[2]** **[4]** **[6]** **[2]**.

If the password entered is correct, then the display will read **DIAGNOSE**; which corresponds to the first selection that appears upon entry to the service mode. The operator may now either:

- Scroll through the remaining functions in the menu which correspond to all of the configurable menus in the service mode;
- Enter a function by pressing the **B** button;
- Exit this whole menu by pressing the **E** button which returns control to the menu just above the **SERV/CONTR** menu.

If any of the menu items are entered, then the display will change to **ON\*** or **OFF\*** where the \* indicates editing mode. This initial on/off status indicates if the corresponding service menu is currently active or inactive. Pressing **B** again will toggle the on/off state. At any time the state may be stored and this function exited by pressing **D**. If the **E** button is pressed then the status of the specific service mode menu function is not modified.

**NOTE:** For software revisions 67256-3 and 67257-3 after the correct password is entered the password programming menu **PRG CLAVE ?** will be displayed. By pressing **B** this menu is entered and any for digit numeric sequence can be entered. To save the new password press **D** or **E** to exit without saving.

## PRICE

**Price Setting** - This menu allows the operator three (3) methods to assign prices: a) To individual selections, b) Over a range of selections, or c) To a combination of selections.

The maximum price that can be set is 199.99 for a scale factor of 1 and 999.95 for a scale factor of 5.

### ITEM(S)

**Pricing by Selection or Range of Selections** - This menu allows price setting by selection or range of selections.

It is not necessary to enter leading zeros and only the first five numbers will be used.

**NOTE:**

*For Protocol A versions of the controller, the operator should be aware of changers that are operating in price holding mode. When this mode is active, product price information passed from the controller to the changer represents a price address.*

STEP	DISPLAY
1. Press Service Mode Button <b>■</b> .	<b>DIAGNOSE</b>
2. Press <b>A</b> , <b>B</b> , <b>C</b> .	<b>PRICE</b>
3. Press <b>B</b> .	<b>ITEM(S)</b>
4. Press <b>B</b> .	<b>SELECT --</b>
5. Press selection letter and number, or starting and ending selection letter. Examples: <b>A 1</b> for selection A1 or <b>A J</b> for selections A through J.	<b>SELECT A1</b>
6. If correct selection(s) selected, press <b>D</b> and go to <b>step 9</b> . If wrong selection(s) selected, press <b>E</b> and repeat <b>step 7</b> and <b>8</b> .	<b>A1\$000. 50</b>
7. Press number keys on keypad to set the desired price.	
8. Press <b>D</b> .	<b>SELECT --</b>
9. Repeat <b>steps 5</b> through <b>8</b> for other selections.	
10. Press Service Mode Button <b>■</b> .	(Sales Mode)

The price set in the controller must be equal to the address multiplied by the lowest coin accepted by the coin mechanism (the scaling factor).

An example price of .05 stored in the controller for a particular item would be equivalent to the changer's price holding address 1 when the scale factor is 5. In this case, .05 would be displayed as the item's price and not the actual price stored in the coin mechanism.

**COMBO**

**Combination Pricing -**

This function allows setup of several products to be purchased at a single combined price.

The combo selection must not be in the vendor configuration of currently working motors.

A maximum of five products (*RG1-RG5*) can be combined under a combo selection and up to five combo selections (*COMBO1-COMBO5*) can be programmed into the vendor.

	STEP	DISPLAY
1.	Press Service Mode Button <b>[■]</b> .	<i>DIAGNOSE</i>
2.	Press <b>[A]</b> , <b>[B]</b> , <b>[C]</b> , <b>[B]</b> .	<i>ITEM(S)</i>
3.	Press <b>[C]</b> .	<i>COMBO</i>
4.	Press <b>[B]</b> .	<i>SELECT --</i>
5.	Press selection letter and number. Example: <b>[A]</b> <b>[4]</b> for selection <b>A4</b> .	<i>SELECT A4</i>
6.	Press <b>[D]</b> .	<i>A4\$000. 50</i>
7.	Press number keys to set the desired price.	
8.	Press <b>[D]</b> .	<i>COMBO1</i>
9.	Press <b>[A]</b> or <b>[C]</b> to select and link to a combo selection.	
10.	Press <b>[B]</b> .	<i>RG1</i>
11.	Press <b>[B]</b> .	<i>RG1 *</i>
12.	Press starting selection letter and number.	<i>RG1 XX *</i>
13.	Press ending selection letter and number.	<i>RG1 XX YY*</i>
14.	Press <b>[D]</b> to save, or press <b>[E]</b> to erase and start again at <b>step 11</b> .	<i>RG2</i>
15.	Repeat <b>steps 11</b> through <b>14</b> to combine other selections to combo selection.	
16.	Press <b>[E]</b> .	<i>SELECT --</i>
17.	Repeat <b>steps 5</b> through <b>16</b> to create another combo selection.	
18.	Press Service Mode Button <b>[■]</b> .	(Sales Mode)

## OPTIONS

**Vending Options** - This menu allows access to the following optional submenu features:

- Bill Escrow
- Force Vend
- Maxi Change
- Multi Vend
- Free Product

STEP	DISPLAY
1. Press Service Mode Button <b>[■]</b> .	<i>DIAGNOSE</i>
2. Press <b>[A]</b> , <b>[B]</b> , <b>[C]</b> , <b>[C]</b> .	<i>OPTIONS</i>
3. Press <b>[B]</b> .	<i>BILL SCROW</i>
4. Press <b>[A]</b> or <b>[C]</b> to view available menus.	<i>FORCE VEND</i> <i>MAX CHANGE</i> <i>MULTI VEND</i> <i>FREE PROD</i>
5. Press Service Mode Button <b>[■]</b> .	(Sales Mode)

### *BILL SCROW*

**Bill Escrow Option** - Allows the last bill accepted to be returned, provided the bill acceptor is capable of such a feature.

STEP	DISPLAY
1. Press Service Mode Button <b>[■]</b> .	<i>DIAGNOSE</i>
2. Press <b>[A]</b> , <b>[B]</b> , <b>[C]</b> , <b>[C]</b> .	<i>OPTIONS</i>
3. Press <b>[B]</b> .	<i>BILL SCROW</i>
4. Press <b>[B]</b> to view or change setting.	<i>ON</i> *
5. Press <b>[B]</b> to change setting.	<i>OFF</i> *
6. Press <b>[D]</b> to save.	<i>BILL SCROW</i>
7. Press Service Mode Button <b>[■]</b> .	(Sales Mode)

### *FORCE VEND*

This option will force the customer to complete a purchase once they have deposited money of any form.

**Note:** *If a vend is attempted on a configured selection and the motor fails during this vend, the customer will be allowed to escrow the credit, regardless of the force vend status.*

STEP	DISPLAY
1. Press Service Mode Button <b>[■]</b> .	<i>DIAGNOSE</i>
2. Press <b>[A]</b> , <b>[B]</b> , <b>[C]</b> .	<i>PRICE</i>
3. Press <b>[C]</b> , <b>[B]</b> .	<i>BILL SCROW</i>
4. Press <b>[C]</b> .	<i>FORCE VEND</i>
5. Press <b>[B]</b> to view or change setting.	<i>ON</i> *
6. Press <b>[B]</b> to change setting.	<i>OFF</i> *
7. Press <b>[D]</b> to save.	<i>FORCE VEND</i>
8. Press Service Mode Button <b>[■]</b> .	(Sales Mode)

**MAXCHANGE**

**Maximum Change Option -**

This option will prevent change from being returned to the customer until the amount of credit has been reduced to a value less than or equal to the programmed maximum change limit.

**Note:**

The highest value that can be set for the maximum price is 199.99 for a scale factor of 1 and 999.95 for a scale factor of 5.

STEP	DISPLAY
1. Press Service Mode Button <input type="checkbox"/>	DIAGNOSE
2. Press <input type="checkbox"/> A, <input type="checkbox"/> B, <input type="checkbox"/> C.	PRI CE
3. Press <input type="checkbox"/> C, <input type="checkbox"/> B, <input type="checkbox"/> C.	FORCE VEND
4. Press <input type="checkbox"/> C.	MAX CHANGE
5. Press <input type="checkbox"/> B.	OFF *
To change on/off setting, press <input type="checkbox"/> B twice.	ON *
6. Press <input type="checkbox"/> D to save.	ON
7. Press <input type="checkbox"/> C.	VALUE
8. Press <input type="checkbox"/> B to view or change the maximum change limit.	000. 00
9. Press numbers on keypad.	
10. Press <input type="checkbox"/> D to save.	VALUE
11. Press Service Mode Button <input type="checkbox"/>	(Sales Mode)

**MULTI VEND**

**Multi-Vend Option -**

This option will allow the customer to purchase more than one product if enough credit has been deposited.

When this option is active, any credit remaining after a vend attempt is not automatically returned. At this point, the customer has the option of:

- Making another selection if there's enough credit.
- depositing more money (cash credit from a changer or bill acceptor); or
- Escrowing the remaining credit. If force vend is also active then the customer will be forced to attempt the purchase of at least one valid (the selection is in configuration) item. If a vend is attempted on a configured selection and the motor fails during this vend, the customer will be allowed to escrow the credit, regardless of the force vend status.

**Note:** For card reader sessions, the multi-vend feature will function only if the card reader supports multiple vend capability.

STEP	DISPLAY
1. Press Service Mode Button <input type="checkbox"/>	DIAGNOSE
2. Press <input type="checkbox"/> A, <input type="checkbox"/> B, <input type="checkbox"/> C.	PRI CE
3. Press <input type="checkbox"/> C, <input type="checkbox"/> B, <input type="checkbox"/> C.	FORCE VEND
4. Press <input type="checkbox"/> C, <input type="checkbox"/> C.	MULTI VEND
5. Press <input type="checkbox"/> B.	OFF *
6. Press <input type="checkbox"/> B to change.	ON *
7. Press <input type="checkbox"/> D to save.	MULTI VEND
8. Press Service Mode Button <input type="checkbox"/>	(Sales Mode)

### FREE PROD

**Free Product Option** - This option allows a free product to be given to the customer at a preprogrammed vend interval.

When enabled, every nTH product will be vended at no cost, all accumulated credit will be returned, and the message "FREE ON US" will be displayed during the vend process.

STEP	DISPLAY
1. Press Service Mode Button <b>[■]</b> .	<i>DI AGNOSE</i>
Press <b>[A]</b> , <b>[B]</b> , <b>[C]</b> .	<i>PRI CE</i>
2. Press <b>[C]</b> , <b>[B]</b> , <b>[C]</b> .	<i>FORCE VEND</i>
Press <b>[C]</b> , <b>[C]</b> .	<i>MULTI VEND</i>
3. Press <b>[C]</b> .	<i>FREE PROD</i>
4. Press <b>[B]</b> to view or change interval setting.	<i>FREE 000</i>
5. Press number keys on keypad.	
6. Press <b>[D]</b> to save.	<i>FREE PROD</i>
7. Press Service Mode Button <b>[■]</b> .	(Sales Mode)

Setting vend interval to *001* provides a free vend at every transaction, *000* disables the option, and the maximum valid vend interval is *255*.

**Note:** The determination of free product status is made only after credit equal to or greater than the normal cost of a product has been deposited and the customer has selected the specific product.

### PROMO VEND

**Promotional Vend** - This function will allow a promotional product to be given to a customer for free in response to their purchase of another product. When enabled, purchasing selection '1' from one of the two possible promotional rows will result in both selection '1' and '2' of that row to vend sequentially.

#### OFF/ON

**Promo Vend Off/On** - This menu displays and controls the current status of the Promo Vend menu.

STEP	DISPLAY
1. Press Service Mode Button <b>[■]</b> .	<i>DI AGNOSE</i>
2. Press <b>[A]</b> , <b>[B]</b> , <b>[C]</b> .	<i>PRI CE</i>
3. Press <b>[C]</b> , <b>[C]</b> .	<i>PROMO VEND</i>
4. Press <b>[B]</b> .	<i>OFF</i>
5. Press <b>[B]</b> twice to change setting.	<i>OFF *</i> <i>ON *</i>
6. Press <b>[D]</b> to save.	<i>ON</i>
7. Press <b>[C]</b> .	<i>RANGE</i>
8. Press starting letter of promotional selections row. Press ending letter of promotional selections row.	<i>SR/ER A-A</i>
9. Press <b>[D]</b> to save.	<i>RANGE</i>
10. Press Service Mode Button <b>[■]</b> .	(Sales Mode)

#### RANGE

**Promo Vend Range** - This menu is used for setting the promotional rows.

## CONFIG

**Configuration Menu** - This menu provides access to additional submenus that allow the operator to restore some or many of the controller default settings.

The following submenus are available:

- *DEFAULT*
- *MESSAGES*
- *OPTIONS*

STEP	DISPLAY
1. Press Service Mode Button <input type="checkbox"/>	<i>DIAGNOSE</i>
2. Press <input type="checkbox"/> , <input type="checkbox"/> , <input type="checkbox"/> , <input type="checkbox"/>	<i>CONFIG</i>
3. Press <input type="checkbox"/>	<i>DEFAULT</i>
4. Press <input type="checkbox"/> or <input type="checkbox"/> to view available submenus.	<i>MESSAGES</i> <i>OPTIONS</i>
5. Press Service Mode Button <input type="checkbox"/>	(Sales Mode)

## DEFAULT

**Configuration Default** - This function allows the operator to choose a specific set of default machine settings that correspond to the type of vending machine.

Refer to Table 2 on page 19 for the list of factory default settings that apply to each of the different machine types that are applied every time a machine type is saved.

STEP	DISPLAY
1. Press Service Mode Button <input type="checkbox"/>	<i>DIAGNOSE</i>
2. Press <input type="checkbox"/> , <input type="checkbox"/> , <input type="checkbox"/>	<i>MENU 3</i>
3. Press <input type="checkbox"/> , <input type="checkbox"/>	<i>DEFAULT</i>
4. Press <input type="checkbox"/>	<i>SNACK</i> * <i>COMBO</i> * <i>CHILLED</i> * <i>CLO FRONT</i> * <i>FOOD</i> * <i>SLACK</i> * <i>FROZEN</i> *
5. Press <input type="checkbox"/> or <input type="checkbox"/> to select a default setting.	
6. Press <input type="checkbox"/> to save.	<i>DEFAULT</i>
7. Press Service Mode Button <input type="checkbox"/>	(Sales Mode)

## CAUTION:

The Point of Sale Message (see page 21) and the Settings for Options (see page 21) are also restored to factory defaults whenever a default machine setting is saved.

**Table 2. Default Configurations <sup>2</sup>**

		SNACK	COMBO	CHILLED	CLO FRONT	FOOD	SLACK	FROZEN	2 ZONE	2 ZONE (SZF/DZF)
SOFTWARE VERSION		67185-8	67185-8	67185-8 67217-10/ 67257-3 <sup>6</sup>	67185-8	67210-5	67209-5	67209-5	67232-7 <sup>6</sup> / 67234-3 <sup>4</sup>	67232-7 <sup>6</sup> 67256-3 <sup>5</sup> 67234-3 <sup>4</sup>
AUTO REINST A-G		ON	ON	ON	ON	ON	ON	ON	ON	ON
RANGE		A-L	A-L	A-L	A-L	A-L	A-L	A-L	A-L	A-L
TEMPERATURE		DEGREE	°F	°F	°C	°C	°F	°F	°F	°C / °F
SENSOR1		OFF	ON	ON	ON	ON	ON	ON	ON	ON
SENSOR2		OFF	ON	OFF	OFF	OFF	ON	ON	ON	OFF
SENSOR3										
SENSOR4										
PRIORITY									SENSOR1	SENSOR1
SET POINT		SENSOR1	61°F	36°F	16°C	2°C	35°F	5°F	-10°F	4°C / 39°F (10°C / 50°F)
SENSOR2		61°F	70°F	16°C	16°C	35°F	50°F	50°F	16°C / 61°F	4°C / 39°F (10°C / 50°F) (16°C / 61°F)
SENSOR3										
SENSOR4										
DELTA		SENSOR1	6°F	10°F	4°C	3°C	8°F	10°F	6°F	4°C / 7°F
SENSOR2		6°F	6°F	4°C	4°C	8°F	1°F	1°F	3°C / 5°F	3°C / 5°F
SENSOR3										
SENSOR4										
DEFROST DURATION		SENSOR1	15 MIN	15 MIN	15 MIN	15 MIN	15 MIN	30 MIN	30 MIN	10 MIN
SENSOR2		15 MIN	15 MIN	15 MIN	15 MIN	15 MIN				
SENSOR3										
SENSOR4										
DEFROST PERIOD		SENSOR1	2 HRS	2 HRS	2 HRS	2 HRS	2 HRS	12 HRS	8 HRS	2.5 HRS
SENSOR2		2 HRS	2 HRS	2 HRS	2 HRS	2 HRS				
SENSOR3										
SENSOR4										
DEFROST DELAY		SENSOR1	0.0 HRS	0.0 HRS	0.0 HRS	0.0 HRS	0.0 HRS	0.0 HRS	0.0 HRS	3 MIN
HEALTH SAFETY LEVEL		SENSOR1	NONE	NONE	NONE	COLD	COLD	SLACK	FROZEN	NONE
SENSOR2		NONE	NONE	NONE	NONE	NONE				
SENSOR3										
SENSOR4										
HEALTH SAFETY RANGE <sup>1</sup>		SENSOR1	J-L	J-L	J-L	A-L	H-L	H-L	H-L	D-F
SENSOR2		F-L	F-L	F-L	F-L	F-L				
SENSOR3										
SENSOR4										
CAN-BOTTLE		OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
RANGE		H-H	J-J	H-H <sup>1</sup>	H-H <sup>1</sup>	H-H <sup>1</sup>	H-H <sup>1</sup>	H-H <sup>1</sup>	H-H <sup>1</sup>	H-H <sup>1</sup>
DEPTH		DOUBLE DEPTH								
OPTIC		ON	OFF	ON	ON	ON	ON	ON	ON	ON
RANGE		A-G	A-G	A-G	A-G	A-G	A-G	A-G	A-G	A-G
PRICES <sup>3</sup>		1.00	1.00	1.00 / 50	1.00	2.00	2.00	2.00	50 / 1.00	50
MOTORS		ALL MOTORS CONFIGURED WITH NO ERRORS								

1. SR-ER = Starting Range-Ending Range.
2. If software should reset on its own, it defaults to this configuration setting.
3. Software versions 67217-10, 67232-7, 67257-3 & 67256-3 only, the price defaults to 50.
4. Software version 67234-3 used on SZF/DZF only; SENSOR1 SETPOINT default is 2°C (36°F)
5. Software version 67256-3 has Advanced Power Management intervals with set points of 10°C and 16°C in addition to the default of 4°C.
6. Software versions 67256-3, 67257-3 and 67232-7 have a default Auto reinstatement Range of A-G.

**Table 3. SC100 Dual Satellite (67212-1) Default Configurations<sup>2</sup>**

		FRZ FRZ	FOD FRZ	FOD FOD	CHL FRZ	CHL FOD	CMO FRZ	CMO FOD
SOFTWARE VERSION		67212-1	67212-1	67212-1	67212-1	67212-1	67212-1	67212-1
AUTO-REINSTATEMENT		ON	ON	ON	ON	ON	ON	ON
	RANGE	A-L	A-L	A-L	A-L	A-L	A-L	A-L
TEMPERATURE	DEGREE	°F	°F	°F	°F	°F	°F	°F
	SENSOR1	ON	ON	ON	ON	ON	ON	ON
	SENSOR2	ON	OFF	OFF	OFF	OFF	ON	ON
	SENSOR3	ON	ON	ON	ON	ON	ON	ON
	SENSOR4	ON	ON	OFF	ON	OFF	ON	OFF
SET POINT	SENSOR1	-12°F	35°F	35°F	61°F	61°F	36°F	36°F
	SENSOR2	50°F	35°F	35°F	61°F	61°F	70°F	70°F
	SENSOR3	-12°F	-12°F	35°F	-12°F	35°F	-12°F	35°F
	SENSOR4	50°F	50°F	35°F	50°F	35°F	50°F	35°F
DELTA	SENSOR1	10°F	8°F	8°F	6°F	6°F	10°F	10°F
	SENSOR2	1°F	8°F	8°F	6°F	6°F	6°F	6°F
	SENSOR3	10°F	10°F	8°F	10°F	8°F	10°F	8°F
	SENSOR4	1°F	1°F	8°F	1°F	8°F	1°F	8°F
DEFROST DURATION	SENSOR1	30 MIN	15 MIN	15 MIN	15 MIN	15 MIN	15 MIN	15 MIN
	SENSOR2							
	SENSOR3	30 MIN	30 MIN	15 MIN	30 MIN	15 MIN	30 MIN	15 MIN
	SENSOR4							
DEFROST PERIOD	SENSOR1	12 HRS	2 HRS	2 HRS	2 HRS	2 HRS	2 HRS	2 HRS
	SENSOR2							
	SENSOR3	12 HRS	12 HRS	2 HRS	12 HRS	2 HRS	12 HRS	2 HRS
	SENSOR4							
HEALTH SAFETY LEVEL (FROZEN=0°F) (SLACK=15°F) (COLD=41°F)	SENSOR1	FROZEN	COLD	COLD	NONE	NONE	NONE	NONE
	SENSOR2							
	SENSOR3	FROZEN	FROZEN	COLD	FROZEN	COLD	FROZEN	COLD
	SENSOR4							
HEALTH SAFETY RANGE	SENSOR1	A-C	A-C	A-C	A-C	A-C	A-C	A-C
	SENSOR2							
	SENSOR3	H-L	H-L	H-L	H-L	H-L	H-L	H-L
	SENSOR4							
CAN-BOTTLE							ON	ON
	RANGE						J-J	J-J
	DEPTH						DOUBLE	DOUBLE
OPTIC	RANGE							
PRICES <sup>3</sup>		.50	.50	.50	.50	.50	.50	.50
MOTORS		MOTORS CONFIGURED WITH NO ERRORS						

1. SR-ER = Starting Range-Ending Range.
2. If software should reset on its own, it defaults to this configuration setting.
3. Software versions 67217-10, 67232-7, 67257-3 & 67256-3 only: the price defaults to 50.

**MESSAGES**

**Configuration Messages -**

This menu restores the following factory default Point of Sale Message: *"YOU ARE GETTING HUNGRY ITS TIME TO ENJOY A SNACK"*.

STEP	DISPLAY
1. Press Service Mode Button <input type="checkbox"/>	<i>DIAGNOSE</i>
2. Press <input type="checkbox"/> <b>A</b> , <input type="checkbox"/> <b>B</b> , <input type="checkbox"/> <b>A</b> .	<i>MENU 3</i>
3. Press <input type="checkbox"/> <b>A</b> , <input type="checkbox"/> <b>B</b> .	<i>DEFAULT</i>
4. Press <input type="checkbox"/> <b>C</b> .	<i>MESSAGES</i>
5. To restore factory default message, press <input type="checkbox"/> <b>B</b> .	<i>CONFIGURED</i>
6. Press Service Mode Button <input type="checkbox"/> .	(Sales Mode)

**OPTIONS**

**Configuration Options -**

This menu restores the option menus listed in Table 4 (on page 22) to factory default settings.

STEP	DISPLAY
1. Press Service Mode Button <input type="checkbox"/>	<i>DIAGNOSE</i>
2. Press <input type="checkbox"/> <b>A</b> , <input type="checkbox"/> <b>B</b> , <input type="checkbox"/> <b>A</b> .	<i>MENU 3</i>
3. Press <input type="checkbox"/> <b>A</b> , <input type="checkbox"/> <b>B</b> , <input type="checkbox"/> <b>C</b> .	<i>messages</i>
4. Press <input type="checkbox"/> <b>C</b> .	<i>OPTIONS</i>
5. To restore options default settings, press <input type="checkbox"/> <b>B</b> .	<i>CONFIGURED</i>
6. Press Service Mode Button <input type="checkbox"/> .	(Sales Mode)

**Table 4. Default Setting of Options**

MENU	DEFAULT SETTING
Service Menu Configuration	All menus restored
Diagnostic errors	Cleared
Accounting Resettable Range	Start row = "A" and End Row = "L"
Exact Change Value	0
	Software 67232-7 67234-3: \$ 2.00 Software 67217-10, 67232-7, 67256-3 & 67257-3 only: 20.00
Unconditional Acceptance Value	0
	Software 67232-7 67234-3: \$ 0.25 Software 67217-10, 67232-7, 67256-3 & 67257-3 only: 5.00
All Combo Values	0
All Combo Ranges	Start selection = "A1" and End selection = "A1"
Bill Escrowing	Enabled
Force Vending	Disabled
Multiple Vending	Disabled
Free Product	Disabled
Maximum Change	Disabled
Maximum Change Value	200 x least coin factor
Promotional Vending	Disabled
Promotional Vend Range	Start row = "A" and End Row = "A"
Language	English
	Software 67217-10, 67232-7, 67256-3 & 67257-3: Spanish
Time Hours Value	0
Time Minutes Value	0
Time Date Value	1
Time Month Value	1
Time Year Value	0
Daylight Savings	North American Rules
Shutdown	Disabled
Shutdown Range1	Start row = "A" and End Row = "A"
	Software 67232-7 only: Range settings for <b>INTERVAL 1</b> are ignored Software 67256-3 only: Range settings for <b>INTERVAL 1 and 2</b> are ignored
Shutdown Start Time1 Intervals 1 thru 4	00:00 ( hours : minutes )
	00:00 ( hours : minutes )
Shutdown Stop Time1 Intervals 1 thru 4	Software 67232-7 only: 06:00 (6:00 am) for <b>INTERVAL 1</b> only
	Software 67256-3 only: 06:00 (6:00 am) for <b>INTERVAL 1</b> only and 23:59 (11:59 pm) for <b>INTERVAL 2</b> only
Shutdown Days (Note 1) Intervals 1 thru 4	All days are turned <b>OFF</b>
	Software 67232-7 only: All days for <b>INTERVAL 1</b> only are turned <b>ON</b> Software 67256-3 only: MON - FRI for <b>INTERVAL 1</b> and SAT - SUN for <b>INTERVAL 2</b> only are turned on
Discount	Disabled
Discount Start Time	00:00 ( hours : minutes )
Discount End Time	00:00 ( hours : minutes )
Discount Days	All days are turned off
Discount Range	Start selection = "A1" and End selection = "A1"
Discount Value	0
All Coupon and Token Values	0
All Coupon and Token Ranges	Start selection = "A1" and End selection = "A1"
All Resettable Fields	Cleared

1. Software 67232-7 only: Interval-1 becomes Advanced Power Management instead of Shutdown Mode. Intervals 2 thru 4 are still available for Shutdown Mode.
2. Software 67256-3 only: Interval 1 and 2 become Advanced Power Management instead of Shutdown Mode. Interval 3 and 4 are still available.

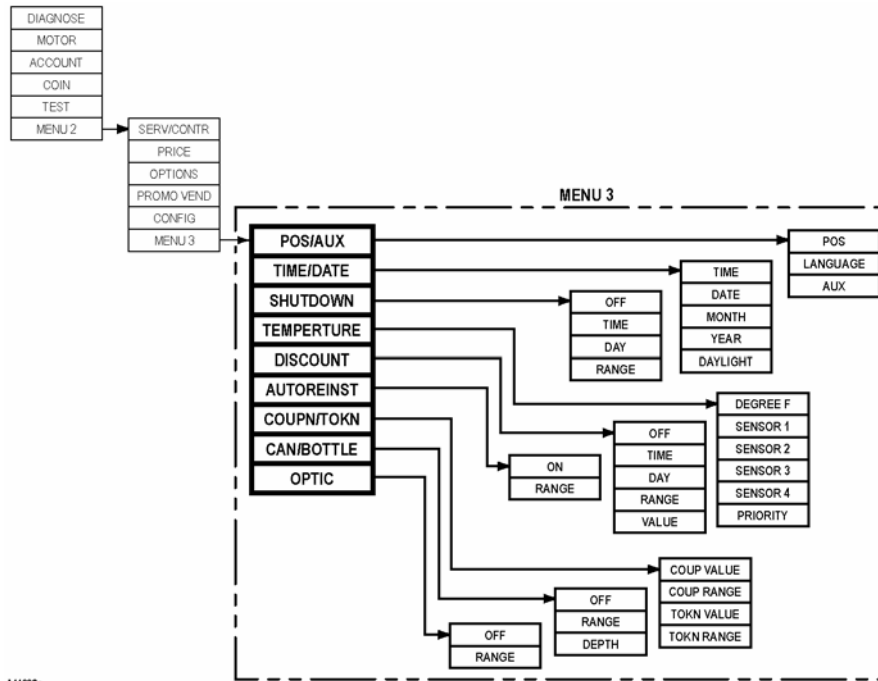


Figure 5. MENU 3 Diagram

### MENU 3

MENU 3 is the third group of service mode menus. It includes the following additional controller customization functions that may be used by an operator:

- **POS/AUX** Allows customization of Point Of Sale messages.
- **TIME/DATE** Sets time and date for timed operations.
- **SHUTDOWN** Allows controller to shut down selections based on four time of day intervals.
- **TEMPATURE** Temperature control.
- **DISCOUNT** Allows discount to specific items at preprogrammed intervals.
- **AUTOREINST** Sets a range of rows so that every time a product range is selected, a vend attempt will be made.
- **COUPN/TOKN** Allows operator to designate the values of coupons and/or tokens that are accepted from attached changers or validators.
- **CAN/BOTTLE** Allows designating ranges of rows that will contain cans and/or bottles.
- **OPTIC** Provides options for designating ranges of product rows that will be monitored for product delivery by an optical sensor.










**NOTE:** FOR SOFTWARE REVISIONS 67256-3 AND 67257-3 THE *OPTICS* MENU IS *OFF* BY DEFAULT.

## POS/AUX

### Message Programming -

This menu allows access to additional submenus for customizing the Point of Sales messages. The following menus are available:

- **POS**
- **LANGUAGE**
- **AUX**

STEP	DISPLAY
1. Press Service Mode Button 	<i>DIAGNOSE</i>
2. Press  ,  , 	<i>MENU 3</i>
3. Press 	<i>POS/AUX</i>
4. Press 	<i>POS</i>
5. Press  or  to view available menus.	<i>LANGUAGE</i> <i>AUX</i>
6. Press Service Mode Button 	(Sales Mode)









## POS

### Point of Sale Message -

This menu allows the operator to change the scrolling Point of Sales message. It will be necessary to use the keypad overlay that came with your vendor. Refer to **Figure 6 & Figure 7**.

**Note:** If the maximum limit of 105 characters is entered, the new message is automatically saved and any subsequent characters entered will overwrite the 105th character.

**Shortcut Suggestion:** Use the **CONFIG / MESSAGES** menu (on page 21) to revert back to the original factory default message.

STEP	DISPLAY
1. Press Service Mode Button 	<i>DIAGNOSE</i>
2. Press  ,  , 	<i>MENU 3</i>
3. Press  , 	<i>POS</i>
4. Press 	<i>MESSAGE</i>
5. Use keypad overlay and press new message on keypad.	(new message)
6. If finished with message, press <b>ENTER</b> 2 times on keypad overlay.	<i>POS</i>
7. Press Service Mode Button 	(new message)

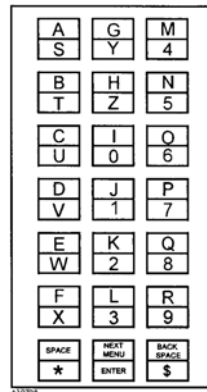


Figure 6. 3x7 Keypad Overlay

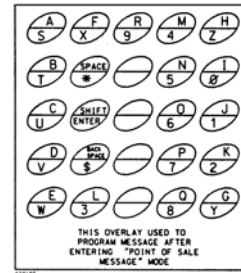


Figure 7. 5x5 Keypad Overlay

The **POS** menu has special function characters that allow a special effect or machine specific information to be included in the scrolling **POS** message. The following is a list of all the special function characters:

CODE	DESCRIPTION
*B	<b>B</b> eep - When character is reached, a space will appear and controller will beep.
*D1	<b>D</b> isplay Sensor <sub>1</sub> temperature - It will appear in degrees Celsius or Fahrenheit depending on the unit of temperature the controller is set to.
*D2	<b>D</b> isplay Sensor <sub>2</sub> temperature - It will appear in degrees Celsius or Fahrenheit depending on the unit of temperature the controller is set to.
*D3	<b>D</b> isplay Sensor <sub>3</sub> temperature - It will appear in degrees Celsius or Fahrenheit depending on the unit of temperature the controller is set to. Software 67212-1 only.
*D4	<b>D</b> isplay Sensor <sub>4</sub> temperature - It will appear in degrees Celsius or Fahrenheit depending on the unit of temperature the controller is set to. Software 67212-1 only.
*P	<b>P</b> ause - When character is reached, scrolling will stop for 1/2 second.
*T	<b>T</b> ime - Current time will be displayed in military format "hours.minutes".

#### LANGUAGE

**Language Message** - This menu function allows the operator to choose a specific language in which sales mode messages will be displayed. The following is a list of languages available:

- ENGLISH
- FRENCH
- GERMAN
- AUXILIARY
- ITALIAN
- DUTCH
- SPANISH
- DANISH

STEP	DISPLAY
1. Press Service Mode Button <b>[■]</b> .	<i>DIAGNOSE</i>
2. Press <b>[A]</b> , <b>[B]</b> , <b>[A]</b> .	<i>MENU 3</i>
Press <b>[B]</b> , <b>[B]</b> .	<i>POS</i>
3. Press <b>[C]</b> .	<i>LANGUAGE</i>
4. Press <b>[B]</b> .	<i>ENGLISH *</i> <i>FRENCH *</i> <i>GERMAN *</i> <i>AUXILIARY*</i>
5. Press <b>[A]</b> or <b>[C]</b> to select a language.	<i>ITALIAN *</i> <i>DUTCH *</i> <i>SPANISH *</i> <i>DANISH *</i>
6. Press <b>[D]</b> to save.	<i>LANGUAGE</i>
7. Press Service Mode Button <b>[■]</b> .	(Sales Mode)

If **AUXILIARY** is selected, then an alternative list of operator created sales mode messages will be used.

**CUSTOMER LEAD THROUGH MESSAGES** - The following messages will be affected by the language selection and will be stored in the controller memory to be displayed as described in section LANGUAGE on page 25.

<b>MESSAGE 1</b>	
English	PLEASE INSERT EXACT MONEY
Italian	PER FAVORE INTRODURRE I PRECISI SOLDI
Dutch	AFGEPAST GELD IN WERPEN
Spanish	POR FAVOR DEPOSITE CANTIDAD EXACTA PLEASE INSERT EXACT MONEY
	For Software 67217, 67232, 67256 & 67257 Only: POR FAVOR DEPOSITE LA CANTIDAD EXACTA
Danish	INDKAST AFTALTE PENGE
French	FAITES L'APPOINT PLEASE INSERT EXACT MONEY
German	ABGEZAHLTES GELD EINWERFEN
Auxiliary	[maximum length: 30]
<b>MESSAGE 2</b>	
English	PLEASE INSERT MORE MONEY
Italian	PER FAVORE INTRODURRE PIU SOLDI
Dutch	MEER GELD IN WERPEN
Spanish	POR FAVOR DEPOSITE MAS DINERO PLEASE INSERT MORE MONEY
	For Software 67217, 67232, 67256 & 67257 Only: POR FAVOR DEPOSITE MAS DINERO
Danish	INDKAST FLERE PENGE
French	MONTANT INSUFFISANT INTRODUISEZ D'AUTRES PIECES PLEASE INSERT MORE MONEY
German	MEHR GELD EINWERFEN
Auxiliary	[maximum length: 30]
<b>MESSAGE 3</b>	
English	MAKE ALTERNATE SELECTION
Italian	FARE UNA ALTRE SCELTA
Dutch	ANDERE KEUZE MAKEN
Spanish	SELECCION OTRO PRODUCTO MAKE ALTERNATE SELECTION
	For Software 67217, 67232, 67256 & 67257 Only: SELECCION OTRO PRODUCTO
Danish	VAELG ANDEN VARE
French	FAITES UNE AUTRE SELECTION MAKE ALTERNATE SELECTION
German	ANDERE WARE WAHLEN
Auxiliary	[maximum length: 25]
<b>MESSAGE 4</b>	
English	PLEASE CALL SERVICE
Italian	PER FAVORE CHIAMARE SERVIZIO
Dutch	SERVICEDIENST BELLEN
Spanish	POR FAVOR LLAMAR A SERVICIO PLEASE CALL SERVICE
	For Software 67217, 67232, 67256 & 67257 Only: POR FAVOR LLAMAR A SERVICIO
Danish	TILKALD SERVICEMONTOR
French	DEMANDEZ LE RESPONSABLE PLEASE CALL SERVICE
German	BITTE KUNDENDIENST RUFEN
Auxiliary	[maximum length: 25]
<b>MESSAGE 5</b>	
English	VENDING OPERATION TO RESUME AT hh.mm
Italian	VENDING OPERATION TO RESUME AT hh.mm
Dutch	VENDING OPERATION TO RESUME AT hh.mm
Spanish	VENDING OPERATION TO RESUME AT hh.mm
	For Software 67217, 67232, 67256 & 67257 Only: LA MAQUINA SE ENCENDERA A LAS hh.mm
Danish	VENDING OPERATION TO RESUME AT hh.mm
French	VENDING OPERATION TO RESUME AT hh.mm
German	VENDING OPERATION TO RESUME AT hh.mm
Auxiliary	[maximum length: 25]

<b>MESSAGE 6:</b>	
English	MAKE SNACK SELECTION ONLY
Italian	DISPONIBILI SOIO LE SELEZIONI SNACK
Dutch	ALLEEN SNACK KEUZES
Spanish	SOLO DISPONIBLE PRODUCTOS EN ESPIRAL MAKE SNACK SELECTION ONLY
	For Software 67217, 67232, 67256 & 67257 Only: SOLO DISPONIBLE PRODUCTOS EN EXPIRALES
Danish	KUN VALG AF KONFEKTURE MULIGT
French	CHOISISSEZ UNIQUEMENT LES CONFISERIES MAKE SNACK SELECTION ONLY
German	NUR AUSGABE VON SUSSWAREN MOGLICH
Auxiliary	[maximum length: 25]
<b>MESSAGE 7:</b>	
English	DOOR OPEN ERROR
Italian	DOOR OPEN ERROR
Dutch	DOOR OPEN ERROR
Spanish	FOR 67232, 67256 - ERROR PUERTA ABIERTA
Danish	DOOR OPEN ERROR
French	DOOR OPEN ERROR
German	DOOR OPEN ERROR
Auxiliary	[maximum length: 25]
<b>MESSAGE 8</b>	
English	VERIFY REFRIGERATION OPERATION
Italian	VERIFY REFRIGERATION OPERATION
Dutch	VERIFY REFRIGERATION OPERATION
Spanish	FOR 67232, 67256 - VERIFICAR OPERACION DE REFRIGERACION
Danish	VERIFY REFRIGERATION OPERATION
French	VERIFY REFRIGERATION OPERATION
German	VERIFY REFRIGERATION OPERATION
Auxiliary	[maximum length: 30]
<b>MESSAGE 9</b>	
English	THANK YOU
Italian	GRAZIE
Dutch	DANK U
Spanish	GRACIAS
Danish	TAK
French	MERCI
German	VIEL. DANK
Auxiliary	[maximum length: 10]
<b>MESSAGE 10</b>	
English	FREE ON US
Italian	FREE *
Dutch	FREE **
Spanish	FREE ***
	For Software 67217, 67232, 67256 & 67257 Only: GRATIS
Danish	FREE ****
French	FREE *****
German	FREE*****
Auxiliary	[maximum length: 10]

**AUX**

**Auxiliary Message** - This function allows the operator to create custom messages that can be used in place of the customer lead through messages. Refer to customer lead through messages in LANGUAGE section on page 25.

STEP	DISPLAY
1. Press Service Mode Button <b>[■]</b> .	<i>DIAGNOSE</i>
2. Press <b>[A]</b> , <b>[B]</b> , <b>[A]</b> .	<i>MENU 3</i>
3. Press <b>[B]</b> , <b>[B]</b> .	<i>POS</i>
4. Press <b>[A]</b> .	<i>AUX</i>
5. Press <b>[B]</b> .	<i>MESSAGE 01</i>
6. Use keypad overlay and press new message on keypad.	<i>MESSAGE</i>
7. If finished with message, press <b>[ENTER]</b> 2 times.	<i>MESSAGE 2</i>
8. Repeat <b>steps 5</b> through <b>7</b> to modify <i>MESSAGE 1</i> through <i>MESSAGE 9</i> .	
9. Press <b>[D]</b> to save.	<i>AUX</i>
10. Press Service Mode Button <b>[■]</b> .	(Sales Mode)

**TIME/DATE**

**Set Time and Date** - This menu allows access to submenus that allow the operator to set the time and date for timed operations.

The following submenus are available:

- *TIME*
- *DATE*
- *MONTH*
- *YEAR*
- *DAYLIGHT*

STEP	DISPLAY
1. Press Service Mode Button <b>[■]</b> .	<i>DIAGNOSE</i>
2. Press <b>[A]</b> , <b>[B]</b> , <b>[A]</b> .	<i>MENU 3</i>
3. Press <b>[B]</b> , <b>[C]</b> .	<i>TIME/DATE</i>
4. Press <b>[B]</b> .	<i>TIME</i> <i>DATE</i>
5. Press <b>[A]</b> or <b>[C]</b> to view available submenus.	<i>MONTH</i> <i>YEAR</i> <i>DAYLIGHT</i>
6. Press Service Mode Button <b>[■]</b> .	(Sales Mode)

**TIME**

**Time Setting** - This menu controls and displays the current time of day. The display will show a 24 hour format.

**Examples:**  
 08:05 a.m. = *TIME 08. 05*  
 01:15 p.m. = *TIME 13. 15*  
 11:45 p.m. = *TIME 23. 45*

**DATE**

**Date Setting** - This menu controls and displays the current date of the month.

**Examples:**  
 18<sup>th</sup> day of the month = *DATE 18*

**MONTH**

**Month Setting** - This menu controls and displays the current month.

**Example:**  
 8<sup>th</sup> month or August = *MONTH 08*

**YEAR**

**Year Setting** - This menu controls and displays the current year.

**Example:**  
 2002 = *YEAR 02*

**DAYLIGHT**

**Daylight Savings Setting** - This menu controls and displays the currently active daylight savings rule.

STEP	DISPLAY
1. Press Service Mode Button <b>[■]</b> .	<i>DIAGNOSE</i>
2. Press <b>[A]</b> , <b>[B]</b> , <b>[A]</b> .	<i>MENU 3</i>
3. Press <b>[B]</b> , <b>[C]</b> .	<i>TIME/DATE</i>
4. Press <b>[B]</b> .	<i>TIME</i>
5. Press <b>[B]</b> .	<i>TIME 23. 17</i>
6. Press numbers on keypad to change the current time.	
7. Press <b>[D]</b> to save.	<i>TIME</i>
8. Press <b>[C]</b> .	<i>DATE</i>
9. Press <b>[B]</b> to display or change current date.	<i>DATE 18</i>
10. Press numbers on keypad to change the date.	
11. Press <b>[D]</b> to save.	<i>DATE</i>
12. Press <b>[C]</b> .	<i>MONTH</i>
13. Press <b>[B]</b> to view setting.	<i>MONTH 07</i>
14. Press numbers on keypad to change the month.	
15. Press <b>[D]</b> to save.	<i>MONTH</i>
16. Press <b>[C]</b> .	<i>YEAR</i>
17. Press <b>[B]</b> to view setting.	<i>YEAR 02</i>
18. Press numbers on keypad to change the year.	
19. Press <b>[D]</b> to save.	<i>YEAR</i>
20. Press <b>[C]</b> .	<i>DAYLIGHT</i>
21. Press <b>[B]</b> to view or change the setting.	<i>N AMERICA*</i> <i>OFF *</i>
22. Press <b>[A]</b> or <b>[C]</b> to select the matching time zone.	<i>AUSTRALIA*</i> <i>EUROPE *</i>
23. Press <b>[D]</b> to save.	<i>DAYLIGHT</i>
24. Press Service Mode Button <b>[■]</b> .	(Sales Mode)

The following is a list of rules available:

- *OFF* \* = None
- *N AMERICA\** = North American
- *EUROPE* \* = European
- *AUSTRALIA\** = Australian

## SHUTDOWN / ADVANCED POWER MANAGEMENT

This option allows the controller to shut down a range of selections or the entire machine based on four (4) time of day intervals. If the time falls within one of these intervals and the entire machine has been selected for shutdown then the customer lead through message : *VENDING OPERATION TO RESUME AT hh.mm* : is scrolled.

If a range of selections has been chosen for shutdown that does not encompass the entire machine then the same message will scroll once for every time the customer makes a selection that falls within the range.

STEP	DISPLAY
1. Press Service Mode Button <input type="checkbox"/>	<i>DIAGNOSE</i>
2. Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>MENU 3</i>
3. Press <input type="checkbox"/> <input type="checkbox"/>	<i>TIME/DATE</i>
4. Press <input type="checkbox"/>	<i>SHUTDOWN</i>
5. Press <input type="checkbox"/> or <input type="checkbox"/> to scroll menus.	<i>OFF</i>
6. Press Service Mode Button <input type="checkbox"/>	<i>TIME</i> <i>DAY</i> <i>RANGE</i> (Sales Mode)

**Note:** The correct time and date must be set so that the **SHUTDOWN** intervals work correctly. Refer to page 28. Also, for any given day these 4 time intervals may overlap one another. For each interval, the machine (controller) can be programmed from no days up to every day of the week on which the specified shutdown time intervals will be active.

### FOR SOFTWARE VERSION 67232-7 (SPANISH SZF/DZF) ONLY:

**INTERVAL 1** becomes the **ADVANCED POWER MANAGEMENT** instead of a shutdown interval. Shutdown intervals 2 thru 4 will continue to be available for use as vending shutdown timers.

The **ADVANCED POWER MANAGEMENT** feature reduces the energy consumption of the refrigeration system from 12:00 am to 6:00 am by increasing the **SET POINT** for **SENSOR1** to 10°C (50°F). When it is active, the point of sale message is displayed as : *\*\* GRACIAS \*\* MODO DEL AHORRO DE ENERGIA ACTIVO \*\** :

Upon entering the **SHUTDOWN** menu, the display scrolls the menu **TEMPORIZADOR DE ENERGIA 1 O APAGADOR DE TEMPORIZADOR 2-4**. (**ENERGY TIMER 1 OR SHUTDOWN TIMER 2-4**). Once the enter key is pressed, toggle the status to **ON** to turn on the **ADVANCED POWER MANAGEMENT** and **SHUTDOWN** interval timers.

**Note:** **TIME/DATE** must also be set accurately in order for the **ADVANCED POWER MANAGEMENT** and **SHUTDOWN** timers to activate correctly. See page 28.

**FOR SOFTWARE VERSION 67256-3 (SPANISH SZF/DZF) ONLY:**

**INTERVAL 1 and 2** becomes the **ADVANCED POWER MANAGEMENT** instead of a shutdown interval. Shutdown intervals 3 thru 4 will continue to be available for use as vending shutdown timers.

The **ADVANCED POWER MANAGEMENT Interval 1** feature reduces the energy consumption of the refrigeration system from 12:00 am to 6:00 am Monday through Friday by increasing the **SET POINT** for **SENSOR1** to 10°C (50°F).

Interval 2 increases the set point for **SENSOR 1** to 16°C (61°F) from 12:00 am to 11:59 pm on Saturday and Sunday.

Upon entering the **SHUTDOWN** menu, the display scrolls the menu **TEMPORIZADOR DE ENERGIA 1-2 O APAGADOR DE TEMPORIZADOR 3-4. (ENERGY TIMER 1-2 OR SHUTDOWN TIMER 3-4)**. Once the enter key is pressed, toggle the status to **ON** to turn on the **ADVANCED POWER MANAGEMENT** and **SHUTDOWN** interval timers.

**Note:** **TIME/DATE** must also be set accurately in order for the **ADVANCED POWER MANAGEMENT** and **SHUTDOWN** timers to activate correctly. See page 28.

**OFF (ON)**

This menu controls and displays the on/off status of the shutdown option.

STEP	DISPLAY
1. Press Service Mode Button <b>[■]</b> .	<b>DIAGNOSE</b>
2. Press <b>[A]</b> , <b>[B]</b> , <b>[A]</b> .	<b>MENU 3</b>
Press <b>[B]</b> , <b>[C]</b> , <b>[C]</b> .	<b>SHUTDOWN</b>
3. Press <b>[B]</b> to display the status.	<b>OFF</b>
4. Press <b>[B]</b> twice to change.	<b>ON</b> *
5. Press <b>[D]</b> to save.	<b>ON</b>
6. Press Service Mode Button <b>[■]</b> .	(Sales Mode)

**FOR SOFTWARE VERSION 67232-7 (SPANISH SZF/DZF) ONLY:**

The **OFF/ON** sub-menu controls the status of the **ADVANCED POWER MANAGEMENT** and the **SHUTDOWN INTERVALS**. The factory default setting is **OFF**. It must be turned **ON** to activate all the features of the **ADVANCED POWER MANAGEMENT** and **SHUTDOWN INTERVALS 2-4**. When it is active, the point of sale message is displayed as: **\*\*\*GRACIAS\*\*\* MODO DEL AHORRO DE ENERGIA ACTIVO \*\*\***

**FOR SOFTWARE VERSION 67256-3 (SPANISH SZF/DZF) ONLY:**

The **OFF/ON** sub-menu controls the status of the **ADVANCED POWER MANAGEMENT** and the **SHUTDOWN INTERVALS**. The factory default setting is **OFF**. It must be turned **ON** to activate all the features of the **ADVANCED POWER MANAGEMENT** and **SHUTDOWN INTERVALS 3-4**.

**TIME**

**Shutdown Time Interval**

- This menu allows programming of four (4) shutdown intervals.

Each shutdown interval consists of a start time and stop time (in military time format).

Please refer to **Table 5. Shutdown Chart** on page 33 and examples shown below before setting shutdown time intervals.

**Examples:**

**1STRT 07.30**  
**1STOP 09.00**

Interval 1 Start 7:30 a.m.  
Interval 1 Stop 9:00 a.m.

**2STRT 11.00**  
**2STOP 13.45**

Interval 2 Start 11:00 a.m.  
Interval 2 Stop 01:45 p.m.

	STEP	DISPLAY
1.	Press Service Mode Button <b>[■]</b> .	<b>DIAGNOSE</b>
2.	Press <b>[A]</b> , <b>[B]</b> , <b>[A]</b> .	<b>MENU 3</b>
	Press <b>[B]</b> , <b>[C]</b> , <b>[C]</b> .	<b>SHUTDOWN</b>
3.	Press <b>[B]</b> , <b>[C]</b> .	<b>TIME</b>
4.	Press <b>[B]</b> to view start time of shutdown interval.	<b>1STRT 00.00</b>
5.	Press numbers on keypad to change start time of interval.	
6.	Press <b>[D]</b> to save start time, and display stop time of interval.	<b>1STOP 00.00</b>
7.	Press numbers on keypad to change stop time of interval.	
8.	Press <b>[D]</b> to save stop time, and view start time of next interval. <i>Note: If invalid time values were entered, the setting will not be saved.</i>	<b>2STRT 00.00</b>
9.	Repeat <b>steps 5</b> through <b>8</b> for the remaining intervals or if invalid time values were pressed until <b>TIME</b> is displayed.	<b>TIME</b>
10.	Press Service Mode Button <b>[■]</b> .	(Sales Mode)

**DAY**

**Shutdown Day**

This menu allows each of the four (4) shutdown interval settings to be activated (on/off) for a specific day of the week.



Please read Shutdown Chart Instructions and fill out Shutdown Chart before setting shutdown time.

**Shutdown Chart Instructions** - Use a pencil to write down the **Shutdown Interval** start and stop times (in military time) on the **Shutdown Chart** shown below. Also indicate (circle) if the shutdown interval will be on/off (active/inactive) for the specific day of the week. Use it to record your settings and refer to it during programming.

STEP	DISPLAY
1.	Read <b>Shutdown Chart Instructions</b> and fill out the <b>Shutdown Chart</b> shown on shown below.
2.	Press Service Mode Button <b>[■]</b> <i>DIAGNOSE</i>
	Press <b>[A]</b> , <b>[B]</b> , <b>[A]</b> <i>MENU 3</i>
3.	Press <b>[B]</b> , <b>[C]</b> , <b>[C]</b> <i>SHUTDOWN</i>
	Press <b>[B]</b> , <b>[C]</b> , <b>[C]</b> <i>DAY</i>
4.	Press <b>[B]</b> <i>1SUN OFF</i>
5.	To change the interval, press <b>[A]</b> or <b>[C]</b> .
6.	Press <b>[B]</b> .
7.	To change the day, press <b>[A]</b> or <b>[C]</b> .
8.	To change (on/off) setting press <b>[B]</b> , press <b>[A]</b> or <b>[C]</b> .
9.	Press <b>[D]</b> to save.
10.	Repeat <b>steps 7</b> through <b>9</b> to set other days of the same interval.
	To view another interval, press <b>[E]</b> and go to <b>step 5</b> .
11.	Repeat <b>steps 5</b> through <b>10</b> until all days are set according to <b>Shutdown Chart</b> .
12.	Press Service Mode Button <b>[■]</b> (Sales Mode)

**Table 5. Shutdown Chart**

	INTERVAL 1 <sup>1</sup>	INTERVAL 2	INTERVAL 3	INTERVAL 4
<b>START</b>	1STRT :	2STRT :	3STRT :	4STRT :
<b>STOP</b>	1STOP :	2STOP :	3STOP :	4STOP :
<b>SUN</b>	1SUN ON OFF	2SUN ON OFF	3SUN ON OFF	4SUN ON OFF
<b>MON</b>	1MON ON OFF	2MON ON OFF	3MON ON OFF	4MON ON OFF
<b>TUE</b>	1TUES ON OFF	2TUES ON OFF	3TUES ON OFF	4TUES ON OFF
<b>WED</b>	1WED ON OFF	2WED ON OFF	3WED ON OFF	4WED ON OFF
<b>THR</b>	1THUR ON OFF	2THUR ON OFF	3THUR ON OFF	4THUR ON OFF
<b>FRI</b>	1FRI ON OFF	2FRI ON OFF	3FRI ON OFF	4FRI ON OFF
<b>SAT</b>	1SAT ON OFF	2SAT ON OFF	3SAT ON OFF	4SAT ON OFF

- Software version **67232-7** only: When SHUTDOWN is ON, then INTERVAL 1 is factory set to ON for every day. The machine does not to shut down but to goes into ADVANCED POWER MANAGEMENT. INTERVAL 1 start time is set to 1STRT 00:00 (12:00am) while stop time is set to 1STOP 06:00 (6:00am).
- Software version **67256-3** only: When SHUTDOWN is ON, then INTERVAL 1 and 2 are factory set to ON. Interval 1 for Monday - Friday and Interval 2 to Saturday and Sunday. The machine does not shut down but goes into ADVANCED POWER MANAGEMENT. INTERVAL 1 start time is set to 1STRT 00:00 (12:00am) while stop time is set to 1STOP 06:00 (6:00am). INTERVAL 2 start time is set to 1STRT 00:00 (12:00am) while stop time is set to 1STOP 23:59 (11:59pm).

**RANGE**

**Shutdown Range** - This menu option sets the range of the selection rows that will be affected by the shutdown option.

Valid selection row letters are A through L. The ending row letter must be greater than or equal to the starting row letter.

STEP	DISPLAY
1. Press Service Mode Button <input type="checkbox"/>	<i>DIAGNOSE</i>
Press <input type="checkbox"/> <b>A</b> , <input type="checkbox"/> <b>B</b> , <input type="checkbox"/> <b>A</b> .	<i>MENU 3</i>
2. Press <input type="checkbox"/> <b>B</b> , <input type="checkbox"/> <b>C</b> , <input type="checkbox"/> <b>C</b> .	<i>SHUTDOWN</i>
Press <input type="checkbox"/> <b>B</b> , <input type="checkbox"/> <b>C</b> , <input type="checkbox"/> <b>C</b> .	<i>DAY</i>
3. Press <input type="checkbox"/> <b>C</b> .	<i>RANGE</i>
4. Press <input type="checkbox"/> <b>B</b> .	<i>SR/ER A-J</i>
5. Press starting row letter on keypad. Press ending row letter on keypad.	
6. Press <input type="checkbox"/> <b>D</b> to save.	<i>RANGE</i>
7. Press Service Mode Button <input type="checkbox"/>	(Sales Mode)

**TEMPERTURE**

**NOTE:**

While in Sales Mode, press  **0** to display the current temperature sensor readings. SENSOR2 will display on the left while SENSOR1 is on the right.

SC100 Dual Satellite software version 67212-1 only: While in Sales Mode, press  **0** to display the current temperature readings of SENSOR1, SENSOR2, SENSOR3 and SENSOR4. The left or A satellite (for selections A-C) sensors will display as A Sensor1 SENSOR2 for 3 seconds, then the right or B satellite (for selections H-L) sensors will display B SENSOR3 SENSOR4 for 3 seconds.

Dual Zone Software 67232, 67234 & 67256 only: While in Sales Mode, press  **0** to display the current temperature readings of each zone and the status of RELAY1 and RELAY3. SENSOR1 is displayed on the left side as  **Bxxx\*** where B=bottom, xxx=temperature°C, \*=RELAY1 (compressor) is on. SENSOR2 is displayed on the right side as  **Tyyy\*** where T=top, yyy=temperature°C, \*=RELAY3 (heater) is on.

**Temperature Control** - This menu has submenus that can be used to activate and modify the controller's temperature control capabilities.

STEP	DISPLAY
1. Press Service Mode Button <input type="checkbox"/>	<i>DIAGNOSE</i>
Press <input type="checkbox"/> <b>A</b> , <input type="checkbox"/> <b>B</b> , <input type="checkbox"/> <b>A</b> .	<i>MENU 3</i>
2. Press <input type="checkbox"/> <b>B</b> , <input type="checkbox"/> <b>C</b> , <input type="checkbox"/> <b>C</b> .	<i>SHUTDOWN</i>
3. Press <input type="checkbox"/> <b>C</b> .	<i>TEMPERTURE</i>
4. Press <input type="checkbox"/> <b>B</b> .	<i>DEGREE F</i>
5. Press <input type="checkbox"/> <b>A</b> or <input type="checkbox"/> <b>C</b> to view available menus.	<i>SENSOR1</i> <i>SENSOR2</i> <i>SENSOR3</i> <i>SENSOR4</i> <i>PRIORI TY</i>
6. Press Service Mode Button <input type="checkbox"/>	(Sales Mode)

**FOR DUAL ZONE (SOFTWARE 67232, 67234 & 67256) ONLY:**

Refer to **PRIORITY** setting on page 43 for detailed information on refrigeration and heating systems for Dual Zone machines.

*DEGREE F - DEGREE C*

**Temperature Units** - This menu allows the operator to specify between Celsius (°C) and Fahrenheit (°F) temperature units.

STEP	DISPLAY
1. Press Service Mode Button <input type="checkbox"/>	<i>DIAGNOSE</i>
Press <input type="checkbox"/> <b>A</b> , <input type="checkbox"/> <b>B</b> , <input type="checkbox"/> <b>A</b> .	<i>MENU 3</i>
2. Press <input type="checkbox"/> <b>B</b> , <input type="checkbox"/> <b>C</b> , <input type="checkbox"/> <b>C</b> .	<i>SHUTDOWN</i>
Press <input type="checkbox"/> <b>C</b> .	<i>TEMPERTURE</i>
3. Press <input type="checkbox"/> <b>B</b> .	<i>DEGREE F</i>
4. To change units, press <input type="checkbox"/> <b>B</b> twice.	<i>DEGREE F *</i>
	<i>DEGREE C *</i>
5. Press <input type="checkbox"/> <b>D</b> to save.	<i>DEGREE C</i>
6. Press Service Mode Button <input type="checkbox"/>	(Sales Mode)

*SENSOR1*

**Sensor Control** - Except where noted, **SENSOR1** and **SENSOR2** submenus allow the operator to control individual characteristics that are associated with 2 separate temperature sensors.

STEP	DISPLAY
1. Press Service Mode Button <input type="checkbox"/>	<i>DIAGNOSE</i>
Press <input type="checkbox"/> <b>A</b> , <input type="checkbox"/> <b>B</b> , <input type="checkbox"/> <b>A</b> .	<i>MENU 3</i>
2. Press <input type="checkbox"/> <b>B</b> , <input type="checkbox"/> <b>C</b> , <input type="checkbox"/> <b>C</b> .	<i>SHUTDOWN</i>
Press <input type="checkbox"/> <b>C</b> , <input type="checkbox"/> <b>B</b> .	<i>DEGREE F</i>
3. Press <input type="checkbox"/> <b>C</b> .	<i>SENSOR1</i>
4. Press <input type="checkbox"/> <b>B</b> .	<i>ON</i> <i>SET POINT</i> <i>DELTA</i> <i>DEFROST</i> <i>H/S</i>
5. Press <input type="checkbox"/> <b>A</b> or <input type="checkbox"/> <b>C</b> to view available menus.	
6. Press Service Mode Button <input type="checkbox"/>	(Sales Mode)

*ON/OFF*

**Sensor On/Off** - This menu controls and displays the on/off state of the **SENSOR1** menu.

**FOR DUAL ZONE SOFTWARE 67256-3, 67232-7**

**ONLY:**  
The factory default setting for **SENSOR2** is **OFF**.

STEP	DISPLAY
1. Press Service Mode Button <input type="checkbox"/>	<i>DIAGNOSE</i>
Press <input type="checkbox"/> <b>A</b> , <input type="checkbox"/> <b>B</b> , <input type="checkbox"/> <b>A</b> .	<i>MENU 3</i>
2. Press <input type="checkbox"/> <b>B</b> , <input type="checkbox"/> <b>C</b> , <input type="checkbox"/> <b>C</b> .	<i>SHUTDOWN</i>
Press <input type="checkbox"/> <b>C</b> , <input type="checkbox"/> <b>B</b> .	<i>DEGREE F</i>
3. Press <input type="checkbox"/> <b>C</b> .	<i>SENSOR1</i>
4. Press <input type="checkbox"/> <b>B</b> .	<i>ON</i>
5. To change setting, press <input type="checkbox"/> <b>B</b> twice.	<i>ON *</i>
	<i>OFF *</i>
6. Press <input type="checkbox"/> <b>D</b> to save.	<i>OFF</i>
7. Press Service Mode Button <input type="checkbox"/>	(Sales Mode)

**SET POINT**

**Temperature Set Point** - This menu allows the user to set an ideal operating temperature that the controller will attempt to maintain provided the sensor is already on (enabled).

For Frozen or Slack health/safety modes of operation, then **SENSOR1** (compressor) set point temperature controls the refrigeration system while **SENSOR2** (evaporator fan) set point designates the warm temperature above which the normal defrost operation will cease and the refrigeration operation will restart.

In the event that this temperature is not exceeded during the normal defrost operation, then the expiration of the normal **DURATION** time will determine the end of the defrost cycle.

Temperature **SENSOR1** and **SENSOR2** will also be monitored during the normal refrigeration cycle to control the enablement of a fan. Specifically, if the temperature of **SENSOR1** is greater than 40 degrees Fahrenheit or the temperature of **SENSOR2** is less than 30 degrees Fahrenheit then the fan will be turned on. Once the fan turns on, it will remain on until the end of the refrigeration cycle regardless of the temperature of either sensor.

The maximum value is 70°F or 21°C. The minimum value is -30°F and -34°C. The temperature rolls over when the user scrolls through the maximum or minimum values.

**FOR DUAL ZONE (SOFTWARE 67232, 67234 & 67256) ONLY:**

**SENSOR1 SET POINT**

The display is different from other software versions. The **SET POINT** for **SENSOR1** is shown on the left half of the display while the **SET POINT** for **SENSOR2** is also shown on the right half. This is because the program will automatically adjust the **SET POINT** of **SENSOR2** to maintain a maximum temperature difference of 23°F (13°C) between the two zones.

STEP	DISPLAY
1. Press Service Mode Button <input type="checkbox"/>	<b>DIAGNOSE</b>
Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<b>MENU 3</b>
2. Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<b>SHUTDOWN</b>
Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<b>SENSOR1</b>
Press <input type="checkbox"/>	<b>ON</b>
3. Press <input type="checkbox"/>	<b>SET POINT</b>
4. Press <input type="checkbox"/>	<b>36F</b>
5. Press <input type="checkbox"/> to increase or press <input type="checkbox"/> to decrease set point.	
6. Press <input type="checkbox"/> to save.	<b>SET POINT</b>
7. Press Service Mode Button <input type="checkbox"/>	(Sales Mode)

STEP	DISPLAY
1. Press Service Mode Button <input type="checkbox"/>	<b>DIAGNOSE</b>
Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<b>MENU 3</b>
2. Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<b>SHUTDOWN</b>
Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<b>SENSOR1</b>
Press <input type="checkbox"/>	<b>ON</b>
3. Press <input type="checkbox"/>	<b>SET POINT</b>
4. Press <input type="checkbox"/>	<b>B 4 T 17*</b>
5. Press <input type="checkbox"/> to increase or press <input type="checkbox"/> to decrease set point.	
6. Press <input type="checkbox"/> to save.	<b>SET POINT</b>
7. Press Service Mode Button <input type="checkbox"/>	(Sales Mode)

Refer to **Table 2 Default Configurations** on page 19 for **SENSOR1** factory default **SET POINT** settings. Minimum is 35°F (2°C) and maximum is 80°F (27°C).

**NOTES:**

If an asterisk (\*) appears on the left half, then **RELAY1** (compressor) is currently on. If an asterisk (\*) appears on the right half, then **RELAY3** (heater) is currently on. The asterisk may appear or disappear depending on the status of the relays.

Refer to **PRIORITY** setting on page 43 for detailed information on refrigeration and heating systems for Dual Zone machines.

*SENSOR2 - SET POINT*

The display is different from other software versions. The **SET POINT** for **SENSOR2** is shown on the right half while the **SET POINT** for **SENSOR1** is also shown on the left half of the display. This is because the program will automatically adjust the **SET POINT** of **SENSOR1** to maintain a maximum temperature difference of 23°F (13°C) between the two zones.

Refer to **Table 2 Default Configurations** on page 19 for **SENSOR2** factory default **SET POINT** settings. Minimum is 35°F (2°C) and maximum is 80°F (27°C).

	STEP	DISPLAY
1.	Press Service Mode Button <input type="checkbox"/>	<i>DIAGNOSE</i>
	Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>MENU 3</i>
	Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>SHUTDOWN</i>
2.	Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>SENSOR2</i>
	Press <input type="checkbox"/>	<i>ON</i>
3.	Press <input type="checkbox"/>	<i>SET POINT</i>
4.	Press <input type="checkbox"/>	<i>B 4 T 17*</i>
5.	Press <input type="checkbox"/> to increase or press <input type="checkbox"/> to decrease set point.	
6.	Press <input type="checkbox"/> to save.	<i>SET POINT</i>
7.	Press Service Mode Button <input type="checkbox"/>	(Sales Mode)

**NOTES:**

If an asterisk (\*) appears on the left half, then **RELAY1** (compressor) is currently on. If an asterisk (\*) appears on the right half, then **RELAY3** (heater) is currently on. The asterisk may appear or disappear depending on the status of the relays.

Refer to **PRIORITY** setting on page 43 for detailed information on refrigeration and heating systems for Dual Zone machines.

**DELTA**

**Temperature Delta** - With the exception of the Frozen and Slack refrigeration modes, this function allows the user to specify the temperature region around the set point (described in previous section) that refrigeration control will use to switch on and off.

The refrigeration switch on point is equivalent to the **SET POINT** plus the **DELTA** value divided by 2.

The switch off point is the **SET POINT** minus the **DELTA** value divided by 2.

The value for delta is set in the same manner as the set point (see previous section). The maximum value is 20°F or 11°C. The minimum value is 5°F and 2°C. In the case of the Frozen and Slack refrigeration modes, the temperature delta only applies to the **SENSOR1** set point.

For the case of the **SENSOR2** set point, there's no need for a delta value since the temperature only has to exceed this temperature to end the defrost cycle and there's no equivalent defrost cycle switch on temperature.

**FOR DUAL ZONE (SOFTWARE 67232, 67234 & 67256) ONLY:**

**SENSOR1 - DELTA**

The factory default **DELTA** setting for **SENSOR1** is 4°C. Minimum is 3°C and maximum is 11°C. The compressor switch on point (cut-in) is equivalent to **SET POINT** plus the **DELTA** value divided by 2. The switch off point (cut-out) is the **SET POINT** minus the **DELTA** value divided by 2.

**SENSOR2 - DELTA**

The factory default **DELTA** setting for **SENSOR2** is 3°C. Minimum is 3°C and maximum is 11°C. The heater switch on point (cut-in) is equivalent to **SET POINT** plus **DELTA** value divided by 2. The switch off point (cut-out) is the **SET POINT** setting.

STEP	DISPLAY
1. Press Service Mode Button <b>[■]</b> .	<b>DIAGNOSE</b>
Press <b>[A]</b> , <b>[B]</b> , <b>[A]</b> .	<b>MENU 3</b>
Press <b>[B]</b> , <b>[C]</b> , <b>[C]</b> .	<b>SHUTDOWN</b>
2. Press <b>[C]</b> , <b>[B]</b> , <b>[C]</b> .	<b>SENSOR1</b>
Press <b>[B]</b> , <b>[C]</b> .	<b>SET POINT</b>
3. Press <b>[C]</b> .	<b>DELTA</b>
4. Press <b>[B]</b> .	<b>10F</b>
5. Press <b>[A]</b> to increase or press <b>[B]</b> to decrease.	
6. Press <b>[D]</b> to save.	<b>DELTA</b>
7. Press Service Mode Button <b>[■]</b> .	(Sales Mode)

**NOTE:**

Refer to **PRIORITY** setting on page 43 for detailed information on refrigeration and heating systems for Dual Zone machines.

**DEFROST**

**Defrost Settings** - This menu has four (4) submenus which allows the user to set the following:

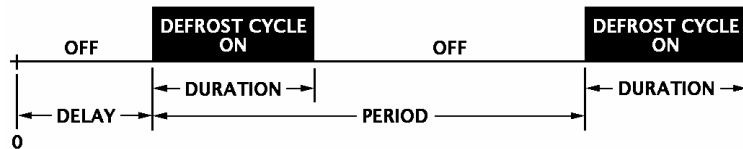
- **DURATION** - Set the (time) duration for a defrost cycle. See page 40.
- **PERIOD** - Set the (time) period between defrost cycles. See page 40.
- **DELAY** - Controls the (relative time) delay when the defrost cycle starts. See page 41.

STEP	DISPLAY
1. Press Service Mode Button <input type="checkbox"/>	<i>DIAGNOSE</i>
Press <input type="checkbox"/> A, <input type="checkbox"/> B, <input type="checkbox"/> A.	<i>MENU 3</i>
2. Press <input type="checkbox"/> B, <input type="checkbox"/> C, <input type="checkbox"/> C.	<i>SHUTDOWN</i>
Press <input type="checkbox"/> C, <input type="checkbox"/> B, <input type="checkbox"/> C.	<i>SENSOR1</i>
Press <input type="checkbox"/> B, <input type="checkbox"/> C, <input type="checkbox"/> C.	<i>DELTA</i>
3. Press <input type="checkbox"/> C.	<i>DEFROST</i>
4. Press <input type="checkbox"/> B.	<i>DURATION</i>
5. Press <input type="checkbox"/> A or <input type="checkbox"/> C to view available submenus.	<i>PERIOD</i> <i>DELAY</i> <i>MANUAL</i>
6. Press Service Mode Button <input type="checkbox"/>	(Sales Mode)

For Dual Zone (software 67232, 67234 & 67256) only:

**DELAY** - Controls the minimum amount of time the compressor must remain off before it is allowed to turn on.

- **MANUAL** - Manually force the defrost operation to run immediately. See page 41.



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**Figure 8. Defrost Cycle**

**FOR DUAL ZONE (SOFTWARE 67232, 67234 & 67256) ONLY:**  
Refer to **PRIORITY** setting on page 43 for detailed information on refrigeration and heating systems for Dual Zone machines.

## DURATION

This menu sets the length of time of a defrost cycle.

The maximum value is 60 minutes. The minimum value is 10 minutes.

Refer to Table 2 on page 19 for factory default settings.

	STEP	DISPLAY
1.	Press Service Mode Button <b>[■]</b> .	<i>DIAGNOSE</i>
	Press <b>[A]</b> , <b>[B]</b> , <b>[A]</b> .	<i>MENU 3</i>
	Press <b>[B]</b> , <b>[C]</b> , <b>[C]</b> .	<i>SHUTDOWN</i>
2.	Press <b>[C]</b> , <b>[B]</b> , <b>[C]</b> .	<i>SENSOR1</i>
	Press <b>[B]</b> , <b>[C]</b> , <b>[C]</b> , <b>[C]</b> .	<i>DEFROST</i>
3.	Press <b>[B]</b> .	<i>DURATION</i>
4.	Press <b>[B]</b> .	<i>10 MIN</i>
5.	Press <b>[C]</b> to increase or press <b>[A]</b> to decrease.	
6.	Press <b>[D]</b> to save.	<i>DURATION</i>
7.	Press Service Mode Button <b>[■]</b> .	(Sales Mode)

## PERIOD

This menu sets the total amount of continuous time (hours) a refrigeration compressor must run before the defrost cycle will execute.

Pressing **[A]** or **[C]** will cause the time to increase or decrease by 1/2 hour increments. The maximum and minimum value is 24.0 and .5 hours respectively.

Refer to Table 2 on page 19 for factory default settings.

	STEP	DISPLAY
1.	Press Service Mode Button <b>[■]</b> .	<i>DIAGNOSE</i>
	Press <b>[A]</b> , <b>[B]</b> , <b>[A]</b> .	<i>MENU 3</i>
	Press <b>[B]</b> , <b>[C]</b> , <b>[C]</b> .	<i>SHUTDOWN</i>
2.	Press <b>[C]</b> , <b>[B]</b> , <b>[C]</b> .	<i>SENSOR1</i>
	Press <b>[B]</b> , <b>[C]</b> , <b>[C]</b> .	<i>DELTA</i>
	Press <b>[C]</b> , <b>[B]</b> .	<i>DURATION</i>
3.	Press <b>[C]</b> .	<i>PERIOD</i>
4.	Press <b>[B]</b> .	<i>12.0 HRS</i>
5.	Press <b>[C]</b> to increase or press <b>[A]</b> to decrease.	
6.	Press <b>[D]</b> to save.	<i>PERIOD</i>
7.	Press Service Mode Button <b>[■]</b> .	(Sales Mode)

## DELAY

This menu controls the amount of time delay that will elapse between the present time and the time at which the defrost portion of the refrigeration cycle will start. Refer to Table 2 on page 19 for factory default settings.

After this delay has expired, the normal period setting will control the time between defrost cycles and this delay will revert to 0.0 hours.

STEP	DISPLAY
1. Press Service Mode Button <b>■</b> .	<i>DIAGNOSE</i>
Press <b>A</b> , <b>B</b> , <b>A</b> .	<i>MENU 3</i>
Press <b>B</b> , <b>C</b> , <b>C</b> .	<i>SHUTDOWN</i>
2. Press <b>C</b> , <b>B</b> , <b>C</b> .	<i>SENSOR1</i>
Press <b>B</b> , <b>C</b> , <b>C</b> .	<i>DELTA</i>
Press <b>C</b> , <b>B</b> , <b>C</b> .	<i>PERIOD</i>
3. Press <b>C</b> .	<i>DELAY</i>
4. Press <b>B</b> .	<i>0.00 HRS</i>
5. Press <b>C</b> to increase or press <b>A</b> to decrease.	
6. Press <b>D</b> .	<i>DELAY</i>
7. Press Service Mode Button <b>■</b> .	(Sales Mode)

Pressing **A** or **C** will cause the time to increase or decrease by 1/2-hour increments. The maximum value is 24.0 hours. The minimum value is .5 hours respectively.

### **FOR DUAL ZONE (SOFTWARE 67232, 67234 & 67256) ONLY:**

*DELAY* sets the minimum amount of time the compressor must remain off before it is allowed to turn on. The factory default is 3 minutes. The minimum value is 3 minutes and the maximum value is 10 minutes. Refer to Table 2 on page 19 for other factory default settings.

## MANUAL

This menu is to manually force the defrost operation to run immediately.

Note that upon exit from service mode, a new period for continuous refrigeration operation that is shorter than the current time remaining in the old refrigeration cycle will reset the old cycle to the new programmed period. Also, defrost cycles will start counting down as soon as a refrigeration cycle starts for either sensor.

STEP	DISPLAY
1. Press Service Mode Button <b>■</b> .	<i>DIAGNOSE</i>
Press <b>A</b> , <b>B</b> , <b>A</b> .	<i>MENU 3</i>
Press <b>B</b> , <b>C</b> , <b>C</b> .	<i>SHUTDOWN</i>
2. Press <b>C</b> , <b>B</b> , <b>C</b> .	<i>SENSOR1</i>
Press <b>B</b> , <b>C</b> , <b>C</b> .	<i>DELTA</i>
Press <b>C</b> , <b>B</b> , <b>C</b> , <b>C</b> .	<i>DELAY</i>
3. Press <b>C</b> .	<i>MANUAL</i>
4. Press <b>B</b> .	<i>OFF *</i>
5. Press <b>B</b> to start manual defrost.	<i>ON *</i>
6. Press <b>D</b> .	<i>MANUAL</i>
7. Press Service Mode Button <b>■</b> .	(Sales Mode)

H/S

**Health Safety** - This submenu allows the user to specify the operating region for passing health safety requirements and the range of rows over which the health safety requirements will be applied. If the requirements are violated then those rows will be shut down accordingly. Note that each sensor has independent H/S (health safety) settings.

**LEVEL**

**Health Safety Level** - This menu allows the user to select a health safety requirement for the particular sensor:

- **NONE** - (Sensor1, Sensor2 & Sensor3) Ignore health safety requirements for this sensor.
- **COLD** - (Sensor1 & Sensor3) Block designated rows if temperature exceeds 41°F (5°C) for 5 minutes\*.
- **SLACK** - (Sensor1 & Sensor3) Block designated rows if temperature exceeds 15°F (-9°C) for 15 minutes\*.
- **FROZEN** - (Sensor1 & Sensor3) Block designated rows if temperature exceeds 0°F (-18°C) for 15 minutes\*.

STEP	DISPLAY
1. Press Service Mode Button <b>[■]</b>	<i>DIAGNOSE</i>
Press <b>[A]</b> , <b>[B]</b> , <b>[A]</b>	<i>MENU 3</i>
Press <b>[B]</b> , <b>[C]</b> , <b>[C]</b>	<i>SHUTDOWN</i>
Press <b>[C]</b> , <b>[B]</b> , <b>[C]</b>	<i>SENSOR1</i>
Press <b>[B]</b> , <b>[C]</b> , <b>[C]</b>	<i>H/S</i>
3. Press <b>[B]</b>	<i>LEVEL</i>
4. Press <b>[B]</b>	<i>NONE</i> *
5. Press <b>[A]</b> or <b>[C]</b> to select a health/safety level setting.	<i>FROZEN</i> *
	<i>SLACK</i> *
	<i>COLD</i> *
6. Press <b>[D]</b> to save.	<i>NONE</i> *
	<i>LEVEL</i>
7. Press Service Mode Button <b>[■]</b>	(Sales Mode)

**\*NOTE:**  
 The time requirements for FROZEN or SLACK levels do not apply for a period of 75 minutes immediately following machine filling (door open state), servicing (service mode button pressed or door open detected) or a defrost cycle. The time requirements for the COLD setting do not apply for a period of 30 minutes immediately following machine filling or servicing.

RANGE

**Health Safety Range** - This submenu allows the user to specify the range of rows over which the health safety requirements will be applied.

*SENSOR2*

See **SENSOR1** on page 35.

*SENSOR3*

See **SENSOR1** on page 35.

*SENSOR4*

See **SENSOR1** on page 35.

STEP	DISPLAY
1. Press Service Mode Button <input type="checkbox"/>	<i>DIAGNOSE</i>
Press <input type="checkbox"/> <b>A</b> , <input type="checkbox"/> <b>B</b> , <input type="checkbox"/> <b>A</b> .	<i>MENU 3</i>
Press <input type="checkbox"/> <b>B</b> , <input type="checkbox"/> <b>C</b> , <input type="checkbox"/> <b>C</b> .	<i>SHUTDOWN</i>
2. Press <input type="checkbox"/> <b>C</b> , <input type="checkbox"/> <b>B</b> , <input type="checkbox"/> <b>C</b> .	<i>SENSOR1</i>
Press <input type="checkbox"/> <b>B</b> , <input type="checkbox"/> <b>A</b> , <input type="checkbox"/> <b>B</b> .	<i>LEVEL</i>
3. Press <input type="checkbox"/> <b>C</b> .	<i>RANGE</i>
4. Press <input type="checkbox"/> <b>B</b> .	<i>SR/ER A-J</i>
5. Press starting and ending selection letters on keypad.	
6. Press <input type="checkbox"/> <b>D</b> to save.	<i>RANGE</i>
7. Press Service Mode Button <input type="checkbox"/>	(Sales Mode)

*PRIORITY*

The **PRIORITY** menu is used only on Dual Zone (software **67232**, **67234** & **67256**). This menu designates which zone sensor has priority. The factory default is **SENSOR1** (lower zone). The other setting is **SENSOR2** (upper zone).

**NOTE:** If Sensor 2 is OFF or not present Sensor 1 is the priority.

STEP	DISPLAY
1. Press Service Mode Button <input type="checkbox"/>	<i>DIAGNOSE</i>
Press <input type="checkbox"/> <b>A</b> , <input type="checkbox"/> <b>B</b> , <input type="checkbox"/> <b>A</b> .	<i>MENU 3</i>
2. Press <input type="checkbox"/> <b>B</b> , <input type="checkbox"/> <b>C</b> , <input type="checkbox"/> <b>C</b> .	<i>SHUTDOWN</i>
Press <input type="checkbox"/> <b>C</b> , <input type="checkbox"/> <b>B</b> , <input type="checkbox"/> <b>A</b> .	<i>PRIORI TY</i>
3. Press <input type="checkbox"/> <b>B</b> to view setting.	<i>SENSOR2</i>
Press <input type="checkbox"/> <b>B</b> to toggle setting.	<i>SENSOR1</i>
4. Example: <b>SENSOR1</b> =Cool (Lower Zone) Priority <b>SENSOR2</b> =Warm (Upper Zone) Priority	
5. Press <input type="checkbox"/> <b>D</b> to save.	
6. Press Service Mode Button <input type="checkbox"/>	(Sales Mode)

- **If the machine is plugged in and the power switch is on and the door is open, then the top fan is on.** RELAY1 (compressor), RELAY2 (evaporator fan), and RELAY3 (heater and heater fan) are all turned off. A 30 minute door timer starts and a compressor delay timer starts. The condenser fan is off. *(For Dual Zone Models 3193 & 3195 only: If Energy Saver Mode switch is off, then the condenser fan remains on.)*

**If the door is open for more than 30 minutes**, then the controller will resume closed door operation and set an error code (**VMC 7**). The **DIAGNOSE** menu will also display the current state of the door switch after all other messages (if any) are displayed. **DOOR** is displayed if the door switch is in the “door open position” and no message is displayed if the door switch is in the “closed door position”. The controller evaluates the **PRIORITY** setting of the machine and starts that mode of control. Refer to **SENSOR1 OR SENSOR2** sections below.

If a defrost cycle is in progress and the door is opened, then the **DURATION** timer continues while the door is open.

The **PERIOD** timer is reset if the compressor was on and the door was opened for more than 95% of the defrost **DURATION** timer setting. If the door was opened briefly (less than 95% of the defrost **DURATION** timer setting), then the **PERIOD** timer continues even though the compressor is off.

- **If the door is closed**, then RELAY2 (evaporator fan) is turned on. When the compressor delay timer (defrost **DELAY**) expires, then the controller evaluates the **PRIORITY** setting of the machine and starts that mode of control. Refer to **SENSOR1** or **SENSOR2** sections below.

#### *SENSOR1*

The temperature settings of the cool/lower zone must be satisfied first, only then can it begin to satisfy the temperature requirements of the warm/upper zone. Specific details are as follows:

If the temperature at **SENSOR1** is greater than or equal to its cut-in temperature and if the compressor has been off for the amount of time equal to the defrost **DELAY** setting, then RELAY1 (compressor) is turned on, RELAY3 (heater and heater fan) is turned off if it was on and the defrost **PERIOD** timer starts.

- If the temperature at **SENSOR1** is less than or equal to its cut-out temperature, then RELAY1 (compressor) is turned off and the compressor delay timer (defrost **DELAY**) starts.
- If the temperature at **SENSOR1** has not reached cut-out temperature when defrost **PERIOD** timer expires, then RELAY1 (compressor) is turned off and the compressor delay timer (defrost **DELAY**) and defrost **DURATION** timer starts. The heater system for **SENSOR2** is allowed to turn on while the compressor is off if the temperature at **SENSOR2** is less than or equal to its cut-in temperature. When the defrost **DURATION** timer expires, then the temperature at **SENSOR1** is checked.

If the temperature at **SENSOR1** is less than cut-in temperature, then **SENSOR2** is checked.

- If the temperature at **SENSOR2** is less than or equal to its cut-in temperature, then RELAY3 (heater and heater fan) is turned on and remains on until the temperature at **SENSOR2** is equal to or greater than its cut-out temperature (**SET POINT**) or if **SENSOR1** is greater than or equal to its cut-in temperature.

- If temperature at **SENSOR2** is greater than cut-in temperature (**SET POINT**), then **SENSOR1** temperature is checked.

**SENSOR2**

The temperature of the warm/upper zone must be satisfied first, and only then can it begin to satisfy the temperature requirements of the cool/lower zone. Specific details are as follows:

If the temperature at **SENSOR2** is less than or equal to cut-in temperature, then **RELAY1** (compressor) is turned off, **RELAY3** (heater and heater fan) are turned on and the compressor delay timer (defrost **DELAY**) is starts.

- If the temperature at **SENSOR2** is greater than or equal to its **SET POINT** temperature (cut-out), then **RELAY3** (heater and heater fan) are turned off and **SENSOR1** is checked.

If temperature at **SENSOR2** is greater than its cut-in temperature, then **SENSOR1** is checked.

- If the temperature at **SENSOR1** is greater than or equal to its cut-in temperature and if the compressor has been off for a time equal to the defrost **DELAY** timer setting, then the defrost **PERIOD** timer starts and **RELAY1** (compressor) is turned on and remains on until the temperature at **SENSOR1** is less than or equal to its cut-out temperature or the temperature at **SENSOR2** is less than or equal to its cut-in temperature.
- If the temperature at **SENSOR1** has not reached its cut-out temperature when defrost **PERIOD** timer expires, then **RELAY1** (compressor) is turned off and the compressor delay timer (defrost **DELAY**) and defrost **DURATION** timer starts. The heater system for **SENSOR2** is allowed to turn on while the compressor is off if the temperature at **SENSOR2** is less than or equal to its cut-in temperature. When the defrost **DURATION** timer expires then temperature at **SENSOR1** is checked.

**DISCOUNT**

This menu option will access to the following sub-menus that allow the vending machine (controller) to charge a different price for selections at different times or on different days:

- **OFF (ON)**
- **TIME**
- **DAY**
- **RANGE**
- **VALUE**

	STEP	DISPLAY
1.	Press Service Mode Button <b>■</b> .	<i>DI AGNOSE</i>
2.	Press <b>A</b> , <b>B</b> , <b>A</b> . Press <b>B</b> , <b>C</b> , <b>C</b> , <b>C</b> .	<i>MENU 3</i> <i>TEMPERTURE</i>
3.	Press <b>C</b> .	<i>DI SCOUNT</i>
4.	Press <b>B</b> .	<i>OFF</i> <i>TIME</i>
5.	Press <b>A</b> or <b>C</b> to view available sub-menus.	<i>DAY</i> <i>RANGE</i> <i>VALUE</i>
6.	Press Service Mode Button <b>■</b> .	(Sales Mode)

**OFF (ON)**

**Discounting On/Off** - This menu controls and displays the (on/off) status of the discount mode.

**TIME**

**Discounting Time** - This sub-menu sets the time of day that the discount mode is in effect.

**DAY**

**Discounting Day** - Sets the day(s) of the week the discount mode is in effect.

**RANGE**

**Discounting Range** - Sets the range of selections to be discounted.

Valid selection letters are A through L. The ending selection letter must be equal to or greater than the starting selection letter.

**VALUE**

**Discounting Value** - Sets the amount for the discounted price.

Setting a value greater than or equal to the maximum priced product in the machine will make all products within the discount range free.

**NOTE:**

The maximum settable value for discounting is equal to 199.99 for a scale factor of 1 and 999.95 for a scale factor of 5. If the operator attempts to save a value that exceeds this amount, a warning message will appear and the displayed setting will revert to this maximum value.

	STEP	DISPLAY
1.	Press Service Mode Button <b>[■]</b> .	<i>DIAGNOSE</i>
	Press <b>[A]</b> , <b>[B]</b> , <b>[A]</b> .	<i>MENU 3</i>
2.	Press <b>[B]</b> , <b>[C]</b> , <b>[C]</b> .	<i>SHUTDOWN</i>
	Press <b>[C]</b> , <b>[C]</b> .	<i>DI SCOUNT</i>
3.	Press <b>[B]</b> .	<i>OFF</i>
4.	To change the on/off setting press <b>[B]</b> twice.	<i>ON *</i>
5.	Press <b>[D]</b> to save.	<i>ON</i>
6.	Press <b>[C]</b> .	<i>TIME</i>
7.	Press <b>[B]</b> to view start time.	<i>1STRT 00.00</i>
8.	Press numbers on keypad to change the start time	
9.	Press <b>[D]</b> to save.	<i>1STOP 00.00</i>
10.	Press numbers on keypad to change stop time.	
11.	Press <b>[D]</b> to save.	<i>TIME</i>
12.	Press <b>[C]</b> .	<i>DAY</i>
13.	Press <b>[B]</b> to view day setting.	<i>SUN OFF</i>
14.	Press <b>[A]</b> or <b>[C]</b> to view another day.	
15.	To change on/off setting press <b>[B]</b> , then press <b>[A]</b> or <b>[C]</b> .	<i>SUN ON</i>
16.	Press <b>[D]</b> to save.	
17.	Repeat <b>steps 14</b> through <b>16</b> to set other days of the week.	
18.	Press <b>[E]</b> .	<i>DAY</i>
19.	Press <b>[C]</b> .	<i>RANGE</i>
20.	Press <b>[B]</b> to set discount range.	<i>A1-A1</i>
21.	Press starting selection letter and number on keypad. Press ending selection letter and number on keypad.	
22.	Press <b>[D]</b> to save.	<i>RANGE</i>
23.	Press <b>[C]</b> .	<i>VALUE</i>
24.	Press <b>[B]</b> .	<i>000.00</i>
25.	Press numbers on keypad to set the discount price value.	
26.	Press <b>[D]</b> to save.	<i>VALUE</i>
27.	Press Service Mode Button <b>[■]</b> .	(Sales Mode)

## AUTOREINST

**Auto-Reinstatement of Failed Selections** - Use this feature for a satellite soft drink or similar vendor utilizing a sold out or empty switch. Normally, when an empty selection is detected during an attempted vend, that selection is recorded inoperative and requires resetting before it can be vended again. Satellite units utilize a range of selections within the controller. Programming this range of selections into the auto reinstatement will eliminate the necessity of manually resetting the controller after re-loading a selection that went into a sold out condition.

### NOTE:

If iVend™ Optical System is installed, then set optical rows to **AUTOREINST ON**. For 67232-7, 67256-3 and 67257-3 a motor time out is considered as a sold out condition, when **AUTOREINST** is **OFF**.

### ON(OFF)

#### Auto-Reinstatement

**On/Off** - This menu displays and controls the current on/off state of auto-reinstatement mode.

### RANGE

#### Auto-Reinstatement

**Range** - This menu allows the setting of the range of selection row(s) affected by the auto-reinstatement mode.

STEP	DISPLAY
1. Press Service Mode Button <input type="checkbox"/>	<i>DIAGNOSE</i>
2. Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>MENU 3</i>
Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>COUPN/TOKN</i>
3. Press <input type="checkbox"/>	<i>AUTOREINST</i>
4. Press <input type="checkbox"/> to view setting.	<i>OFF</i>
5. Press <input type="checkbox"/> twice to toggle off/on.	<i>ON *</i>
6. Press <input type="checkbox"/> to save.	<i>ON</i>
7. Press <input type="checkbox"/> or <input type="checkbox"/>	<i>RANGE</i>
8. Press <input type="checkbox"/> to view <i>RANGE</i> setting.	<i>SR/ER A-J</i>
9. Press starting and ending selection letters on keypad.	
10. Press <input type="checkbox"/> to save.	<i>RANGE</i>
11. Press Service Mode Button <input type="checkbox"/>	(Sales Mode)

## COUPN/TOKN

**Value Coupon and Token** - This menu enables the use of coupons and/or tokens—this option requires a [MDB version] validator or coin mechanism (coin changer). Several sub-menus are available that allows setting of the values of coupons and/or tokens. It also allows the range of selection row(s) over which such coupons and/or tokens will apply.

The following sub-menus are available:

- *COUP VALUE*
- *COUP RANGE*
- *TOKN VALUE*
- *TOKN RANGE*

STEP	DISPLAY
1. Press Service Mode Button <input type="checkbox"/>	<i>DIAGNOSE</i>
2. Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>MENU 3</i>
Press <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<i>CAN/BOTTLE</i>
3. Press <input type="checkbox"/>	<i>COUPN/TOKN</i>
4. Press <input type="checkbox"/>	<i>COUP VALUE</i>
	<i>COUP RANGE</i>
5. Press <input type="checkbox"/> or <input type="checkbox"/> to view available sub-menus.	<i>TOKN VALUE</i>
	<i>TOKN RANGE</i>
6. Press Service Mode Button <input type="checkbox"/>	(Sales Mode)

**COUP VALUE**

**Coupon Value Setting** - Sets the value of a coupon to be used with this vendor. Up to five different coupons can be used. Coupons beyond the first 5 will be considered free vend coupons.

After one coupon is accepted, further coupons will not be accepted until a successful vend has taken place.

**Note:** Entering a price of 0 disables the coupon and it is considered to be a free vend token.

STEP	DISPLAY
1. Press Service Mode Button <b>[■]</b> .	<i>DIAGNOSE</i>
Press <b>[A]</b> , <b>[B]</b> , <b>[A]</b> .	<i>MENU 3</i>
2. Press <b>[B]</b> , <b>[A]</b> , <b>[A]</b> , <b>[A]</b> .	<i>COUPN/TOKN</i>
3. Press <b>[B]</b> .	<i>COUP VALUE</i>
4. Press <b>[B]</b> .	<i>CV1 000.00</i>
5. Press <b>[A]</b> or <b>[C]</b> to view other coupon values.	
6. Press <b>[B]</b> to change value.	
7. Press number keys on keypad to set the desired value.	
8. Press <b>[D]</b> to save.	<i>COUP VALUE</i>
9. Repeat <b>steps 4</b> through <b>8</b> to view or set other coupon values.	
10. Press Service Mode Button <b>[■]</b> .	(Sales Mode)

**COUP RANGE**

**Coupon Range Setting** - Sets a range of selections where the coupon is redeemable.

This selection allows the user to select 5 separate ranges of products that each corresponding coupon will cover.

STEP	DISPLAY
1. Press Service Mode Button <b>[■]</b> .	<i>DIAGNOSE</i>
Press <b>[A]</b> , <b>[B]</b> , <b>[A]</b> .	<i>MENU 3</i>
2. Press <b>[B]</b> , <b>[A]</b> , <b>[A]</b> .	<i>CAN/BOTTLE</i>
Press <b>[A]</b> , <b>[B]</b> .	<i>COUP VALUE</i>
3. Press <b>[C]</b> .	<i>COUP RANGE</i>
4. Press <b>[B]</b> .	<i>C1R1</i>
5. Press <b>[A]</b> or <b>[C]</b> to view other coupon range settings.	
6. Press <b>[B]</b> to change settings.	<i>C1R1 *</i>
7. Press starting selection letter and number on keypad. Press ending selection letter and number on keypad.	<i>C1R1A1 A2*</i>
8. Press <b>[D]</b> to save.	<i>COUP RANGE</i>
9. Repeat <b>steps 4</b> through <b>8</b> to view or set other coupon ranges.	
10. Press Service Mode Button <b>[■]</b> .	(Sales Mode)

### TOKN VALUE

**Token Value Setting** - Sets the values of tokens to be used with this vendor. Up to 5 different tokens can be used.

*Note: The controller will assign [these] values to the first 5 tokens that the attached validator reports. Tokens beyond the first 5 will be considered free vend tokens. After one token is accepted, further tokens will not be accepted until a successful vend has taken place.*

STEP	DISPLAY
1. Press Service Mode Button <b>[■]</b> .	<i>DIAGNOSE</i>
Press <b>[A]</b> , <b>[B]</b> , <b>[A]</b> .	<i>MENU 3</i>
2. Press <b>[B]</b> , <b>[A]</b> , <b>[A]</b> .	<i>CAN/BOTTLE</i>
Press <b>[A]</b> , <b>[B]</b> , <b>[C]</b> .	<i>COUP RANGE</i>
3. Press <b>[C]</b> .	<i>TOKN VALUE</i>
4. Press <b>[B]</b> .	<i>TV1 000. 00</i>
5. Press <b>[A]</b> or <b>[C]</b> to view other token settings.	
6. Press <b>[B]</b> to change value.	
7. Press numbers on keypad to set token value.	
8. Press <b>[D]</b> to save.	<i>TOKN VALUE</i>
9. Repeat <b>steps 4</b> through <b>8</b> for other token settings.	
10. Press Service Mode Button <b>[■]</b> .	(Sales Mode)

### TOKN RANGE

**Token Range Setting** - Sets the ranges of selections a token can be used with.

STEP	DISPLAY
1. Press Service Mode Button <b>[■]</b> .	<i>DIAGNOSE</i>
Press <b>[A]</b> , <b>[B]</b> , <b>[A]</b> .	<i>MENU 3</i>
2. Press <b>[B]</b> , <b>[A]</b> , <b>[A]</b> .	<i>CAN/BOTTLE</i>
Press <b>[A]</b> , <b>[B]</b> , <b>[C]</b> , <b>[C]</b> .	<i>TOKN VALUE</i>
3. Press <b>[C]</b> .	<i>TOKN RANGE</i>
4. Press <b>[B]</b> .	<i>T1R1</i>
5. Press <b>[B]</b> to edit.	<i>T1R1 *</i>
6. Press the letter and number of the 1st selection on the keypad. Press the letter and number of the 2nd selection on the keypad.	
7. Press <b>[D]</b> to save.	<i>TOKN RANGE</i>
8. Press Service Mode Button <b>[■]</b> .	(Sales Mode)

## CAN/BOTTLE

### Can/Bottle Control Options -

This submenu provides the option of designating ranges of rows that will contain cans and/or bottles.

*Note: Selections that are designated as either cans or bottles will have the vend motor run continuously during the vend cycle until a drop sensor has signaled the controller or the maximum vend time of 9 seconds has expired.*

STEP	DISPLAY
1. Press Service Mode Button <b>[■]</b> .	<i>DIAGNOSE</i>
2. Press <b>[A]</b> , <b>[B]</b> , <b>[A]</b> .	<i>MENU 3</i>
Press <b>[B]</b> , <b>[A]</b> , <b>[A]</b> .	<i>CAN/BOTTLE</i>
3. Press <b>[B]</b> .	<i>OFF</i>
4. Press <b>[A]</b> or <b>[C]</b> to scroll menus.	<i>RANGE</i> <i>DEPTH</i>
5. Press <b>[D]</b> to save.	<i>ON</i>
6. Press Service Mode Button <b>[■]</b> .	(Sales Mode)

### OFF (ON)

**Can/Bottle On/Off** - Displays and controls the status of the Can/Bottle Control Option.

**When Can/Bottle Mode is ON, the Drop Sensor is enabled for vending of bottles or cans for the range selected. Set Can/Bottle Mode to OFF if bottles or cans will not be vended.**

STEP	DISPLAY
1. Press Service Mode Button <b>[■]</b> .	<i>DIAGNOSE</i>
2. Press <b>[A]</b> , <b>[B]</b> , <b>[A]</b> .	<i>MENU 3</i>
Press <b>[B]</b> , <b>[A]</b> , <b>[A]</b> .	<i>CAN/BOTTLE</i>
3. Press <b>[B]</b> .	<i>OFF</i>
4. Press <b>[B]</b> twice to change.	<i>ON</i> *
5. Press <b>[D]</b> to save.	<i>ON</i>
6. Press Service Mode Button <b>[■]</b> .	(Sales Mode)

### RANGE

### Can/Bottle Mode Range -

This submenu sets the range of selection rows that will contain cans and/or bottles.

STEP	DISPLAY
1. Press Service Mode Button <b>[■]</b> .	<i>DIAGNOSE</i>
2. Press <b>[A]</b> , <b>[B]</b> , <b>[A]</b> .	<i>MENU 3</i>
Press <b>[B]</b> , <b>[A]</b> , <b>[A]</b> , <b>[B]</b> .	<i>ON</i>
3. Press <b>[C]</b> .	<i>RANGE</i>
4. Press <b>[B]</b> .	<i>SR/ER H-H</i>
5. Press starting row letter, then ending row letter on keypad.	
6. Press <b>[D]</b> to save.	<i>RANGE</i>
7. Press Service Mode Button <b>[■]</b> .	(Sales Mode)

## DEPTH

**Can/Bottle Single Or Double Depth Status** - Sets the depth of each selection for single or double operation. Single is used for dispensing bottles and double is used for dispensing cans.

**Note:** Can/Bottle On/Off must already be set to ON to access the Depth setting. Selections set at single depth will vend for an additional 2.5 seconds following detection of the product delivery signal.

	STEP	DISPLAY
1.	Press Service Mode Button <b>[■]</b> .	<i>DIAGNOSE</i>
2.	Press <b>[A]</b> , <b>[B]</b> , <b>[A]</b> .	<i>MENU 3</i>
	Press <b>[B]</b> , <b>[A]</b> , <b>[A]</b> , <b>[B]</b> .	<i>ON</i>
3.	Press <b>[A]</b> .	<i>DEPTH</i>
4.	Press <b>[B]</b> .	<i>SELECT H1</i>
5.	Press <b>[A]</b> or <b>[C]</b> to scroll to another selection.	
6.	Press <b>[B]</b> .	<i>DOUBLE *</i>
7.	Press <b>[B]</b> to change setting.	<i>SINGLE *</i>
8.	Press <b>[D]</b> to save.	<i>SELECT H1</i>
9.	Repeat <b>steps 5</b> through <b>8</b> for other can/bottle selections.	
10.	Press <b>[E]</b> to exit.	<i>DEPTH</i>
11.	Press Service Mode Button <b>[■]</b> .	(Sales Mode)

## OPTIC

**Optical Sensor Control Options** - This submenu provides the operator with options for designating ranges of product rows that will be monitored for product delivery by an optical sensor.

This optical sensor connects to the controller through pin 8 of header P7. This is the same pin used by the Can/Bottle sensor. Due to this sharing of resources, it is not possible to run the controller with both the Can/Bottle and Optical modes being simultaneously active.

The controller must be in **Sales Mode**. If the accumulated credit is equal to or larger than the selection price when a selection is entered, then the motor corresponding to that selection will be turned on. Selections that are designated as optical will have an associated vend operation that differs from the normal vend operation.

For 5 milliseconds at the start of a vend, the **iVend™** optical sensor will be checked for blockage.

**If blocked** - the normal home-switch-vend cycle will be used and the optical sensors will be ignored. Both the vend motor and a 9 second vend timeout timer are started.

- The selection motor rotates to the home-switch position.
- If there is a home-switch signal, then the vend is considered successful.
- If after 9 seconds and there is no home-switch signal, then the vend failed. The vend motor is shut down and **MAKE ALTERNATE SELECTION** is displayed. The customer can press selection buttons to activate this or another motor or press the coin return button.

**NOTE:** Force Vend is overridden under this vend cycle.

**If not blocked - the iVend™ Sensor System is used.** The vend motor and a 9 second vend timeout timer are started.

- The selection motor rotates to the home-switch position.
- If a product is detected during this time period, then the vend is considered successful.
- If after reaching the home-switch position and a product is not detected, then the vend motor will pause for 1 second while the controller continues to monitor the optical sensor for product delivery.
  - If a product is detected during this pause, then the vend is considered successful.
  - If a product is not detected, then the controller initiates a second vend cycle and a 9 second timer while continuing to monitor the optical sensor.
    - If a product is detected during this second cycle, the motor will be stopped immediately. The vend is considered successful. The 2nd Vend Count is increased by 1.
    - If a product is not detected and the motor reaches the home-switch position or if a 9 second timer runs out, then the vend has failed or the selection is sold out. Such a state will trigger the display of the **MAKE ALTERNATE SELECTION** message. The amount of credit is displayed. The customer can press selection buttons to activate this or another motor or press the coin return button.

**OFF - ON**

**Optical On/Off State -**  
This menu displays and controls the current on/off state of the optical option.

**Note:** If iVend™ is present, this is normally set to ON.

STEP	DISPLAY
1. Press Service Mode Button [■].	DIAGNOSE
2. Press [A], [B], [A].	MENU 3
Press [B], [A].	OPTIC
3. Press [B].	OFF
4. Press [B] twice to change setting.	ON *
5. Press [D] to save.	ON
6. Press Service Mode Button [■].	(Sales Mode)

**FOR SOFTWARE VERSIONS 67232-7, 67256-3 AND 67257-3 ONLY.**

**NOTE:** For software revisions 67256-3 and 67257-3 the OPTICS menu is OFF by default.

- When OPTIC is OFF, the machine will operate using the optical sensors and the standard iVend™ algorithm program.
- When OPTIC is ON, the iVend™ optical sensors will be checked during the idle sales mode every 200ms. If there are three (3) or more consecutive readings of a blocked or disconnected sensor, the VMC Error 8 (optics error) will be set.

When the VMC Error 8 is set, the controller will add to the default point of sale message an illuminated decimal point on the right-most digit.

**For 67232-7 only:** When the VMC Error 8 is set and a selection is made, vending is inhibited. The controller will beep three (3) times and scroll the current Spanish message **SELECCIONE OTRO PRODUCTO** (select another product). If any credit has been established, pressing the escrow button shall return it in like coin fashion.

**For 67256-3 and 67257-3 only:** When the VMC Error 8 is set and a selection is made, vending is inhibited. The controller will beep three (3) times and scroll the current Spanish message **FUERA DE SERVICIO**. If any credit has been established, pressing the escrow button shall return it in like coin fashion.

Once the vend cycle has begun, the current iVend™ algorithm will be used.

In the Service Mode, the VMC Error 8 will continue to be visible in the Diagnostics menu. Upon door switch opening or closing, if the iVend™ sensors continue to be disconnected or blocked the controller will beep (3) times to alert the service person.

**RANGE**

**Range of Optical Mode -**

This menu allows the operator to specify which rows of products are sensed for product delivery by the optical sensor.

**Note:** The last row in the range may then be selected by entering any letter that is greater than or equal to the first row in the range (A through L).

STEP	DISPLAY
1. Press Service Mode Button <input type="checkbox"/>	<i>DI AGNOSE</i>
2. Press <input type="checkbox"/> <b>A</b> , <input type="checkbox"/> <b>B</b> , <input type="checkbox"/> <b>A</b> .	<i>MENU 3</i>
2. Press <input type="checkbox"/> <b>B</b> , <input type="checkbox"/> <b>A</b> , <input type="checkbox"/> <b>B</b> .	<i>ON</i>
3. Press <input type="checkbox"/> <b>C</b> .	<i>RANGE</i>
4. Press <input type="checkbox"/> <b>B</b> .	<i>SR/ER A-L</i>
5. Press starting row letter on keypad.	
6. Press ending row letter on keypad.	
7. Press <input type="checkbox"/> <b>D</b> to save.	<i>RANGE</i>
8. Press Service Mode Button <input type="checkbox"/> .	(Sales Mode)

## DEX/UCS

**DEX/UCS** or **DEX** stands for **Data EXchange/Uniform C**ommunications **S**tandard. Within the vending industry, it defines the transfer of information/data between a **H**and **H**eld **C**omputer (**HHC**) or data collector and the electronic vending machine.

If the vendor operation will be tracked using a **DEX/UCS** capable hand held computer, then please note the following:

- Just below the instructional decal on the control board cover is the plug-in point for the connecting cable from the hand-held computer. See **Figure 1** on page 1.
- The vending machine must be in **SALES MODE**, and then plug in a **HHC** and the vendor will enter **DEX/UCS MODE**. The exchange of information will begin automatically. All resettable counters are automatically cleared (set to zero).
- For software versions 67217-8 or later and 67257 only: Will accept DEX uploads of prices (PC101, PC102) and asset number (IC106) with a 13 character limit.

The following is a list of the DEX/UCS codes and descriptions:

DEX FIELD	DEX FIELD DESCRIPTION
ID101	Machine serial number
ID102	Machine model number (“SM6 67185-4 ” for the Mdb version and “SM6 67201-2 ” for the protocol a version)
VA101	Value of all paid sales since initialization
VA102	Number of all paid vends since initialization
VA103	Value of all paid sales since last reset
VA104	Number of all paid vends since last reset
CA201	Value of cash sales since initialization
CA202	Number of cash vends since initialization
CA302	Value of cash to coin box since last reset
CA303	Value of cash to tubes since last reset
CA304	Value of bills in since last reset
CA305	Value of cash in since initialization
CA306	Value of cash to coin box since initialization
CA307	Value of cash to tubes since initialization
CA308	Value of bills in since initialization
CA401	Value of cash dispensed since last reset
CA402	Value of cash manually dispensed since last reset
CA801	Value of cash overpay since last reset
CA1001	Value of cash filled since last reset
CA1401	Bill value,(\$1, 2, 5, 10, & 20)
CA1403	Number of bills to stacker since last reset
MA202	Serial number of the vending machine controller.
MA504 block 1	Number of product deliveries detected during second vend cycle by optical sensing. (See <b>2ND VEND</b> on page 6)
MA504 block 2	"True" or "False" indication of machine health and safety error
MA504 block 3	Software versions 67217-10, 67256-3 & 67257-3 only: Value of credit cleared since initialization

DEX FIELD	DEX FIELD DESCRIPTION
MA505	Software versions 67217-10, 67256-3 & 67257-3 only: Value of credit cleared since last reset.
TA201	Value of vend token sales since initialization(free token no value)
TA202	Value of vend token vends since initialization(free token no value)
TA203	Value of vend token sales since last reset
TA204	Number of vend token vends since reset
TA205	Value of value token sales since initialization
TA206	Number of value token vends since initialization
TA207	Value of value token sales since last reset
TA208	Number of value token vends since initialization
TA301	Value of value tokens in since last reset
TA302	Value of value tokens in since initialization
PA101	Product number
PA102	Product price
PA201	Number of products vended since initialization
PA202	Value of paid product sales since initialization
PA203	Number of products vended since last reset
PA204	Value of paid product since last reset
PA303	Number of test vends since last reset
EA201	Event identification; one free product vends
EA202	Number of events since last reset
EA204	User defined field; value
EA201	Event identification; promo vends
EA202	Number of events since last reset
EA204	User defined field; value
EA201	Event identification; tube value (.05, .10, .25, 1.00)
EA204	User defined field; value
EA201	Event id; value of bills & cash box since last reset
EA204	User defined field; value
EA301	Number of reads since initialization
EA302	Date of this read out
EA303	Time of this read out
EA304	This terminal/interrogator identification
EA305	Date of last read out
EA306	Time of last read out
EA307	Last terminal/interrogator identification
EA501	Date of price setting
EA502	Time of price setting

NOTES

NOTES

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