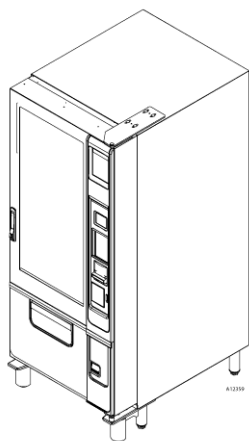




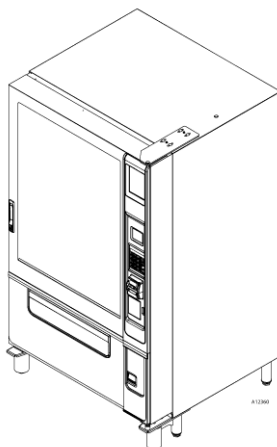
# ST/VT/ELEVATOR/OUTDOOR

**SINGLE & VARIABLE TEMP  
(SINGLE & DUAL ZONE)  
GLASS FRONT VENDORS**

3653/3654



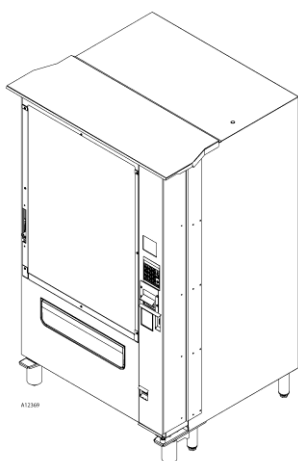
3655/3656



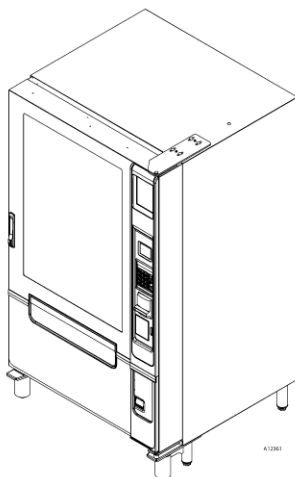
## SERVICE MANUAL

### MODELS:

3653/3653A – ST 3 (3 WIDE)  
3654/3654A – VT 3 (3 WIDE)  
3655/3655A – ST 5 (5 WIDE)  
3656/3656A – VT 5 (5 WIDE)  
3657/3657A – OUTDOOR ST 5  
3658/3658A – OUTDOOR VT 5  
3629/3629A – ELEVATOR ST 5  
3630/3630A – ELEVATOR VT 5



3657/3656



3629/3630



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# INTRODUCTION

## ST/VT

This manual contains instructions, service and installation guidelines for the Single Temp (ST) and Variable Temp (VT) models of Glass front Vendors. Please read this manual thoroughly and follow the instructions. The initial set-up of a vendor is a very important step of ensuring that the equipment operates in a trouble-free manner.

The **ST Vendor** is a single zone temperature vendor. All trays are held to a consistent set temperature. The vendor will maintain as low as 36°F (2°C) throughout ... maintaining health safety for perishable products. The temperature and health safety settings can be adjusted within the control system (see programming manual).

The **VT Vendor** is a two zone/two temperature vendor. The zones are separated by a moveable air deflector and insulating barrier. The vendor has an air duct on the back inner wall of the cabinet. For example, in a 5-tray configured vendor the air deflector and insulating barrier can be moved to provide a fully refrigerated zone for the bottom two trays while providing a relaxed temperature upper zone for the top three trays. Positioning of the air deflector and insulating barrier is adjustable in a range of 2 trays in the lower zone and 4 trays the upper depending upon product heights and the tray spacing. The vendor will maintain 36°F (2°C) in the lower zone while the upper zone will be as high as 56°F (14°C) depending upon ambient conditions.

Both vendors will operate within an ambient temperature range of 40°F-90°F (4°C-32°C).

See the sections for the Outdoor & Elevator models for more details.

In the case of the ST the temperature control sensor is located at the right side of the top tray. In the case of the VT the sensor is located at the right side of the upper fully refrigerated zone. The modular insulated refrigeration system draws air across the refrigeration system's evaporator coils and blows the air up the rear duct and circulates down & through the trays. There are openings in the bottom trays to allow air to freely circulate around the products.

## GENERAL

All programming (pricing, vend functions and features) are done within the control system, changes can be made without any additional accessories or tools. Selections can be priced individually from \$00.00 to \$655.35 in five cent increments (US currency). Full financial accountability records can be obtained via DEX reports, summaries can be viewed. Electrical malfunctions are logged and can be displayed in the **Service Mode**. Non-functional motors or selections are indicated. Each selection has an individual motor. Functional selections will continue to operate if other motors become nonfunctional.

The vending sequence is "first-in, first-out" for each selection, ensuring good stock rotation to maintain fresh products.

Access to the service area of this vendor should be permitted only to individuals having knowledge and practical experience in vendor setup and loading, especially in areas of electrical safety and good hygiene practices.

## ELEVATOR MODELS 5-WIDE 3629 & 3630

The elevator model incorporates a delivery tray mechanism that moves up to the shelf level so the item being delivered exits the shelf and gently slides into the tray so as not to disturb or damage delicate items such as salads or expensive electronic goods. The elevator tray then descends to the delivery point where the customer can remove it from the vendor.

## OUTDOOR MODELS 5-WIDE 3657 & 3658

These models have been designed to be placed in outdoor locations and can safely tolerate wet conditions as specified in the standard UL541

## AMERICANS WITH DISABILITIES ACT (ADA)

Vending operators serving "public entities," meaning government locations and locations accessible to the public, must meet new reach requirements of the law beginning March 15, 2012, under the Americans with Disabilities Act (ADA).

The regulations establish side reach regulations requiring that all operable parts of the vending machine be no higher than 48 inches and no lower than 15 inches. All ST/VT models fully comply with these regulations.

## SAFETY WARNINGS

1. ELEVATOR 3629 & 3630 MODELS: The Earth Permanent Magnets used for the tray detection are extremely strong; Ensure that these magnets are not brought into close proximity to credit, debit, access cards etc. as this can cause permanent damage
2. In cases where there is no fuse in the plug of the power cord, the primary over-current electrical protection is provided by the buildings power distribution board
3. This vendor is not intended for use by young children or the infirm unless aided or supervised by an adult or an abled-bodied person
4. This vendor must be level for proper operation, cabinet to door alignment, condensate drainage and for acceptance of coins through the coin mechanism, see Installation section for further details
5. This vendor is designed to dispense pre-packaged products for hygiene & safety purposes and no surfaces should ever come into direct contact with the food to be consumed
6. For the purposes of food handling, replenishing and hygiene maintenance operating personnel should have received the required training and instruction as mandated by the local responsible authority
7. Models 3653, 3654, 3655, 3656, 3629 & 3630 are designed for indoor use and must not be installed in a location where a water hose/jet could be used

# SPECIFICATIONS

## DIMENSIONS & WEIGHTS

TYPE	ST/VT 3	ST/VT 5	ST/VT 5 OUTDOOR	ST/VT 5 ELEVATOR
MODEL	3653/3554 + A	3655/3656 + A	3657/3658 + A	3629/3630 + A
WIDTH	29.5 in. (75 cm)	41 in. (104 cm)	45 in. (114.3 cm)	41.2 in. (104.6 cm)
DEPTH	38 in. (97 cm)		40.7 in. (103.4 cm)	38 in. (96.5 cm)
HEIGHT	72 in. (183 cm)		72.75 in. (184.5 cm)	72 in. (182.9 cm)
WEIGHT <sup>1</sup>	691 lbs (313 kg)	811 lbs (368 kg)	830 lbs (377 kg)	831 lbs (377 kg)

Note: <sup>1</sup> Weights will vary depending on tray configuration and optional equipment installed.

**ELECTRICAL** - Note: Your compressor model may vary depending on manufacture date.

MODEL		Embraco 1/3 HP	
VOLTAGE		115 VAC	
CYCLE		60 Hz	
NOMINAL AMPS	HEATED GLASS	8.5	
	NO HEATED GLASS	8.5	
TRANSFORMER		110/24 VAC	

## REFRIGERATION

HORSEPOWER	3/8 HP, 3629/3630 = Super 1/3 HP	
TYPE	Hermetically Sealed	
CONTROLS	Electronic	
REFRIGERANT	R290a	R290a
	3629/3630 = R-134a	3629/3630 = R-513 (CA/230V Export)

## COIN CHANGER, BILL VALIDATOR, CARD READER

TYPE	MDB Coin Changer level II or III, Bill Validator Level I, Card Reader Level I or II
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## VENDOR OPERATION

LOCATION	All models except the qualified Outdoor Evoke Combo 5 ST/VT are suitable for indoor use only. The indoor appliances are not suitable for installation in an area where a water jet could be used
SOUND LEVEL	Produces less than 70 dBA during normal operation.
RECOMMENDED ENVIRONMENTAL OPERATING CONDITIONS	Between 40°F and 100°F (4°C and 38°C)

# UNPACKING

These vendors were thoroughly inspected before leaving the factory and the delivering carrier has accepted that the delivery of these vendors as their responsibility. Note any damage or irregularities at the time of delivery and immediately 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 3 days after receipt of the vendor.

Carefully remove the outside packing material so as not to damage the finish or exterior of the vendor. Inspect the vendor 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 plates on the rear of the cabinet and/or inside the vendor. Refer to these numbers on all correspondence and inquiries pertaining to this vendor.

Remove the shipping skids by supporting the vendor from below, inserting a large screwdriver or prying tool into the center cut at the front and back of each board and splitting apart. After removing the pieces of the boards, turn the leveling screws in as far as possible – Fig. 1

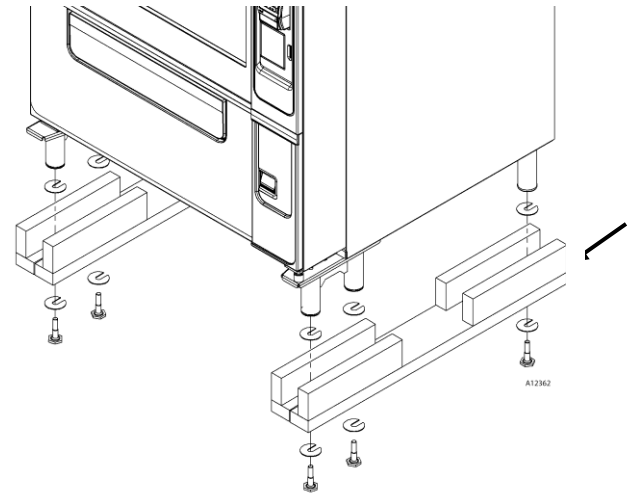


Fig. 1

# INSTALLATION

- Consult local, state and federal codes and regulations before installing the vendor.
- Retrieve the keys to the vendor from the coin return cup.
- Open outer door and remove all internal packing material.

**Position and level vendor prior to connecting vendor to power.**

**All set up must be completed prior to prevent harm to the installer or vendor.**

## REMOVING THE DOOR

The vendor will fit through most doorways (34"+) by opening the vendor outer door and carefully walking the vendor door or cabinet thorough first and then moving the remaining portion of the vendor through. The vendor outer door may be temporarily removed to permit easier movement through a narrower door openings or hallways. To remove the outer door:

### 1. Disconnect door harnesses:

- Loosen the nut and bolt attaching the harness retaining spring to the door harness and unhook the spring from the harness.
- Unplug the door harness and glass heater harness (if applicable) from the power panel – Fig. 2
- Remove harness clamps and cable ties retaining door harness to door. Remove control system cover where applicable (Fig.3) and disconnect door harness plugs from control board.

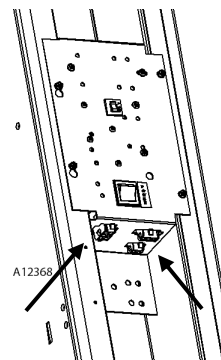


Fig 2

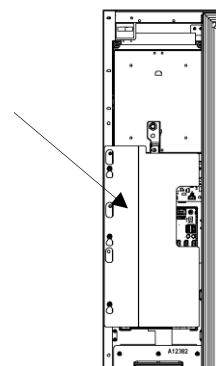
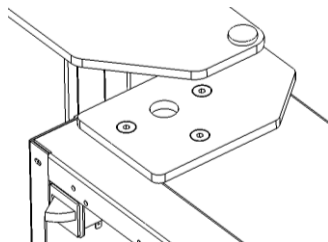


Fig. 3

### 2. Removing the door:

**Warning** - this procedure requires a minimum of two people with the aid of a pallet truck.

Open the door at least 90 degrees. While someone holds the door in place to prevent bending or damage to the bottom pivot, remove the three (3) 5/32" hex socket/Allen screws fastening the top hinge assembly to the top of the door (see Fig. 4). Once these screws are removed the door needs to be lifted vertically off the bottom hinge. The bottom hinge pin rests on nylon washers to provide proper door height and smooth operation - retain these washers for reassembly.

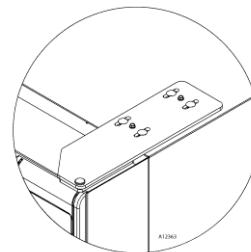


**Fig.4**

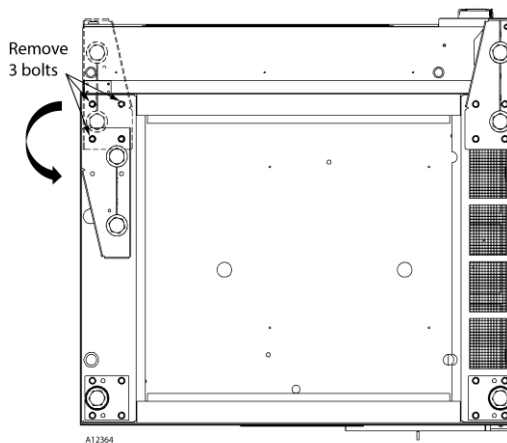
## REMOVING THE HINGES AND FRONT LEG MOUNTS

The cabinet depth can be reduced to approximately 31" with the additional removal of the door hinges and front leg mounts. These may be temporarily removed to permit easier movement through narrow door openings (32") or narrow/angled hallways.

1. Mark the location of the top hinge with a pencil to relocating accurately upon reassembly
2. Remove the Top Hinge: Remove the two (2) small locating screws and four (4) large bolts and nuts holding the Top Hinge Plate to the cabinet (See Figure 5). Save the mounting hardware for reassembly.
3. Release and rotate one or both Front Leg Plates, from the underside of the cabinet remove the three (3) bolts indicated below in Fig 6.
4. Move machine into its final location
5. Reassemble in reverse order
6. Level vendor and check door handle closure



**Fig. 5**



**Fig. 6**

## CLAMSHELLING MACHINE THROUGH DOORWAYS

In the case of doorways that have an opening width of  $\geq 33 \frac{1}{4}$ " it is possible to clamshell the door/cabinet through. As above it will be necessary to swing the leg weld assembly to the side.

NOTE: see the Vendnet guide video

## POWER CORD INSTALLATION

Remove the power cord from inside the vendor. Remove the connection box cover retaining screw and route the cord through side of the cover. Keep power cord secured on the center back of the cabinet until the vendor is placed into its final location to prevent damage to the cord.

## INSTALL BACK SCREEN PROTECTOR

Fasten the Back-Screen Deflector in place with the screws provided. For indoor applications the Deflector is mounted to **direct the exhaust air upwards** - Fig. 7

In the case of the Outdoor model the Deflector is mounted to **direct the air downwards**, to prevent rainwater entering the compressor compartment

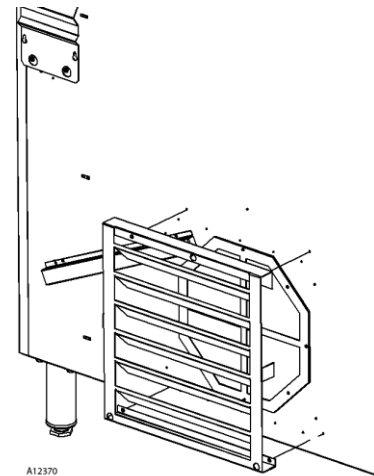


Fig. 7

## LEVEL THE VENDOR

Position the vendor in its place of operation no farther than 6 feet from the power outlet or receptacle. Check that the door will open fully without interference.

Leave at least 4" inches of space between the back of the vendor and the wall to ensure good air circulation.

All leg levelers must touch the floor and the vendor **must** be level for safety and proper operation, to ensure good cabinet to door alignment, facilitate condensate drainage and for reliable coin acceptance. Adjust the four (4) leg levelers under the cabinet first to make the cabinet level front-to-back and left-to-right. After the cabinet is level adjust the 2 front leg levelers to firmly touch the floor surface.

## ELECTRICAL GROUNDING & POLARITY CHECK

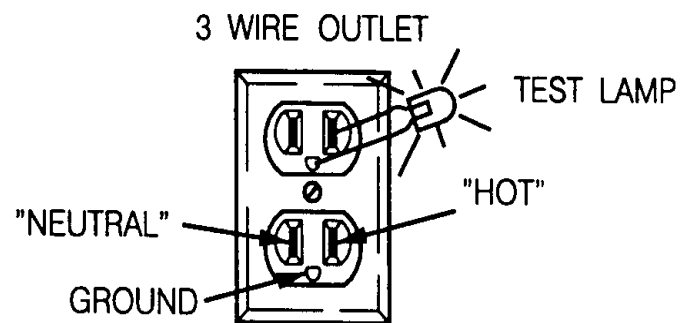
Consult local, state, and federal codes and regulations before installing the vendor.

Refer to the Safety Installation Guidelines document found in the service package shipped with your vendor.

Before connecting the vendor, the integrity of the main electrical supply must be checked for correct polarity, the presence of good ground (earth) and the correct voltage. These checks should be repeated at six-month intervals with the routine safety electrical testing of the vendor itself.

If the receptacle is not properly grounded or polarized, contact a licensed electrician to correctly polarize and/or ground the receptacle to ensure safe vendor operation.

For proper operation of any equipment utilizing electronically controlled components, the equipment should be placed on an isolated, or dedicated, noise-free circuit properly polarized and grounded. Use of a surge suppressor is recommended for locations where electrical noise is present.



## MAIN POWER SWITCH

Plug the power cord into a dedicated power outlet. Open the vendor door, switch ON the main power switch located on the Power Panel as shown in Fig. 8.

## DOOR GLASS HEATER HARNESS

**USA Only:** In extremely humid conditions, the glass window may need to be heated. Current DOE regulations require that window heaters be equipped with an automatic humidistat controller. The use of a Seller-approved controller kit is necessary in order to maintain compliance with the DOE Energy Conservation Standards.

The Controller Install Kit can be ordered from Vendnet:

Part Number: 1221234 - AUTO CONTROL KIT – HEATED GLASS

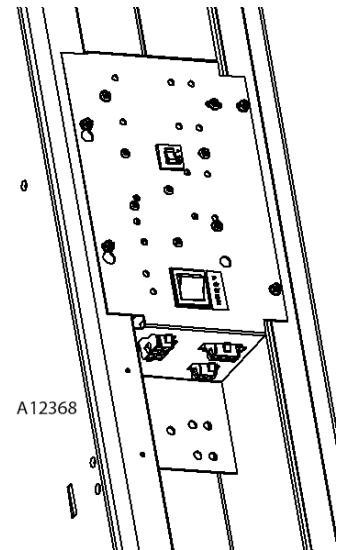


Fig. 8

The Vendor control system is capable of conserving energy by adjusting operating time periods and temperature for the refrigeration and lighting - see programming manual for more details

## LOADING PRODUCTS

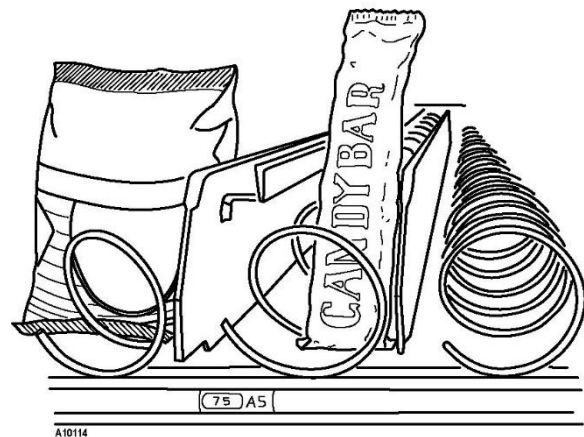
Load products from front to back making sure all items fit freely between the spiral spaces. Do not attempt to force oversize items or packages into the spaces. Do not skip a space. Place the product on the bottom of the compartment on the product spirals with the label facing the front of the vendor for easy identification by the customer. See Figure 9.

## SNACK/CANDY/FOOD TRAY OPTIONS

To load products, lift the tray slightly to release and pull forward until the tray stops, the tray will then tilt down to aid easy loading.

The size of the item being vended must be larger than the diameter of the spiral being used to vend properly.

Undersized items will cause vend/dispensing problems. If the product does not fit into the spiral, either too loose and too tight, use a different pitched spiral. Call the number located at the back of the manual for spirals available from your distributor or service entity.



## CAN/BOTTLE TRAY OPTIONS

The standard can/bottle tray is a 9-select tray, this provides the best flexibility to accommodate both the bigger and smaller diameter bottles available today. There is a 10-select tray option which is best suited for smaller bottles e.g. 16.9oz/500ml size bottles.

To unlatch the Can/Bottle Tray/s push out simultaneously with both thumbs depressing the left and right-side slide latches and pull tray out see Fig's 10a & 10b

Can products present and vend better by using the spiral risers provided in the separate pack. Bottled products present and vend more reliably without risers.

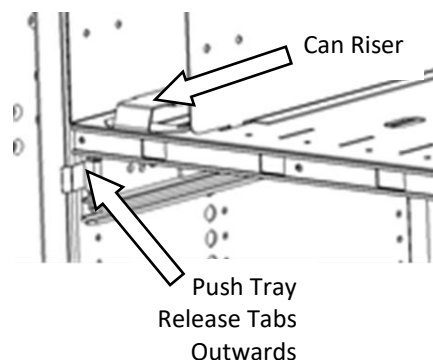


Fig. 10a

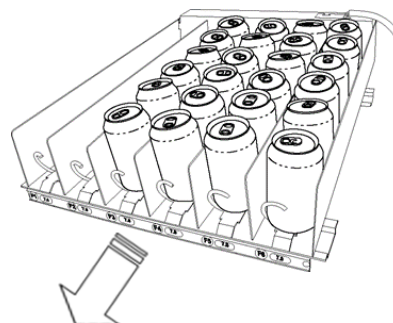


Fig. 10b

## HIGH CAPACITY CAN TRAY (HCCT) OPTION

Some vendors come equipped with the High Capacity Can Tray (HCCT) option. There are two setups for the HCCT option, one for vending 330ml/355ml (12oz.) and one for 375ml (13oz.) cans. Load product horizontally from front to rear and stack a maximum of three (3) levels high only, exceeding 3 tiers will result in motor/gearbox failure - Fig 11.

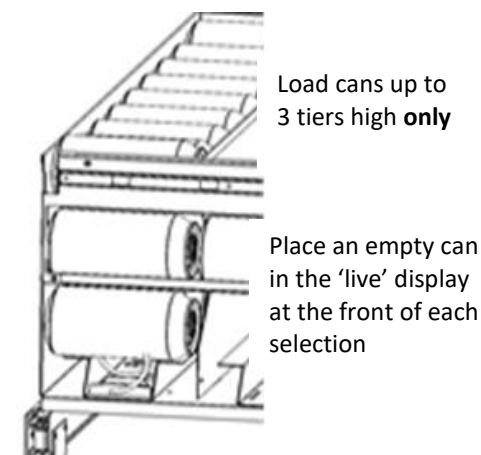


Fig 11.

## TRAY ADJUSTMENTS

By re-timing the spirals, some difficult-to-vend items can be dispensed more dependably. By altering tray spacing, taller items can be vended. By changing the tray configuration and layout different product mixes can be accomplished.

### VERTICAL SPACING

The trays can be adjusted up or down in ½" increments to optimize the spacing for the products to be stored/vended. When increasing the height on one tray, the same amount of room will be lost in the tray above or below the one being adjusted.

### TRAY REMOVAL AND REPOSITIONING

1. Disconnect the tray harness on the right-side wall and release the split grommet from the holder plate – Fig. 12a
2. Fully pull out the tray, if a Channel Rail system tilt up at front and lift the 'release' ramp, then lift tray out of the rail. If a Flat Rail system lift the tray at front to release and lift the back of the tray out – Fig. 12c
3. Remove the left and right tray rails by undoing and removing the 2 tray rail screws and removing the rails from the side and back wall.

4. Identify the new locations for the rails ensuring that they are level front to back, it is recommended to first mark the slots.
5. Relocate both left and right rails by reversing the above steps, **ensure the rails are level front to back and evenly spaced from top to bottom of each side.**
6. Replace the tray by reversing step 2 above, once located push the tray fully back
7. If Channel Rail system, lift the tray at the front and drop the channel ramps back down for normal operation
8. Reconnect the tray harness plug on the right-side wall.
9. Re-engage the harness split bushing into the harness retainer wall - Fig 12a
10. Test-vend the tray in its new position to be sure the tray operates correctly

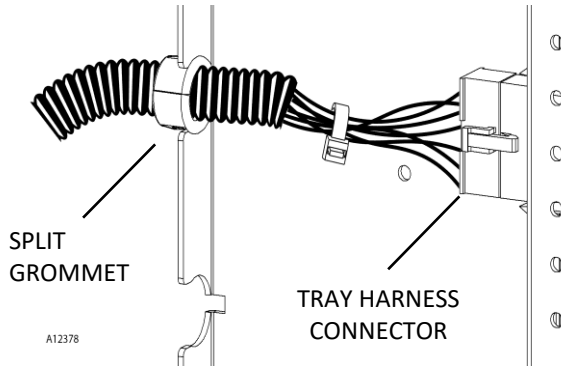


Fig. 12a

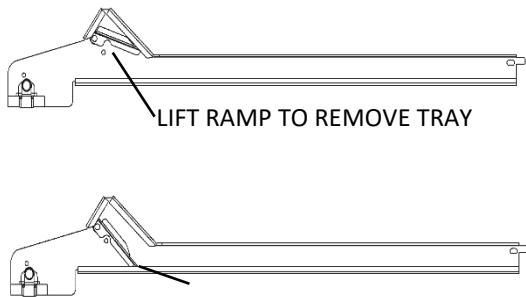
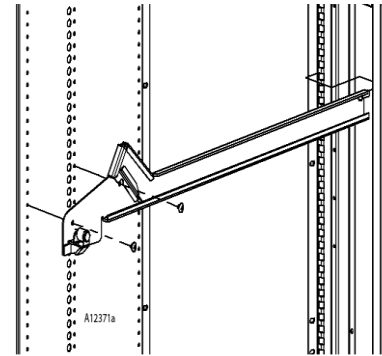


Fig. 12b

PERATION

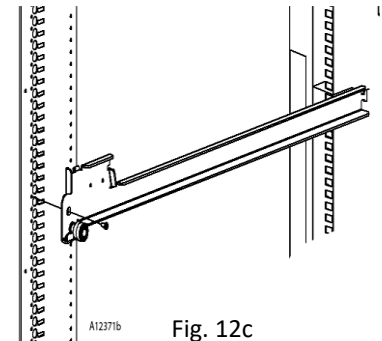


Fig. 12c

## REMOVING CAN/BOTTLE TRAY

1. Disconnect the tray harness from the right-side wall - Fig 12a.
2. Unlatch the tray and pull it all the way out until it stops.
3. Remove and save the 3 screws either side securing the tray floor to the right/left slide rails underneath
4. Lift up on the tray sides and remove the tray.
5. Move the slide to expose the fixing screws - Fig 13
6. Relocate the slides and re-install with screws through the slides into the side walls. Assure slides are mounted level and in same location from left to right and front to back.
7. Reverse procedure to re-install tray.
8. Test-vend the tray in its new position to be sure the tray operates correctly

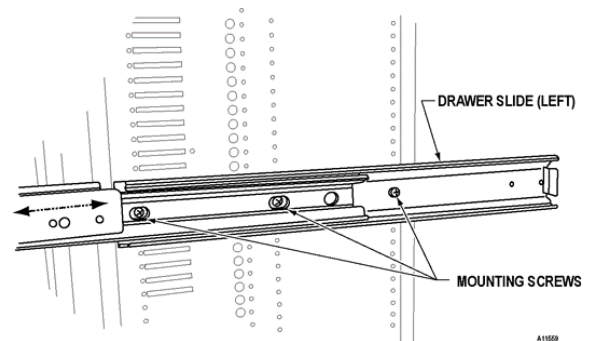


Fig 13

## REMOVING HIGH CAPACITY CAN TRAY (HCCT)

1. Ensure the tray module is empty
2. Disconnect the tray harness from the right-side wall – Fig. 12a
3. Unlatch the tray and pull out fully until it stops.
4. Remove/retain the four (4) nuts on the underside of the tray in the 4 corners - Fig 14
5. Lift up and forward to remove the tray.
6. Pull out on slides and remove/retain the screws fastening the slides to the side walls.
7. Relocate the slides and re-install with screws through the slides into the side walls. Assure slides are mounted level and in same location from left to right and front to back.
8. Reverse procedure to re-install tray.
9. Test-vend the tray in its new position to assure that the tray plug is properly seated.

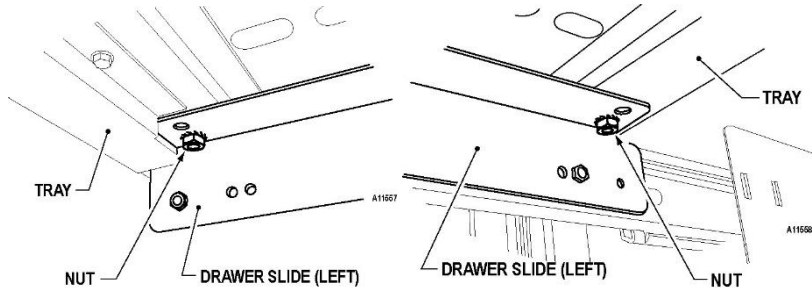


Fig 14

## CANDY, 3/4 SNACK AND SNACK SELECTION WIDTHS

All Snack/Candy/Food/Beverage Trays have adjustable divider locations. By adding, removing, or relocating divider positions a variety of selection compartment widths can be achieved - Fig 15. The dividers can be in every  $\frac{1}{2}$  Candy position. This adjustment provides for **CANDY** (candy bars, crackers),  $\frac{3}{4}$  **SNACK** (small chip bags, cookies) and full-sized **SNACK** (LSS chips, pastries) width compartments. The divider adjustments can also provide for compartments wider than a SNACK compartment width for larger items, such as 12" Sub Sandwich. All trays provide motor connections for the maximum number of selections possible per tray. Additional parts (dividers, motors, spirals, and adapter kits) are available as spare parts, see contact details at the beginning and end of this manual.

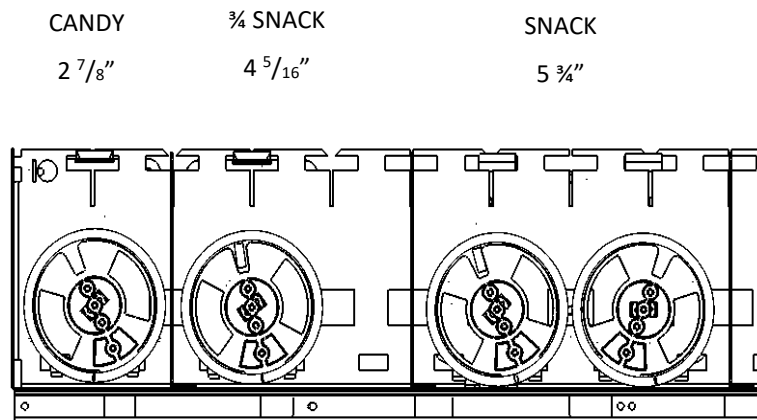


Fig 15

## SPIRAL ADJUSTMENT

The shape, size and thickness of a product affect how well it dispenses/ejects from the tray. Most products can be vended successfully when the spiral end is positioned at 7 o'clock. If vending problems occur with spiral ends at the standard 7 o'clock position, try repositioning or by adding a clip-on product pusher – Fig. 16

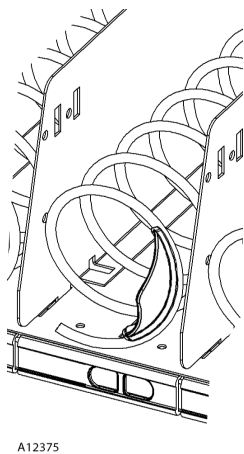
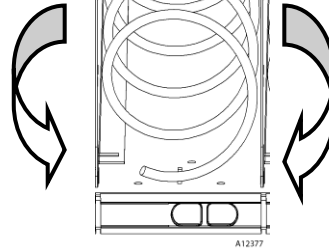


Fig. 16

ADJUST SPIRAL  
COUNTER-  
CLOCKWISE FOR  
WIDER ITEMS  
e.g. 5:00 o'clock



ADJUST SPIRAL  
CLOCKWISE FOR  
THINNER ITEMS  
e.g. 7:00 o'clock

ADJUST SPIRAL END POSITION FOR RELIABLE  
DISPENSING MOST PRODUCTS VEND PROPERLY  
AT THE 7:00 (0'CLOCK) SETTING

## SPIRAL TIMING

### SNACK/CANDY/FOOD TRAY

Each spiral can be rotated in either 20° or 45° increments for a different drop-off point. Most products can be vended successfully when the spiral end is positioned at the 7 o'clock position.

The general rule is the narrower the product, the higher the timing:

- Thick Products - 4-6 o'clock
- Most products – 6 o'clock
- Thin Products - 6-8 o'clock

### TO CHANGE SNACK/CANDY/FOOD SPIRAL PLASTIC TRAY SPIRAL TIMING:

1. Remove the motor cover.
2. Raise the motor slightly and pull forward on the spiral until it separates from the motor.
3. Rotate the spiral to the desired position and re-insert the hub (spiral coupling) into the motor. The hub must be seated over the vertical rail or retaining rib on the tray as shown – Fig. 17
4. Replace the motor cover, making sure it is securely tightened.
5. Test-vend to make sure product vends properly.

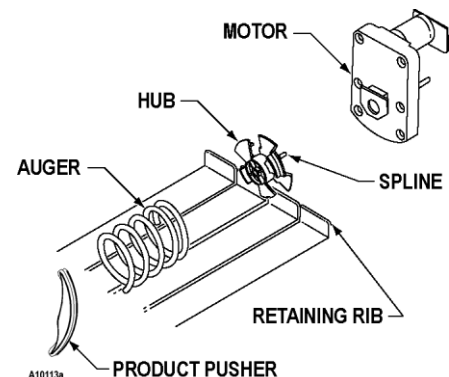


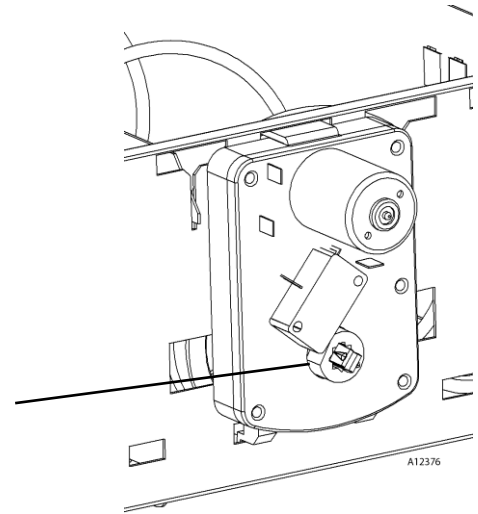
Fig 17

## TO CHANGE SNACK/CANDY/FOOD/CAN/BOTTLE/HCCT METAL TRAY SPIRAL TIMING:

Each spiral can be rotated in 45° increments for a different spiral end-point. Most items can be dispensed successfully when the spiral end is positioned at 6 o'clock.

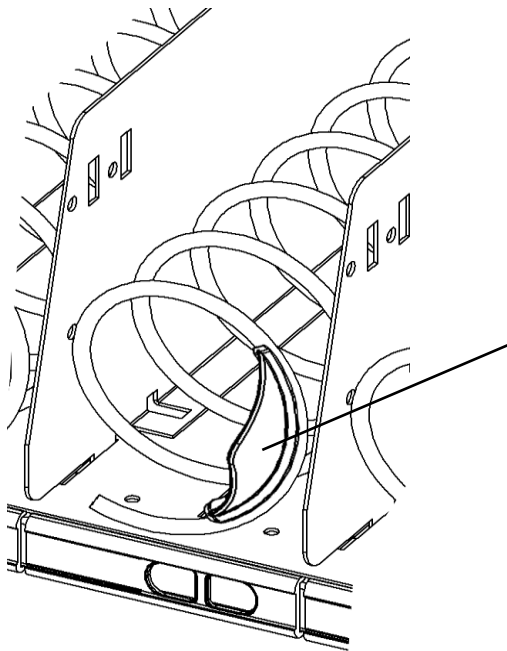
1. Reach behind motor to release spiral coupling from motor. Pinch spiral coupling ends and pull forward on spiral to remove.
2. Rotate the spiral to the desired position and re-insert the spiral coupling into the motor. The spiral coupling must be fully seated into the motor.
3. Test-vend to make sure product vends properly.

ADJUST SPIRAL END POSITION BY PINCHING SNAP TABS OF SPIRAL COUPLING ON BACK OF THE MOTOR - PULL OUT OF MOTOR THEN SNAP BACK INTO DESIRED POSITION



## PRODUCT PUSHER

Product Pushers are provided in the service package of the vendor, snap onto spirals for those products that do not eject off the shelf after a single 360° rotation of the spiral

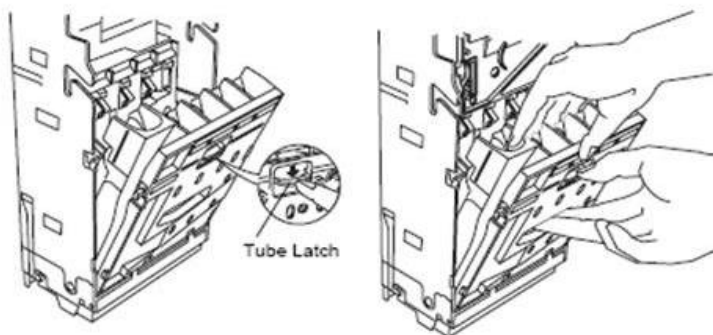


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IF AFTER ADJUSTING THE SPIRAL END THE PRODUCT STILL DOESN'T FALL OFF TRAY INSTALL A SNAP-ON PRODUCT PUSHERS ONTO END OF SPIRALS TO ASSIST EJECTION OF THE ITEM

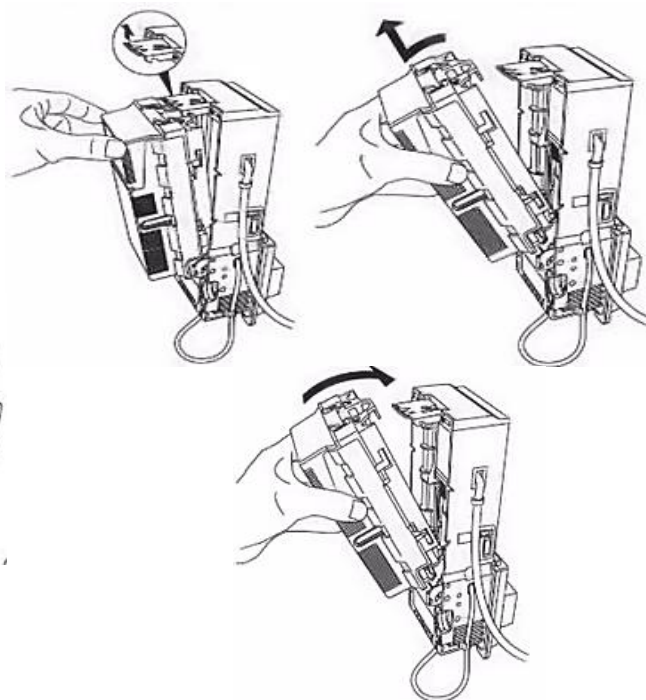
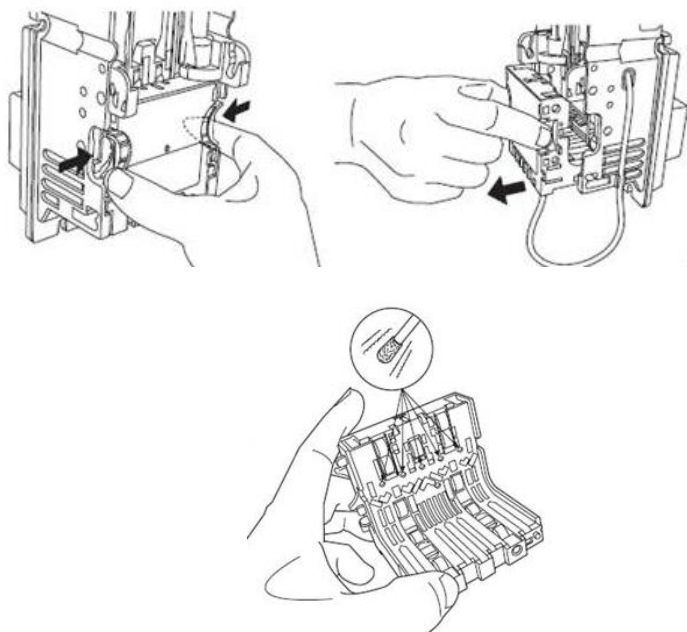
## LOADING COIN CHANGER

The Coin Mechanism should be loaded with a minimum of 10 coins in each coin tube in order for the vendor to operate properly. The coins need to be loaded into the coin mechanism by insertion into the front coin insert or directly into the tubes. If loading through the coin validator first enter the SERVICE MODE to avoid reaching the maximum sell price.



## BILL VALIDATOR

To remove the bills from the Dollar Bill Validator, push the tab on the top of the bill box and lift-up. To clear jams or cleaning unlatch lower unit as shown. Dollar Bill Validator cleaning instructions as well as more advanced service information can be obtained on the Service portion of the website listed at the beginning and end of this manual.



# THE ELEVATOR SYSTEM

The elevator system is made up of the following sections:

- 1) Elevator Controller
- 2) Elevator Frame
- 3) Security Baffle
- 4) Delivery Door Lock Slide
- 5) Delivery Door Optical Sensor

## 1) ELEVATOR CONTROLLER

The Elevator Control board is located above the FLEX main control board. The EC drives the Elevator and Baffle motor outputs and monitors and acts upon the inputs associated with the elevator control system, as follows:

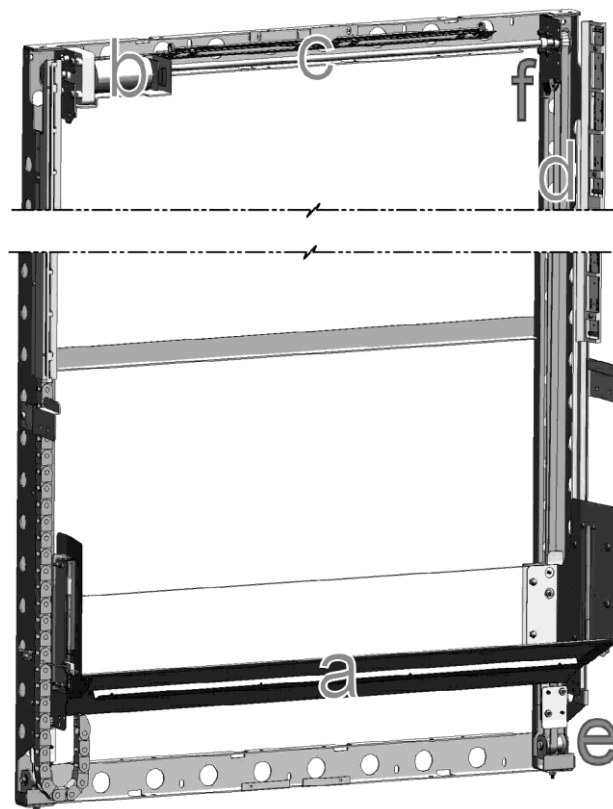
- i) Dual Magnetic Encoder - mounted to the back of the Elevator Motor
- ii) Top Limit Switch at top of the frame
- iii) Delivery Door Lock Slide switches 1 & 2, located under the delivery door
- iv) Delivery Door Open/Closed Optical Sensor Safety Switch
- iv) Shelf Detect Reed Switch on the side of the elevator tray
- v) Main Door Switch at the top of the main door by the top hinge
- vi) Security Baffle 'Open' & 'Closed' limit switches - front & rear of baffle motor mounting plate

The FLEX & EC controllers communicate via a dedicated serial bus, the FLEX controller is the master that issues all the command instructions to the EC to execute and to report back with a status. See the Elevator schematic circuit in the Appendix.

## 2) THE ELEVATOR FRAME

The welded frame has all the elevator moving parts assembled onto it, comprising: -

- a. The elevator delivery tray, with iVend sensors and a shelf sensor. The I-Vend sensors detect when a product is successfully dispensed onto the elevator tray and detects when larger items are removed from the elevator tray when in the 'vend' delivery position. The shelf sensor is located on the side of the elevator tray, this detects the shelf position magnets that are adjacent to each shelf.
- b. The elevator motor & gearbox mounted at the top with a drive pulley fixed to the one side with a 3/32" Hex Set Screw, this has an integrated dual magnetic encoder which provides speed & direction signals.
- c. The drive axle, one end of which is fixed to the elevator motor output shaft with a coupler 3/32" Hex Set Screw the other end has the other drive pulley affixed to it
- d. A pair of notched timing belts to which the elevator tray is affixed and is driven up & down by the two pulleys located at the top of the frame



- e. A pair of plain pulleys, one either side at the base of the frame, the tension of the belt is adjusted by means of the No.8 Nyloc nuts (11/32" wrench) on the underside of each pulley mount
- f. A Top Limit Switch – Each time the main door is closed the elevator goes through an initializing routine and the elevator tray actuates the top limit switch at the top of its travel. When the switch is actuated the motor immediately stops and reverses to drive the delivery tray back down

### **3) THE SECURITY BAFFLE**

The security baffle is in the cabinet under the lowermost tray and above the refrigeration module.

In principle the security baffle prevents access into the cabinet space whenever the delivery door is unlocked.

Vended items are retrieved by the customer directly from the elevator tray, to prevent additional items being knocked off trays using wires/sticks etc. the security baffle closes off access to the cabinet space prior to the delivery door being unlocked. It should be noted that it is important to provide airflow to ensure there is good refrigeration performance, hence the security baffle must remain open whilst the machine is in standby sales mode. The security baffle will remain closed until the delivery door has subsequently been locked, which will occur by virtue of the elevator tray being moved up to the 'standby' position.

### **4) THE DELIVERY DOOR LOCK SLIDE**

The lock slide performs 3 functions:

- a) Locks/unlocks the delivery door flap.
- b) Operates Detector Switch 1 (Lower).
- c) Operates Detector Switch 2 (Upper).

The lock slide is operated by the elevator tray, an extension spring will ensure the lock slide returns to the upper position if it is not being pressed down by the underside of the elevator tray.

Note: For the sequence of operation see the Appendix at the end of the manual.

### **5) THE DELIVERY DOOR OPTICAL SENSOR**

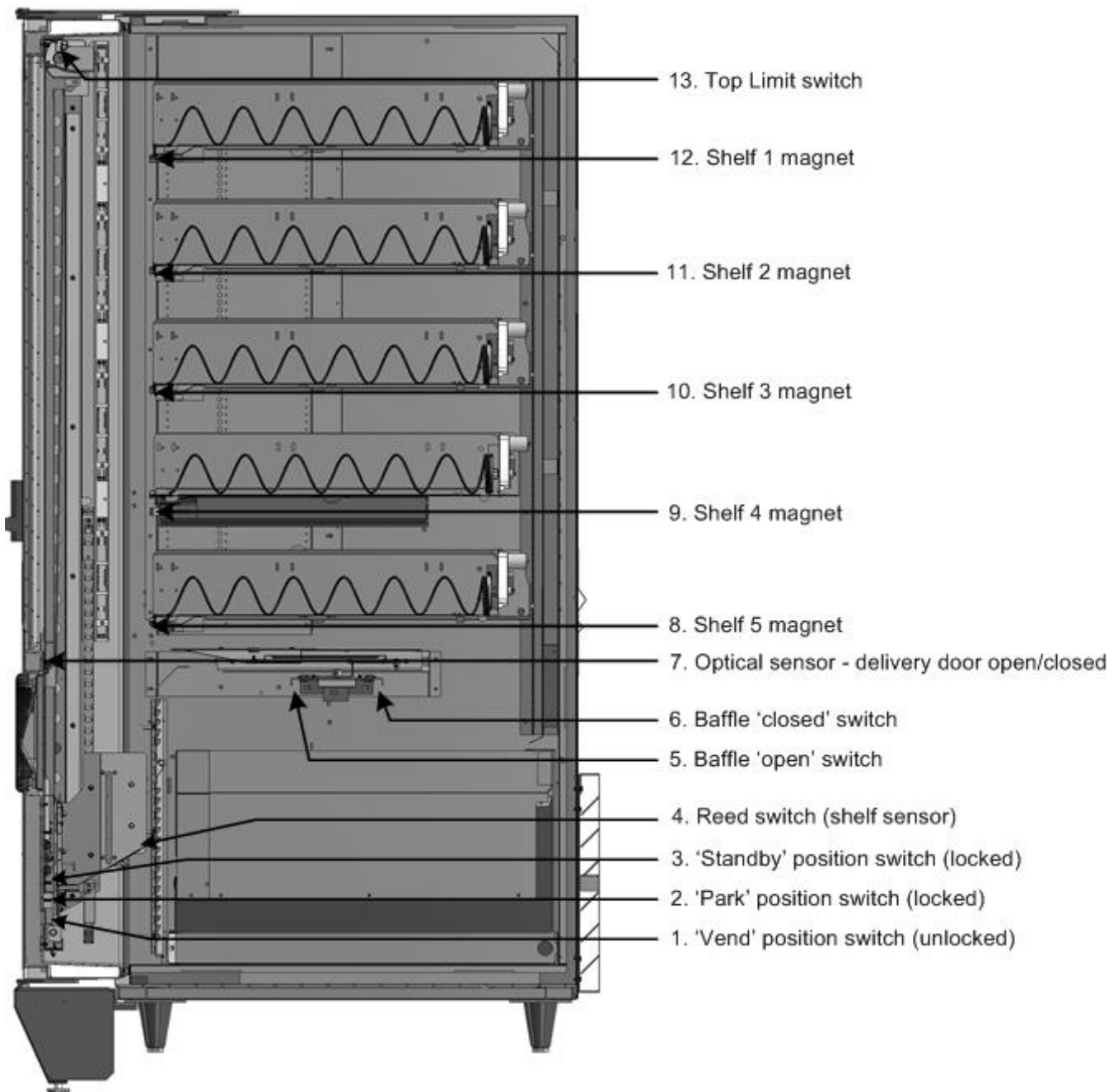
This safety optical sensor is located above the hinge of the delivery door. The actuator plate is attached to the delivery door, this blocks the optical light path when the door is opened approx. ¼" at the base of the door. At any time that the delivery door is open none of the elevator moving parts will operate for safety reasons.

The delivery door sensor is monitored during the vend cycle. If the delivery door is left open for any reason a message will appear on the user display prompting the delivery door to be closed.

If an attempt is made to cheat the delivery door locking mechanism the security baffle will immediately close and the elevator tray will sent to the 'vend' position, the delivery door is unlocked in the position.

Should the delivery door be cheated/opened when a vend is in progress the system will immediately be put out of service and an 'EFL98' (command out of sequence) error code will be logged, this will be reported when the door menu is next entered.

## ELEVATOR SYSTEM SENSORS/SWITCH LOCATIONS



# SALES MODE

The vendor automatically defaults to Sales Mode after it is turned on. In the Sales Mode, the vendor accepts money deposits, pays out change and dispenses product to the customer.

## DISPLAY CREDIT - ELECTRONIC PRICING

This vendor is equipped with the Electronic Pricing feature. The customer may verify the price by pressing the selection number (i.e. 22) before inserting money. If a selection is made and credit has not been established, the price for that selection is displayed and "INSERT MORE MONEY" will be displayed. When money or credit is accepted, then the amount of credit is displayed.

## "USE EXACT CHANGE ONLY" MESSAGE OPERATION

If the coin levels in the coin mechanism tubes are below the low-level sensors, "USE EXACT CHANGE ONLY" will be displayed. This indicates the Coin Mechanism does not have enough coins in the coin mech tubes to make change. This also indicates that the Dollar Bill Validator may be disabled until change can be made.

# IVEND®

All selections have been assigned as the factory default to be monitored for iVend™ optical sensing.

At the start of every vend the iVend® optical sensor is checked to ensure it is not blocked, damaged or disconnected.

**If iVend is blocked, damaged or disconnected** - the normal home-switch-vend cycle will be used, and the optical sensors will be ignored. Both the vend motor and a vend timer are started:

- The selected motor rotates 360° to the home-switch position
- Upon seeing the home-switch signal the vend is considered successful
- If after 10 seconds there is no home-switch signal, the vend will be 'failed'. The vend motor is shut down and "Make an Alternative Selection" is displayed. The customer can make another selection to start another vend or press the coin return button to return any credit

**If iVend is not blocked, damaged or disconnected the iVend® Sensor System is used** - the vend motor and timeout is started:

- The selected motor rotates 360° to the home-switch position
- If a product is detected by iVend during the 360° rotation the vend is considered successful
- If after reaching the home-switch position a product is not detected 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 time the vend is considered successful
- If a product is not detected the controller initiates a second rotation of the motor while continuing to monitor iVend
- If a product is detected any time during the second rotation the motor is stopped immediately. The vend is considered successful and the 2<sup>ND</sup> VEND is logged for diagnostic purposes
- If after reaching the home-switch position and a product has not been detected, the vend motor is stopped and for a further 2 seconds the controller continues to monitor the optical sensor. If a product is detected in this time the vend is considered successful. The 2<sup>ND</sup> VEND is again logged.
- If no product is detected the selection is deemed 'sold out', "Make an Alternative Selection" message is displayed. The customer can make an alternative selection or press the coin return button to return any credit.

**NOTE:** Force Vend is disabled to permit customer to retrieve deposited money.

# SERVICE MODE

Use the **Service Mode** to program and service the vendor. Use the keypad or the touchscreen as an input device. Watch the display for information while in Service Mode.

To enter **Service Mode**, press the **Service Mode Button** located in either the top right corner or the bottom left corner of the control board – Fig. 19. To exit Service Mode, press the Service Mode Button again

**NOTE:** If no key is pressed for 1 minute while in Service Mode, the controller will automatically return to Sales Mode.

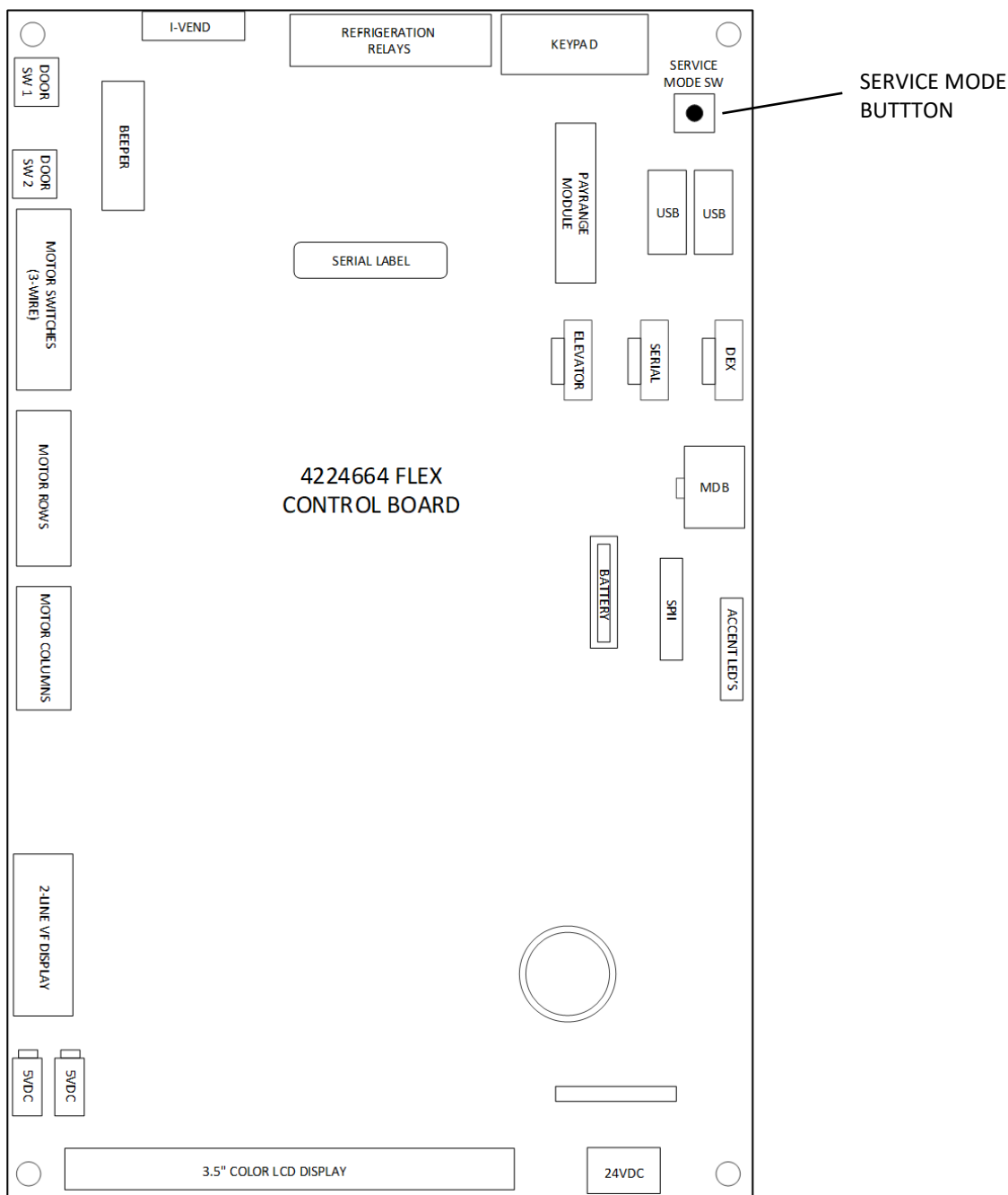


Fig. 19

## MENU & NAVIGATION

### KEYPAD

To program the settings, use the buttons on the keypad to navigate through the service mode menu's

**Buttons 2, 4, 6, 8, \* & #** are used to move between the sub-menu's and the menu options:

2 = Move UP

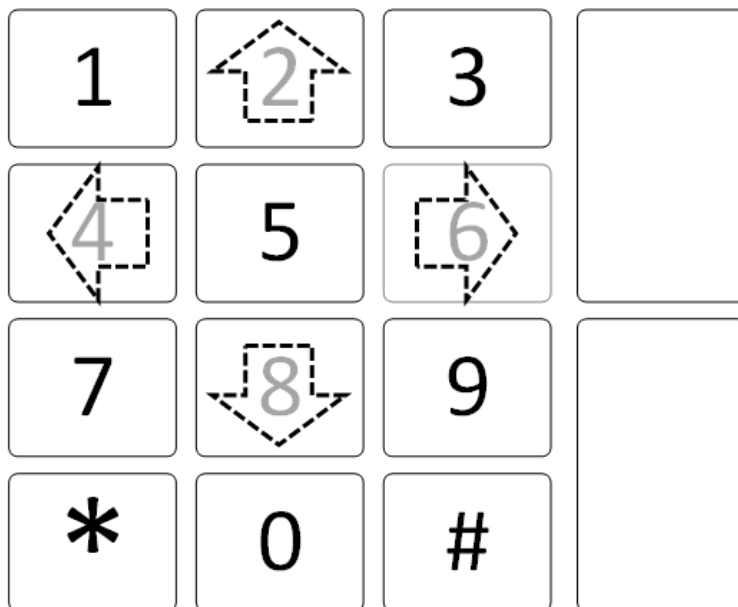
4 = Move LEFT

6 = Move RIGHT

8 = Move DOWN

\* = ESCAPE/GO BACK

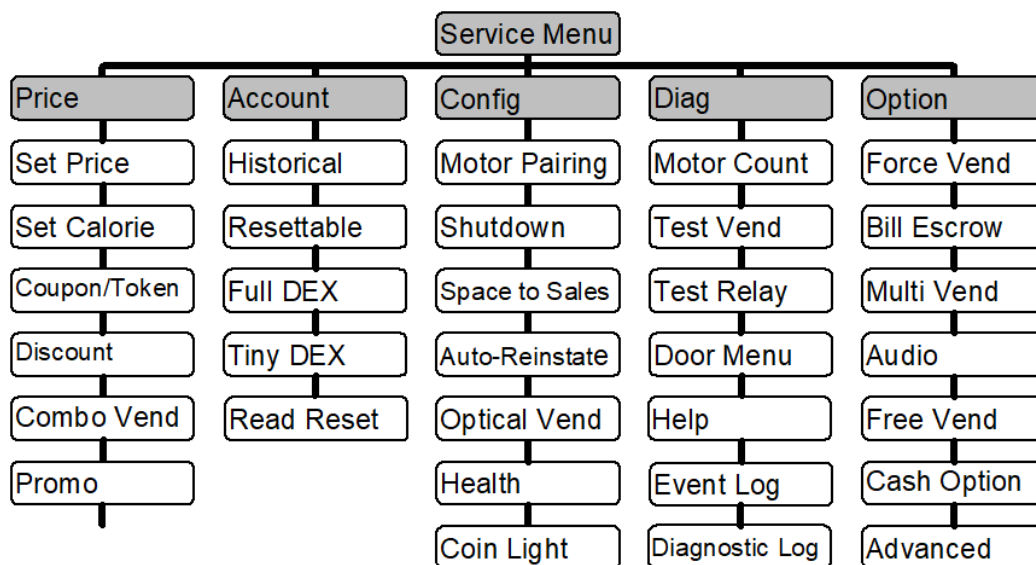
# = ENTER/CONFIRM



### SERVICE MENU

There are 5 main service menu headings, there are sub-menus under each main heading, each are clearly labelled to ease navigation. Once the appropriate menu heading has been selected press # to enter and make the changes/enquiries/tests required.

**Note:** For more details on programming functions & procedures see **4225134 Programming Manual**



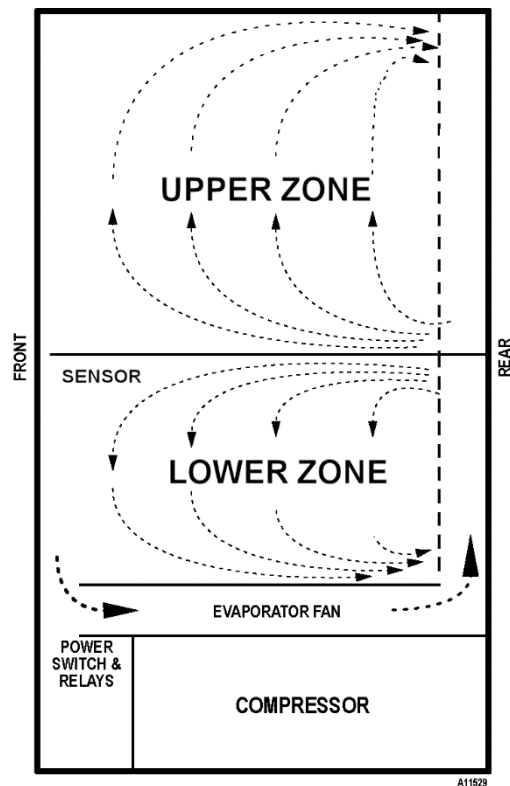
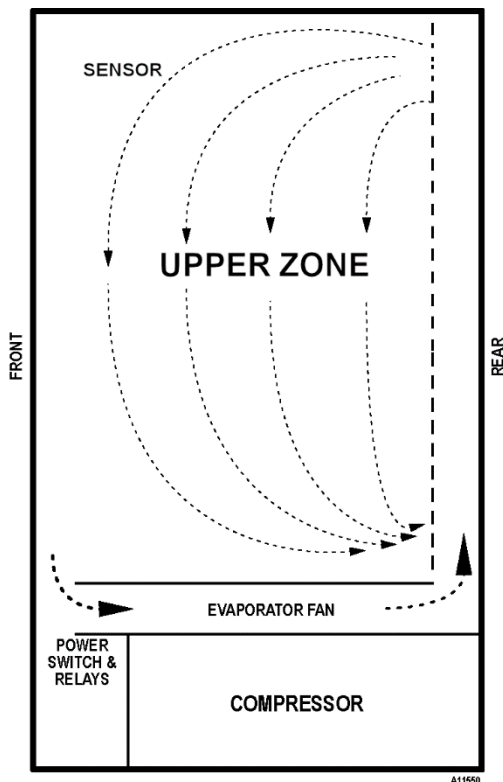
## TEMPERATURE CONTROL

**NOTE:** To prevent damage to the refrigeration unit when it is switched OFF or power is interrupted by opening the main door, the refrigeration unit will not restart for at least five minutes regardless of the temperature.

## TEMPERATURE SENSOR

The temperature sensor is located to best represent the product core temperature and is monitored by the control system. The refrigeration system is activated depending on the target temperature setting or the **SET POINT**. The total allowable temperature variation from the **SET POINT** is the **DELTA**.

Single Zone versions has the sensor located at the right side of the top tray. Dual Zone versions has the sensor located at the side of the top tray in the lower zone.



## RELAYS

The control system controls 2 refrigeration relays:

- **RELAY 1**— Controls the Compressor and the Condenser Fan – the fan is mounted on the back wall of the cabinet
- **RELAY 2**— Controls the two (2) Evaporator Fans – the fan is located inside the refrigeration module

## DOOR SWITCH

The door switch is located in the upper right corner of the main door assembly – Fig. 20. The door switch is monitored by the control system to determine when to run the refrigeration compressor and evaporator fan as well as when to reset the health safety alarm system.

**Note: If the vendor is plugged in and the power switch is ON and the door is open** the compressor, evaporator fan will be switched OFF.

If the door switch is not activated for a period of 30 minutes the control system will override and switch ON the compressor and evaporator fan, this is a fail-safe measure in the event that door switch fails for some reason (mechanically or electrically)

Once the main door has been closed the evaporator fan is switched ON, when the compressor delay timer expires the controller checks the zone sensor and will control the compressor relay accordingly.

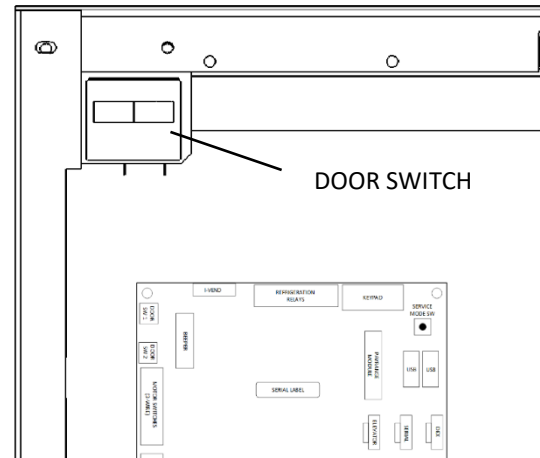


Fig. 20

## FACTORY DEFAULT PROGRAM SETTINGS

PROGRAM SETTINGS		PROGRAM VERSION	PROGRAM VERSION
		ENGLISH	SPANISH
DEFAULT PRICES		50.00	50.00
TEMPERTURE MODE	DEGREE	°F	°C
	SETTING	COLD FOOD	COLD FOOD
SENSOR 1	SET POINT	36°F (2.2°C)	36°F (2.2°C)
	DELTA	7°F (4°C)	7°F (4°C)
	CONTINUOUS COMPRESSOR RUN TRIGGER	2 hrs	2 hrs
	AUTO DEFROST DURATION FOLLOWING ABOVE TRIGGER	15 min	15 min
	HEALTH SAFETY OVERRIDE TIME AFTER DOOR CLOSURE	30 min	30 min

## TEMPERATURE ZONES

In the case of a Single Zone vendor the entire cabinet space is cooled to the same temperature. In the case of a Dual Zone vendor the cabinet space below the insulating barrier is regulated at the temperature set-point. .

The evaporator is located between the lowest tray and the compressor. The pair of evaporator fans distribute cold air to either the full zone or the lower zone under the barrier.

**CUT-IN** - the refrigeration system is switched ON when the temperature sensor reading is greater than or equal to **SET POINT + 50% of the 7°F (4°C) DELTA**

**CUT-OUT** - The refrigeration system is switched OFF when the temperature sensor reading is less than or equal to the **SET POINT – 50% of the 7°F (4°C) DELTA**

## HEALTH SAFETY ALARM

The **HEALTH SAFETY** feature prevents the sale of perishable food if the air temperature inside the cabinet cold zone rises above the health safety temperature limits for cold food products, 41°F / 5°C for more than 15 minutes. The **SZF/DZF** models can vend cold food products that require storage temperatures in the range of 32°F to 41°F.

After the machine has been serviced/filled and the door has been closed an overriding timer is activated for 30 minutes to allow the cabinet temperature to be pulled down to the allowable and required range.

The Selections/Items protected by the health safety alarm can be programmed, individually, by row or the entire machine, this is done in the CONFIG/HEALTH menu.

**IMPORTANT: The machine operator/owner is responsible for ensuring perishable products are properly set-up for health safety alarm protection**

## HEALTH SAFETY TEST

### IMPORTANT:

Before starting the 'Health Safety Test', check to see which selections are protected by the Health Safety Alarm, this will minimize the time required to complete the test in the interest of preserving a safe storage temperature for the food. The entire procedure should take no longer than **8 minutes**

1. Press '#' and note the internal temperature of the machine for reference
2. Open the machine door to allow the internal temperature to rise, observe continuously by pressing the '#' key every 10-15 seconds.  
**Note:** It should take no more than 2-3 minutes for the temperature to rise to 42F, continue to monitor the temperature to minimize the time that the door has to remain open
3. Press # key to exit the door menu to return the control system to 'sales' mode
4. In **sales mode** enter '**04325**' on the keypad to activate the Health Test mode, this will override the 30-minute delay that is normally imposed before activating the health alarm. The message "HS Time is reduced to 4 Minutes" will be briefly be displayed before returning to the sales mode display
5. Assuming the temperature is > 42F after the 4-minute timer has expired the display will change to "Out of Service"
6. **Immediately** close the main door; the refrigeration unit and evaporator fan will not operate at this time. Attempt to take a vend of an item known to be set-up for Health Safety protection, verify that the attempt to vend is rejected
7. Open the main door briefly to cancel the 'Health Test Mode' and then close the main door
8. **IMPORTANT:** Check that the machine display is not still showing the "Out of Service" message. If it is still showing this message, open the door and wait 30 seconds and then close the main door.  
**Failure to clear the "Out of Service" condition will result in the machine remaining Out of Service until the error is cleared!**

## REFRIGERATION

To prevent damage to the refrigeration unit when it is switched OFF or power is interrupted by opening the main door, the refrigeration unit will not restart for at least five minutes regardless of the temperature.

**CAUTION:** Breaking the refrigerant joints or seals on the system voids the unit warranty. Failure to keep the condenser coil clean and free of dirt and dust and other similar debris voids the unit warranty.

Know and understand how the unit operates. Units may vary, but the operation is basically the same. Never guess at the problem; find the symptom before attempting any repair.

**NOTE:** Most refrigeration performance issues are caused by poor airflow through the condenser unit, first always check airways to ensure they are clear:

1. Is there a 6" gap between the wall and the back of the machine?
2. Is the meshed air intake on the underside of the cabinet clean/clear?
3. Is the washable air filter inside the cabinet clean?

## COMPRESSOR

**WARNING:** Electrical work should be only undertaken by a qualified electrician observing safety practices specified by local safety code.

TABLE 1. APPROXIMATE WINDING RESISTANCE

Across Terminals	Embraco 1/3 HP
COMMON to START	4.47 Ohms
COMMON to RUN	1.10 Ohms
COMMON to SHELL	No continuity

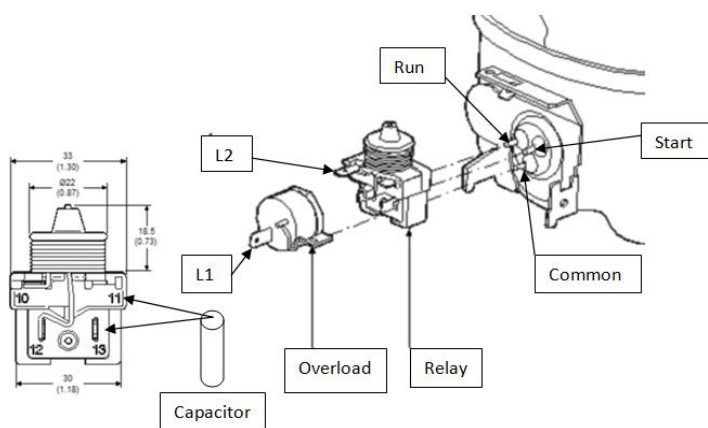


Fig 21a. Embraco Compressor

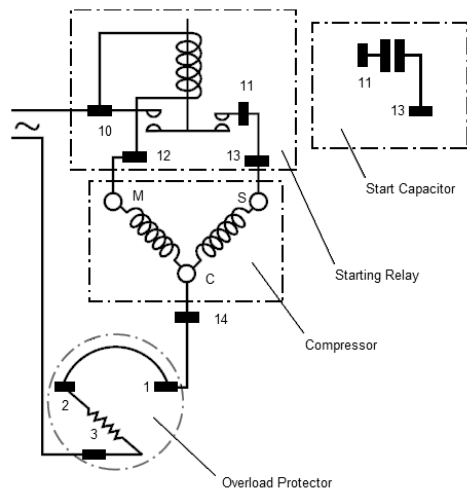


Fig. 21b Embraco 1/3 HP Compressor Schematic

## REFRIGERATION TROUBLESHOOTING

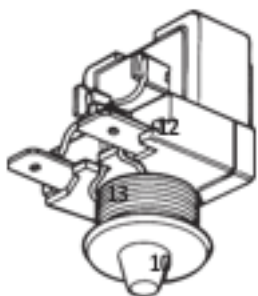
COMPRESSOR WILL NOT START		
	Problem	Possible Causes/Actions
1.	Vendor not plugged in.	
2.	Tripped breaker or blown fuse.	
3.	Faulty wall outlet	
4.	Faulty (short or open) power cord.	Check power cord with a Multi-Meter.
5.	Improper wiring	
6.	Low voltage	Check the power source with a volt meter. Minimum of 103VAC for 115VAC, 60HZ, Minimum of 195VAC for 230VAC, 50Hz.
7.	Overload defective	Overload is tripping too fast. Check overload with a Multi-Meter.
8.	Start relay defective	Check start relay with a Multi-Meter.
9.	Compressor has open windings	Check compressor windings with a Multi-Meter.
10.	Defective refrigeration relay	<ul style="list-style-type: none"> <li>Switch the controller to <b>Service Mode</b> then verify that the relay turns on by using the <b>Test Relay</b> menu.</li> <li>With refrigeration relay turned on in the <b>Test Relay</b> menu. Check relay terminals 1 to 0 for 24VDC with a Multi-Meter. If power is present relay is bad.</li> </ul>
11.	Defective door switch	Check for proper door switch operation.
COMPRESSOR TRIPS ON OVERLOAD		
1.	Improper voltage	Check voltage for 5-10% above or 5% below machines rated voltage. Check power source with a Multi-Meter.
2.	Overload defective	Overload tripping too fast. Check overload with a Multi-Meter.
3.	Relay defective	Relay Won't open after starting. Check relay with a Multi-Meter.
4.	Compressor has shorted winding	Check compressor windings with a Multi-Meter.
NOISY OR VIBRATING UNIT		
1.	Components rubbing or touching each other	<ul style="list-style-type: none"> <li>Check fan blades and motor.</li> <li>Loose shrouds and harness.</li> <li>Copper tubing rubbing.</li> <li>Loose or unsecured parts.</li> <li>Dirty condenser fan blades.</li> </ul>
2.	Worn or aged grommets	Check grommets.
3.	Compressor	<ul style="list-style-type: none"> <li>Bad valves.</li> <li>Slugging.</li> <li>Bad windings -Fig 21b Compressor Schematic</li> <li>Low voltage.</li> </ul>

UNIT SHORT CYCLES		
1.	Defective overload	Check overload with a Multi-Meter.
2.	Faulty condenser fan	
3.	Airflow restricted	<ul style="list-style-type: none"> <li>• Dirty or blocked condenser coils</li> <li>• Dirty or blocked air filter</li> <li>• Dirty or blocked inlet or outlet screens</li> </ul>
4.	Faulty temperature sensor or not mounted in the correct position.	
5.	Temperature setting to warm	See Temperature Control section and Factory Default Settings section of this manual.
6.	Defective control board	
UNIT OPERATES LONG OR CONTINUOUSLY		
	Problem	Possible Causes/Actions
1.	Air flow restricted	<ul style="list-style-type: none"> <li>• Clogged or blocked in inlet screen, air filter or outlet screen</li> <li>• Exhaust area blocked. Vendor too close to the wall.</li> <li>• Faulty evaporator motor or blades causing coils to ice over.</li> <li>• Loose connections on evaporator motor (motor not running).</li> <li>• Air flow blocked by product placed in front of evaporator or air duct openings.</li> </ul>
2.	Gasket leak around door	
3.	Excessive load	After loading, the unit will run longer to pull out excessive heat from product.
4.	Refrigerant low or restriction in system	
5.	Refrigeration relay shorted.	Switch the controller to <b>Service Mode</b> , then use the <b>Test Relay</b> menu to verify that the relay turns off.
6.	Faulty controller	
7.	Ambient air temperature and relative humidity exceed manufacturer's operational standards.	
8.	Faulty temperature sensor or sensor has been moved or remounted to wrong position.	
REFREGERATED SPACE TO COLD		
1.	Refrigeration setting to cold	See Refrigeration Setting instructions in machines programming manual
2.	Faulty refrigeration relay	<ul style="list-style-type: none"> <li>• Service Mode - verify that relay turns on by using the <b>Test Relay</b> menu.</li> <li>• Check relay terminals for continuity with a Multi-Meter.</li> </ul>
3.	Faulty controller	
4.	Faulty Temperature sensor	Check temperature sensor in ice bath. Should read close to 32°F (0°F)
5.	Temperature sensor location	Check temperature sensor is located in correct zone/location

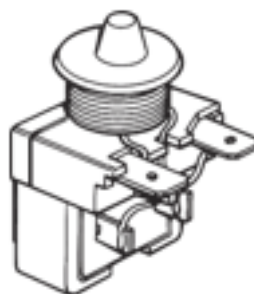
REFRIGERATED SPACE WARM		
1.	Refrigeration setting to warm	See Refrigeration Setting instructions in host machines manual
2.	Faulty temperature sensor	If the temperature reading of <b>Sensor1</b> is “- -”, then check connections and the sensor harness.
3.	Faulty refrigeration relay	Switch the controller to <b>Service Mode</b> and verify that the <b>Relay1</b> turns on by using the <b>Test Relay</b> menu.
4.	Air flow restricted	<ul style="list-style-type: none"> <li>Faulty evaporator motor or blades causing coils to ice over</li> <li>Loose connections on evaporator motor (motor not running)</li> </ul>
5.	Faulty controller	
6.	Condenser air flow restricted	<ul style="list-style-type: none"> <li>Plugged or dirty condenser</li> <li>Condenser motor or blades bad</li> <li>Condenser fan blade stuck</li> </ul>
7.	Condensing space restricted	Unit placed too close to a wall. Should be 4 to 6 inches of space between machine and the wall
8.	Compressor	<ul style="list-style-type: none"> <li>Bad valves</li> <li>Low charge or restriction in tube capillary starts frosting 8 to 10 inches past evaporator connection tube</li> <li>Check for oil around brazed connections</li> </ul>

## TROUBLESHOOTING CIRCUITS WITH MULTI-METER

Embraco 1/3 HP – Remove relay from compressor



With the relay in the vertical position, coil downwards, check if there is continuity between relay terminals 10 and 11. If not, change the relay.



With the relay in the vertical position, coil upwards, check if there is continuity between relay terminals 10 and 11. If there is, change the relay and repeat

- Check temperature sensor harness to control board for continuity using ohmmeter of Multi-Meter. Replace if there is no continuity.
- Check compressor windings using ohmmeter. Refer to above TABLE 1, Figure 21a and Figure 21b.
- Check motor protector (overload). Use the ohmmeter section of the Multi-Meter.
- Remove overload, check between terminals 1 and 3 for continuity. If no continuity (infinity), overload may be tripped. Wait 10 minutes and try again. If still no continuity, overload is defective.

## PREVENTATIVE MAINTENANCE

**WARNING:** Disconnect power source **BEFORE** cleaning or servicing.

### Monthly

#### Clean Cabinet Interior

Wash with a mild detergent and water, rinse and dry thoroughly. Odors may be eliminated by including baking soda or ammonia in the cleaning solution. Plastic parts may be cleaned with a quality plastic cleaner. The vend mechanisms must be kept clean, any build-up can cause the mechanisms to malfunction. To insure proper vending keep delivery box area free of dirt and sticky substances.

**CAUTION:** KEEP THE CLEANING SOLUTION WELL CLEAR OF ELECTRICAL COMPONENTS.

#### Clean Cabinet Exterior

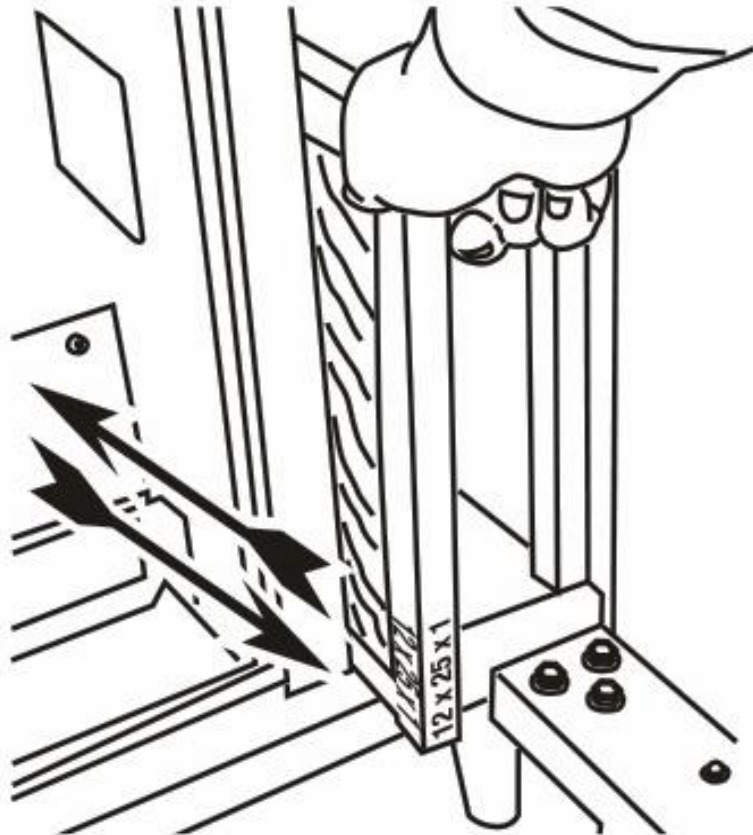
Wash with a mild detergent and water, rinse and dry thoroughly. Clean occasionally with a quality car wax. Plastic exterior parts may be cleaned with a quality plastic cleaner.

### 3 Monthly

#### Wash/Dry Air Filter

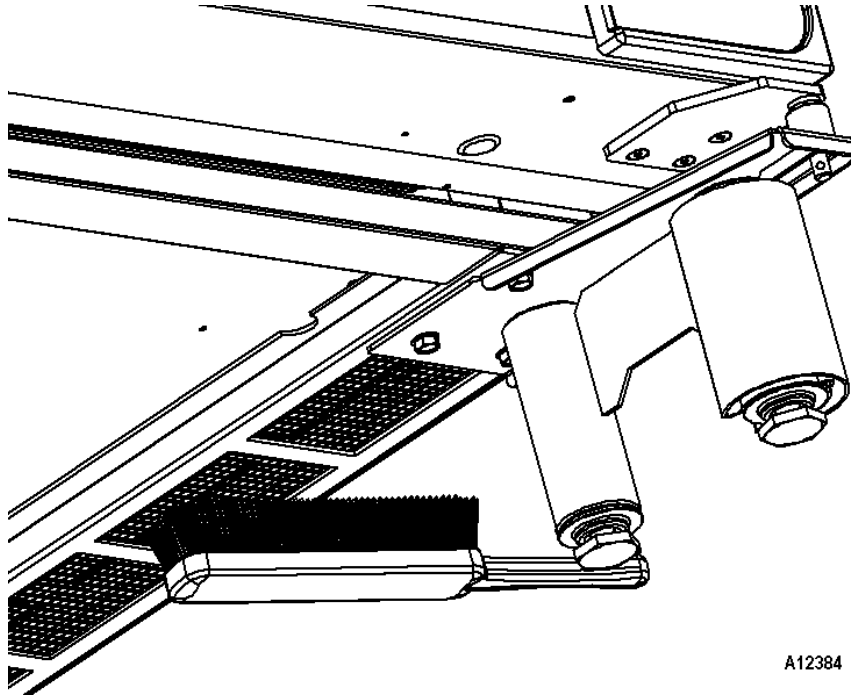
The refrigeration air filter is to prevent dust from building up on the condenser coils and allows the refrigeration system to operate efficiently.

- Pull out the filter and check
- Wash, rinse and dry the filter
- Re-install the filter when dry



## CLEAN BOTTOM INLET MESH SCREEN

The inlet screen is a long narrow screen located on the right underside of the cabinet. It can only be accessed from underneath the cabinet. Remove dust and debris from the inlet screen with a long-handled brush to allow good air to flow to the condenser coils.



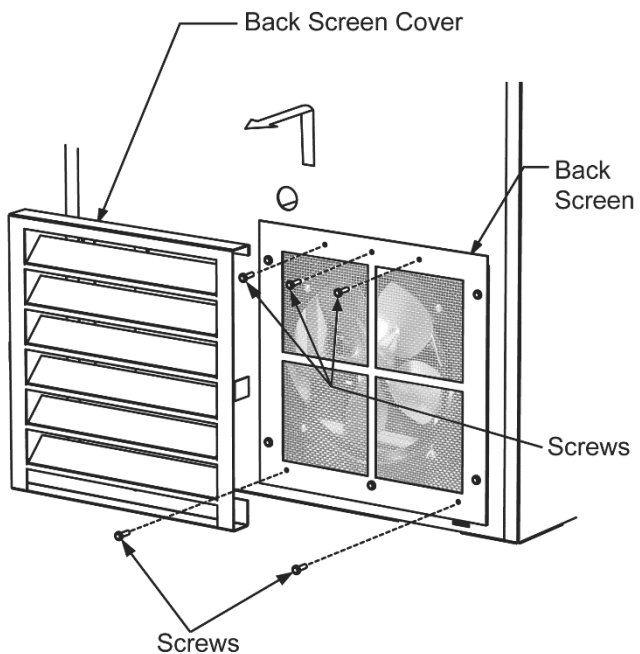
A12384

## 6 Monthly

CLEAN MAIN DOOR AND DELIVERY DOOR SEALS - Inspect them for any deformities or cracking.

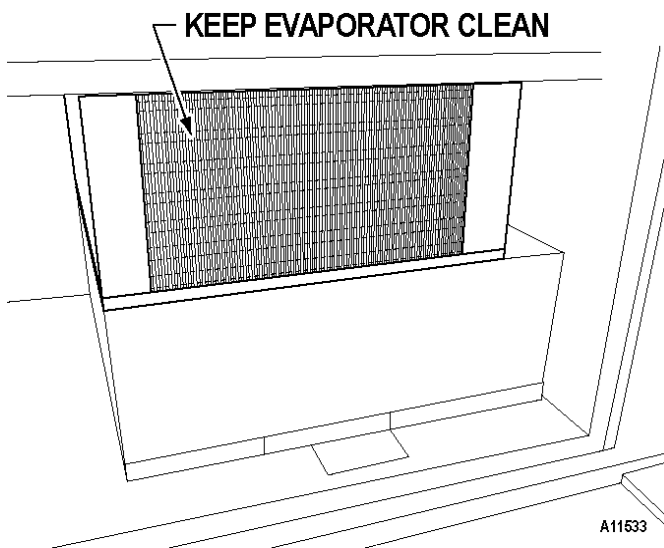
### CLEAN REAR SCREEN

Remove the Back-Screen Cover from cabinet back. Clean dust and debris from screen using a soft bristle brush or a vacuum cleaner.



### CLEAN EVAPORATOR COIL

Open the door. Clean the evaporator coil of refrigeration unit using a soft bristle brush and/or vacuum cleaner



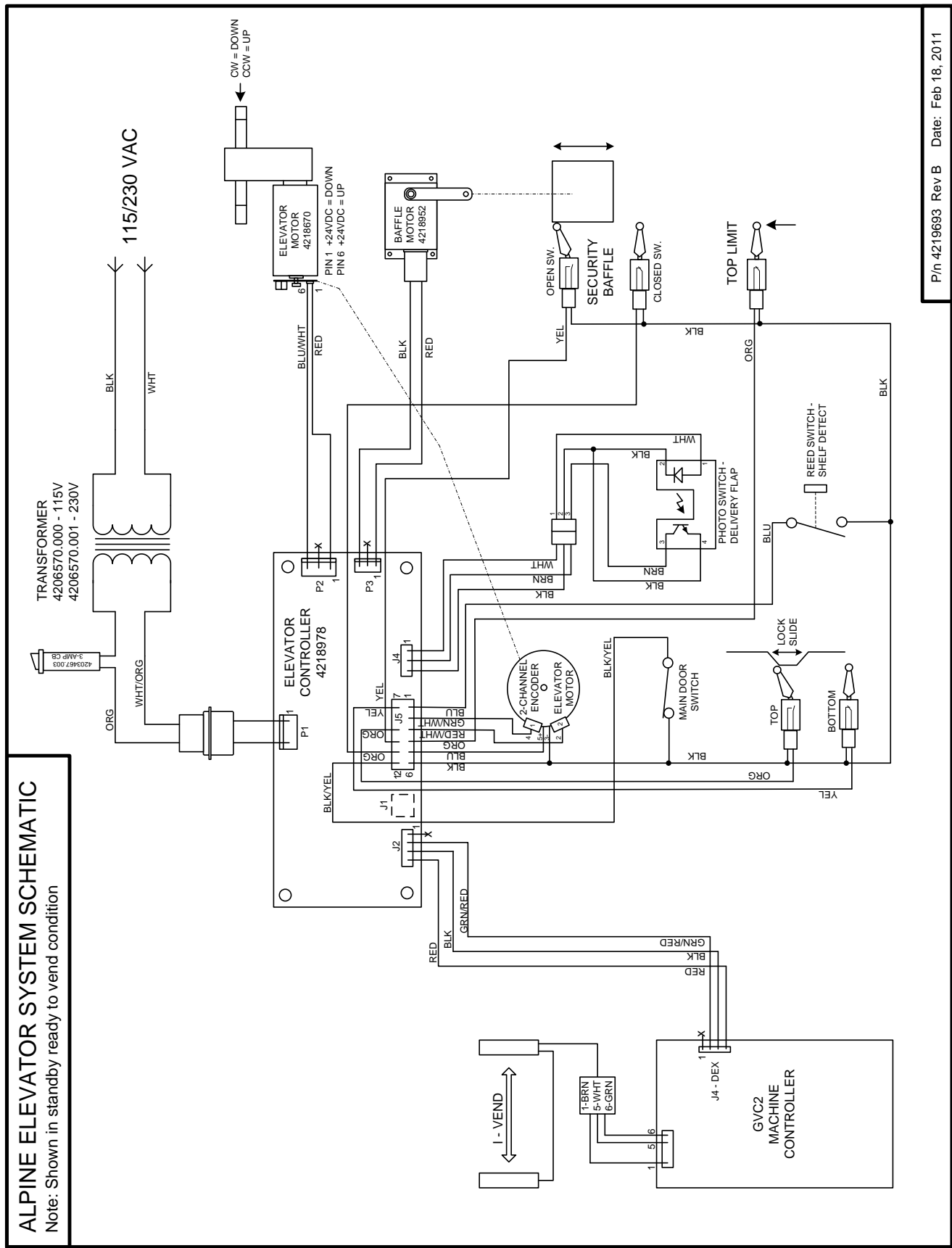
A11633

# APPENDIX

## ELEVATOR CONTROLLER FAULT CODES

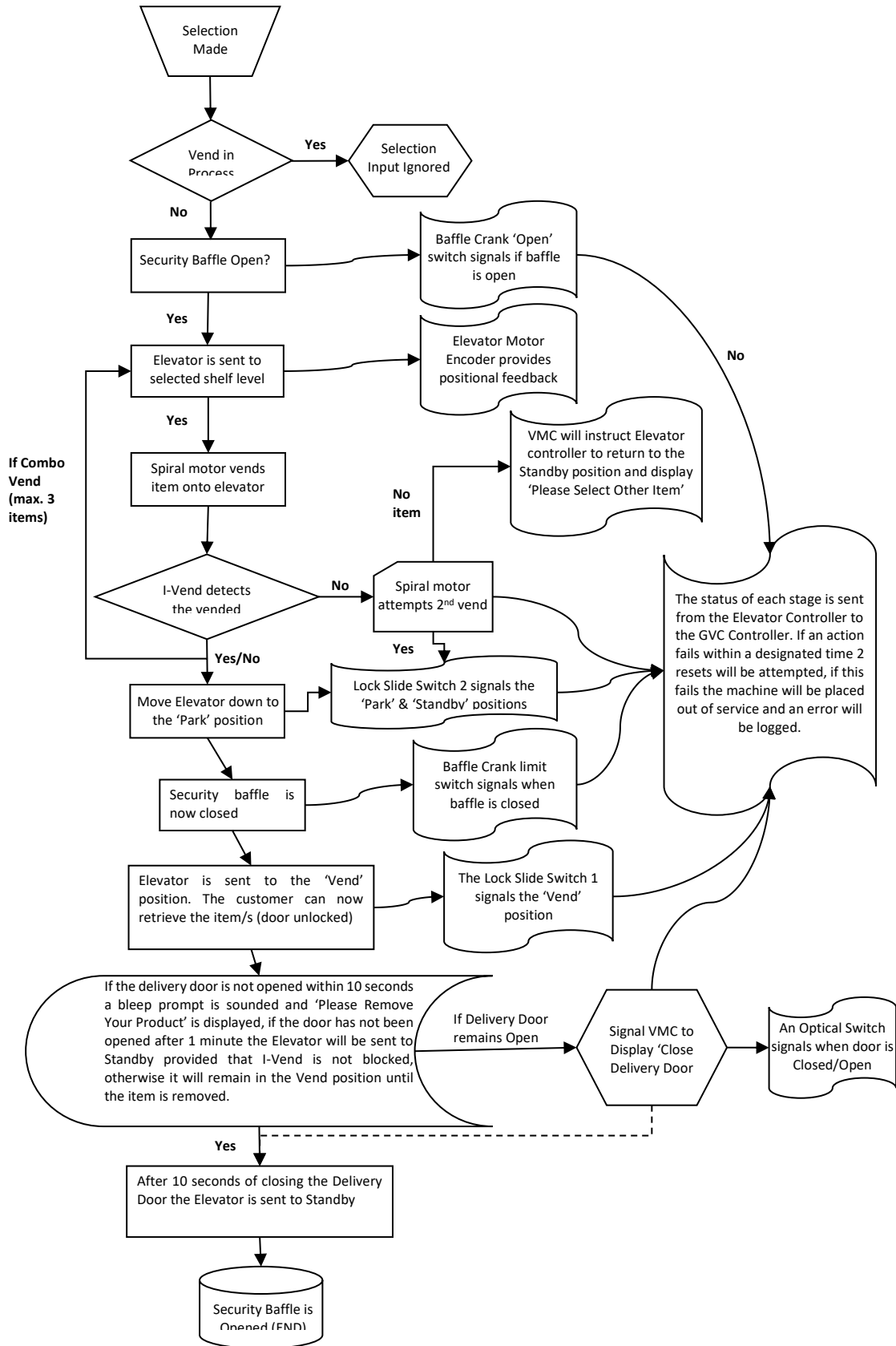
Code	Title	Description
EFL1	Elevator Position VEND failed	Failed to get to the Vend position following a position Vend command
EFL2	Lock switch 1 and 2 both activated	Logically both upper/lower slide switches can never be operated at the same time
EFL3	Baffle close (EBCL) failed to complete	Failed to close the security baffle following a 'close baffle' command
EFL4	Baffle open (EBOP) failed to complete	Failed to open the security baffle following an 'open baffle' command
EFL5	Elevator Position Standby (EPSB) failed	Failed to get to the Standby position following a 'Position Standby' command
EFL6	Elevator Shelf Position (ESELx) failed	Failed to get to the required shelf position following a position shelf command
EFL7	Motor Fails to Move	No motor movement for a period of 1 second, as determined by the dual encoder signals
EFL8 n/n	Shelf Number Mismatch	A mismatch between the number of trays the FLEX controller detects, and the number of magnets found during the initialization routine e.g. error code EFL8 4_5 = only 4 tray magnets were detected when 5 are expected. An error code of EFL8 0/5 = no tray magnets found which is common when the main door is not closed
EFL9	Delivery Door Opens Unexpectedly	Should the delivery door be opened outside of a vend cycle the elevator will be immediately be sent to the 'Vend' position and an EFL9 will be reported. The VMC controller will then issue a go to Standby command once the delivery door has been closed.
EFL98	Command out of Sequence	Will be returned as part of the elevator status reply if any other command is issued other than a 'Reset' or 'Position Standby' command at power-up.
EFL99	At Top Limit Switch.	Will be returned as part of the elevator status reply if a command is issued if the elevator is stationary at the top limit for any reason

# ELEVATOR SYSTEM SCHEMATIC



P/n 4219693 Rev B Date: Feb 18, 2011

# ELEVATOR VEND CYCLE FLOW CHART



## PARTS ORDERING PROCEDURE

When ordering parts, include the following:

1. The **model** and **serial numbers** of the vendor
2. Shipping address
3. Address where the invoice should be sent
4. The number of parts required
5. Always refer to the pertinent parts and/or part manual for the correct part number and description of a specific part
6. Any special shipping instructions
7. Carrier desired: air or air special, truck, parcel post or rail
8. Signature and date
9. Purchase order number

All orders are carefully packed and inspected prior to shipment. Damage incurred during shipment should be reported at once and a claim filed with the terminating carrier.

If you do not have the right parts manual: Contact VendNet™

If you have any questions, check out our Website [www.vendnetusa.com](http://www.vendnetusa.com) or call VendNet™. Ask for the Parts Department. We will be happy to assist you. Email: [vendnet@vendnetusa.com](mailto:vendnet@vendnetusa.com)

## BEFORE CALLING FOR SERVICE

Please check the following:

- Does your vendor have at least 6-inches of clear air space behind it?
- If the power is turned on at the fuse box, is the vending vendor the only thing that doesn't work?
- Is the vendor plugged directly into the outlet?

### DO NOT USE EXTENSION CORDS

**WARNING: Extension cords cause problems!**

- Is the evaporator coil free of dust and dirt?
- Is the condenser coil free of dust and dirt?
- Is the compressor free of dust? A blanket of dust can prevent the compressor from cooling in between workout cycles.
- Is the circuit breaker at the fuse box reset?
- Is the evaporator fan working? To check if the fan is running take a small piece of paper in front of the evaporator coil and see if the evaporator fan will draw the paper.
- 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 coil inlet screen located on the bottom right side underneath the cabinet and see if it draws the paper to it.
- Is the shelf in front of the evaporator coil clear? (No tools, product, or other air-restricting items).
- Is the temperature setting set as specified - See 4225134 Programming Manual

**NOTES:**

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