



# Space Saver Series SS1000



# Operator's Manual

## **INTRODUCTION**

Congratulations on the purchase of your new SS series Snack Vendor. This SS Series Snack Vendor has been designed to give you many years of dependable service. It requires little maintenance and is easy to set up and operate.

## **READ THIS MANUAL COMPLETELY**

Your SS Series Snack vendor is designed to operate simply and reliably, but to take full advantage of your vendor, please read this owner's manual thoroughly. It contains important information regarding installation and operations, as well as a brief trouble-shooting guide.

## **EQUIPMENT INSPECTION**

After you have received your vendor and have it out of the box, place it on a secure surface for further inspection. **Note:** Any damages that may have occurred during shipping must be reported to the delivery carrier immediately. Reporting damages and the seeking of restitution is the responsibility of the equipment owner. The factory is willing to assist you in this process in any way possible. Feel free to contact our Customer Care Department with questions you may have on this process.

Once you have your vendor located, we suggest that you keep this manual for future reference, or you can view this manual online at [www.seagamfg.com](http://www.seagamfg.com). Should any problems occur, refer to the section entitled "COMMON QUESTIONS AND ANSWERS". It is designed to help you quickly identify a problem and correct it.

## **MANUFACTURER'S WARRANTY**

### **WHAT IS COVERED:**

Manufacturer warrants TO THE ORIGINAL PURCHASER ONLY that each item of equipment manufactured is free from defects in material and workmanship under normal use and service. Manufacturer's obligation under warranty shall be limited to repair or replacement, at our plant, of any parts of the equipment, which shall, within one year of the date of shipment to the original purchase, be demonstrated to be defective. The original purchaser may obtain repair or replacement of the equipment under warranty by returning the defective item or entire vendor to the Manufacturer, freight prepaid.

### **WHAT IS NOT COVERED:**

Manufacturer's warranty obligations DO NOT EXTEND TO OR INCLUDE installation expenses, vandalism, or difficulties resulting from failure to operate equipment in accordance with Manufacturer's instructions under competent supervision and difficulties due to changes in vended products, which are beyond the control of manufacturer.

**SPECIAL NOTE:** Manufacturer is not responsible for any loss of income due to a vending machine being out of service due to a warrantable item.

This warranty is in lieu of all the other warranties, expressed or implied, including the warranty of merchantability and fitness or use, and of all other obligations or liabilities on Manufacturer's part. Manufacturer neither assumes, nor authorizes any other person to assume for it, any other liability in connection with the sale of equipment manufactured by itself. This warranty shall not apply to equipment manufactured or any part thereof which is subject to accident, negligence, alteration, abuse, misuse, or damage in shipment. The term "original purchaser", as used in this warranty, shall be deemed to mean that person for whom the equipment is originally installed.

Manufacturer is not liable for any incidental, consequential or other damages of any kind whatsoever, directly or indirectly, arising from the use of the equipment whether based upon theories of contract negligence or tort.

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## The Space Saver Automatic Series Vendor

This is a User Manual for SS1000 Tabletop Automatic Series Vendors. The Standard model is for operation in the North American markets where as the [F] versions are intended for the European and U.K markets

This Operator's Manual is divided into three (3) main sections. These are; a Brief description of Space Saver table top Automatic series Vendor, Service Mode, and Money Mechanisms.

### IMPORTANT NOTICES

Your vendor (s) are intended for indoor use only

Your vendor (s) must be set on a level, well-supported location.

Always unload vendor before transporting it.

Remove the plastic cable ties from each helix coil.

Remove any protective sheets from under the Helix coil support plates before loading the vendor.

Do not load your vendor with disfigured or damaged product.

## Section 1

### Brief Description of your SS series Vendor

Fig.1 SS1000



## **HOW TO LOCK & UNLOCK THE DOOR OF SNACK VENDOR**

Your Space Saver Vendor has 2 locks. To open the door, unlock the right side lock by turning the key clockwise. Thereafter open the left side lock by turning the key counter clockwise. The door can now be opened and removed by raising from both the sides and lifting it until the top edge disengages from the Vendor cabinet. (Fig.2)

To lock the door hold both sides of door half way down the door. Engage the top of the door with the Vendor cabinet while keeping the bottom away from the machine. Lower the bottom of the door ensuring that the top of the door remains engaged with the cabinet. Lock the door by turning the left key clockwise and the right key counter clockwise.

Fig.2

Front Door



## **LEVELING YOUR VENDOR**

Once you have installed your vendor in its proper location, you will need to level it to ensure trouble free operation. The vendor is provided with 4 threaded levelers. These can be screwed into the bottom of the vendor and can be adjusted up or down as needed to ensure a proper level. (Fig.1)

## **ELECTRICAL CONNECTION**

The SS1000 Snack Vendor requires one 120 VAC 60 Hz grounded outlet

The SS1000 (F) Snack Vendor requires one 230 VAC 50 Hz grounded outlet

Note: The Mains cable can be coiled back into the left hand rear corner of the vendor. Pull out the cable to the extent necessary before start up.

## **FIXING PRICE LABELS ON PRODUCT TRAYS**

The Price and Product labels supplied with the vendor are to be fixed below the Helix Coil. (Fig.3) The Product Trays must be marked as 1,2,3,4,5,6 etc from the top tray downwards.

Fig.3

Price & Product Labels to be fixed here



## Section 2

## SERVICE MODE

### KEYPAD AND LCD DISPLAY

The Keypad is a touch sensitive operation. Light pressure will be necessary to activate each number or letter. The vendor's Keypad is used by the customer to make their selection, and by the operator to set and test many functions of the vendor.

Fig.4



The LCD Display shows the customer the amount of money entered into the vendor, and the cost of their selection, it shows the operator the Service Mode function for setting and testing the various functions of the vendor.

The operation of the machine can be adjusted by entering service mode by pressing the red button on the VMC circuit board and then accessing the appropriate operation. Price setting, coin value setting, motor operation and vend-credit criteria can be read and adjusted from here. The user can also perform tests for the motor operation through this mode.

### Operation

1. Enter Service Mode by pressing the Red Button on the VMC Circuit board      Displays Er. \*\*  
Any faults that have occurred will be displayed as a two-digit code\*\*  
If there are no errors the Display will automatically go to Audit Mode    Au

2. Each Service Code can then be accessed by repeat pressing of the Service Button

Pressing Red Button (AUDIT)	Displays Au.—
Pressing Red Button (PRICE SETTING)	Displays PS.--
Pressing Red Button (COIN VALUE SETTING)	Displays Cn.—
Pressing Red Button (CONTROL WORD SETTING)	Displays Ct.**
	Where ** is current word
Pressing Red Button (ASSIGNMENT)	Displays AS.**
	Where ** is current motor version
Pressing Red Button (APPLICATIONS)	Displays AP.—
Pressing Red Button (EXIT Version #)	Displays F*. ** to 00.00

3. Service Mode can be exited by pressing the Red Service Button, the Reject button or automatically if the LCD Display has remained idle in service mode for up to 60 seconds.

### **Notes:**

- If a selection button/service button is not pressed within 45 seconds then the Display will automatically exit from Service Mode.
- If a selection button is pressed, the Display will automatically exit from Service Mode 60 seconds after the last button pressed.
- Pressing the reject button also exits the Display from Service Mode

### Audit

Within Service Code AU (Audit) readings can be taken from the Display with regards to cash taken, and number of products vended. The following details can be obtained on the Display.

1. Total Cash Taken (up to 9999.99)
2. Total Product Vended (up to 9999)
3. Individual Product Vended (from each selection) up to 999

- i. Press the Red Service Button repeatedly till the LCD Displays Au.—  
*You are now in Audit Mode*
- ii. Press Selection 1 to reveal the total cash (\$/£/€) and (c/p) taken Displays \*\*\*\*and--. \*\*
- iii. Press Selection 2 to reveal the total product vended Displays \*\*\*\*
- iv. Press Selection 3 to reveal the individual product vended  
The display scrolls through each selection displaying the quantity vended 1.\*\* to 12.\*\*  
Returns to Au— at end of routine.
- v. Press Selection 4 to clear all the Total Sales Results Displays clr
- vi. Press Red Service Button to scroll to exit or press Reject Button to exit.

### Price Setting

Price Setting can be done by entering Service Code PS. Each selection can be allocated any price from 00.01 to 99.99, and is achieved by inserting coins to vend amount and allocating the amount to each selection.

- i. Press the Red Service Button repeatedly till the LCD Displays PS.—  
*You are now in Price Setting Mode*
- ii. Insert coins to first desired price (for simplicity set the lowest price first)
- iii. Credit will accumulate on the display Displays \*\*. \*\*
- iv. Press desired selection button to store displayed credit to that selection Displays p.set
- v. Insert additional coins if required.
- vi. Press Red Service Button to scroll to exit or press Reject Button to exit.

**Notes:**

- Prices may be set from 00.01 to 99.99 (depending upon coin values)
- It is not possible to set a zero price.
- The default price setting is 99.99

### Coin Value Setting

Coin Value setting allows for the changing of validator or Acceptors with different output maps. The machine is capable of accepting up to 15 different coin values. Values can be adjusted from 00.00 to 99.99.

1. Press the Red Service button repeatedly until Displays Cn.—  
*You are now in the Coin Value setting Mode*  
*You first need to set the value for the coin*
2. Press Selection Button 1 to increment the --.\*\* Value Displays 00.\*\*
3. Press Selection Button 2 to decrement the --.\*\* Value Displays 00.\*\*  
*That is the cent/pence value set, now we need the dollar/euro/pound value*
4. Press Selection Button 3 to increment the \*\*.— Value Displays \*\*.??
5. Press Selection Button 4 to decrement the \*\*.— Value Displays \*\*.??  
*Now with the value on the display, insert the coin for which the value must be assigned to.*
6. Insert Required Coin until it is accepted to store value to that coin Displays \*.set  
[Where \* represents the coin identity a-l]
7. Repeat steps 3 to 7 till coins are set.
8. Press Red Button to exit or press Reject Button to exit.

### Coin Output Map

No	IDENTITY	1	2	3	4	5	6	Default	Adjustable
1	A	X						01.00	YES
2	B		X					00.20	YES
3	C			X				02.00	YES
4	D				X			00.50	YES
5	E					X		00.10	YES
6	F						X	00.05	YES

7	G	X	X					01.00	YES
8	H		X	X				00.20	YES
9	I			X	X			02.00	YES
10	J	X		X				00.50	YES
11	K	X			X			00.10	YES
12	L		X	X	X			00.05	YES
13	M		X	X	X	X		10.00	NO
14	N		X	X			X	20.00	NO
15	O		X					50.00	NO

**Notes:**

- Coin Values between 00.00 and 99.99 can be set to any coin
- Setting a value of 00.00 to a coin still allows the coin to be accepted.
- The machine will automatically exit from Coin Value Setting within 60 seconds unless a button hasn't been pressed or coin inserted in that time.
- All the variable coin values may be set at the same value if required.

**Control Word Setting**

This is essentially to do with the Coin handling and Vend-credit status. The Control Word is a two (2)-digit number used to indicate to the vendor the required method of operation. This controls the operators desired relationship between coins inserted and vend price depending upon the power supply. The code is input within the Service Code count

**CONTROL WORD MAP**

Code	Battery	Mains	Escrow	Credit Vs Vend Price (before vend is performed)	Excess Credit (difference between credit and vend price)
01	X	X	X	CREDIT= VEND PRICE	None
02	X	X	X	0.99> (CREDIT-VEND PRICE]> 0	Excess Credit Cancels [if any]
03	X	X	X	CREDIT> VEND PRICE	Excess Credit Cancels [if any]
04	X	X	X	CREDIT> VEND PRICE	Excess Credit Carried Forward
05	X	X	X	CREDIT> VEND PRICE	Excess Credit Carried Forward for 60 sec
06	X	X	X	FREE VEND – NO CREDIT REQUIRED	None
07	X	X	X	TEST VEND- NO CREDIT REQUIRED	None

- |  |          |          |
|--|----------|----------|
| Press the red service button repeatedly until<br>(where ** is current value)<br><i>You are now in Control Word Setting</i><br><i>To change the current value, we first need to adjust the displayed code</i> | Displays | Ct.**    |
| Press Selection Button 1 to increment the --.** value  | Displays | Ct.**    |
| Press Selection Button 2 to decrement the --.** Value<br><i>That is the control word set; now we need to store it</i>  | Displays | Ct.**    |
| Press Selection Button 4 to store the new Control Word<br>Press Red Service Button to exit or Press Reject Button to exit.   | Displays | Cntr set |

- Notes:** The default Control Word is '03' – (Excess Credit Cancels)  
Codes 05 [Multi-vend with Time out] allows for the excess credit to be carried forward on the credit for up to 60 seconds. This time is prolonged if a coin is inserted or a selection is pressed for a further 60 seconds from that input. After 60 seconds the excess is cancelled.  
The time out canceling only applies to excess credit (surplus credit after a vend) and not credit inserted prior to any vend.  
The setting of a Control Word outside of the allocated codes, results in the machine reverting back to its original code (not default)

The machine will return to Normal Mode {00.00} 60 seconds after the last button has been pressed unless the Red Service Button has been pressed or the reject is pressed.

During 'Free Vend' the machine will display 'FrEE'

- All selections will vend without coins
- Prices can be set during Free Vend
- Appropriate Audit Registers will be incremented (Product sales)
- There is no automatic exit from this mode, this must be done through Service Code Ct

During 'Test Vend' the Machine will display 'test'

- All selections will vend without coins
- Appropriate Audit Registers will not be incremented
- Coin input is enabled with coins inserted being displayed for 1 second only
- Prices cannot be set during Test Vend
- There is no automatic exit from this mode, this must be done through Service Code Ct

## MOTOR ASSIGNMENT

### Overview

The following details would be helpful in a proper assignment of the Motor version. The SS1000 uses Seaga 3 wire 12v DC gray motor

### Motor Version

#### Motor Version Map

Version	Name	Description	Start Sense	Home	Time-out	Assignment	Indicator
1	Spiral Motor	Seaga 3 Wire Motor 24V white	Open	Yes	**	Individual	----
2	Spiral Motor	Seaga 3 Wire Motor 12V gray	Open	Yes	**	Individual	----
3	Reserved						
4	Reserved						
5	Reserved						
6	Reserved						

### Operation

How to Set up your Motor Version:

To Change .. do the following:

- |   |  |
|---|--|
| 1. Press the Red Service Button till AS<br>where * is the current version # | Displays AS-*                            |
| 2. Press Button 1 (or 2) to increment/decrement Version #                   | Displays AS.0? where ? is version 1 to 6 |
| 3. Press Button 3 to store Version Value                                    | Displays set                             |
| 4. Press Red Service Button or Reject to scroll to exit                     | Displays 00.00                           |

### Notes

- When setting up a Motor Version a default Timing value will be assigned automatically, (see default value). This may need to be changed (see timing value setting).
- The default motor version is Version 1.
- The VMC will return to Normal Mode (00.00) 60 seconds after the last button has been pressed unless the Red Service Button has been pressed or the reject is pressed.

## Timing Value

### Overview

The timing value is a measure of time that allows the VMC to either ignore any signals from the motor until the time has expired, or if the time has expired without any signals. Depending on the Version, the timing Value has different characteristics.

Generally speaking the timing value is set to the normal vend time. For example, if the vend normally takes 6 seconds to complete, then set the timing value to 6. This allows for the VMC to 'expect' a home signal at the required time and to ignore any spurious signals in the meantime. It also sets an appropriate delay after a 'home' should be expected, disabling power to the motor if this home wasn't reached. In this case the motor is inhibited, the appropriate error code is set and the money entered is returned to the user.

The Vend cycle is Voltage and Load dependent so an approximate setting of the timing value needs to be set. The vend cycle, is the time from motor start (when at home) to motor end (return to Home) in seconds. This translates directly to the timing value that re-conditions the value for correct operation.

### Operation

- |   |   |
|---|---|
| 1. Press the Red Service Button to scroll to          | Displays AS.—                             |
| 2. Press Button 1 (or 2) to increment/decrement Value | Displays AS.** where ** is value 01 to 99 |
| 3. Press Button 4 to store Timing Value               | Displays set                              |

### Notes

- The current timing value is displayed whilst doing a test as PL.\*\*, where \*\* is current value
- The timing Value can be set from 00 to 99.
- For Version 1 Motors the default timing value is 7
- For Version 2 Motors the default timing value is 3
- The timing value reverts back to default every time a version change is set
- The timing value cannot be individually assigned and applies to all outputs when set.
- The VMC will return to Normal Mode (00.00) 60 seconds after the last button has been pressed unless the Red Service Button has been pressed or the reject is pressed.

## Test Sequence

### Overview

The VMC constantly tests the operation of the machine, the data stored and the peripherals attached. Every .01 seconds, a self-test analysis is done to verify correct operation of the machine. Further tests are done on Power Up, Button Press, Coin Insertion and entering/exiting Service mode. These tests will generate the relevant fault code as necessary. However, it is possible to do a thorough analysis through Service Code AP, which will individually test each motor as well as escrows and other related functions. This is useful to re-align any jammed motors.

## Test Code Map

	TEST	WHAT IS VISIBLE	ACTION
1	Escrow Return Power	Displays ' TEST'	Escrow Return Opens [if present] Power Status Checked
3	LEDS	Displays ' 88.88 ' all Column LEDES on	Ensure all LED Segments Illuminate
4	Price Setting		Confirm Prices are set
5	Escrow Keep	Displays PL.** [Timing Value]	Escrow Keep Opens [if present] Confirms Coin Values
6			
7	Motor 1	Displays 01.-* where * is motor Version	Motor 1 operates [if present]
8	Control word		Confirms that a valid control word is set

9	Motor 2	Displays 02.-* where * is motor Version	Motor 2 operates [if present]
10	Motor Assignment		Confirms that a valid motor assignment is set
11	Motor 3	Displays 03.-* where * is motor Version	Motor 3 operates
12	Coin count value		Confirm that a valid coin count value is set
13	Motor 4	Displays 04.-* where * is motor Version	Motor 4 operates [if present]
14	Audit		Confirms that all audit registers are valid
15	Motor 5	Displays 05.-* where * is motor Version	Motor 5 operates [if present]
16	Timing belt		Confirms that valid timing belt value is set
17	Motor 6 Etc Motor 16	Displays 06.-* where * is motor Version	Motor 6 operates [if present]
18	End of Test	Displays 0-.**	Where ** is a fault found during test

1. Press the Red Service Button to Enter Service Mode to scroll to  
*You are now in applications Mode* Displays AP.–
2. Press Selection 1 to activate test sequence Displays test  
*The machine will now perform a test as outlined below any faults that occurred will be indicated by a 2 digit code at the end of the Test Sequence.* Displays Er.\*\*  
where \*\* may be a 2 digit code
3. Press Red Service Button to exit or Press Reject Button to exit.

**Notes:** - The test sequence may activate a motor for two cycles; this is normal.  
- If after a test a fault code appears, correct the fault and test again.  
- The Display will return Normal Mode 60 seconds after the last button has been pressed unless the Red Service has been pressed or the reject is pressed.

### **FACTORY DEFAULT SETTING**

The SS3000 can be reverted back to factory defaults by the user by entering service code AP.-- Care must be taken while doing this as all data will be lost and will have to be entered again.

A list of factory defaults is as follows:

DATA	DEFAULT VALUE	TO CHANGE
Standard Audit Totals	0000.00	
Prices	99.99 [all selections]	Service Code PS
Coin Value Settings	As per Coin Output Map	Service Code Cn
Coin Count Value	15 [if escrow present] 99 [if no escrow present]	Service Code Cn
Credit [Display]	00.00	
Control Word	3 [excess credit cancels]	Service Code Ct
Motor Version	Version 1 [all motors]	Service Code AS
Motor Timing Value	7	Service Code AS
Motor Assignment	Selection 1 – Motor 1 etc	Service Code AS
Motor Backup	No-Individual Assignment (1)	Service Code AS

1. Press the Red Service Button to enter Application Mode Displays Ap.-  
*You are now in application mode*
2. Press and hold selection 2 for seconds till Displays set  
*The machine will automatically exit from service mode and display ' Out Of Ord(e)r '*
3. Press Red Service Button to re-enter Service Mode and re-configure settings.

## Fault Analysis

Within the machine there is an internal fault analysis. Every 0.1second the machine will do a self-analysis test. This test does not affect the normal operation of the machine. There will be no change of status of the machine from a users point of view. The machine will still accept coins, display prices and vend products even during self-analysis test. If the machine observes a problem it will double verify the cause and store the error, which will be displayed during service mode. To display an error code, simply enter service mode by pressing the red button. The error code will be displayed intermittently. To clear an error code, simply exit service mode (rectify error if necessary).

Note: If more than 5 normal error codes have been detected the machine will assume 'Fatal error' status putting the machine 'Out of Ord(e)r'.

### Fault Code Map

Code	Description	Remedy
--	No error present	None
00	Empty Error Location	None
01	Motor 1 Error	Remove Jam-Activate Test Sequence-Exit Service Mode
02	Motor 2 Error	Remove Jam-Activate Test Sequence-Exit Service Mode
03	Motor 3 Error	Remove Jam-Activate Test Sequence-Exit Service Mode
04	Motor 4 Error	Remove Jam-Activate Test Sequence-Exit Service Mode
05	Motor 5 Error	Remove Jam-Activate Test Sequence-Exit Service Mode
06	Motor 6 Error	Remove Jam-Activate Test Sequence-Exit Service Mode
07	Motor 7 Error	Remove Jam-Activate Test Sequence-Exit Service Mode
08	Motor 8 Error	Remove Jam-Activate Test Sequence-Exit Service Mode
09	Motor 9 Error	Remove Jam-Activate Test Sequence-Exit Service Mode
10	Motor 10 Error	Remove Jam-Activate Test Sequence-Exit Service Mode
11	Motor 11 Error	Remove Jam-Activate Test Sequence-Exit Service Mode
12	Motor 12 Error	Remove Jam-Activate Test Sequence-Exit Service Mode
13	Motor 13 Error	Remove Jam-Activate Test Sequence-Exit Service Mode
14	Motor 14 Error	Remove Jam-Activate Test Sequence-Exit Service Mode
15	Motor 15 Error	Remove Jam-Activate Test Sequence-Exit Service Mode
16	Motor 16 Error	Remove Jam-Activate Test Sequence-Exit Service Mode- <u>Not Available in SS1000</u>
30	Zero Price Setting	Reset all prices - Exit Service Mode
31	Zero Coin Count Value	Reset Coin Count Value - Exit Service Mode
32	Zero Control Word	Reset Control Word Value - Exit Service Mode
33*	Zero Coin Value	Reset Coin Value - Exit Service Mode
35	Incorrect Motor Version	Motor Version outside of norm. Confirm Motor Version
40	Data Corrupt Price	Reset all Prices [Fatal error] - Exit Service Mode
41	Data Corrupt Coin	Reset Coin Values [Fatal error] - Exit Service Mode
42	Data Corrupt Control	Reset Control Code [Fatal error] - Exit Service Mode
43	Data Corrupt Selection	Reset Motor selection [Fatal error] - Exit Service Mode
44	Fatal Power Up	Confirm Prices, Product codes and Coin values - Exit Service Mode
45	Power Interrupt	Possible Fraud attempt - Exit Service Mode
46	Invalid Coin Output Code	Replace/Reprogram Coin Acceptor
47*	Button Panel fault	Check all buttons are operating currently - Exit Service Mode
48	Coin Validator Error/Fault	Check operation of Coin acceptor - Exit Service Mode
49*	Coin Validator alarm	Possible fraud on Coin acceptor – Check operation of Coin Acceptor
51*	Battery Low	Replace Battery - Exit Service Mode – Press any selection button 5 times
52	Coin Acceptor Rate Low	Check Coin Acceptor- Check battery - Exit Service Mode
53*	Battery Dead	Replace Battery - Exit Service Mode - Press any selection button 5 times
55*	Printer Communication Error	Check Printer operation – Disconnect printer
56*	Change giver Comm's Error	Check Change giver operation
57*	Modem Communication Error	Check Modem Operation
58*	Note/Bill reader Comm's Error	Check Note/Bill reader operation
59*	Cash-Less device Comm's error	Check Cash-Less device operation
60*	External Alarm Activation	Alarm has been activated – check for machine tampering
61*	Escrow Keep Time-out	Check Escrow Unit- Activate Test Sequence – Exit Service Mode

62*	Escrow Return Time-out	Check Escrow unit- Activate Test Sequence – Exit Service Mode
70*	EEPROM Write Error	Check Prices and Coin data
71*	EEPROM Read Error	Check Prices and Coin data
99*	Machine Lock-up	Code Required-Consult Machine Supplier

Note: \* Reserved Codes – Not present in current SS1000 model

## **SOFTWARE VERSION**

### **OVERVIEW**

Currently the VMC is powered by a Flash Based Micro-Controller Integrated Circuit. Flash based technology is the latest in its kind and is unique in that all data is retained within the IC even on power loss. Flash based systems also have the advantage of being able to be re-programmed with relevant updates.

The software version is displayed for a fraction of a second on exiting from service mode.

### **SOFTWARE RESET**

As with all microprocessor-based devices, a device reset must be incorporated in case the device goes into loop state. The VMC has incorporated on board an internal device reset or watchdog which pulls the device out of any loop state. A loop state is when the software locks itself on a particular branch code, thus preventing the VMC from operating correctly. Occurrences of this are extremely rare and are usually a result of Voltage Spikes or strong Electro-Magnetic Interferences.

The Device may also be reset by depressing the Black reset Button on the Circuit Board. This does not effect any of the overall operation of the VMC; it purely pulls the device back as if it were initially powered up. The only information lost on pressing the Black Button is the following:

- 1.Any Credit on the display will be cleared
- 2.Any error Codes that occurred are cleared.

### Summary Of Software Versions

#### Motor Version Numbers

Ver	1	2	3	4	5	6	FLASH TAS	NOTES	DATE
1.00	X	X					X		Dec '03
1.01	X	X					X	extension of column empty check	Feb '04
1.02	X	X					X	Extension of column emptycheck & Countdown on vend	Mar '04
1.03	X	X					X	Improved motor handling,shortened timing value	Jun '04

\*\* Includes 00—07. minor device changes

TAS Token Access System

ACC: Accumulated Audit Readings

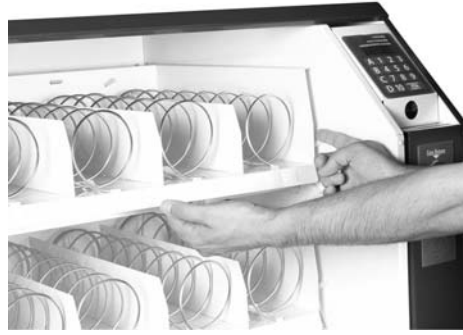
## **DELIVERY SYSTEM**

The delivery system of your SS1000 Series Snack vendor consists of the Keypad, LCD Display, Driver Motors and Product Trays Helix Coils. The customer inserts money and enters their selection on the Keypad. The selected Driver Motor turns the Helix Coil that vends the product.

## **LOADING PRODUCT SHELVES**

Remove the front door of vendor, and push down the plastic lock lever on the right side of shelf (Fig.5) to unlock the shelf. Holding the lever down, Grasp the Product shelf under both the front corners and lift the front of the shelf slightly and pull forward. The shelf will slide out and then tilt down to make loading of products easier. Load only one product shelf at a time.

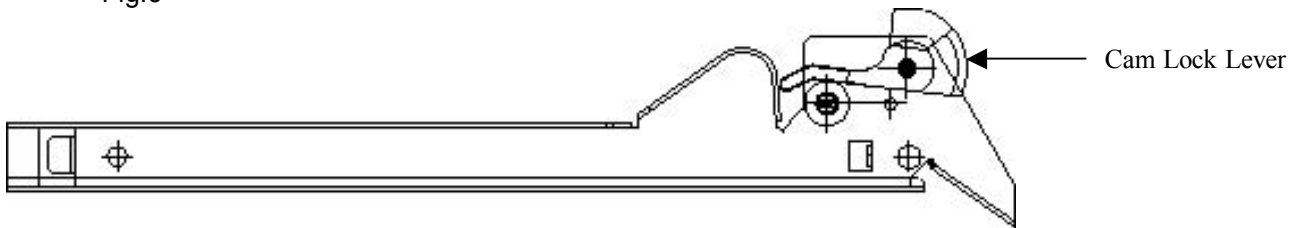
Fig.5



### **Removing Product Shelves**

Push up the plastic Cam lock lever on the right side of shelf (Fig.6). Grasp the Product shelf under both the front corners, and lift the front of the shelf slightly and pull the Tray out completely. Remove the Wiring harness connector located on the inside right-hand side of the Shelf.

Fig.6

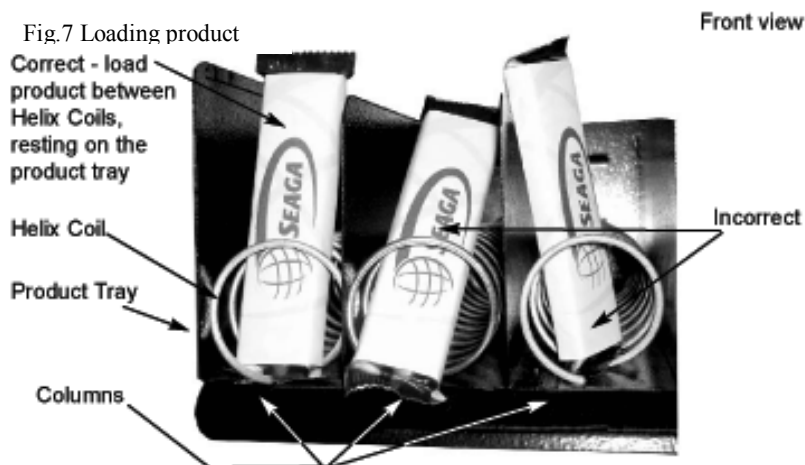


To present your product in as attractive and professional manner as possible, do not load damaged items, and make sure that the items are facing forward for easy identification by your customer.

Note: The Size of the item being vended must be larger than the Helix Coil, but smaller than the column, to vend correctly. Never force an oversized item into the helix Coil or Column, nor attempt to vend an item that is smaller than the Helix Coil as this will create problems and deter customers. The snack vendor ensures FIFO [First in first out] of product stock rotation.

#### 1. To Load Product:

- a. Pull out the desired Product Tray all the way forward. Product tray will tilt down.  
Note: Pull out only one (1) Product Tray at a time
- b. Place product in proper size helix. Note: Bottom of product must rest on the product Tray and not on the Helix Coil. Load each column from front to back.  
Note: Fill all product trays fully; do not leave any spaces behind or between items.



- c. Once Product Tray is fully loaded, lift and push it back in.  
Repeat above steps until all product Trays are fully loaded.

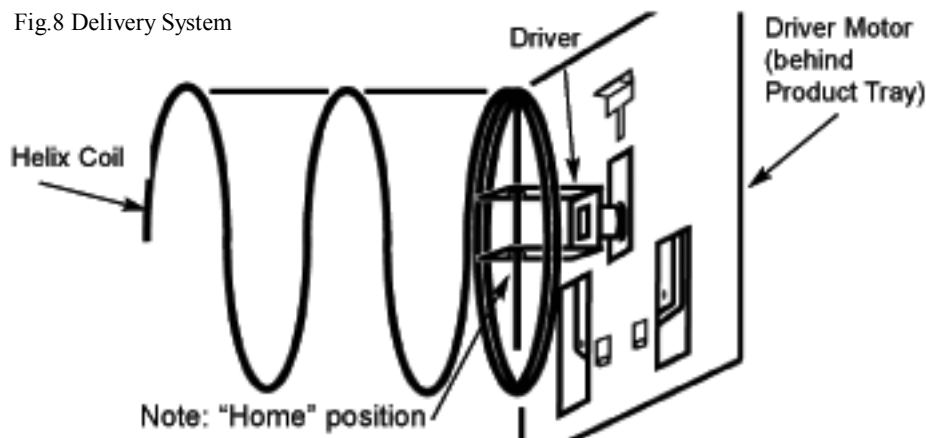
**Special Note:** We suggest that you always partially fill the vendor with product and perform at least five (5) test vends. Test vends can be performed easily by entering Service Mode and running "Individual motors testing".

### DRIVER MOTORS

Each Selection is vended by the action of the Driver Motor. The Driver Motors are clipped onto the rear of each Product Tray.

In the rare event of a jam a Driver Motor may need to be returned to its home position. The Home Position is when the shaft of the helix coil that is held by the Driver is Vertical with the end of the shaft pointing down.

Fig.8 Delivery System



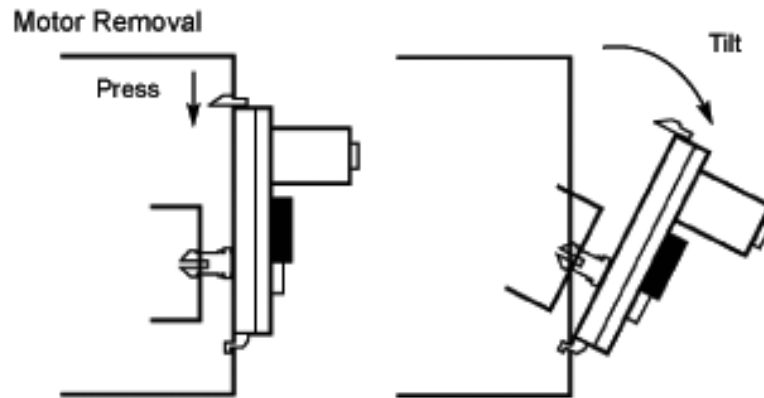
**Caution:** The Product Tray Wire Harness will need to be unplugged prior to complete removal of the product tray. The wiring harness is plugged into the inside right-hand side of the Product Tray.

- d. Remove Helix Coil from the driver by lifting the front end of the Helix Coil up with one hand while guiding the rear of the Helix Coil with the other

**Note:** This operation is more difficult with smaller Helix Coils.

- e. Depress the top tab on the Driver Motor, tilt the Driver Motor backwards, and lift the driver motor free. (Fig.9)
- f. Disconnect Wires of The driver motor
- g. Replace Driver Motor by repeating above steps in reverse order.

Fig. 9



### **Section 3**

#### **MONEY MECHANISM**

The Coin Validator receives the coin from customers. The Coin Validator will accept quarters, dimes, and nickels. The Coin Validator can be set to accept the new golden dollar. For (F) series of Vendors the Coin Validator will be preset to accept U.K/ Euro coins.

One (1) coin box is provided with your SS1000, it is stored in the bottom of the vertical shelf. Once the front door is opened, pull out the coin box to empty it.

#### **CLEANING**

Your Coin Validator needs to be cleaned only when the Coin Validator no longer reads the coin values.

1. Cleaning the Optics. You will need cotton swabs and a mild soap and water solution.

- a. Unlock and open the front door
- b. Remove the Coin Box, and Pull the Vertical shelf out.  
Swab the lenses with the solution, and reassemble.

#### **VERTICAL SHELF REMOVAL**

To Remove the Vertical Shelf

- a. Unlock and open the Front door, unplug the Vendor
- b. Slide out the Vertical Shelf completely
- c. Disconnect wiring harness
- d. Unscrew the two screws holding the vertical shelf using allen key at top right side of the shelf. (Fig.10)
- e. Remove the vertical shelf. (Fig.10)

Fig. 10



### **COMMON QUESTIONS AND ANSWERS**

Q. How High Can I set my Prices?

A. Each selection can be priced individually up to \$95.95

Q. Can Customers reach down and help themselves to product?

A. No, They Can't. The product door is a Triangle shaped flap designed to deter reach and theft. When pushed, the back of the triangle flap will come in contact with the bottom product tray and will become an anti-theft wall to act as a block.

Q. Motor cycles but no product is vended

A. Check to see if the product is jammed in the Helix Coil  
Check to see if the Product is damaged, and make sure it is of the proper size.

Q. In the event of a power outage, will I have to reprogram my Vendor?

A. No, Your selection prices are safely stored.

Q. Coin Validator is not accepting Coins

A. Lenses may be dirty  
Coins may be damaged or worn out  
Wire harness may not be connected properly  
Coin Changer may not have power