

# SM5700 SNACK FOOD VENDOR

FEB 2005 • 4211415 • C



## MODEL 3160/3160A SERVICE MANUAL

### TABLE OF CONTENTS

INTRODUCTION .....	1	CONTROLLER .....	9
SPECIFICATIONS .....	2	IVEND™ SENSORS .....	13
UNPACKING .....	3	CARE & CLEANING .....	13
INSTALLATION .....	4	PARTS ORDERING PROCEDURE .....	14
LOADING SNACKS .....	5	BEFORE CALLING FOR SERVICE .....	14
COIN MECHANISM & BILL VALIDATOR .....	8	SCHEMATIC .....	15

Record the model and serial number of your machine on the space provided below. The model and serial numbers are needed for you to obtain service and parts information for your machine. The numbers are on the identification plate located on the back side of the cabinet of the machine.

**MODEL: 3160**

**SERIAL:** \_\_\_\_\_

### INTRODUCTION

This manual contains service and installation instructions for the SM5700 Snack Food Vendor product line. All SM5700 Snack Food Vendor models are equipped with an electronic control system. All programming of vend functions, pricing and features are done at the controller. Changes can be made without any additional accessories or remote parts. Selections can be priced individually from \$.05 to \$999.95 in five cent increments (U.S. currency).

#### FEATURES INCLUDE:

- Multi Drop Bus (MDB) coin handling mechanism.
- Self-diagnostics and cash accountability.
- Multi Vend, Free Vend, Bonus Vend and Promo Vend features.
- Motorized delivery, electronically controlled.
- Visual feedback when a product has been vended or when an error condition exists.
- No change or loss of program/memory because of power failure.
- Cash accountability records Total Cash transactions and Total Vend cycles performed by the vendor. Information for individual selections, complete range (rows) or total machine can be compiled and used for inventory and ordering

**CAUTION:** This vendor utilizes DC motors. Do not attempt to turn augers by hand. Motor damage could occur.

The vending sequence is "first-in, first-out" for each selection, eliminating the need for stock rotation to maintain fresh products in the vend area.

This manual should be read thoroughly to become familiar with the functions of all components, along with the features that are available. The initial set-up of a vending machine is very important in insuring trouble-free operation of the equipment. Following the instructions at the initial installation of the machine will avoid service problems and minimize set-up time.

If you have any questions regarding the information in the manual, replacement parts or the operation of the vendor, then you should contact your local distributor or:

**VendNet™**  
165 North 10th Street  
Waukee, IA 50263  
USA

**Parts:** (888) 259-9965  
**Service:** (800) 833-4411  
**Parts Fax:** (515) 987-4447  
**All Other:** (888) 836-3638

**Website:** [www.vendnetusa.com](http://www.vendnetusa.com)  
**Email:** [vendnet@vendnetusa.com](mailto:vendnet@vendnetusa.com)

## SPECIFICATIONS

### THIS VENDING MACHINE IS FOR INDOOR USE ONLY

<b>DIMENSIONS</b>	<b>WIDTH</b> 41 In (104 cm) <b>DEPTH</b> 36 In (91 cm)	<b>HEIGHT</b> 72 In (183 cm) <b>WEIGHT</b> 615 lbs (279 kg)
<b>ELECTRICAL</b>	<b>MODEL 3160</b> 115V AC, 60 Hz, 1.2 Amps	<b>MODEL 3160A</b> 230V AC, 50 Hz, 0.6 Amps
<b>COINAGE</b>	MDB version - any MDB peripheral device	

<b>VENDOR OPERATION</b>	<b>LOCATION</b>	This vending machine is for indoor use only and is not suitable for installation in an area where a water jet (spray washer) could be used.
	<b>SOUND LEVEL</b>	Produces less than 70dBA during normal operation.
	<b>RECOMMENDED OPERATING TEMPERATURE</b>	Between 32° and 100° Fahrenheit (0° and 37.8° Celsius).

<b>RECOMMENDED MAXIMUM PRODUCT SIZE</b>	<b>LARGE SNACK AUGER</b>	5-27/32 x 1-1/2 x 9 inches (148 x 38 x 229 mm)
	<b>MEDIUM SNACK AUGER</b>	4-3/8 x 1-1/2 x 7 inches (111 x 38 x 178 mm)
	<b>SANDWICH CRACKER AUGER</b>	2-15/16 x 15/16 x 5-1/2 inches (75 x 24 x 140 mm)
	<b>GUM/MINT SPLIT AUGER</b>	1 x 13/16 x 5-1/2 inches (25 x 21 x 140 mm)

## UNPACKING

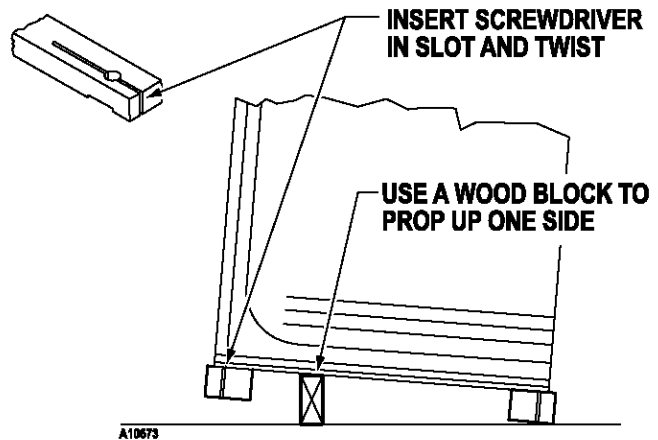
This vendor was thoroughly inspected before leaving the factory and the delivering carrier has accepted responsibility for this vendor. Note any damage or irregularities at the time of delivery and report them to the carrier. Request a written inspection report from the claims inspector to file any claim for damage. File the claim with the carrier (not the manufacturer) within 15 days after receipt of the machine.

Carefully remove outside packing material to avoid damage to the finish or exterior of the machine. Remove adhesive residue with denatured alcohol or common household vinegar.

Inspect the machine for concealed shipping damage. Report any damage hidden by the shipping material directly to the delivering carrier on a hidden damage report.

Record the model number and serial number of the vendor for your records. These numbers can be found on the serial plate on the rear of the cabinet and/or inside the vendor. Refer to these numbers on all correspondence and inquiries about this vendor.

Remove the Knock-Away Skids by placing a block spacer under the vendor. See Figure 1. Insert a screwdriver or prying tool into the groove and split the skid in two. Discard the slotted washers located on each side of the wooded skids. Turn the leveling screws in as far as possible.



**Figure 1. Removing Knock-Away-Supports**

# INSTALLATION

Consult local, state and country codes and regulations before installing the vendor. Please refer also to the Safety Manual & Installation Guidelines (P/N 4206816) supplied with your vendor.

**CAUTION:** To insure reliability and maintain manufacturer's equipment warranty, vendor must **NOT** be placed in an environment where the temperature is greater than 100°F/37.8°C and the relative humidity is 65% or greater.

**WARNING:** **DO NOT USE EXTENSION CORDS.** Extension cords can cause problems.

1. Position the vendor in its place of operation no further than 6 feet (2 m) from the power outlet or receptacle.
2. Leave at least 6 inches (15 cm) of space between the back of the vendor and any wall or obstruction for proper air circulation.
3. Retrieve the keys to the vendor from the coin return cup.
4. Open the vendor door and remove all internal packing material.
5. Check that the vendor door will open fully without interference.
6. Level the vendor. Make sure all levelers are touching the floor. The vendor must be level for proper operation and acceptance of coins through the coin mechanism. When the vendor is level, the door can be opened to any position and not move by itself. Try the door half closed, straight out and in the wide open position before deciding that the vendor is level.

## GROUNDING (EARTHING) & ELECTRICAL

Please refer to the Safety Manual & Installation Guidelines (P/N 4206816) supplied with your vendor. Before connecting the vendor, the integrity of the main electrical supply must be checked for correct polarity, voltage, (earth) ground, and (amperage) circuit protection. **It is recommended that these checks be repeated at 6 month intervals along with the routine safety electrical testing of the equipment itself.** Consult a qualified electrician to correct negative voltage, amperage, polarity, or ground (earth) checks.

For proper operation of any equipment utilizing electronically controlled components, the equipment should be placed on an isolated or dedicated noise-free circuit.

A noise suppressor has been installed in this machine to compensate for any signal noise that could interfere with the normal operation of the controller.

### POWER SWITCH

Each vendor is equipped with a power switched located on the transformer panel along with a 3 amp breaker. The switch will shut-off the light and controller. See Figure 2. The 3 amp breaker is protection for the transformer.

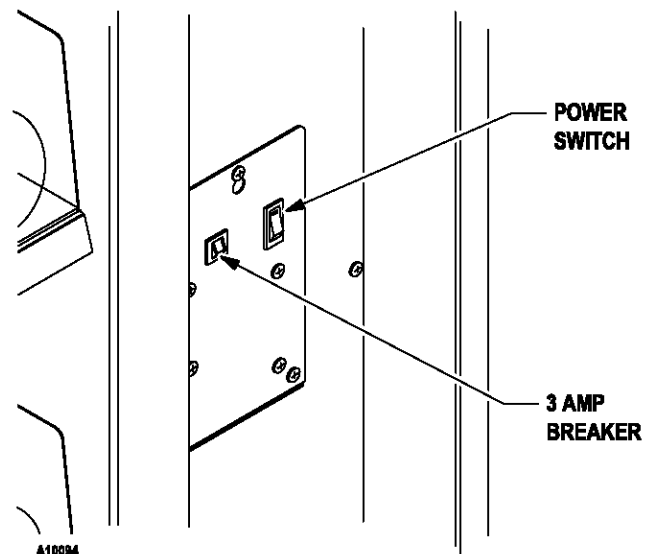


Figure 2. Power Switch

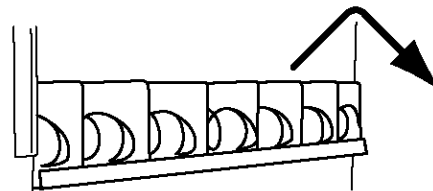
## LOADING SNACKS

1. Lift the front of the tray slightly and pull forward slowly until the tray stops.
2. Lift the front up and pull forward one inch and allow tray to tilt down all the way to loading position.
3. Load products from front to back, making sure all items fit freely between the augers. Do not attempt to force oversize items or packages into the spaces. Do not skip a space.
5. Place the product on the bottom of the compartment on the product augers, with the label facing the front of the machine for easy identification by the customer. See Figure 3.
6. When finished loading the tray, use both hands to lift the front end of the tray so that it is slightly above horizontal and push it back slightly to let the rollers clear the rear ramp detent. Let down to horizontal position.
7. Push it back into the cabinet until it ramps into the front ramp detent and stops. All trays **must** be pressed to the rear of the cabinet and properly seated in the detent position.
8. Tray is ready for vending. Repeat steps as necessary to other trays.

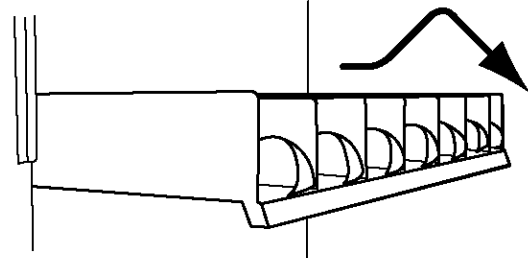
The size of the item being vended **must** be larger than the diameter of the auger being used. Undersize items could cause vend problems. If the product does not fit the auger properly, use a different pitched auger or appropriate product spacer. See the following table for augers available from your distributor or service entity.

### PRODUCT EJECTORS

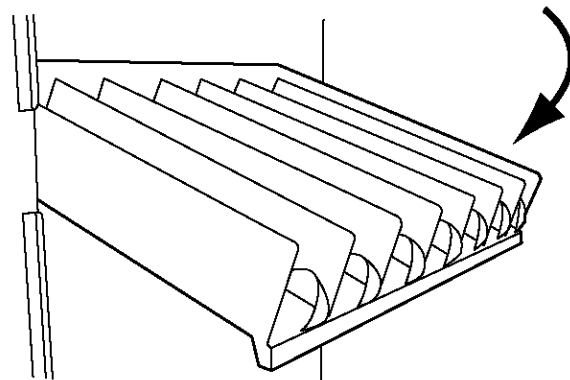
Product ejectors can be added to the end of the augers to help move the product out of the tray area (see Figure 4).



LIFT UP AND PULL FORWARD SLOWLY UNTIL THE TRAY STOPS.

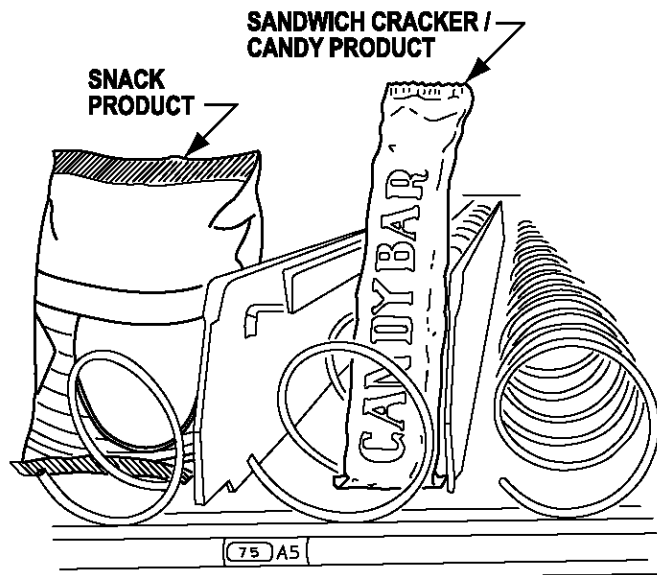


LIFT UP AND PULL FORWARD 1" INCH. HOLD ON TO TRAY AND ALLOW IT TO TILT DOWN.



TILT DOWN TO ANGLED LOADING POSITION.

A10855



A10914

Figure 3. Loading Snack Products

## AUGER TIMING

Difficult to vend items can be dispensed more dependably by retiming the augers.

Each auger can be rotated in 20° degree increments, changing the auger position for a different drop off point at the front of the tray.

Most items can be vended successfully when the auger end is positioned at 6 o'clock.

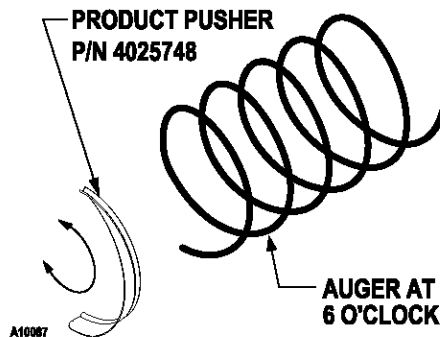
For dual drive augers, the ideal timing is for the auger ends to meet at the center of the tray: left auger at 3 o'clock, right auger at 9 o'clock.

If you have trouble vending odd sized or odd shaped items, auger retiming can be accomplished on a trial and error basis as follows:

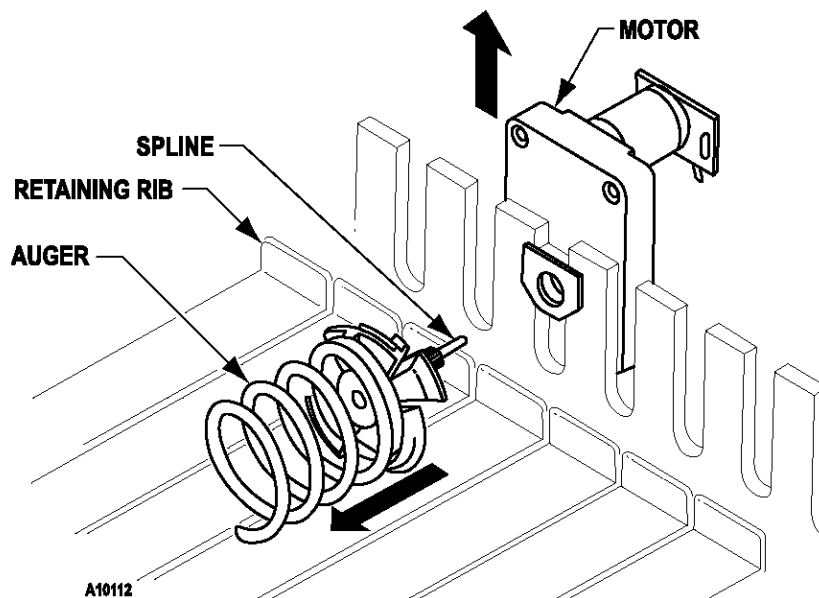
1. Disconnect power before servicing.
2. Pull the tray containing the auger to be retimed forward to its stop.
3. Remove products from the tray.
4. Remove the motor cover.
5. Raise the motor slightly and pull forward on the auger until it separates from the motor. See Figure 5.
6. Rotate the auger to the desired position and reinsert the auger coupling into the motor.
7. Position the auger coupling so that it is seated over the vertical rail or retaining rib on the tray.
8. Replace the motor cover and securely tighten.

**Table 1. Available Augers**

TYPE	COLUMN WIDTH	PRODUCT SPACE	COUNT	PART NUMBER
CANDY (CCW)	2-3/4"	0.5"	30	4200272.103309
		0.7"	24	4200272.102309
		0.9"	18	4200272.101309
		1.2"	15	4200272.100309
		1.5"	12	4200272.104309
		2.0"	9	4200272.105309
		3.1"	6	4200272.106309
SNACK (CCW)	5-1/2"	1.2"	15	4200272.109309
		1.5"	12	4200272.108309
		1.8"	10	4200272.107309
		2.3"	8	4200272.111309
		2.7"	7	4200272.110309
DUAL (CW)	5-1/2"	1.2"	15	4205532.100309
		1.5"	12	4205532.104309
		1.8"	10	4205532.131309
		2.3"	8	4205532.142309



**Figure 4. Product Ejectors**



**Figure 5. Auger Timing**

## **TRAY CONFIGURATION**

By changing the tray configuration, different product mixes can be accommodated.

### **CANDY TO SNACK**

1. Order the conversion kit from your local distributor or service entity.
2. Unplug and remove the tray assembly from the vendor. Place the tray harness in the tray before removal.
3. Remove existing tray divider and store for possible future use.
4. Remove existing auger assemblies and store for possible future use.
5. Remove the existing "even" number motor. This motor will not be needed.
6. Dress terminals removed from the motor around the tray harness and tape in place.
7. Move the "odd" numbered motor to the center slot of the compartment.
8. Install the auger retainer (furnished as part of the conversion kit).
9. Install auger assembly (furnished as part of the conversion kit), making sure the motor coupling properly engages the motor and is securely snapped over the vertical rail or retaining rib on the tray. See Figure 5.
10. Replace the tray assembly into the vendor making sure that the tray is properly located and latched and connect the tray harness.
11. Set the selection to the desired vend price and adjust the price scroll to agree.
12. Test vend the converted selections for proper operation and price settings.

<p><b>NOTE</b> In large item selections, the selection numbers will be the "odd" numbers. For example: selections C3 and C4 are converted to a single selection C3.</p>
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### **SNACK TO CANDY**

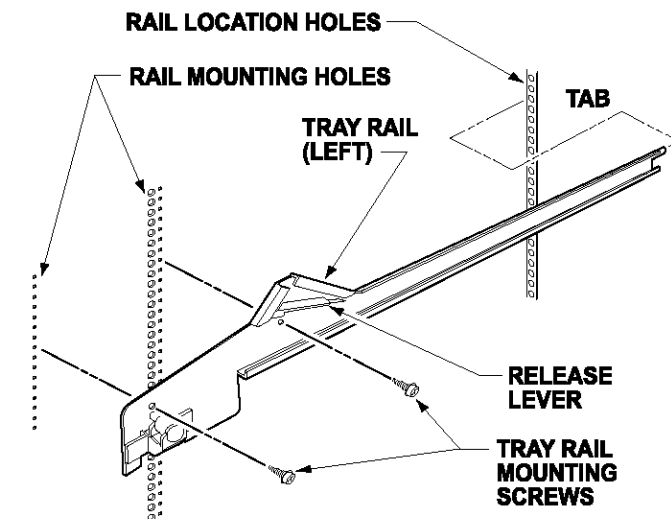
1. Order the conversion kit from your local distributor or service entity.
2. Unplug and remove the tray assembly from the vendor. Place the tray harness in the tray before removal.
3. Remove the existing auger assembly and store for possible future use.
4. Remove the auger retainer and store for possible future use.
5. Move motor from the center slot to the left slot in the compartment.
6. Add the new motor (furnished as part of the conversion kit) in the right hand slot of the compartment.
7. Properly wire the motor and switch. Refer to schematic section for wire colors and locations.
8. Add the divider furnished as part of the conversion kit.
9. Install new auger assemblies (furnished in conversion kit), making sure the motor couplings properly engage with the motor and are securely snapped over the vertical rail (Figure ?) or retaining rib on the tray.
10. Replace the tray assembly into the vendor making sure that the tray is properly located and latched and connect the tray harness.
11. Set the selections to the desired vend price and adjust the price scrolls.
12. Test vend the converted selection for proper operation and price settings.

## TRAY SPACING

By altering tray spacing, taller items can be vended. The trays can be raised or lowered in 1 inch (2.5 cm) increments to provide additional headroom for vending taller items. **When increasing the headroom between two trays, a corresponding decrease in headroom of an adjoining tray will result.**

### CHANGE VERTICAL TRAY SPACING

1. Select the tray that needs adjusting. Remove any product from the tray.
2. Lift the front of the tray to expose the tray release levers located on the left and right tray rails. Swing the release levers all the way up to unlatch.
3. Lift up on the front of the tray and pull slightly forward approximately 1/2" inch (1.3 cm) to clear the tray stop.
4. Pull the tray out about halfway. Reach underneath the tray and squeeze the top and bottom of the tray harness plug (release tabs) and pull to disconnect it from the receptacle.
5. Pull the tray out until it tilts down. Lift the rear of the tray and remove it from the vendor.
6. Relocate both the left and right tray rails from the left and right side walls.
  - a. Remove the tray rail mounting screws.
  - b. Pull each rail forward to disengage its rear tab from the hole in the rear wall. See Figure 6.
  - c. Insert rail to its new location by inserting the rear tab into the hole in the rear wall.
  - d. **Rails must be level front to back and right side to left side.**
- d. Install the tray rail mounting screws.
7. Replace the tray by placing its rear rollers on the left and right rails. Connect the tray harness plug to its receptacle on the back of the cabinet by reaching underneath the tray.
8. Test vend the tray in its new position to assure that the tray plug is properly seated.



**Figure 6. Left Wall Tray Rail**

## COIN MECHANISM & BILL VALIDATOR

**CAUTION: Do not plug in or unplug the coin changer with the power on!**

The controller will monitor the condition of the coin changer at all times. Any activity (coins inserted) will be recorded and stored in the controller.

### REMOVING ACCEPTED BILLS

Accepting bills may be removed by opening the "bill box" lid or by removing the bill box from the validator. (See manual from validator manufacturer). **If the bill box is removed, make sure that it is fully latched in place when it is returned to the validator.**

### CLEARING JAMS & CLEANING

Trapped bills, debris or dirt can result in poor bill acceptance or bill rejection. Remove the bill box and lower housing to clear trapped bills or debris. Clean the bill path plastic parts or belts with a cloth moistened with a mild soap and water solution. Clean the magnetic head and optic sensor using a swab and isopropyl alcohol. See manual from validator manufacturer.

**CAUTION: Do not use any petroleum based cleaning solvents, scouring pads or stiff brushes for cleaning.**



# CONTROLLER

There are two modes of operation: **Sales Mode** and **Service Mode**.

## SALES MODE

This is the default mode when the machine is turned on. The vendor accepts deposits, pays out change, and dispenses products to customers. The 10 character scrolling display is used to communicate with the customer.

## DISPLAY CREDIT

- When credit is deposited, the amount (up to five digits) is displayed.
- If the payout tubes in the coin mechanism are below the low-level sensors, the message **"PLEASE INSERT EXACT MONEY"** will scroll on the display.

## MAKE SELECTION

- When a selection is made and the accumulated credit is less than the selection price, then the price is displayed for one (1) second followed by the message **"PLEASE INSERT MORE MONEY"**.
- When a selection is made and the accumulated credit is greater than or equal to the price of the selection, then a vend attempt will take place.

## VEND CYCLE

Selections A thru G have been assigned at the factory to be monitored for iVend™ optical sensing. They will have an associated vend operation that differs from the normal vend operation.

For 5 milliseconds (5 msec) 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 the message **"MAKE ALTERNATE SELECTION"** is displayed. The customer can press the 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 nine second (9 sec) 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, then the motor will be stopped immediately. The vend is considered successful. The **2ND VEND** counter is increased by one.
    - 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.

**All motors are reinstated to operative mode.** The exception is when the **OPTICS** mode is enabled and **AUTOREINST** is inactive for the particular selection and no product is detected by the optical sensors. The controller will prevent further attempts to vend the particular selection until the selection's sold out error status is cleared by running a test vend of that selection. See the **TEST VEND** section of this manual.

## CREDIT & COUNTERS

After a successful vend:

- The amount of remaining credit will be displayed until all coinage is paid back.
- The **HIST COUNT** (total vends count) will be incremented by one (1) and the **HIST CASH** (total cash count) will be incremented by the price of the vended selection. The counter rollovers occur at 79,999,920 and \$99,999.95 respectively.
- If a product is detected during the second vend cycle, then the **2ND VEND** record counter is increased by one.
- The **RES COUNT** (resettable vend count) will be incremented by one (1). The **RES SALE** (resettable total cash value) counter will be incremented by the price of the selected vended. The counter rollovers occur at 79,999,920 and \$99,999.95 respectively if never reset.

The counters are viewable in the accounting menu as well as through a **DEX/UCS** download. Refer to the 120 Select Programming Manual (P/N 4212619) for additional information on **DEX/UCS** fields.

**NOTE: Test vends are not included in the counter totals.**

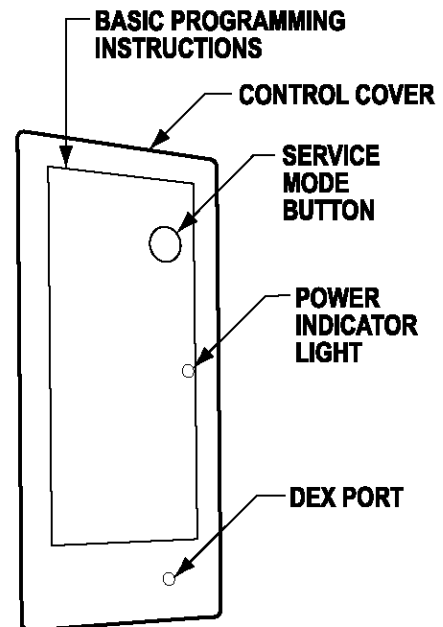
## SERVICE MODE

The **SERVICE MODE** is used by the operator to change program settings and service the machine. The display is used to communicate with the operator.

**NOTE: 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 minutes.**

To enter the **SERVICE MODE**, push the service mode button once. The service mode button is located on the control cover. See Figure 7. If credit exists when entering the **SERVICE MODE**, it will be restored when the machine is returned to the **SALES MODE**.



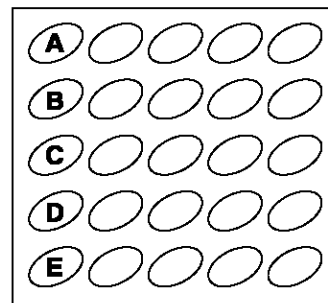
**Figure 7. Controller Cover**

Read the follow the basic programming instructions listed below to set prices, view and reset accounting records, display working motors, test selection motors, and dispense coins from the coin mechanism.

To access the controller's other menu features, please refer to the 120 Select Programming Manual (P/N 4212619) for additional programming instructions.

### KEYPAD FUNCTIONS WHILE IN SERVICE MODE

- A** = ↑ Scrolls up through a menu or sub-menu.
- B** = → Enters a menu, sub-menu or routine within a menu.
- C** = ↓ Scrolls down through a menu or sub-menu.
- D** = Saves a change within sub-menus or routines.
- E** = Exits down a level from a menu, sub-menu or routine without making a change.



**Figure 8. Keypad In Service Mode**

### SET PRICE

STEP	DISPLAY
1 Press Service Mode 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>C</b> .	<i>PRICE</i>
5 Press <b>B</b> .	<i>ITEM(S)</i>
6 Press <b>B</b> .	<i>SELECT --</i>
7 Press <b>A</b> 1 for selection A1.	<i>SELECT A1</i>
8 Press <b>D</b> .	<i>A1\$000.50</i>
9 Input the desired price for selection A1.	
10 Press <b>D</b> .	<i>SELECT --</i>
11 Repeat steps 7 through 10 for other selections.	
12 Press Service Mode Button <b>■</b> .	(Sales Mode)

### DISPLAY WORKING MOTORS

STEP	DISPLAY
1 Press Service Mode Button <b>■</b> .	<i>DIAGNOSE</i>
2 Press <b>C</b> .	<i>MOTOR</i>
3 Press <b>B</b> .	<i>MOTORS</i>
4 Press <b>B</b> .	<i>MOTORS 000</i>
5 Press Service Mode Button <b>■</b> .	(Sales Mode)

### ACCOUNTING

STEP	DISPLAY
1 Press Service Mode Button <b>■</b> .	<i>DIAGNOSE</i>
2 Press <b>C</b> .	<i>MOTOR</i>
3 Press <b>C</b> .	<i>ACCOUNT</i>
4 Press <b>B</b> .	<i>HIST SALES</i>
5 Press <b>C</b> .	<i>MOTOR COUNT</i>
6 Press <b>C</b> .	<i>RES SALES</i>
7 Press <b>B</b> . Total Sales since last reset.	<i>\$000000.00</i>
8 Press <b>E</b> .	<i>RES SALES</i>
9 Press <b>C</b> .	<i>RES COUNT</i>
10 Press <b>B</b> . Total Vends since last reset.	<i>00000000</i>
11 Press <b>E</b> .	<i>RES COUNT</i>
12 Press <b>C</b> .	<i>RDR SALES</i>
13 Press <b>C</b> .	<i>2ND VEND</i>
14 Press <b>C</b> .	<i>SET RANGE</i>
15 Press <b>C</b> .	<i>RANGE CASH</i>
16 Press <b>C</b> .	<i>RANGEVENDS</i>
17 Press <b>C</b> .	<i>CLEAR</i>
18 To clear all resettable values, press <b>B</b> .	<i>CLEARED</i>
19 Press Service Mode Button <b>■</b> .	(Sales Mode)

### TEST VEND

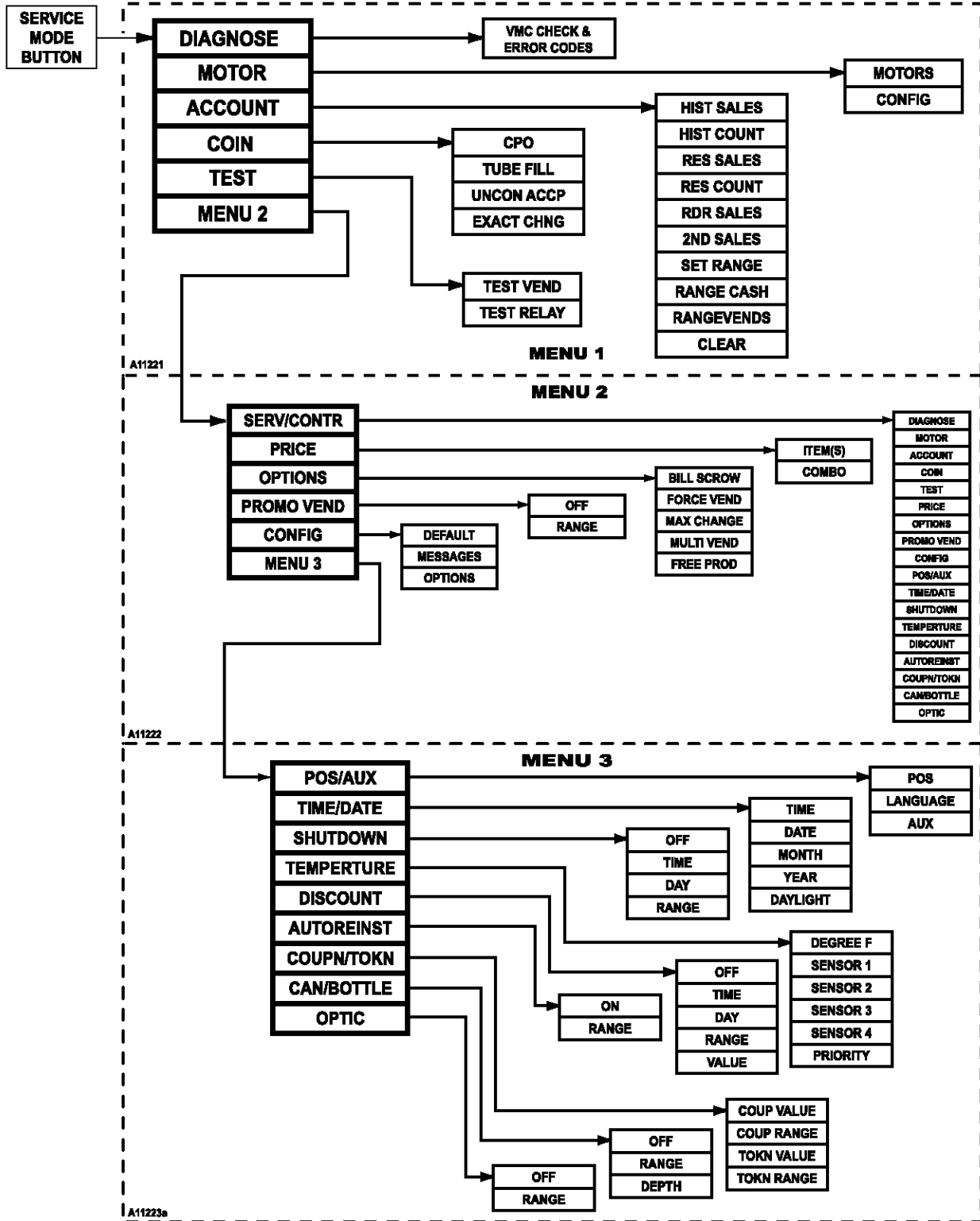
STEP	DISPLAY
1 Press Service Mode Button <b>■</b> .	<i>DIAGNOSE</i>
2 Press <b>A</b> .	<i>MENU 2</i>
3 Press <b>A</b> .	<i>TEST</i>
4 Press <b>B</b> .	<i>TEST VEND</i>
5 Press <b>B</b> .	<i>SELECT --</i>
6 Press <b>A</b> 1 for selection A1.	<i>SELECT A1</i>
7 Press <b>D</b> . The selection and price will display with the test vend. A triple beep indicates that the selection did not properly vend.	<i>A1\$000.50</i> <i>SELECT --</i>
8 Repeat steps 6 through 7 for other selections.	
9 Press Service Mode Button <b>■</b> .	(Sales Mode)

### COIN PAY-OUT

STEP	DISPLAY
1 Press Service Mode Button <b>■</b> .	<i>DIAGNOSE</i>
2 Press <b>C</b> .	<i>MOTOR</i>
3 Press <b>C</b> .	<i>ACCOUNT</i>
4 Press <b>C</b> .	<i>COIN</i>
5 Press <b>B</b> .	<i>CPO</i>
6 Press <b>B</b> .	<i>DISPENSE</i>
7 Press 1.	<i>DISPENSE</i>
8 Press 2.	<i>DISPENSE</i>
9 Press 3.	<i>DISPENSE</i>
10 Press 4.	<i>DISPENSE</i>
11 Press Service Mode Button <b>■</b> .	(Sales Mode)

# FOR ADVANCED PROGRAMMING ONLY

The following diagram illustrate the three main menu and sub-menu levels. Use the **A** and **C** keys to scroll through each menu or sub-menu. Use the **B** key to move from menu to sub-menu levels. Refer to 120 Select Programming Manual (P/N 4212619) that shipped with your vendor for additional programming features.



**Figure 9. Program Menu Map**

## DEX/UCS

DEX/UCS or DEX stands for Data Exchange/Uniform Communications Standard. Within the vending industry, it defines the transfer of information/data between a Hand Held Computer (HHC) or data collector and the electronic vending machine. Please refer to DEX/UCS section of the 120 Select Controller Programming Manual (P/N 4212619) for the list of DEX/UCS field codes, descriptions and explanations.

### TO INITIATE DATA EXCHANGE:

The vending machine controller must be in **SALES MODE**. Use a connecting cable and plug in an HHC or data collector to the DEX port. The DEX port is located just below the instructional decal on the control board cover. See Figure 10. The exchange of information will begin automatically. All resettable counters are automatically cleared (set to zero).

## IVEND™ SENSORS

### IVEND™ INFRARED SENSORS

The iVend™ infrared (detector and emitter) sensors are located on the top left and right sides of the delivery box.

The red indicator light (located on the left side as viewed from behind the door) should be lit indicating that there is power to the iVend™ system and that the sensors are aligned. See Figure 10.

Momentarily blocking any of the infrared beams turns off the indicator light indicating that the beam is working correctly.

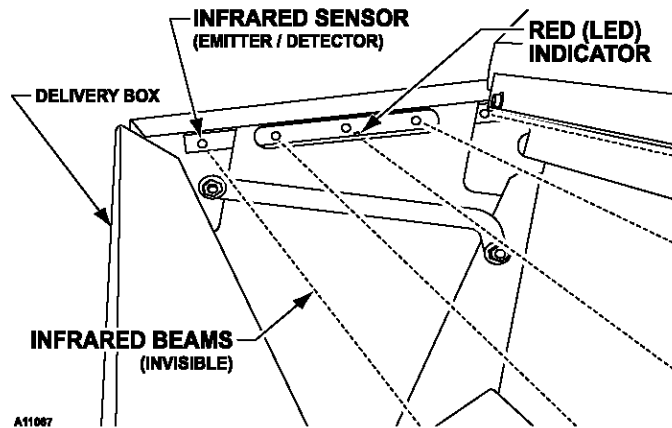


Figure 10. Delivery Box iVend™ Sensors

## CARE & CLEANING

**CAUTION:** Always disconnect power source BEFORE cleaning or servicing.

### CABINET EXTERIOR

- Wash with warm water and a mild detergent, rinse thoroughly and dry with a non-abrasive lint free cloth.
- Wash occasionally with a quality grade liquid or paste auto wax.
- Minor scratches can be smooth with rubbing compound, but deep scratches should be touched up with paint to prevent rust.
- Plastic parts should be cleaned with non-abrasive plastic cleaner. Jeweler's "rouge" can sometimes be used to polish out scratches in plastic.

**WARNING:** Do not get the cleaning solution on electrical components.

### CABINET INTERIOR

- Remove power from machine. Wash with warm water and a mild detergent. Rinse thoroughly and dry with a non-abrasive lint free cloth.
- Offensive odors may be eliminated by adding baking soda or ammonia to the cleaning solution.
- Paint brushes may be used to clean hard to reach areas such as cabinet and delivery box corners. A damp sponge will pick up loose particles from the delivery box.
- The vend motors and augers in the Snack Food Vendor require no lubrication. Spray cleaners, lubricants or silicone may damage these moving parts.
- The nylon tray rollers need no lubrication but do require occasional cleaning for smooth operation.
- The vend door and anti-cheat moving parts also require cleaning without lubrication.
- The main door hinges should require no lubrication provided the cabinet is installed level. Occasional lubrication of the main door lock screw and lock nut with a quality lubricant such as lithium grease will allow the locking mechanism to function more smoothly.
- The electronic coin changer is designed to operate without lubrication and minimal cleaning. Occasionally open the door acceptor portion and wipe the exposed surfaces with a damp cloth.

## PARTS ORDERING PROCEDURE

### PLEASE HAVE THE FOLLOWING INFORMATION:

- The model and serial numbers of the machine for which the parts are needed.
  - The correct part number and description from the parts manual. If you do not have the parts manual for your machine, go online to [www.vendnetusa.com](http://www.vendnetusa.com) or contact VendNet™ and we will be happy to assist you.
  - Shipping address.
  - Address where the invoice should be sent.
  - The number of parts required.
  - Any special shipping instructions.
  - Specify the desired carrier: air or air special, truck, parcel post or rail.
  - If a purchase order number is used, be sure that it is visible and legible.
- NOTE: When right or left is used with the name of a part, it means the person is facing the machine with the door closed.**

### PARTS ORDER OPTIONS:

- Website: [www.vendnetusa.com](http://www.vendnetusa.com). Browse the parts manuals. Place a secured order online using your credit card or VendNet™ account.
- Email: [vendnet@vendnetusa.com](mailto:vendnet@vendnetusa.com). Please note that this is not as secure as placing an order online.
- Phone:  
USA & Canada ..... (888) 259-9965  
International ..... (515) 274-3641
- Fax: (515) 274-5775
- Mail: VendNet™  
165 North 10th Street  
Waukee, IA 50263  
USA

## BEFORE CALLING FOR SERVICE

### PLEASE CHECK THE FOLLOWING:

- Does your machine have at least 6 inches of clear space behind it?
  - If the power is turned on at the fuse box, is the machine the only thing that doesn't work?
  - Is the machine plugged directly into the outlet?
  - Are evaporator fans running? To check if fans are running, take a small piece of paper in front of the evaporator coil and see if the evaporator fans will blow the paper away.
  - Is the condenser fan running? Fold a sheet of 8-1/2" x 11" paper in half. Place the paper in front of the condenser coils and see if it draws the paper to it.
  - Is the shelf in front of the evaporator coil clear of tools, products or other air restricting items?
  - Is the cold control set as specified?
- WARNING: DO NOT use extension cords. Extension cords could cause problems.**
- Is the evaporator coil free of dust and dirt?
  - Is the condenser coil free of dust and dirt?
  - Is the circuit breaker at the fuse box reset?

**NOTE: Setting the temperature colder does not accelerate cooling of product.**

### TO CALL FOR SERVICE:

- Have model number and serial number.
- Call phone number listed below.  
USA & Canada ..... (800) 833-4411  
International ..... (515) 274-3641

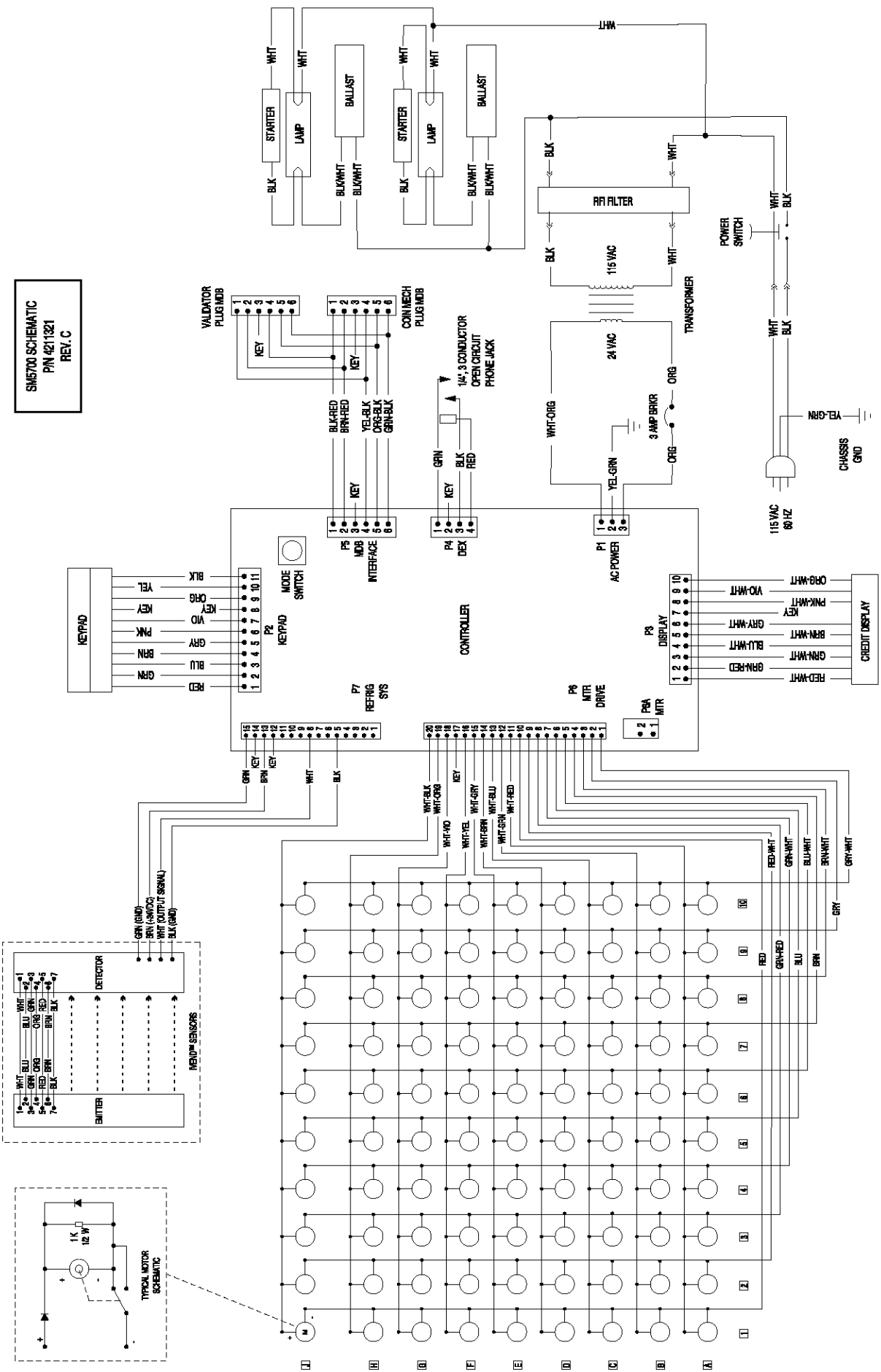
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# SCHEMATIC

SM5700 SCHEMATIC  
 PN 4211321  
 REV. C



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