Vendo

VARI-PAK

Manual

The Vendo Company
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Vendo P/N 1125145
Revision A

Vendo®

VARI-PAK

PARTS AND SERVICE MANUAL

VARI-PAK TABLE OF CONTENTS

VARI-PAK

SAFETY SECTION

A COMMITMENT TO SAFETY

The Vendo Company is committed to safety in every aspect of our product design. Vendo is committed to alerting every user to the possible dangers involved in improper handling or maintenance of our equipment. The servicing of any electrical or mechanical device involves **potential hazards**, both to those servicing the equipment and to users of the equipment. These hazards can arise because of improper maintenance techniques. The purpose of this manual is to alert everyone servicing Vendo equipment of potentially hazardous areas, and to provide **basic safety guidelines** for proper maintenance.

This manual contains various **warnings** that should be carefully read to minimize the risk of personal injury to service personnel. This manual also contains service information to insure that proper methods are followed to avoid damaging the vendor or making it unsafe. It is also important to understand these **warnings** are not exhaustive. Vendo could not possibly know, evaluate, or advise of all of the conceivable ways in which service might be done. Nor can Vendo predict all of the possible hazardous results. The safety precautions outlined in this manual provide the basis for an effective safety program. Use these precautions, along with the service manual, when installing or servicing the vendor.

We strongly recommend a similar commitment to safety by every servicing organization. Only **properly-trained personnel should have access to the interior of the machine.** This will minimize the potential hazards that are inherent in electrical and mechanical devices. Vendo has no control over the machine once it leaves the premises. It is the owner or lessor's responsibility to maintain the vendor in a safe condition. See Section I of this manual for proper installation procedures and refer to the appropriate service manual for recommended maintenance procedures. If you have any questions, please contact the Technical Services Department of the Vendo office nearest you.

SAFETY RULES

- Read the Safety Manual before installation or service.
- Test for proper grounding before installing to reduce the risk of electrical shock and fire.
- Disconnect power cord from wall outlet or air dam before servicing or clearing product jams. The vending mechanism can trap and pinch hands.
- Use only fully-trained service technicians for Power-On servicing.
- Remove any product prior to moving a vendor.
- Use adequate equipment when moving a vendor.
- Always wear eye protection, and protect your hands, face, and body when working near the refrigeration system.
- Use only authorized replacement parts.
- Be aware of inherent dangers in rocking or tipping a vending machine.

SECTION I: VENDOR INSTALLATION

A. Vendors are large, bulky machines of significant size and weight. Improper handling can result in injury. When moving a vendor, carefully plan the route to be taken and the people and equipment required to accomplish the task safely.

B. Remove all tape, shipping sealant, and Styrofoam from the vendor. Loosen any shipping devices used to secure interior parts during shipping. Remove the wooden shipping base attached to the vendor base by the vendor leveling screws. Make certain the leveling screws are in place and functional.

C. Position the vendor three to four inches (7.6 cm to 10.2 cm) from a well-constructed wall (of a building or otherwise) on a flat, smooth surface.

***IMPORTANT**: The vendor requires three inches (7.6 cm) of air space from the wall to ensure proper air circulation to cool the refrigeration unit.*

D. Adjust the leveling screws to compensate for any irregularities on the floor surface. Ideally, no adjustment will be necessary and the leveling legs will be flush with the bottom of the vendor. A spirit level is a useful aid to level the vendor. When the outer door is open, it will remain stationary if the vendor is properly leveled. Vendors must be level to ensure proper operation and to maintain stability characteristics. Do not add legs to the vendor. **The leveling legs shall not raise the vendor more than 1 1/8 inch above the ground.**

E. Check the manufacturer's nameplate on the left or right side of the vendor's cabinet to verify the main power supply requirements of the vendor. Be sure the main power supply matches the requirements of the vendor. To ensure safe operation, plug the vendor only into a properly grounded outlet.
DO NOT USE EXTENSION CORDS.

F. Recommended voltage specs = volts required + amps of circuit.

NOTE: Any power supply variance more than ± 10% may cause the vendor to malfunction.

* Power outlets must be properly **grounded**.

* Power outlets must be properly **polarized**, where applicable.

Test the outlets using the following information.
(Refer to Figure 1 on Page S-4.)

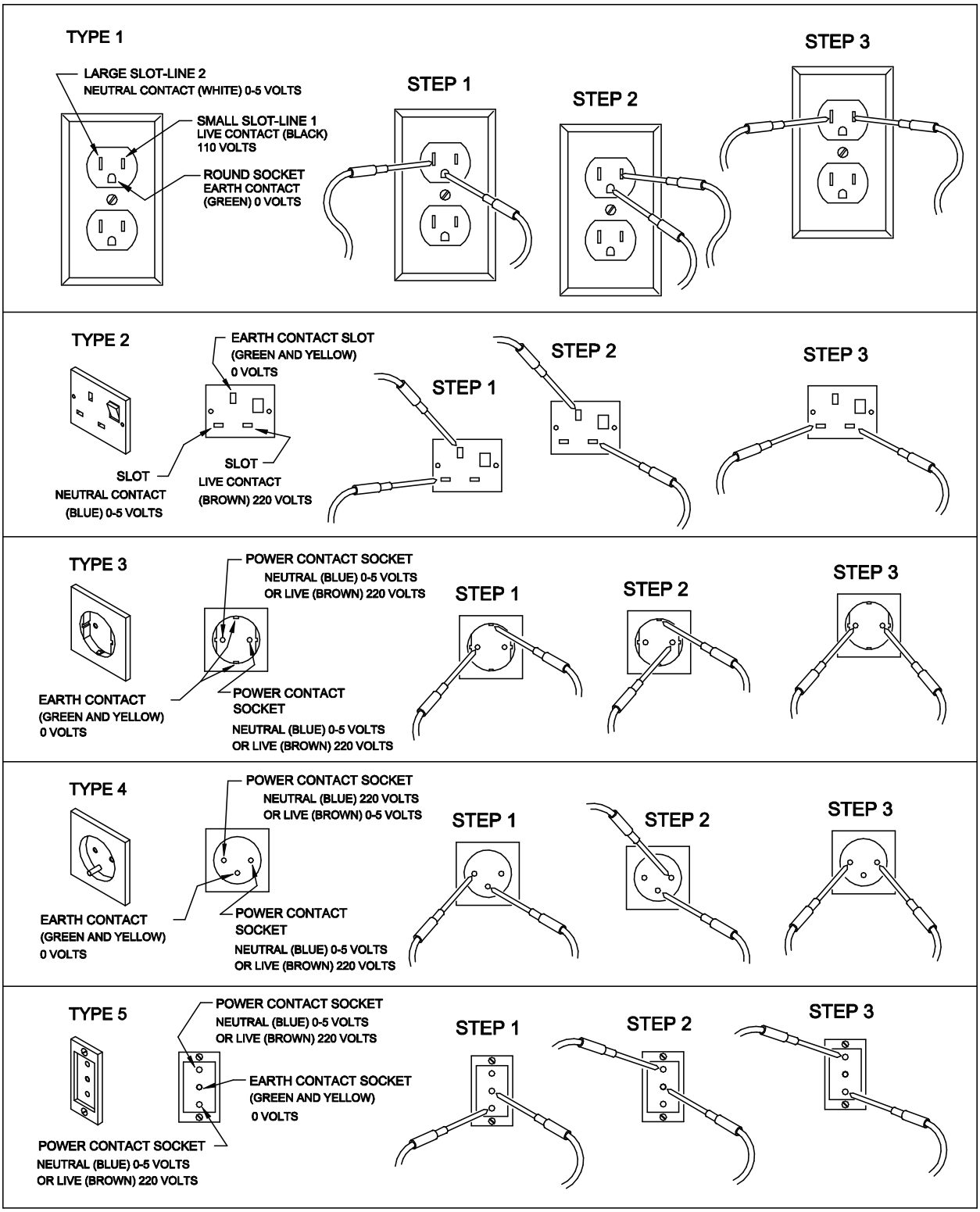

TYPE 1
LARGE SLOT-LINE 2
NEUTRAL CONTACT (WHITE) 0-5 VOLTS
SMALL SLOT-LINE 1
LIVE CONTACT (BLACK)
110 VOLTS
ROUND SOCKET
EARTH CONTACT
(GREEN) 0 VOLTS
STEP 1
STEP 2
STEP 3
TYPE 2
EARTH CONTACT SLOT
(GREEN AND YELLOW)
0 VOLTS
SLOT
NEUTRAL CONTACT
(BLUE) 0-5 VOLTS
SLOT
LIVE CONTACT
(BROWN) 220 VOLTS
STEP 1
STEP 2
STEP 3
TYPE 3
POWER CONTACT SOCKET
NEUTRAL (BLUE) 0-5 VOLTS
OR LIVE (BROWN) 220 VOLTS
EARTH CONTACT
(GREEN AND YELLOW)
0 VOLTS
POWER CONTACT
SOCKET
NEUTRAL (BLUE) 0-5 VOLTS
OR LIVE (BROWN) 220 VOLTS
STEP 1
STEP 2
STEP 3
TYPE 4
POWER CONTACT SOCKET
NEUTRAL (BLUE) 220 VOLTS
OR LIVE (BROWN) 0-5 VOLTS
EARTH CONTACT
(GREEN AND YELLOW)
0 VOLTS
POWER CONTACT
SOCKET
NEUTRAL (BLUE) 0-5 VOLTS
OR LIVE (BROWN) 220 VOLTS
STEP 1
STEP 2
STEP 3
TYPE 5
POWER CONTACT SOCKET
NEUTRAL (BLUE) 0-5 VOLTS
OR LIVE (BROWN) 220 VOLTS
EARTH CONTACT SOCKET
(GREEN AND YELLOW)
0 VOLTS
POWER CONTACT SOCKET
NEUTRAL (BLUE) 0-5 VOLTS
OR LIVE (BROWN) 220 VOLTS
STEP 1
STEP 2
STEP 3

FIGURE 1

SECTION I: VENDOR INSTALLATION (CONTINUED)

For Type 1 and Type 2 outlets, test for Grounding and Polarization as follows:

1. With a test device (volt meter or test light), connect one probe to the receptacle's neutral contact and the other to the live contact. The test device should show a reaction.

2. Connect one probe to the receptacle's earth contact and the other to the live contact. The test device should show a reaction.

For Type 3 through Type 5 outlets, test for Grounding as follows:

1. With a test device (volt meter or test light), determine which of the receptacle's power contacts is the live contact.

   A. Connect one probe to the receptacle's earth contact.

   B. Connect the second probe to the left (or upper) power contact. If a reaction occurs, this is the live power contact. If a reaction does not occur, move the second probe to the right (or lower) contact. A reaction should occur, indicating that this is the live power contact.

2. Connect one probe to the receptacle's live power contact (as determined in step 1). Connect the second probe to the other power contact (neutral). The test device should show a reaction.

IF THE ABOVE CONDITIONS ARE NOT MET FOR THE GIVEN OUTLET TYPE, CONTACT A LICENSED ELECTRICIAN AND HAVE THE NECESSARY CORRECTIONS MADE.

G. Door Support (Figure 2)

The door support is to ensure that the outer door closes squarely to the cabinet. Raising the door can also ensure proper alignment of the door latch.

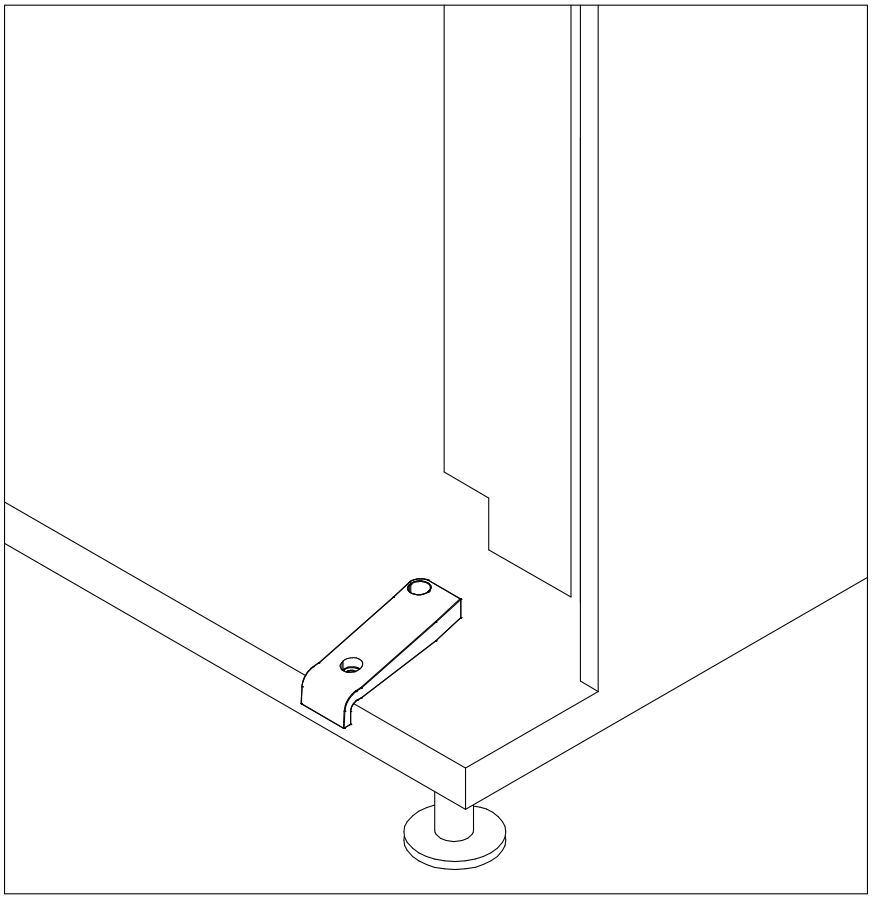


FIGURE 2

NOTE: Refer to the appropriate parts and service manual for detailed instructions, operating principles, and recommended maintenance intervals and procedures.

SECTION II: ELECTRICAL HAZARDS (CONTINUED)

GENERAL

Vendo vending machines are provided with the appropriate power supply setting for your area. Some models are equipped with step-down transformers, as required. This enables the vending machine to operate on different main voltages. Refer to Section I. E. for information to determine the main power requirements. Refer to the appropriate service manual for details of step-down transformer operations.

The power sources just mentioned are standard for both household and commercial lighting and appliances. However, careless or improper handling of electrical circuits can result in injury or death. Anyone installing, repairing, loading, opening, or otherwise servicing a vending machine should be alerted to this point. Apply all of the normal precautions observed in handling electrical circuits, such as:

- Refrigeration servicing to be performed by qualified personnel only.
- Unplug the vendor or move power switch to off position before servicing or clearing product jams.
- Replace electrical cords if there is any evidence of fraying or other damage.
- Keep all protective covers and ground wires in place.
- Plug equipment into outlets that are properly grounded and polarized (where applicable), and protected with fuses or circuit breakers.
- All electrical connections must be dry and free of moisture before applying power.

A. Grounding Systems

Vendo vending machines are provided with the appropriate service cord for the power supply in your area. The service cord will connect to the matching electrical outlet. Always ensure that the outlet to be used is properly grounded before plugging in the vendor. (See pages S-3 through S-5.)

WARNING

ALWAYS TEST TO VERIFY PROPER GROUNDING PRIOR TO INSTALLATION TO REDUCE THE RISK OF ELECTRICAL SHOCK AND FIRE

The electrical grounding system also includes the bonding of all metal components within the vendor. This involves a system of bonding wires identified by green or green and yellow marking. The system uses serrated head screws, lock washers, and star washers to ensure the electrical connection between parts. Maintenance of vending equipment may involve disassembly. Include the above items when reassembling, even if the vending machine may appear to function normally without them. Omitting any of these items can compromise a link in the grounding system. See the appropriate service manual or kit instructions for components and assembly instructions.

SECTION II: ELECTRICAL HAZARDS (CONTINUED)

B. Servicing with "Power Off"

For maximum safety, unplug the service cord from the wall outlet before opening the vendor door. This will remove power from the equipment and avoid electrical and mechanical hazards. Service personnel should remain aware of possible hazards from hot components even though electrical power is off. See the appropriate sections of this manual for further information.

C. Servicing with "Power On"

Some service situations may require access with the power on. Power on servicing should be performed **only by fully-qualified service technicians**. Particular caution is required in servicing assemblies that combine electrical power and mechanical movement. Sudden movement (to escape mechanical action) can result in contact with live circuits and vice versa. It is therefore doubly important to maintain maximum clearances from both moving parts and live circuits when servicing.

WARNING

"POWER ON" SERVICING SHOULD BE ACCOMPLISHED ONLY BY FULLY-TRAINED PERSONNEL. SUCH SERVICE BY UNQUALIFIED INDIVIDUALS CAN BE DANGEROUS.

Power to lighting and refrigeration system is shut off automatically by the electronic controller when the outer door is opened.

NOTE: For power-on servicing of the vendor's lighting system, turn lighting power on by accessing the Lights test function of the electronic controller (see programming on inner door).

For power-on servicing of the vendor's refrigeration system, turn refrigeration power on by accessing the Compressor test function of the electronic controller (see programming on inner door).

SECTION III: MECHANICAL HAZARDS

A. Servicing of Moving Parts and Assemblies

When servicing assemblies involving moving parts, **use extreme caution!!** Keep fingers, hands, loose clothing, hair, tools, or any foreign material clear of entrapment.

As noted before under the electrical hazards section, Power On servicing should **only** be performed by qualified personnel. Refer to and heed the warnings noted in the electrical hazards section. These warnings refer to the potential hazards associated with electrical power and moving parts. Always maintain maximum clearances from electrical and moving parts.

Always install protective covers and guards when reassembling equipment.

SECTION IV: REFRIGERATION HAZARDS

GENERAL

Refrigeration systems involve both electrical power and mechanical action. These systems may present any of the potential dangers shown in the sections on electrical and mechanical hazards contained in this manual. See Sections II and III for further information.

A. Compressed Refrigerant

Refrigeration systems involve the compression and evaporation of gases. The pressures contained represent a potential hazard if suddenly released in confined areas. Caution is required when performing maintenance tests or repairs. All testing of sealed refrigeration systems must be done by trained personnel who are familiar with the systems and pressures involved.

B. Physical Protection

The accidental release of refrigerant gases can result in physical injuries. Always wear protective glasses and protect your hands, face, and body when working near the refrigeration system.

WARNING

ALWAYS WEAR EYE PROTECTION AND PROTECT YOUR HANDS, FACE, AND BODY WHEN WORKING NEAR THE REFRIGERATION SYSTEM

SECTION V: TEMPERATURE HAZARDS

GENERAL

Maintenance personnel should be alerted to the potential hazards from hot metal surfaces. High temperatures may be present throughout the refrigeration system even though electrical power has been removed.

SECTION V: SUBSTITUTIONS AND MODIFICATIONS

GENERAL

Unauthorized changes or the substitution of unauthorized parts can compromise the equipment designs. This can result in unsafe conditions for either the service personnel or the equipment users. Always refer to the appropriate parts and service manual for replacement parts and maintenance instructions. If questions arise, contact the Technical Services Department of the Vendo office in your area.

When servicing the vending machine, always reassemble all components to their original location and position. Maintain the correct routing for tubing, electrical wiring, etc.. Replace all clamps, brackets, and guides to their original locations. Replace all tubing, sleeving, insulating material, and protective covers to their original condition.

WARNING

VENDO EQUIPMENT HAS BEEN PROVIDED WITH APPROPRIATE PROTECTIVE DEVICES TO PROTECT AGAINST THE POSSIBILITY OF OVERHEATING AND FIRE AS A RESULT OF EQUIPMENT OR COMPONENT FAILURES. SUBSTITUTION, MODIFICATION, OR BYPASSING OF SUCH PROTECTIVE DEVICES CAN CREATE DANGEROUS CONDITIONS. PROTECTIVE CIRCUITS SHOULD NEVER BE BYPASSED, AND FAILED PROTECTIVE DEVICES MUST BE REPLACED ONLY WITH FACTORY-AUTHORIZED PARTS.

A. Service Cord Replacement

Vendo vending machines are furnished with unique power supply cords. If replacement becomes necessary, consult the appropriate parts and service manual and order the correct replacement cord for the model of vending machine in question. Do not use substitute replacement cords. Only authorized service personnel with appropriate training should replace the vending machine service cord. If a question should arise concerning which service cord to order, contact the Technical Services Department of the Vendo office in your area.

SECTION V: SUBSTITUTIONS AND MODIFICATIONS (CONTINUED)

WARNING

THIS APPLIANCE MUST BE EARTHED.
IMPORTANT!

The wires in the main leads are colored in accordance with the following code:

110v/120v	220v/240v	
Green	Green and Yellow	Earth
White	Blue	Neutral
Black	Brown	Live

SECTION VI: CONSUMER SAFETY WARNING

⚠ WARNING ⚠

VENDOR CAN BE OVERTURNED IF SUFFICIENT FORCE IS APPLIED AND MAY RESULT IN SERIOUS INJURY OR DEATH.

GENERAL

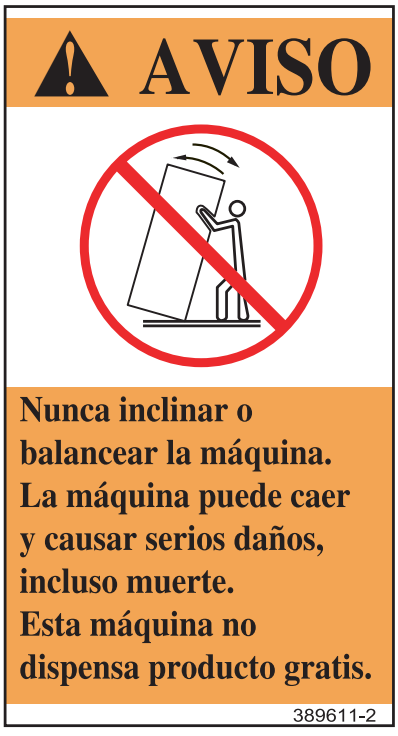
There have been incidents, including fatalities, when vending machines have been vandalized by being pulled over in an attempt to obtain free product or money.

To warn of the danger involved in tipping, shaking, or rocking the vending machine, a decal has been designed to be affixed to vending machines. (One such decal is applied on the vending machine.) Vendo will supply sufficient decals to be placed on all machines, on request. If you have any questions, contact the Technical Services Department of the Vendo office in your area.

THE FOLLOWING DECAL SHOULD BE PLACED IN A POSITION ON THE VENDOR CONTROL PANEL AT EYE LEVEL

ENGLISH

FRENCH



SPANISH

AREA	ADDRESS	PHONE NUMBERS
United States, Canada	The Vendo Company 7209 N. Ingram Fresno, CA 93650 U.S.A.	Tel: (559) 439-1770 Fax: (559) 439-2083
Japan	Sanden International Corporation 31-7 Taito 1-Chome Taito-ku Tokyo 110, Japan	Tel: (81) 3-3835-1321 Fax: (81) 3-3833-7096
Europe, Mid-East Africa, Mid-Asia	Vendo GMBH Spangerstr. 22, P.O. Box 130940 40599 Dusseldorf Germany	Tel: (49) 211-74-039-0 Fax: (49) 211-7488541
Australia, New Zealand	Sanden International Pty. Ltd. 54 Allingham St., Condell Park N.S.W. 2200 Australia	Tel: 61-2-9791-0999 Fax: 61-2-9791-9029
Singapore, Hong Kong, Indonesia, Phillippines, India	Sanden International (Singapore) Pte., Ltd. Sanden House, 25, Ang Mo Kio St. 65 Singapore 569062 The Republic of Singapore	Tel: 65-482-5500 Fax: 65-482-1697
Taiwan	Sanden International Taiwan Corp. No, 21-6, Sec 1 Tun Hwa S. Rd., Taipei, Taiwan Taiwan, ROC	Tel: 886-2-570-6106 Fax: 886-2-577-1959
Belgium	N.V. Vendo Benelux, S.A. Industrial Research Park N.O.H. 13 Font St. Landry 1120 Brussels Belgium	Tel: 32-2-268-2595 Fax: 32-2-268-2862
England	Vendhall, Ltd. Unit 17, The Basingstoke Enterprise Centre Westham Lane, Worting Rd, Basingstoke, Hants RG22, 6NQ Great Britain	Tel: 44-1256-479309 Fax: 44-1256-844469
Italy	Vendo Italy S.p.A. Casella Postale 9 1-15033 Casale Monferrato Italy	Tel: 39-142-335111 Fax: 39-142-5623-48
Spain	Vendo Iberia, S.A. C/ Sant Ferran No. 92 Poligono Industrial la Almeda, Sector P-1 08940 Cornella, (Barcelona), Spain	Tel: 343-474-1555 Fax: 343-474-1842

AREA	ADDRESS	PHONE NUMBERS
Mexico	Vendo de Mexico Camino Real de Toluca No. 154 Col. Bellavista 01140 Mexico D.F. Mexico	Tel: (525) 515-9745 Fax: (525) 277-0111
Central America	The Vendo Company 7209 N. Ingram Fresno, CA 93650 U.S.A.	Tel: (559) 439-1770 Fax: (559) 439-2083
Chile	Pelp Internacional, S.A. 4560 El Rosal Huechuraba, Santiago, Chile	Tel: (562) 243-9710 Fax: (562) 740-0504
Brazil	Cimaq Industria e Comercio de Maq, Ltda. Estrada Uniao e Industria, 9.120 Itaipava 25730-730 Petropolis Rio de Janeiro, Brazil	Tel: (55242) 22-2666 Fax: (55242) 22-3244
South America	The Vendo Company 7209 N. Ingram Ave. Fresno, CA 93650 U.S.A.	Tel: (559) 439-1770 Fax: (559) 439-2083

NOTES

Vendo®

VARI-PAK

GENERAL INFORMATION SECTION

This manual contains programming, operation, and complete parts and electrical wiring diagrams.
The controller is a microprocessor which will permit pricing per selection from 0.00 to 99.99. This machine also has space-to-sales programming as well as energy savings modes.

VARI-PAK MODEL NUMBER	450	453	455	457
Selections	10	10	10	10
Dimensions (HxWxD)	72” x 39.5” x 34.75”	72” x 39.5” x 34.75”	72” x 39.5” x 34.75”	72” x 39.5” x 34.75”
Medium Cassettes (330ml)	5	3	2	0
Larger Cassettes (500ml)	0	1	2	4
Shipping Weight	642 lbs	642 lbs	642 lbs	642 lbs
Capacity: Medium Cassette				
12 oz. Can	72	72	72	~
250 ml Can	102	102	102	~
325 ml Plastic Bottle	66 (est)	66 (est)	66 (est)	~
330 ml Tetra Prisma® Aseptic Carton	90	90	90	~
236 ml Tetra Prisma® Aseptic Carton	96	96	96	~
250 ml Tetra Brik® Aseptic Carton	132	132	132	~
Capacity: Large Cassette				
500 ml Tetra Prisma® Aseptic Carton	~	72 (est)	72 (est)	72 (est)
500 ml Tetra Prisma® Aseptic Carton w/ Cap	~	72 (est)	72 (est)	72 (est)

Dimensions and shipping weight will vary slightly due to manufacturing tolerances, shipping boards and whether or not coinage is installed.

INITIAL SET-UP

A. UNPACKING

Remove all plastic film, cardboard and tape from the outside of the vendor. Loosen any shipping devices used to secure interior parts during shipment (backspacer, shims or spacers).

To remove shipping boards from base, raise vendor on a well-stabilized lifting device. Remove the leveling bolts which hold the boards in place and remove the boards. Replace bolts to equal heights in the threaded holes. Another method to remove shipping boards is to split the boards apart. Using a pinch bar or a heavy screwdriver and hammer, insert tool into the slots and force the boards apart. **The leveling legs shall not raise the vendor more than 1 1/8 inch above the ground.**

B. POSITIONING

IMPORTANT: PLACE THE VENDOR IN DESIRED LOCATION AT LEAST THREE INCHES (7.6CM) AWAY FROM ANY REAR OBSTRUCTION. This is for proper air flow through the refrigeration compartment. The refrigeration system requires rear to front air circulation for proper operation.

C. POWER SUPPLY CONNECTION

CAUTION: DO NOT USE AN EXTENSION CORD!

The vendor's power requirements will vary depending upon the country it was purchased for. To verify the power requirements of the vendor, check the serial plate located on the hinged side of the outer door (see Figure 4 on page G-4). The power requirements are listed on the serial plate.

To insure safe operation of the vendor, the vendor's power supply must be a properly grounded and polarized outlet. Before plugging the vendor into the outlet, test the outlet to confirm it will meet the vendor's power requirements. If the power supply of the outlet is different from the power requirements of the vendor, a transformer may be necessary.

If the power requirements are not properly met, contact a licensed electrician and have the necessary correction made.

Should you require additional information, contact the Technical Services Department of the Vendo office in your area.

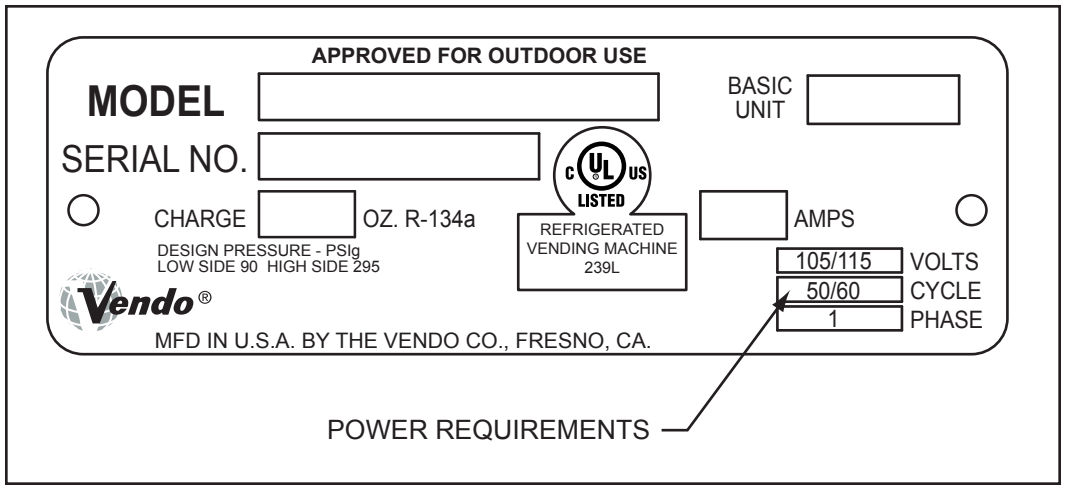


FIGURE 1

NOTE: *The **Model** number of the vending machine is located on the top, left hand corner of the serial plate. A typical model number could read "450VPV001". The 450 is the model number, VPV represents the product line of the vendor, and the remaining digits tell what options are included.*

FLAVOR STRIP INSTALLATION

Insert flavor labels to the top of selection window. A rear view of window is shown in Figure 2. The arrow points to the direction to insert labels.

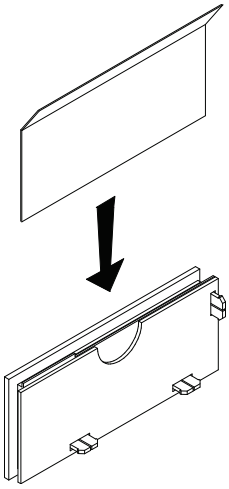


FIGURE 2

ALIGNMENT CHECK

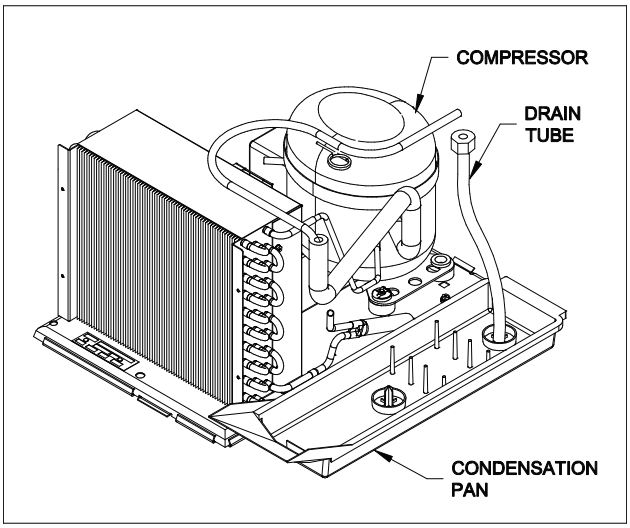


FIGURE 3

REFRIGERATION AREA CHECK:

Check the position of the condensation pan (see Figure 3). The correct position of the pan is on the right hand side of the vendor with the ramp of the pan just outside the right hand air dam. Be sure the drain tube is attached to the pan and is free of kinks. A water trap is installed into the condensation pan and will prevent warm, moist air from reaching the evaporator area.

LOADING INSTRUCTIONS

BASIC LOAD SET-UP (see Figure 4 on next page)**:**
The Vari-Pak machine is capable of vending a variety of products. For specific information, refer to the product set-up label on the machine inner door or contact the Technical Services Department of the Vendo office in your area.

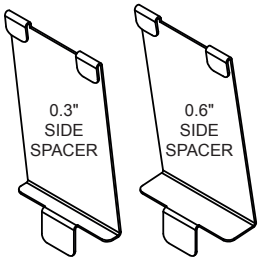
Use the directions in Figure 4 in the PRODUCT LOADING section to determine how to load a specific product.

To maintain the integrity of the modules, never move a vending machine when it is loaded.

VARI-PAK PRODUCT SETUP AND LOADING INSTRUCTIONS

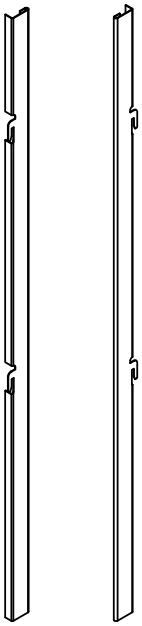
	SIZE	DESCRIPTION	TYPE	SIDE SPACER	COLUMN SETTING	BACK SPACER POSITIONS	
						LEFT	RIGHT
300 mL MODULE	125 mL	BRIK	ASEPTIC CARTON	1125100	4	1	1
	200mL	BRIK	ASEPTIC CARTON	NONE	5	3	3
	200 mL	BRIK SLIM	ASEPTIC CARTON	1125100	4	NOT USED	NOT USED
	200 mL	BRIK MID-SIZE	ASEPTIC CARTON	1125096□	4	NOT USED	NOT USED
	250 mL	BRIK	ASEPTIC CARTON	NONE	5	NOT USED	NOT USED
	250 mL	PRISMA	ASEPTIC CARTON	1125100	4	NOT USED	NOT USED
	330 mL	PRISMA	ASEPTIC CARTON	1125096□	5	NOT USED	NOT USED
	12 OZ	STANDARD	CAN	NONE	6	NOT USED	NOT USED
	250 mL	STANDARD	CAN	1125096□	2	NOT USED	NOT USED
500 mL MODULE	500 mL	PRISMA	ASEPTIC CARTON	NONE	6	NOT USED	NOT USED
	16 OZ	STANDARD	CAN	NONE	6	NOT USED	NOT USED
	12 OZ	DASANI*	PET BOTTLE	NONE	6	NOT USED	NOT USED
	12 OZ	AQUAFINA*	PET BOTTLE	NONE	6	NOT USED	NOT USED

SIDE SPACERS



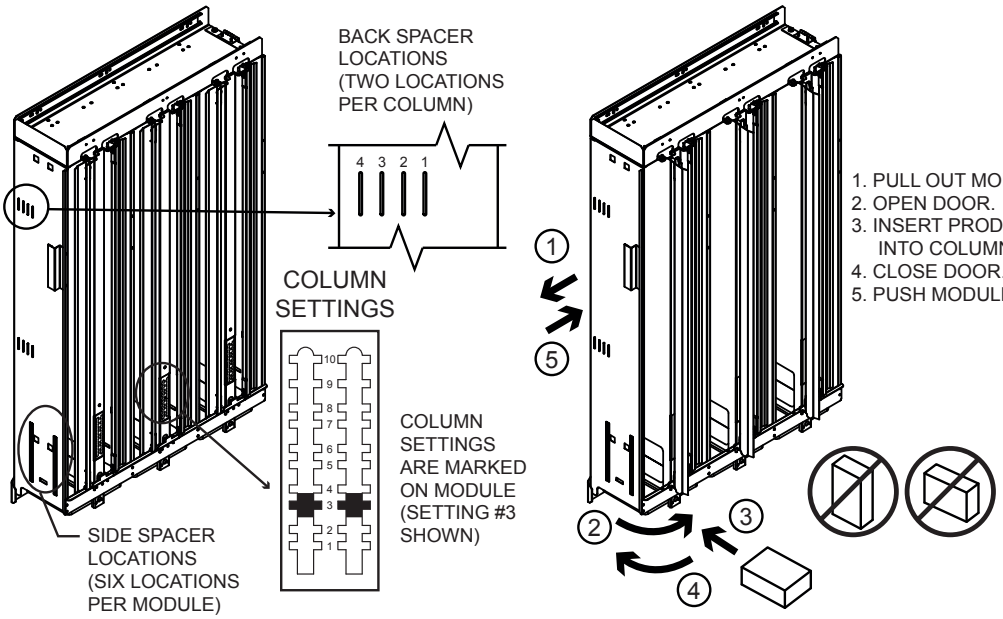
1125096 1125100

BACK SPACERS



1125299 (LEFT) 1125299-1 (RIGHT)

* LOAD CAP END FIRST



For questions regarding product settings not shown, contact the Vendo Technical Services Department at 1-800-344-7216 ext.3368 (US/Canada) or 559-439-1770 ext.3368.

FIGURE 4

VEND MECHANISM PARTS DESCRIPTION

The part listed below is the vend motor mechanism (refer to Figure 5 on this page). Three vend mechanisms are required per module. The parts are interchangeable. Settings will differ depending on product type and size.

VEND MECHANISM ASSEMBLY: P/N 1124288

The motor is attached to the module by screws.

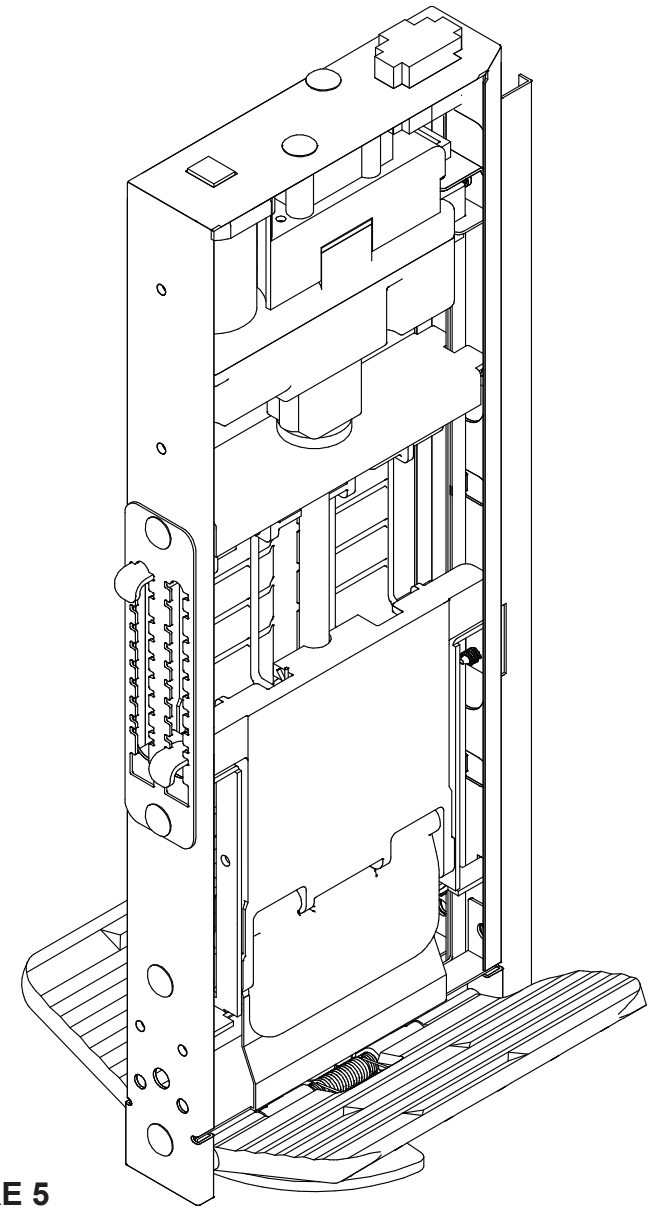


FIGURE 5

NOTES

VARI-PAK

CLEANING INFORMATION SECTION

CARE AND CLEANING

DO NOT USE WATER JET FOR CLEANING.

AVOID USING WATER OR ANY OTHER LIQUIDS NEAR ELECTRONIC COMPONENTS

A. GENERAL PROCEDURE (painted metal areas)
Wash the vendor with soap and water. The exterior may be waxed with any good automobile wax.

B. FRESH PAINT SPLASHES, GREASE, GLAZING COMPOUND REMOVAL
Before drying, these elements may be removed by rubbing lightly with grade "A" Naptha (or equivalent grade solvent). After removal, use general cleaning procedure (listed above in A).

C. LABELS AND STICKER REMOVAL
Use any specialized label removal liquid. When the label material does not allow penetration of solvent (such as vinyl), the application of heat (ie – hot air gun) will soften the adhesive and promote removal. **CAUTION:** Excessive heat can cause surface damage. After the label is removed, use the general cleaning procedure (listed above in A).

D. SCRATCH REMOVAL
Remove or minimize hairline scratches and minor abrasions in painted surfaces by using any good quality automobile polish. Test the polish before using.

E. LEXAN SIGNS
To clean Lexan sign faces the following procedure is recommended.

1. Wash sign with mild soap or detergent and lukewarm water.
2. Using a soft cloth or sponge, gently wash the sign. **DO NOT SCRUB!**
3. Rinse well with clean lukewarm water.
4. Dry thoroughly with a chamois or cellulose sponge (to prevent water spotting). **DO NOT USE SQUEEGEE!**

NOTE: Most organic solvents, petroleum, spirits, or alcohol are **NOT** compatible cleaning materials for Lexan signs. Usage of those materials could permanently damage the sign.

F. REFRIGERATION AREA
The condenser and evaporator must be kept clean for efficient operation. Be sure all vanes and tubing are clean and clear of obstruction; this allows free passage of air. Clean with a brush, a vacuum cleaner or compressed air, using extreme caution not to bend the condenser vanes. Keep cabinet drain open; clean as necessary.

G. PRODUCT CHUTE, HOPPER, & OTHER INTERIOR SURFACES THAT CONTACT PACKAGED PRODUCT

Wash the surfaces with a mild food safe soap (i.e. Palmolive Liquid Dish Soap) & water. Rinse with plain water to remove any soap residue.

Recommended Cleaning Schedule	
Vendor Area	**Frequency**
Product Chute	Monthly and when spills occur
Hopper/Delivery Port	Weekly and when spills occur
Exterior Cabinet/Door	Every 6 months or as needed
Sign Face	Every 6 months or as needed
Cabinet Interior	Every 6 months or as needed
Door Interior	Every 6 months or as needed
Condenser	Every 3 months or as needed
Evaporator	As required
Modules	Every 6 months and when spills occur

NOTES

Vendo®

VARI-PAK

14.1 PROGRAMMING SECTION

VEC 14.1 CONTROL BOARD OPERATION

The VEC 14.1 controller operates via a 4-button programming system:

Selection Button #1 – Return
Selection Button #2 – Increase/Move Forward
Selection Button #3 – Decrease/Move Backward
Selection Button #4 - Enter

In order to access the mode functions, open the inner door. Locate the mode button. Press the mode button one time. Selection Button #2 will take you through the modes.

The available modes are:
Diagnostics
Coin Payout
Tube Fill
Test Mode
Cash Data
Sales Data
Discount Counter
Free Counter
Set Price
Configuration
Space to Sales
Door Closed Password
Set Language
*Set Clock **
*Lighting **
*Refrigeration***
*Sales Block 1 **
*Sales Block 2 **
*Discount **
*Override ***
Custom Message
Return

* These modes will only appear when the *Timing Features* in *Configuration* are turned ON.
** Limited options will appear in these modes depending on whether the Timing Features are ON/OFF.

Diagnostics

See attached error code chart on page PG-22 for errors and how to clear them.

When you enter into the *Diagnostics* mode with selection button #4, the first one of the summary error codes will be displayed. If no errors have occurred since the last error reset, the display will show an *Error None* message. Pressing selection button #2 (up) or selection button #3 (down) will cycle through all of the summary error codes. Pressing selection button #4 will allow access into the detailed error code, while pressing selection button #1 returns to the *Diagnostics* display.

Coin Payout

Allows you to payout coin tubes.

- Press selection button #4 to enter into *Coin Payout* mode.
- Press selection button #2 (up) or selection button #3 (down) to choose denomination.
- Press selection button #4 to dispense displayed denomination.
- Press selection button #1 to exit mode.

Tube Fill

Allows you to fill coin tubes via external coin insert. This is the recommended way to fill the coin tubes because the control board is able to keep an accurate count of the coins.

- Press selection button #4 to enter into *Tube Fill* mode.
- Insert coins into coin insert slot and the controller will "count" the number of coins going into the coin mechanism.
- Press selection button #1 to exit mode.

Test Mode

Allows you to test vend a column, selection switches, display, refrigeration relay, light relay, heater relay and evaporator fan relay.

Test Mode - Vending

- At *Test* mode, press selection button #4.
- Display will read *Test Mode – Vending*.
- Press selection button #4.
- Display will read *Test Mode – Vending; Column* A1.
- Press selection button #2 (up) or selection button #3 (down) to choose desired column.
- Press selection button #4 to vend the displayed column.
    - If motor vends OK, display will read "*Motor OK*"
    - If motor does not test OK
        - *Fail - Motor not Found* will be displayed

- *Fail – Column Jam* will be displayed if the motor is not in the home position and will not move.
- *Fail – No Connection* will be displayed if the motor is disconnected.
- *Fail – High Current* will be displayed if the motor has a short.

Test Mode - Jog

- At *Test* mode, press selection button #4
- Press selection button #2 (up) or selection button #3 (down) until the display reads *Test Mode - Jog*
- At *Test* M*ode – Jog* press selection button #4
- *Test Mode – Jog; Column A1&A2* will be displayed indicating that a jog test of the first column may be initiated.
- Press selection button #2 (up) or selection button #3 (down) to choose desired column.
- Press selection button #4 and *Column nn&nn Forward* will be displayed indicating a forward motion of the motor.
- Press selection button #2 (up) or selection button #3 (down) to toggle between *Forward* and *Reverse*.
- Pressing selection button #4 will initiate a jog test of the last displayed motor in the last displayed direction. Please note that the jog will not be allowed to continue to a point, or in a direction, that will damage any part of the mechanism.
- Press selection button #1 twice to return to the *Test Mode – Jog* display.

Test Mode - Display

- At *Test* mode, press selection button #4.
- Press selection button #2 (up) or selection button #3 (down) until the display reads *Test Mode – Display.*
- At *Test* mode – *Display*, press selection button #4
- If functional, all 20 characters of the display should illuminate.
- Press selection switch #1 to return to *Test Mode – Display*.

Test Mode - Switches

- At *Test* mode, press selection button #4.
- Press selection button #2 (up) or selection button #3 (down) until the display reads *Test Mode – Switches.*
- Press selection button #4 and the display will read *Test Mode – Switches; Selection ?*
- Activation of each selection button will display the selection switch number.
- Press and hold selection button #1 for at least 2 seconds to return to *Test Mode – Switches.*

Test Mode - Relays

Allows you to test compressor, fan, lights and heater via the relays.

- At *Test* mode, press selection button #4.
- Press selection button #2 (up) or selection button #3 (down) until the display reads *Test Mode - Relays*
- Press selection button #4.

- To advance through sub-modes, press selection button #2 (up) or selection button #3 (down).
- To test the compressor, press selection button #4 when the display reads *Compressor Off*.
- *Off* will begin to flash.
- Press selection button #2 (up) or #3 (down) to change *Off* to *On*.
- Press selection button #4 and the compressor should turn on.
- To turn the compressor off, press selection button #4 when the display reads *Compressor On*.
- *On* will begin to flash.
- Press selection button #2 (up) or #3 (down) to change *On* to *Off*.
- Press selection button #4 and the compressor should turn off.
- To test the optional evaporator fan relay, press selection button #4 when the display reads *Fan Off.*
- *Off* will begin to flash.
- Press selection button #2 (up) or #3 (down) to change *Off* to *On*.
- Press selection button #4 and the evaporator should turn on.
- To turn the evaporator off, press selection button #4 when the display reads *Evaporator On*.
- *On* will begin to flash.
- Press selection button #2 (up) or #3 (down) to change *On* to *Off*.
- Press selection button #4 and the evaporator should turn off.
- To test the lighting system, press selection button #4 when the display reads *Light Off.*
- *Off* will begin to flash.
- Press selection button #2 (up) or #3 (down) to change *Off* to *On*.
- Press selection button #4 and the lights should turn on.
- To turn the lights off, press selection button #4 when the display reads *Lights On*.
- *On* will begin to flash.
- Press selection button #2 (up) or #3 (down) to change *On* to *Off*.
- Press selection button #4 and the lights should turn off.
- NOTE: The lights will stay on during the rest of the programming if you do not turn them off. This is to provide lighting during service work.
- To test the optional heater, press selection button #4 when the display reads *Heater Off.*
- *Off* will begin to flash.
- Press selection button #2 (up) or #3 (down) to change *Off* to *On*.
- Press selection button #4 and the heater should turn on.
- To turn the heater off, press selection button #4 when the display reads *Heater On*.
- *On* will begin to flash.
- Press selection button #2 (up) or #3 (down) to change *On* to *Off*.
- Press selection button #4 and the heater should turn off.

- To exit the sub-modes, press selection button#1.

Cash Data

Allows you to retrieve historical information regarding the money accepted by the vendor. To clear the individual selection cash data, you must have the *MIS Auto Reset* in the *Configuration* mode turned ON.

- Press selection button #4 when the display reads *Cash Data*.
- The non-resettable historical data is displayed.
- To display resettable individual selections, press selection button #2 (up) or selection button #3 (down) until you reach the desired selection.
- To reset historical data, make sure the *MIS Auto Reset* is turned ON in the configuration mode.
- To exit mode, press selection button #1.

Sales Data

Allows you to retrieve historical information regarding the number of units sold by the vendor. To clear the individual selection sales data, you must have the *MIS Auto Reset* in the *Configuration* mode turned ON.

- Press selection button #4 when the display reads *Sales Data*.
- The non-resettable historical data is displayed.
- To display resettable individual selections, press selection button #2 (up) or selection button #3 (down) until you reach the desired selection.
- To reset historical data, make sure the *MIS data reset* is turned ON in the C*onfiguration* mode.
- To exit mode, press selection button #1.

Discount Counter

(This item will only show when discounts are used.)

Allows you to access the sales and cash data for vends that have been discounted.

- Press selection button #4 when the display reads *Discount Counter*. The display will change to read *Cash Data*.
- Press selection button #4 when the display reads *Cash Data*.
- The display will change to read *Cash Data Total* and display the value of all discounts towards paid sales. This total is non-resettable and begins when the discount feature is enabled.
- Pressing selection button #2 (up) or selection button #3 (down) will scroll through all of the selection buttons and display the value of the discounts toward product sales. The amounts for the individual selections can be reset using the rules in the *Configuration* mode.
- To exit this mode, press selection button #1.
- The display will return to *Discount Counter, Cash Data*.

- To advance to the sales information, press selection button #2 when the display reads *Discount Counter, Cash Data*.
- The display will change to *Discount Counter, Sales Data*. Press selection button #4 to access (enter) this information. The total number of discounted sales will be displayed. This total is non-resettable and begins when the discount feature is enabled.
- Pressing selection button #2 (up) or selection button #3 (down) will scroll through all of the selection buttons and display each selection's number of discounted sales. The amounts for the individual selections can be reset using the rules in the *Configuration* mode.

Free Counter

(This item will only show if free vends during closed-door sales mode have been made.)

Allows you to access the sales and cash data (loss) for vends that have been free.

- Press selection button #4 when the display reads Free Counter. The display will change to read Cash Data Total XX.XX. It will display the value of all lost money based on the price value setting. This total is non-resettable and begins when the free vend override feature is enabled.
- Pressing selection button #2 (up) or selection button #3 (down) will change to the second screen. The display will change to read Sales Data Total X. It will display the total number of free vends that have occurred. This total is non-resettable and begins when the free vend override feature is enabled. Press selection button #1 to exit the mode.

Set Price

Allows you to set the vend price of each selection. In this mode, you have the option of pricing each selection button at the same vend price or price each selection button independently.

- Press selection button #4 when the display reads *Set Price.*
- Press selection button #2 (up) or selection button #3 (down) to toggle between all of the selections.
- Press selection button #4 to start the current vend price flashing.
- Press selection button #2 to increase the price.
- Press selection button #3 to decrease the price.
- Press selection button #1 to exit the mode.

Configuration

There are various options in the configuration mode that you can turn ON/OFF. The options are:

Multi-Price

ON = All selections can be programmed individually. Single price operation is disabled.

OFF = All selections will be set to the same price as selection 1. Single price operation is enabled.

*Timing Features**

ON = Gives you access to the *Clock* settings and its associated modes.

OFF = *Clock* settings and its associated modes are hidden.

Door Summary

ON = Sales, cash data and error status are displayed as soon as the outer door is opened or by activating the door switch.

OFF = Sales and cash data are not displayed when the door is opened, but the error summary will be displayed.

MIS Auto Reset

ON = After you check the sales and cash data, press the door switch and the individual selection data will be reset back to zero.

OFF = Sales and cash data will not be reset by activating the door switch.

Customer Overpay

ON = A dollar bill will be accepted even if the correct change light is on and there is insufficient change in the coin tubes.

OFF = A vend will not be allowed when the correct change light is on and the consumer attempts to use the dollar bill validator.

Save Credit Tmr

ON = Credit that is established will be displayed for five minutes unless someone either makes a vend or presses the coin return button – whichever comes first.

OFF = Credit that is established will remain indefinitely unless someone either makes a vend or presses the coin return button.

Force Vend

ON = The consumer will not be able to insert a dollar into the validator, hit the coin return and receive change without first attempting a vend. Change machine is disabled.

OFF = The consumer can insert a bill into the validator, press the coin return button and immediately receive change. Change machine is enabled.

Multi-Vend

ON = The consumer may insert enough credit to make multiple vends. The credit will remain on the display until an additional vend is made or the coin return button is pressed.
OFF = The consumer is only allowed to make a single vend and the credit (if applicable), will be returned after the completion of the vend.

Deny Escrow

ON = The validator will stack all bills received.
OFF = The validator will not stack the bills, rather it will hold them in escrow until a vend is complete.

SO Indicator

ON = A small symbol will appear in the lower right hand corner of the display when at least one column is sold out or the machine detects an error.
OFF = The symbol will not appear.

Count by Selection/Price

COUNT BY SELECTION = Individual sales and cash data will be reported in unit sales.
COUNT BY PRICE = Individual sales and cash data will be reported by vend price.

MIS Reset with DEX

ON = The resettable MIS data will be reset when a DEX read has been completed.
OFF = The resettable MIS data will not be reset when a DEX read has been completed.

*When the *Timing Features* are turned ON, you will have access to additional modes in the programming relating to the internal timing and blocking functions.

- To adjust any of the settings, press selection button #4 at *Configuration* mode.
- Press selection button #2 (up) or selection button #3 (down) to scroll through the various sub-modes.
- Press selection button #4 to change the status of the mode. The current setting will begin to flash.
- Press selection button #2 (up) or selection button #3 (down) to change the current setting.
- Press selection button #1 to exit the mode.

Space to Sales

Allows you to program which column will vend when you choose a desired selection button. There are 6 preset configurations (See Page PG-23). You also have the option of customizing the space to sales. To change current setting:

- Press selection button #4 at the *Space to Sales* prompt.
- The current space to sales setting will be displayed.
- Press selection button #4 to change the current setting.
- Press selection button #2 (up) or selection button #3 (down) to toggle through the

available settings.
- Press selection button #4 to save the desired setting.
- NOTE: Pressing selection button #1 before saving, will exit you from the Space to Sales mode without changing the current setting.
- Press selection button #1 to exit mode.

Custom Space to Sales Setting
- Press selection button #4 at the *Space to Sales* prompt.
- The current space to sales setting will be displayed.
- Press selection button #4 to change the current setting.
- Press selection button #2 (up) or selection button #3 (down) to toggle through the available settings until you reach *Custom*.
- Press selection button #4 and the display will read *Clear Setting*?
- Press selection button #4 to clear previous space to sales settings and unassign all columns and selection buttons – OR -
- Pressing selection button #2 (up) or selection button #3 (down) to cycle through all the selections and *Save Setting?*.
- Pressing selection button #4 at the desired selection will activate the change status. The display will show *Sel n - XX* where the *X* is blinking if the column is currently assigned to the selection *n*.
- Using selection button #2 (up) or selection button #3 (down) will cycle through all available columns.
- Press selection button #4 to change the status. If XX is blinking, the column is assigned to the displayed selection. If XX is steady/not blinking, the column is not assigned to the displayed selection.
- NOTE: Pressing selection button #1 will exit you from the custom space to sales mode and display *Save Setting*? Be sure to press selection button #4 at *Save Setting?* if you would like the changes to be made.
- The display will return to *Custom* once selection button #4 is pressed.
- Press selection button #1 to exit the mode and return to the *Space to Sales* prompt.

Door Closed Password

Allows you to set a password to access sales data only when the door is closed. Please note that this function will not work if the vend price is set at 0.00.

- Press selection button #4 at *Door Closed Password* mode.
- The current password will be displayed with the first digit flashing indicating that it is ready to be edited.
- Pressing selection button #2 (up) or selection button #3 (down) will allow you to change the digits. NOTE: Valid digits are 0 through 6. Any password with 0 will disable this feature.
- Press selection button #4 to advance to the next digit.
- Press selection button #4 after the 4th digit to exit the mode.

Set Language

Allows you to program different languages on the controller. The current languages available are English, Spanish and French.

- Press selection button #4 at the *Set Language* mode.
- The current language will be displayed.
- To change current language, press selection button #4 to start the language flashing.
- Press selection button #2 (up) or selection button #3(down) to choose a language.
- Press selection button #4 to save the language change.
- Press selection button #1 to exit mode.

Set Clock

If the *Timing Features* in the *Configuration* mode are turned ON, you will have access to this mode. This mode allows you to set the current month, day, year, hour and minute.

To set the clock:

- Press selection button #4 at the *Set Clock* prompt. You will be able to scroll through the following options by pressing selection button #2 (up) or selection button #3 (down).
    - *Enable ON/OFF* - This will turn the clock timer on or off.
    - *MM/DD/YYYY HH:MM* - This is the current time & date.
    - *Daylight Savings – OFF, North American, Europe or Australia*
- To change current setting, press selection button #4.
- The current setting will begin to flash.
- Press selection button #2 (up) or selection button #3 (down) to change current setting
- Press selection button #4 to save the current setting.
- Press selection button #1 to exit the mode.

Lighting

If the *Timing Features* in the *Configuration* mode are turned ON, you will have access to this mode. This mode allows you to turn the lights on/off with the internal timer for energy conservation. You have the ability to turn the lights off at two different intervals during the day.

- Press selection button #4 when the display reads *Lighting*
- Press selection button #4 at *Enable On/Off.*
- To change the status of the lights, press selection button #2 (up) or selection button #3 (down) to toggle between On/Off.
- Press selection button #4 to change the status.
- Press selection button #2 to advance to *Start Time 1*. This is the time that the lights

will turn off or begin the light conservation.

- Press selection button #4 at *Start Day 1.*
- Scroll through the days of the week or *Every Day* with selection button #2 (up) or selection button #3 (down).
- To change the current setting, press selection button #4.
- *On/Off* will begin to flash.
- Press selection button #2 (up) or selection button #3 (down) to toggle between *On/Off*.
- Press selection button #4 to save the current setting.
- Press selection button #1 to return to *Start Day 1*.
- Press selection button #2 (up) to advance to *Start1 hh:mm.*
- Press selection button #4 at *Start1 hh.mm* to set the time for the light energy conservation mode to begin.
- Press selection button #2 (up) or selection button #3 (down) to change the hour.
- Press selection button #4 to advance to the minutes.
- Press selection button #4 to save the displayed time.
- Press selection button #1 to exit the mode and return to *Start Time 1*.
- Press selection button #2 (up) to advance to *Stop Time 1*.
- Repeat process with *Stop Time 1.*

Refrigeration

If the *Timing Features* in the *Configuration* mode are turned OFF, you will only have access to the following two modes:

Set Point
Sensor Reading
Degree X – Celsius or Fahrenheit
Fan Disable/Enable
Periodic Defrost – On/Off

If the *Timing Features* in the *Configuration* mode are turned ON, you will have additional access to the following modes:

Enable
Start Time 1 & 2
    Start Day 1 & 2
    Start 00:00
Stop Time 1 & 2
    Stop Day 1 & 2
    Stop 00:00

This mode allows you to turn the refrigeration on/off with the internal timer for energy conservation. You have the ability to raise the temperature of the refrigeration system 18°F at two different intervals during the day.

- Press selection button #4 when the display reads *Refrigeration.*
- The display will read *Setpoint*.
- Press selection button #4 and the display will read the current setpoint temperature. NOTE: The machine is set at 36°F from the factory.
- Press selection button #4 and the temperature will begin to flash.
- Pressing selection button #2 (up) or selection button #3 (down) will cycle you through the following settings:

Cut-in Temperature (F)	34	35	36	37	38	39	40	41	42
Cut-out Temperature (F)	30	31	32	33	34	35	36	37	38
Nominal Temperature (F)	32	33	34	35	36	37	38	39	40
Nominal Temperature (C)	0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0

- Press selection button #4 to save the setting.
- Press selection button #1 to return to the *Setpoint* mode.
- Press selection button #2 (up) to advance to the next submode.
- Press selection button #4 to access the temperature reading.
- Press selection button #1 to exit this mode.
- Press selection button #2 (up) to advance to the next submode.
- The display will show the current degree scale F or C (Fahrenheit or Celsius).
- Press selection button #4 to change the current setting.
- Use selection button #2 (up) or selection button #3 (down) to toggle between Celsius or Fahrenheit.
- Press selection button #4 to save the setting and exit the mode.
- Press selection button #2 (up) to advance to the next submode.
- Press selection button #4 to access the Fan X mode.
    - Fan Disable = The evaporator fan will be turned off/on with the activation of the compressor.
    - Fan Mode 1 = The evaporator fan will turn off 5 minutes after the compressor fan is turned off. When the compressor is turned on, the evaporator will turn on at the same time.
- *X* will be flashing.
- Press selection button #2 (up) or selection button #3 (down) to toggle between *Disable/Mode 1/Mode 2.*
- Press selection button #4 to save the setting.
- Press selection button #1 to exit this mode.
- Press selection button #2 (up) to advance to the Periodic Defrost mode.
- *On/Off* will be flashing.
- Press selection button #2 (up) or selection button #3 (down) to toggle between *On/Off*.

  - *On* = The machine will defrost every 6 hours – for 30 minutes. This is for extremely high humidity environments.
  - *Off* = Machine will not defrost every 6 hours.
- Press selection button #4 to save the setting.
- Press selection button #1 to exit this mode.
- Press selection button #2 (up) to advance to the next submode – *Enable Timer*.
- Press selection button #4 to access the Fan energy conservation mode.
- Press selection button #4 at *Enable Timer On/Off.*
- To change the timer status, press selection button #2 (up) or selection button #3 (down) to toggle between *On/Off*.
- Press selection button #4 to save the status.
- Press selection button #2 to advance to *Start Time 1*. This is the time that the temperature will raise to begin the energy conservation.
- Press selection button #4 at *Start Day 1.*
- Scroll through the days of the week or *Every Day* with selection button #2 (up) or selection button #3 (down).
- To change the current setting, press selection button #4.
- *On/Off* will begin to flash.
- To change the status, press selection button #2 (up) or selection button #3 (down) to toggle between *On/Off*.
- Press selection button #4 to save the status.
- Press selection button #1 to return to *Start Day 1*.
- Press selection button #2 (up) to advance to *Start 1 hh:mm.*
- Press selection button #4 at *Start 1 hh.mm* to set the time for the refrigeration conservation mode to begin.
- Press selection button #2 (up) or selection button #3 (down) to change the hour.
- Press selection button #4 to save the displayed hour and advance to the minutes.
- Press selection button #2 (up) or selection button #3 (down) to change the minutes.
- Press selection button #1 to exit the mode and return to *Start Time 1*.
- Repeat process with *Stop Time1.*

Sales Block 1 and 2

Allows you to program the machine to turn off and on at regular intervals. You have the ability to turn the machine off/on at two intervals during the day.

To program the blocking feature, you must enter the following information:

Selections – the selection buttons that will be disabled during the blocked time
Start Time – the time that the machine will turn off/shut down
Start Days – the days that the machine will turn off/shut down
Stop Time – the time that the machine will turn back on
Stop Days – the days that the machine will turn back on

To choose the selections:

- Press selection button #4 when the display reads *Sales Block 1* or *2*.
- The display will read *Enable X*
  - Enable Off = The block function is off/disabled/inactive
  - Enable On = The block function is on/enabled/active
  - Enable Light = The block function is on and the lights are off when blocking occurs.
- To change the *Enable* status, press selection button #4.
- Use selection button #2 (up) or selection button #3 (down) to cycle through the available options.
- Press selection button #4 to save the status change and return to the *Enable* submode.
- Press selection button #2 (up) to advance to *Selections.*
- Press selection button #4 to change the status of the selection buttons during the blocking mode.
- Press selection button #2 (up) or selection button #3 (down) to cycle through the available selections or *All Selections.*
- Press selection button #4 to change the status of the selections. If the status is *On*, the selections will be disabled during the blocked time(s). If the status is *Off*, the selections will remain enabled during the blocked time(s).
- Press selection button #2 (up) or selection button #3 (down) to toggle between *On/Off*.
- Press selection button #4 to save the setting.
- Press selection button #1 to return to *Selections*.

To set the start time

- Press selection button #2 (up) when the display reads *Selections*.
- Press selection button #4 when the display reads *Start Time*.
- Press selection button #4 when the display reads *Start Day*.
- Press selection button #2 (up) or selection button #3 (down) to cycle through the days or *Every Day*.
- Press selection button #4 to change the status of the days. If the status is *On*, the days will be disabled during the blocked time(s). If the status is *Off*, the days will remain enabled during the blocked time(s).
- Press selection button #2 (up) or selection button #3 (down) to toggle between *On/Off*.
- Press selection button #4 to save the setting.
- Press selection button #1 to return to *Start Day*.
- Press selection button #2 (up) to advance to *Start hh:mm*.
- Press selection button #4 and the hour setting will begin to blink indicating that it is ready to be edited.
- Press selection button #2 (up) or selection button #3 (down) to choose the desired start hour. The time is in a 24-hour format.
- Press selection button #4 and the minutes will begin to flash.
- Press selection button #2 (up) or selection button #3 (down) to choose the desired start minutes.
- Press selection button #4 to save your settings.
- Press selection button #1 to return to *Start Time*.

To set the stop time

- Press selection button #2 (up) when the display reads *Start Time*.
- Press selection button #4 when the display reads *Stop Time*.
- Press selection button #4 when the display reads *Stop Day*.
- Press selection button #2 (up) or selection button #3 (down) to cycle through the days or *Every Day.*
- Press selection button #4 to change the status of the days. If the status is *On*, the days will be disabled during the blocked time(s). If the status is *Off*, the days will remain enabled during the blocked time(s).
- Press selection button #2 (up) or selection button #3 (down) to toggle between *On/ Off*.
- Press selection button #4 to save the setting and exit the submode.
- Press selection button #2 (up) to advance to *Stop hh:mm*.
- Press selection button #4 and the hour setting will begin to blink indicating that it is ready to be edited.
- Press selection button #2 (up) or selection button #3 (down) to choose the desired stop hour. The time is in a 24-hour format.
- Press selection button #4 and the minutes will begin to flash.
- Press selection button #2 (up) or selection button #3 (down) to choose the desired stop minutes.
- Pressing selection button #4 will save your settings.
- Press selection button #1 to return to *Stop Time*.
- Pressing selection button #1 again, will return you to the *Sales Block 1* or *2* mode.

Discount

Allows you to program the machine to discount beverages at regular intervals.
To program the *Discount* feature, you must enter the following information:

Discounted Selection – The selections to be offered at a discounted price.
Start Time – The time that the discount begins.
Start Day – The days that the discount is offered.
Stop Time – The time that the discount ends.
Stop Day – The days that the discount ends.
Amount - The amount subtracted/discounted from the original vend price.

To set the discounted selections

- Press selection button #4 when the display reads *Discount*.
- The display will read *Enable X*
  - Enable Off = The discount function is off/disabled/inactive
  - Enable On = The discount function is on/enabled/active
- To change the *Enable* status, press selection button #4.
- Use selection button #2 (up) or selection button #3 (down) to cycle through the available options.

- Press selection button #4 to save the status change and return to the *Enable* submode.
- Press selection button #2 (up) to advance to *Discounted Selection.*
- Press selection button #4 to change the status of the selection buttons during the discount mode.
- Press selection button #2 (up) or selection button #3 (down) to cycle through the available selections or *All Selections.*
- Press selection button #4 to change the status of the selections. If the status is *On*, the selections will be discounted during the established time. If the status is *Off*, the selections will not be discounted during the established time.
- Press selection button #2 (up) or selection button #3 (down) to toggle between *On/Off*.
- Press selection button #4 to save the setting.
- Press selection button #1 to return to *Discounted Selection*.

To set the start time

- Press selection button #2 (up) when the display reads *Discounted Selection*.
- Press selection button #4 when the display reads *Start Time*.
- Press selection button #4 when the display reads *Start Day*.
- Press selection button #2 (up) or selection button #3 (down) to cycle through the days or *Every Day.*
- Press selection button #4 to change the status of the days. If the status is *On,* the days will be enabled during the discount time. If the status is *Off,* the days will be disabled during the discount time.
- Press selection button #2 (up) or selection button #3 (down) to toggle between *On/Off*.
- Press selection button #4 to save the setting.
- Press selection button #1 to return to *Start Day*.
- Press selection button #2 (up) to advance to *Start hh:mm*.
- Press selection button #4 and the hour setting will begin to blink indicating that it is ready to be edited.
- Press selection button #2 (up) or selection button #3 (down) to choose the desired start hour. The time is in a 24-hour format.
- Press selection button #4 and the minutes will begin to flash.
- Press selection button #2 (up) or selection button #3 (down) to choose the desired start minutes.
- Pressing selection button #4 will save your settings.
- Press selection button #1 to return to *Start Time*.

To set the stop time

- Press selection button #2 (up) when the display reads *Start Time*.
- Press selection button #4 when the display reads *Stop Time*.
- Press selection button #4 when the display reads *Stop Day*.
- Press selection button #2 (up) or selection button #3 (down) to cycle through the days or *Every Day.*
- Press selection button #4 to change the status of the days. If the status is *On,* the days will be enabled during the discount time. If the status is *Off,* the days will be disabled during

the discount time.
- Press selection button #2 (up) or selection button #3 (down) to toggle between *On/Off*.
- Press selection button #4 to save the setting.
- Press selection button #1 to return to *Stop Day*.
- Press selection button #2 (up) to advance to *Stop hh:mm*.
- Press selection button #4 and the hour setting will begin to blink indicating that it is ready to be edited.
- Press selection button #2 (up) or selection button #3 (down) to choose the desired stop hour. The time is in a 24-hour format.
- Press selection button #4 and the minutes will begin to flash.
- Press selection button #2 (up) or selection button #3 (down) to choose the desired stop minutes.
- Pressing selection button #4 will save the settings.
- Press selection button #1 to return to *Stop Time*.

To set the discount
- Press selection button #2 (up) when the display reads *Stop hh:mm.*
- Press selection button #4 when the display reads *Amount $*.
- Use selection button #2 (up) or selection button #3 (down) to change the discounted amount.
- Press selection button #4 to save the amount.
- Pressing selection button #1 will return you to the *Discount* mode.

Override

This feature is used in conjunction with an optional override key switch and harness. You must program a Start Time and a Start Time in the desired mode in order for the key switch to operate. The key switch will only be active during the programmed times. The following features can be activated/deactivated with the key switch: *Free Vend, Sales Blocking, Discount, Light Timing* and *Refrigeration.*

To activate the override features
- Press selection button #4 when the display reads *Override*.
- Press selection button #2 (up) or selection button #3 (down) to cycle through the available submodes.
- Press selection button #4 to change the status – *On/Off* – of the submodes.
  - *On* = key switch will override pricing, blocking, discounting, lighting or refrigeration.
  - *Off* = No change in pricing, blocking, discounting, lighting or refrigeration.
- Press selection button #2 (up) or selection button #3 (down) to alternate between *On/Off*.
- Press selection button #4 to save the setting.
- Press selection button #1 to return to *Override*.

Custom Message

This feature provides the customer the ability to customize their welcome message on the vending machine. The display has a 20-character capacity on two lines for a total of 40 characters. The message will not be shown if the feature is disabled.

To set the custom message

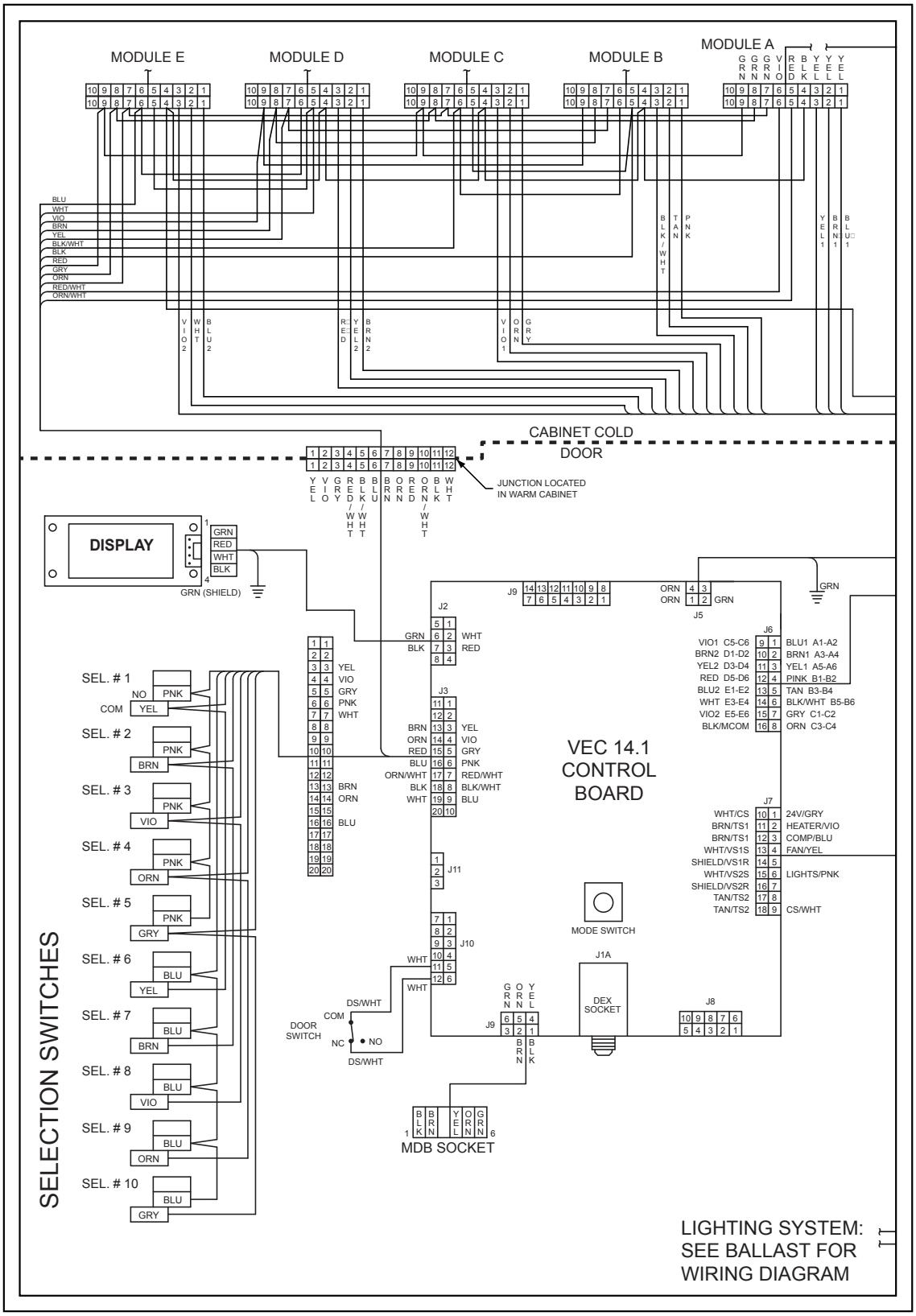
- Press selection button #4 when the display reads *Custom Message.*
- The display will read *Enable X.*
  - *Enable On* = Custom message will be displayed.
  - *Enable Off* = Custom message will not be displayed.
- To change the status, press selection button #4.
- Press selection button #2 (up) or selection button #3 (down) to toggle between *On/Off*.
- Press selection button #4 to save the change.
- Press selection button #2 at *Enable X* and the current message will be displayed.
- Press selection button #4 to change the current message. "*a* " will be displayed if no previous message had been set.
- Press selection button #2 (up) or selection button #3 (down) to cycle through the available characters.
- Press selection button #4 to save the character and advance to the next character. By default, every other position will change to "a" during the programming. This is because the lower case "a" is located in a central location between all usable characters.
  - Usable characters – "!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMN OPQRSTUVWXYZ[\]^_`abcdefghjklmnopqrstuvwxyz{|}~"
- Selection button #1 will be used as a space bar unless it is pressed and held for 2 seconds. After the 2 seconds, the unwanted space will go back to the value that was there and the message will be saved.
- Pressing selection button #1 will also return to *Custom Message.*

Return

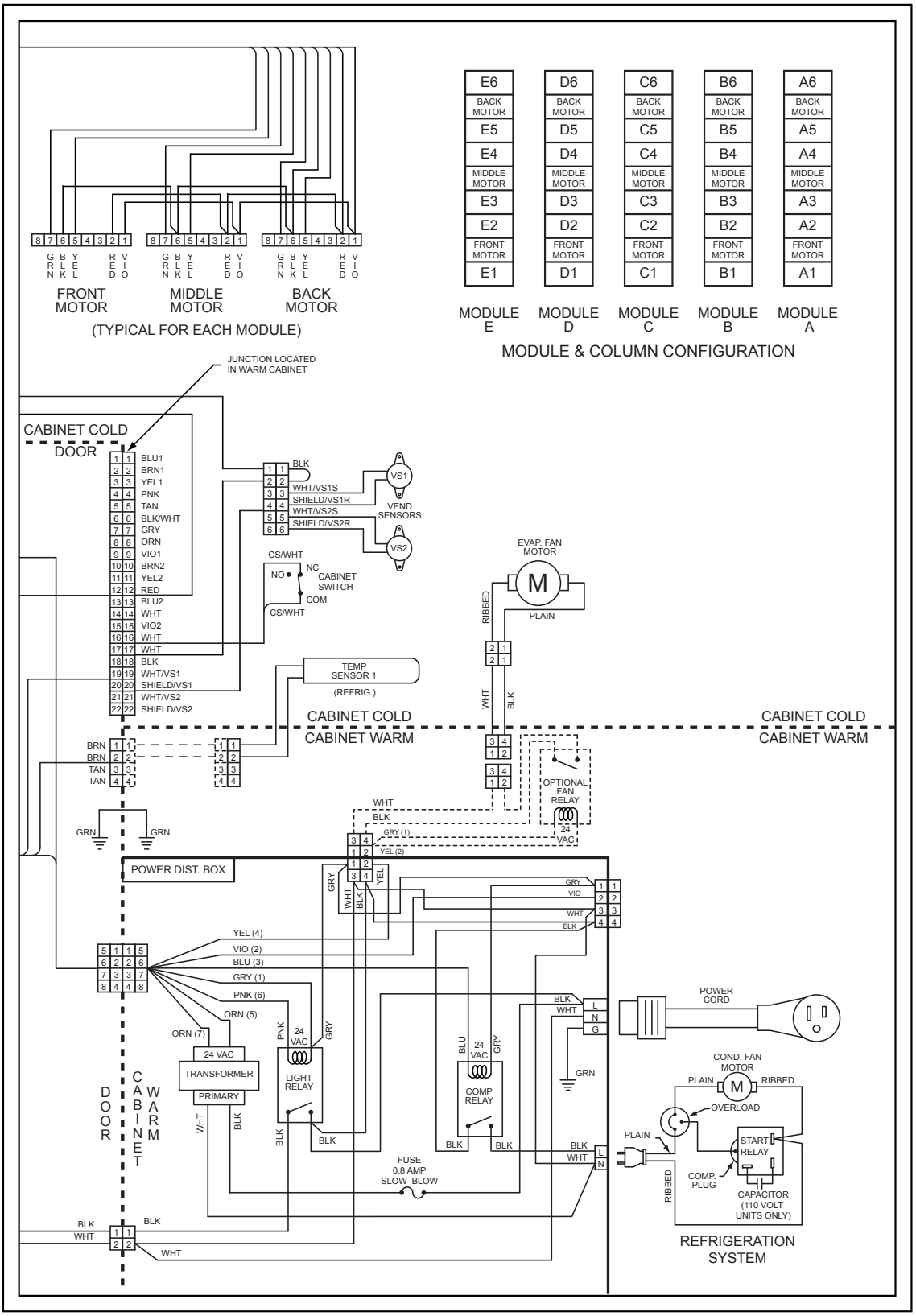
Exits the programming mode and returns the machine to stand-by.

- Press selection button #4 when the display reads *Return*. The control board will be in an open door standby mode until the door switch is activated

VEC 14.1 WIRING DIAGRAM



VEC 14.1 WIRING DIAGRAM (CONTINUED)



VEC 14.1 Diagnostics Error Codes

Error Codes (sub-codes indented)	Description	Error codes are cleared by pressing selection button # 4 for 2 sec. when displayed, or automatically by the following activities:
None	No error exist	
Vend Mech Error	Vend mechanism summary error	
Column Jam XX	Column jam in column XX	Complete a test vend cycle for column XX
Vend Sensor Error	Vend mechanism summary error	
Vend Sensor 1	Vend Sensor Error	Check or replace vend sensor assembly
Vend Sensor 2	Vend Sensor Error	Check or replace vend sensor assembly
System Error	Control system summary error	
Cabinet Switch	Cabinet switch open for more than 1 hour	Cabinet switch closure detected
Door Switch	Door switch open for more than 1 hour	Door switch closure detected
RAM	RAM check sum of service mode settings	Change any service mode setting
A/C Low	A/C supply low	
Escrow Return Mech.	Escrow return mech. error	Check or replace escrow return mech assembly
Scaling Factor	Scale factor incompatibility	Scale factor corrected
Inlet Sensor	Vendor inlet coin chute sensor is blocked	Blockage removed
Inlet Blocked	Vendor inlet coin chute is blocked	Coin detected by changer
Select Switch Error	Selection switch summary error	
Selection XX	Selection switch error in switch XX	Selection switch opens
Space to Sales Column Error	Space to sales summary error	
Unassigned Column XX	Unassigned column	Column is assigned
Space to Sales Selection Error	Space to sales summary error	
Unassigned Selection XX	Unassigned selection	Selection is assigned
Changer Error	Changer summary error	
No Communication	No changer communication	Proper communication received
Tube Sensor	Tube sense error	Changer corrected
Coin Inlet	Changer inlet chute blocked	A coin is sensed
Tube XX Jammed	Tube payout jam in coin type XX	Changer corrected
Checksum	Changer ROM check sum error	Changer corrected
Excessive Escrows	Excessive escrow attempts	A valid coin is sensed
Coin Jam	Coin jam	A coin is sensed
Low Acceptance	Acceptance rate below 80%	Acceptance rate above 80%
Disconnected	Disconnected acceptor	Acceptor properly connected
Coin Routing	Coin routing error	Coin is routed properly
Bill Validator Error	Bill validator summary error	
No Communication	No bill validator communication	Proper communication received
Stacker Full	Bill validator stacker full	Receive stacker command
Motor Error	Defective bill validator motor	Validator becomes enabled
Jammed	Bill validator jammed	Validator becomes enabled
Checksum	Bill validator ROM check sum error	Validator becomes enabled
Stacker Open	Bill validator stacker is open or out of position	Validator becomes enabled
Sensor	Bill validator sensor error	Validator becomes enabled
Card Reader Error	Card reader summary error	
No Communication	No card reader communication	Proper communication received
Code XY	Card reader non-transient error; code X, subcode Y	Error stops being reported
Refrigeration Error	Refrigeration summary error	
Sensor	Temperature sensor defective or unplugged	Sensor detected
Too Cold	Cabinet temperature 3°F below low limit	Temperature rises above low limit
Too Hot	Cabinet temperature 3°F above high limit	Temperature falls below high limit
Not Cooling	Cooling system not cooling	System cools 1°F per hour
Not Heating	Heating system not heating	System heats 1°F per hour

VEC 14.1 PRE - PROGRAMMED SPACE - TO - SALES					
SEL #					
1	A1, A2, A3	A1 - A6	A1 - A6	A1, A2, A3	
2	A4, A5, A6	B1 - B6	B1, B2, B3	A4, A5, A6	
3	B1, B2, B3	C1, C2, C3	B4, B5, B6	B1, B2, B3	
4	B4, B5, B6	C4, C5, C6	C1, C2, C3	B4, B5, B6	
5	C1, C2, C3	D1, D2	C4, C5, C6	C1, C2	
6	C4, C5, C6	D3, D4	D1, D2, D3	C3, C4	
7	D1, D2, D3	D5, D6	D4, D5, D6	C5, C6	
8	D4, D5, D6	E1, E2	E1, E2	D1, D2	
9	E1, E2, E3	E3, E4	E3, E4	D3, D4	
10	E4, E5, E6	E5, E6	E5, E6	D5, D6	
	OPTION 1	OPTION 2	OPTION 3	OPTION 4	CUSTOM SPACE TO SALES

MODULE CONFIGURATION				
E6 E5 E4 E3 E2 E1	D6 D5 D4 D3 D2 D1	C6 C5 C4 C3 C2 C1	B6 B5 B4 B3 B2 B1	A6 A5 A4 A3 A2 A1
*MODULE E	MODULE D	MODULE C	MODULE B	MODULE A

*ONLY PRESENT ON MODEL 450

NOTES

1. If the outer door is left open for over an hour, the lights and compressor will become active. In order to over-ride this option, press the door switch one time.

VARI-PAK

CABINET PARTS SECTION

READING A PARTS LIST

I **ITEM NUMBER** is found in two locations:
- A. It is on the drawing plate, and identifies the part and its location;
- B. The same number is in the parts lists and ties the two together.

II **PART NUMBER** is the part number that has been assigned to a specific part by Vendo, for easier identification.

III **QUANTITY REQUIRED** relates to the amount required of a part, or will be indicated by “A/R” (as required) to attach it to another part.

IV **PART NAME AND DESCRIPTION** is the general description for the part, for easier identification when ordering a like part.

V **HARDWARE** is identified by a letter in a hexagon. Refer to hardware list section or description and part numbers. See pages C-4 and C-5.

The example below will show how the parts are listed in the parts lists:

1. **TEMPERATURE SENSOR ASSEMBLY:** This is the main assembly name, and any replaceable parts will be indented below the assembly.

2. **TEMPERATURE SENSOR:** This is an individual part, and will be indented. These indented parts can be ordered separately, so you do not need to order the entire assembly.

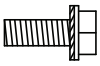
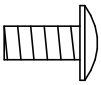
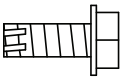
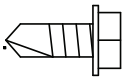
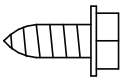
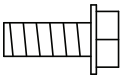
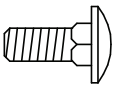
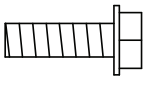
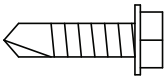
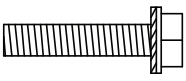
3. Whenever an assembly is ordered, all the parts that are indented will be included in the assembly. Any hardware will be listed next to their corresponding parts.

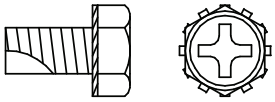
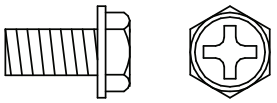
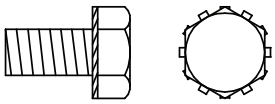
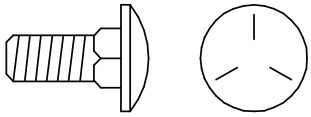
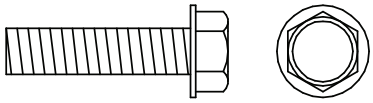
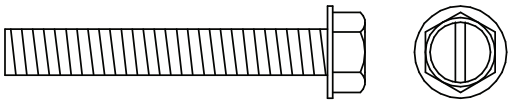
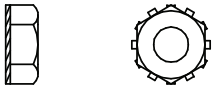
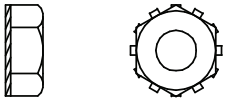
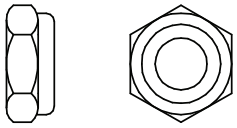
4. Any parts that may be ordered separately will not have any indented parts listed below them.

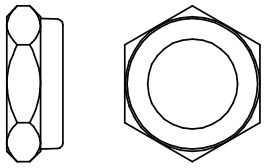
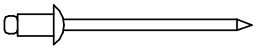
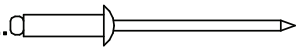
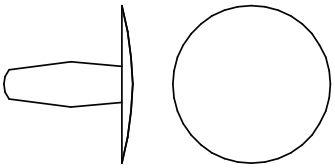
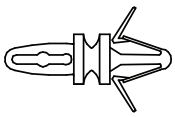
ITEM NO	DESCRIPTION	QTY REQ	PART NO.
1	TEMPERATURE SENSOR ASSEMBLY	1	1124254
2	TEMPERATURE SENSOR	1	1122924
3	TEMPERATURE SENSOR BRACKET	1	1124156

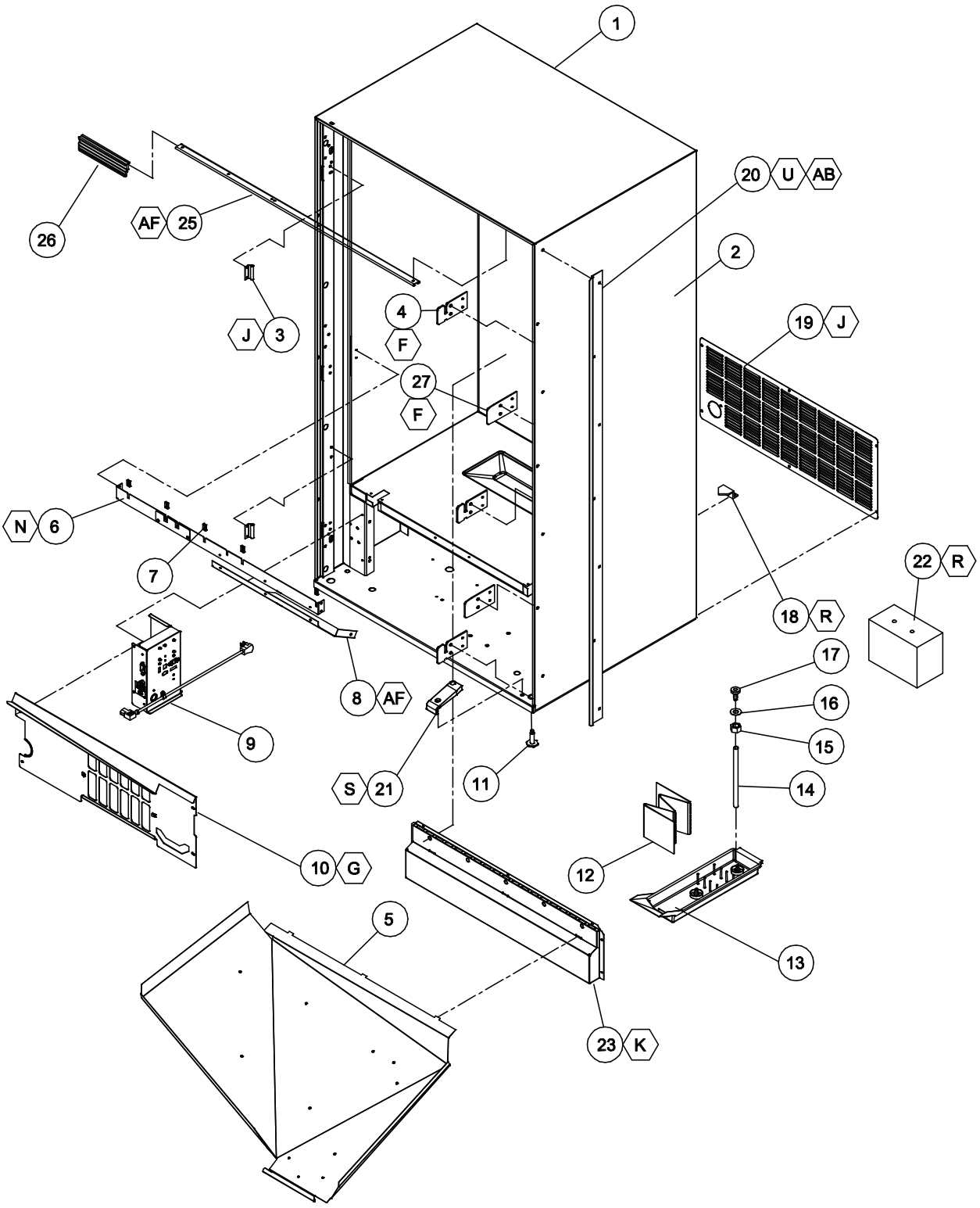
If an asterisk is listed below the parts list, it is an indication that special information is noted. There may be more than one asterisk (*) (**) (***) denoting special notes.

HARDWARE LIST

	PART NO.	DESCRIPTION	PICTORIAL
A	V801382	#4 X 1/2" SCREW	
B	V800634	#8 X 1/4" SCREW	
C	V800762	#8 X 5/16" TAPPING SCREW	
D	V802213	#8 X 5/16" TAPPING SCREW	
E	V800586	#8 X 7/16" TAPPING SCREW W / LOCK WASHER	
F	V801421	#10 X 5/16" TAPPING SCREW	
G	V802047	#10 X 3/8" TAPPING SCREW W / LOCK WASHER	
H	V802212	#10 X 3/8" TAPPING SCREW	
I	V801422	#10 X 1/2" TAPPING SCREW	
J	V801489	#10 X 1/2" SELF DRILLING SCREW	
K	V802141	#10 X 1/2" TAPPING SCREW	
L	V802147	#10 X 1/2" TAPPING SCREW	
M	V802005-1	#10 X 1/2" CARRIAGE BOLT	
N	V802155	#10 X 5/8" TAPPING SCREW	
O	V802133	#10 X 3/4" SELF DRILLING SCREW	
P	V802152	#10 X 7/8" TAPPING SCREW W / LOCK WASHER	

Q	V802228	1/4" X 1/4" SET SCREW	
R	V801360	1/4" X 1/2" TAPPING SCREW W / LOCK WASHER	
S	V802196	1/4" X 1/2" TAPPING SCREW	
T	V802226	1/4" X 1/2" MACHINE SCREW W / LOCK WASHER	
U	V802069	1/4" X 5/8" CARRIAGE BOLT	
V	V801343	1/4" X 1" TAPPING SCREW	
W	V802162	1/4" X 1 3/4" TAPPING SCREW	
X	V800956	#8 NUT W / LOCK WASHER	
Y	V800952	#10 NUT W / LOCK WASHER	
Z	V802113	#10 LOCK NUT W / NYLON INSERT	
AA	V800959	1/4" NUT W / LOCK WASHER	
AB	V802178	1/4" NUT W/ SERRATED FLANGE	
AC	V801449	3/8" X 3/32 NUT	
AD	V802231	3/8" LOCK NUT W/ NYLOCK INSERT	

AE	1124565	1/2" LOCK NUT W/ NYLOCK INSERT	
AF	V801412	1/8" X .125 POP RIVET	
AG	V801471	1/8" X .419 POP RIVET	
AH	387238-1	1/8" SPACER	
AI	323064	DRIVE SCREW	
AJ	1124182	SCREW GROMMET	
AK	V802043	PLASTIC SNAP PLUG	
AL	1121740	1/4" NYLON STANDOFF	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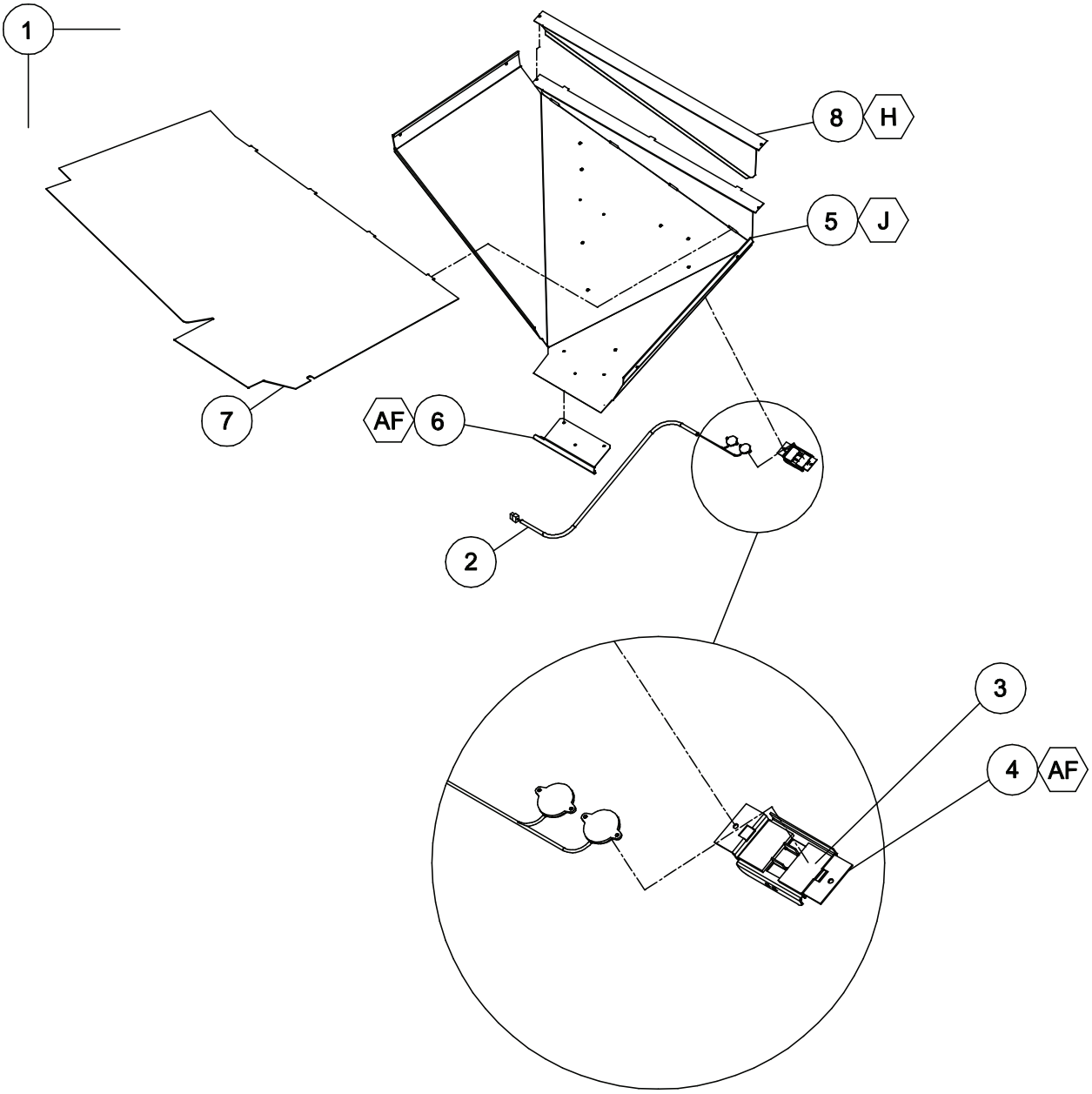
VARI-PAK CABINET ASSEMBLY

ITEM NO.	DESCRIPTION	QTY REQ	PART NO.
1	CABINET ASSEMBLY - FOAMED	1	*
2	SIDE DECAL	A/R	**
3	INNER DOOR HINGE	2	1123502
4	LATCH BRACKET	3	1125755
5	PRODUCT CHUTE ASSEMBLY (SEE PAGES C8-C9)	1	~
6	FRONT STRAP ASSEMBLY	1	1125843
7	MODULE GUIDE BEARING	***	1016237
8	PRODUCT DEFLECTOR	1	1124928
9	POWER BOX ASSEMBLY (SEE PAGES C10-C11)	1	~
10	AIR DAM / KICK PLATE	1	1123440
11	LEVELING LEG	1	1059902
12	FIBERGLASS EVAPORATOR BOARD	1	1122728
13	CONDENSATE PAN	1	1122475
14	DRAIN TUBE	1	1088449-1
15	DRAIN TUBE NUT	1	387925
16	DRAIN TUBE GASKET	1	387837
17	DRAIN TUBE FUNNEL	1	1068678
18	BRACKET - REFRIGERATION	2	1123527
19	SAFETY SCREEN	1	1122568
20	CABINET GUARD	1	1124060-2
21	RAMP	1	1120387
22	COUNTERWEIGHT ASSEMBLY	1	1121812
23	SHROUD EXTENSION	1	1125099
24	CABINET HARNESS (NOT SHOWN)	1	1124401
25	GUIDE, MODULE STOP	1	1124177
26	MODULE STOP (MODEL 450 ONLY) MODULE STOP (ALL OTHER MODELS)	4 3	1076317 1125271
27	DEADBOLT HASP	2	1125769

* NOTE: WHEN ORDERING CABINET ASSEMBLY, PLEASE PROVIDE **9-CODE** OR **11-CODE** AND **MANUFACTURER'S DATE CODE**.
** NOTE: WHEN ORDERING DECALS, PLEASE PROVIDE **STYLE**.
***NOTE: QUANTITY OF MODULE GUIDE BEARINGS IS EQUAL TO THE NUMBER OF MODULES IN YOUR STACK.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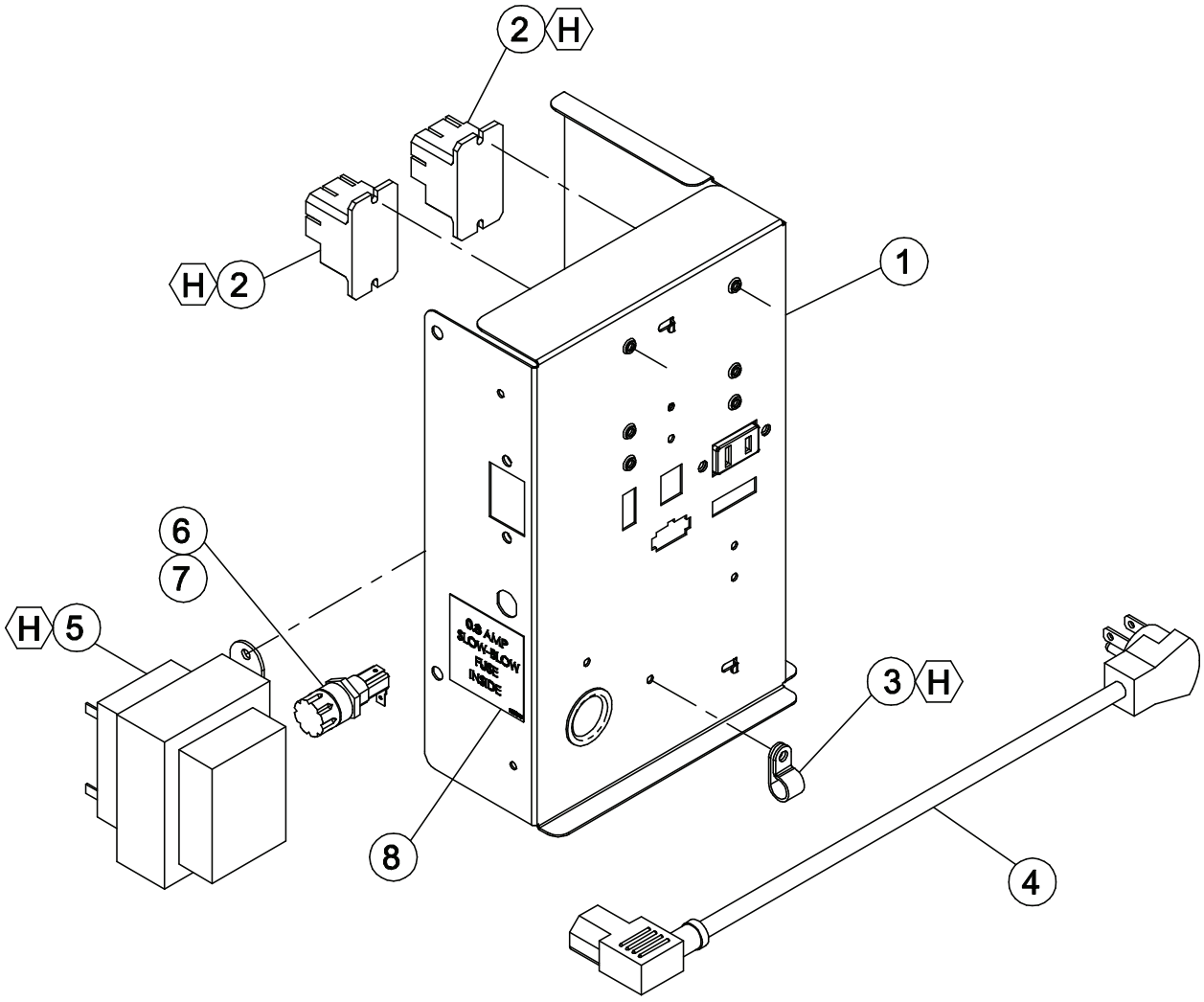
VARI-PAK PRODUCT CHUTE ASSEMBLY

ITEM NO.	DESCRIPTION	QTY REQ	PART NO.
1	PRODUCT CHUTE ASSEMBLY	~	1125729
2	VEND SENSOR ASSEMBLY	1	1122923
3	FOAM PAD	2	1123654
4	MOUNTING BRACKET, VEND SENSOR	1	1123601
5	PRODUCT CHUTE	1	1125733
6	BRACKET, PRODUCT CHUTE	1	1125098-1
7	LINER, PRODUCT CHUTE	1	1125731
8	SPLASH GUARD, PRODUCT CHUTE	1	1125732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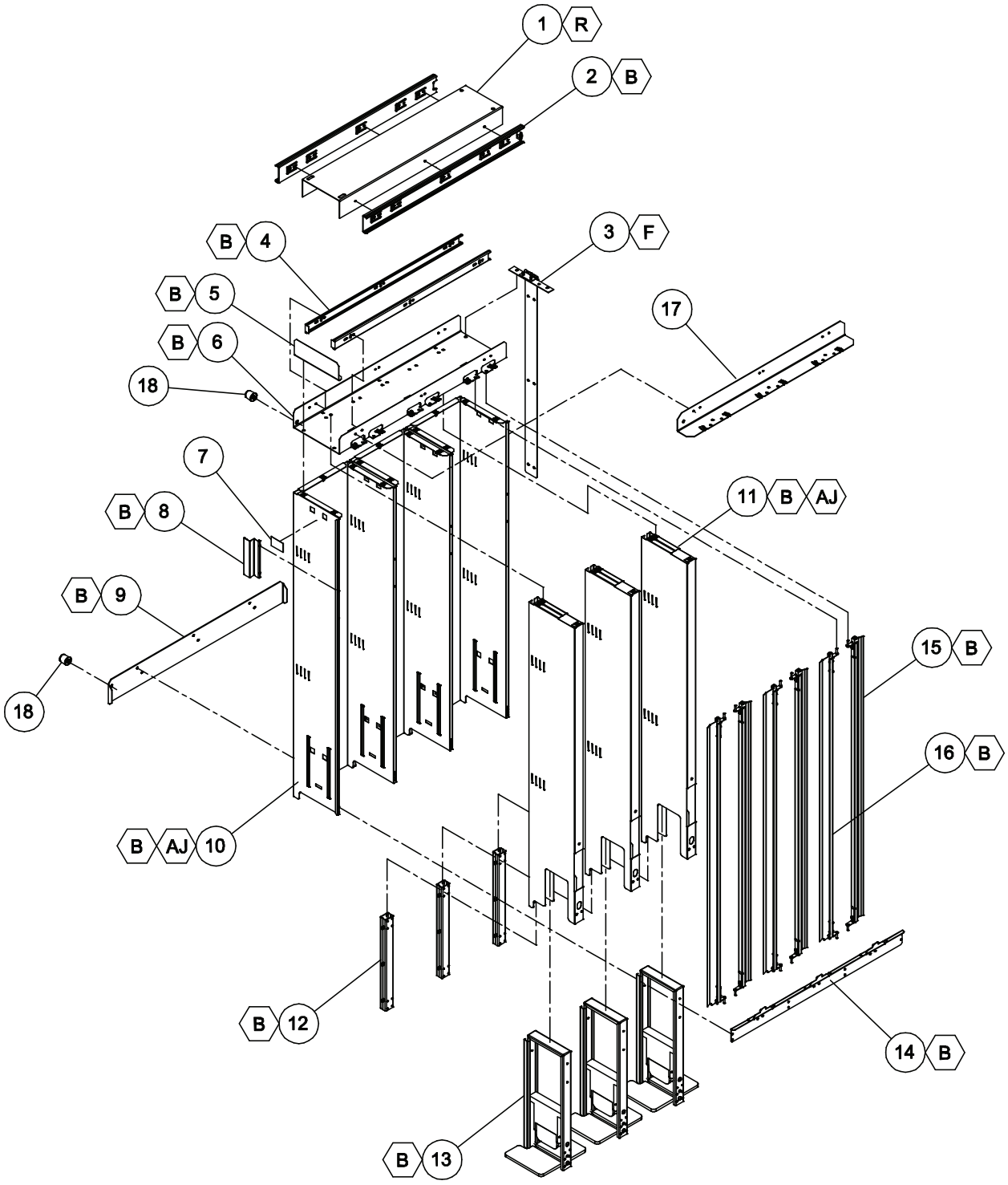
VARI-PAK POWER BOX ASSEMBLY

ITEM NO.	DESCRIPTION	QTY REQ	PART NO.
1	POWER BOX HOUSING ASSEMBLY, U.S. POWER BOX HOUSING ASSEMBLY, INTERNATIONAL	1 1	1123448 1125815
2	RELAY	2	1124284
3	CLAMP	1	324099-3
4	CORDSET, U.S. 110V CORDSET, DENMARK CORDSET, SWITZERLAND CORDSET, ITALY CORDSET, AUSTRALIA CORDSET, UK CORDSET, CONTINENTAL EUROPE	1 1 1 1 1 1 1	1124281 1121646 1121645 1121644 1121643 1121642 1121641
5	TRANSFORMER, U.S. 110V TRANSFORMER, INTERNATIONAL, CE	1 1	1111201 1121932
6	FUSEHOLDER	1	387966
7	0.8 AMP FUSE (NOT SHOWN)	1	1053864
8	FUSE LABEL	1	1089546
9	POWER HARNESS (NOT SHOWN)	1	1123444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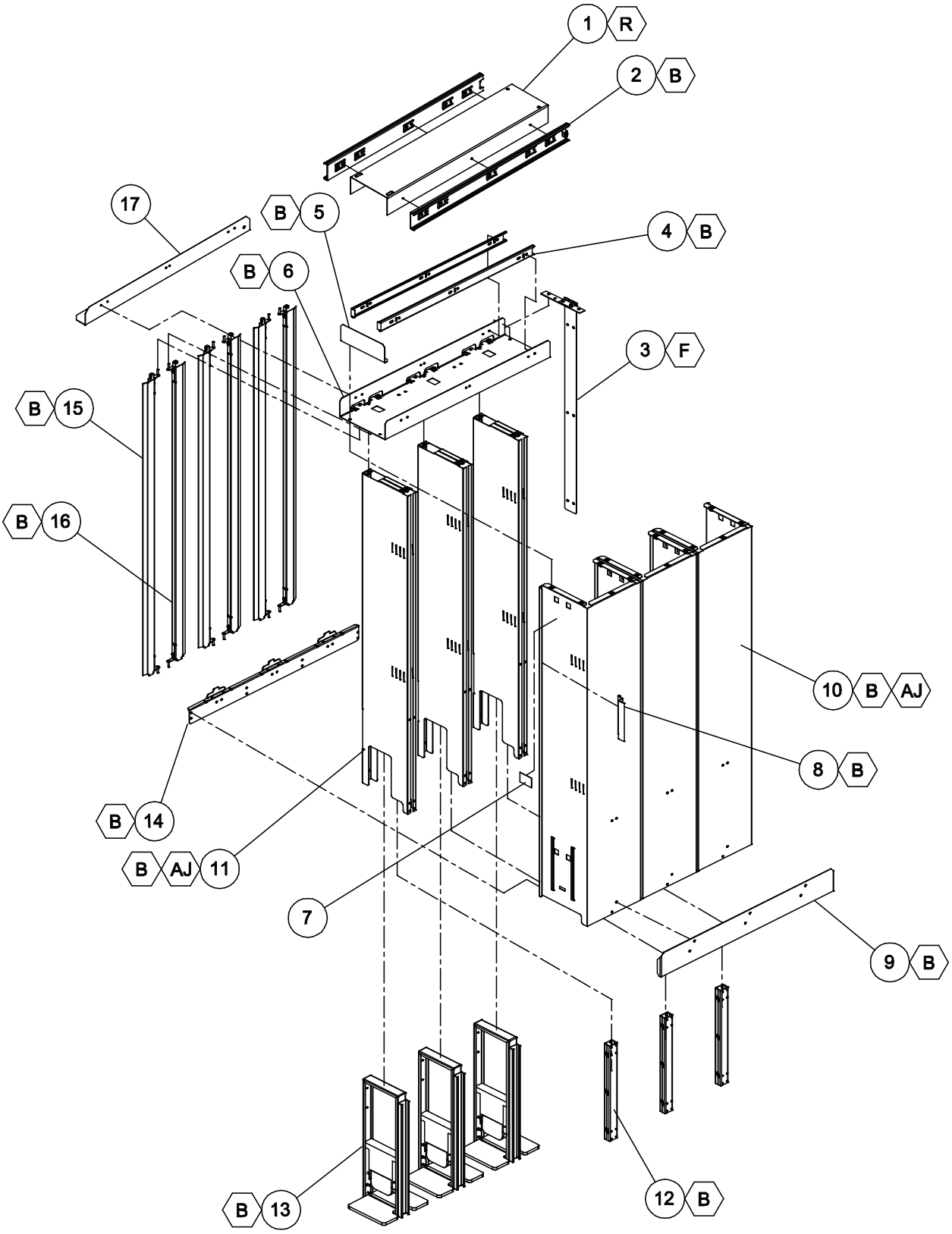
VARI-PAK LEFT MODULE ASSEMBLY

ITEM NO.	DESCRIPTION	QTY REQ	PART NO. 330mL	PART NO. 500mL
1	MODULE HANGER	1	1124055	1124055
2	OUTER / MIDDLE SLIDE	2	1124181-1	1124181-1
3	HARNESS GUIDE ASSEMBLY	1	1124852	1124852
4	INNER MEMBER, SLIDE	2	1124181-2	1124181-2
5	FRONT COVER - MODULE	1	1124180	1124180
6	MODULE TOP	1	1125254	1125253
7	MODULE LABEL	1	1124922	1124922-1
8	HANDLE	1	1124168	1124168
9	MODULE GUIDE	1	1125252	1125252
10	MODULE BODY	3	1125291	1124262
11	HOUSING - VEND MECHANISM	3	1125292	1124263
12	SUPPORT BRACKET - VEND MECHANISM	3	1124753	1124753-1
13	VEND MECHANISM	3	1124288	1124288
14	FRONT STRAP	1	1124044	1124044
15	DOOR ASSEMBLY - RIGHT	3	1125160	1125160
16	DOOR ASSEMBLY - LEFT	3	1125160-1	1125160-1
17	MODULE TOP BRACKET (500mL ONLY)	1	~	1124265
18	BUMPER (MODULE CLOSEST TO HINGE ONLY)	2	1036912	1039612
19	MODULE HARNESS (NOT SHOWN)	1	1124289	1124289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9 B
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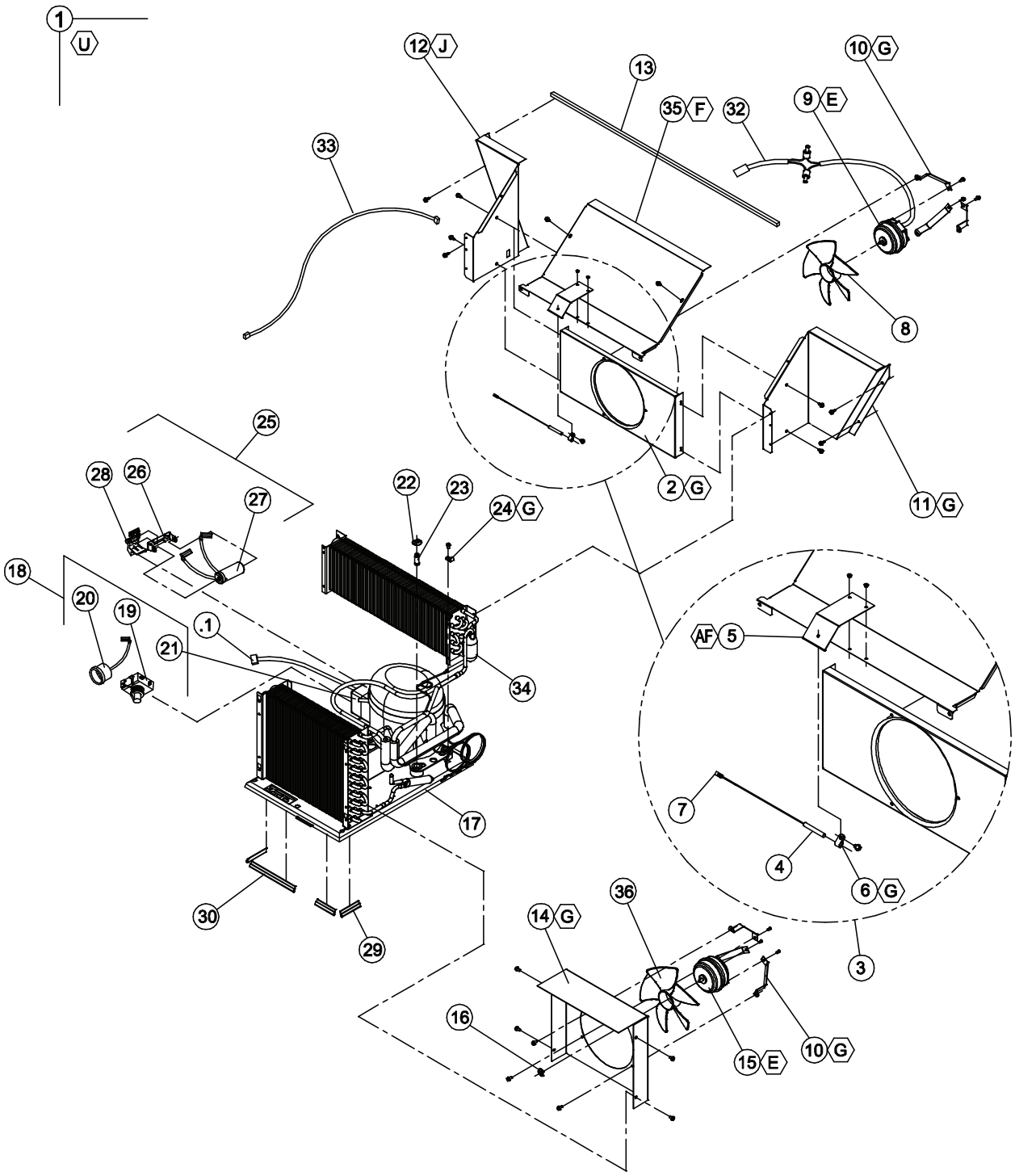
12 B

VARI-PAK RIGHT MODULE ASSEMBLY

ITEM NO.	DESCRIPTION	QTY REQ	PART NO. 330mL	PART NO. 500mL
1	MODULE HANGER	1	1124055	1124055
2	OUTER / MIDDLE SLIDE	2	1124181-1	1124181-1
3	HARNESS GUIDE ASSEMBLY	1	1124852-1	1124852-1
4	INNER MEMBER, SLIDE	2	1124181-2	1124181-2
5	FRONT COVER - MODULE	1	1124180	1124180
6	MODULE TOP	1	1125254	1125253
7	MODULE LABEL	1	1124922	1124922-1
8	HANDLE	1	1124168	1124168
9	MODULE GUIDE	1	1125252	1125252
10	MODULE BODY	3	1125291	1124262
11	HOUSING - VEND MECHANISM	3	1125292	1124263
12	SUPPORT BRACKET - VEND MECHANISM	3	1124753	1124753-1
13	VEND MECHANISM	3	1124288	1124288
14	FRONT STRAP	1	1124044	1124044
15	DOOR ASSEMBLY - RIGHT	3	1125160	1125160
16	DOOR ASSEMBLY - LEFT	3	1125160-1	1125160-1
17	MODULE TOP BRACKET (500mL ONLY)	1	~	1124265
18	MODULE HARNESS (NOT SHOWN)	1	1124289	1124289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VARI-PAK REFRIGERATION ASSEMBLY

ITEM NO.	DESCRIPTION	QTY REQ	PART NO. U.S. 110V	PART NO. 220V / 50Hz
1	REFRIGERATION ASSEMBLY S 1/3 R134a	~	1123589	1123589-1
2	ORIFICE PLATE, SINGLE FAN	1	390228	390228
3	TEMPERATURE SENSOR ASSEMBLY	1	1124254	1124254
4	TEMPERATURE SENSOR	1	1122924	1122924
5	TEMPERATURE SENSOR BRACKET	1	1124156	1124156
6	CLAMP, 1/4”	1	324099-2	324099-2
7	PUSH MOUNT CLAMP	1	384692	384692
8	EVAPORATOR FAN BLADE	1	1113562	1113562
9	FAN MOTOR - EVAPORATOR	1	42321-17	42321-43
10	BRACKET - FAN MOTORS	6	1117996	1117996
11	RIGHT AIR BAFFLE - EVAPORATOR	1	1123564	1123564
12	SMALL AIR DUCT - EVAPORATOR	1	1124097	1124097
13	FOAM TAPE, 29”	1	1124421-1	1124421-1
14	CONDENSER DUCT	1	1122413	1122413
15	FAN MOTOR - CONDENSER, 115V	1	1121770	1121791
16	FAN MOTOR CLIP - CONDENSER	1	V42323	V42323
17	BASE - REFRIGERATION	1	1122470	1122470
18	START RELAY ASSY	1	513506066	513506368
19	START RELAY (NOT SOLD SEPARATELY)	1	--	--
20	OVERLOAD PROTECTOR (NOT SOLD SEPARATELY)	1	--	--
21	COVER - OVERLOAD (NOT SOLD SEPARATELY)	1	--	--
22	CLIP - COMPRESSOR MOUNT	2	343874	343874
23	STUD - COMPRESSOR MOUNT	2	390102	390102
24	CLAMP, 5/16”	1	324099-3	324099-3
25	CAPACITOR ASSEMBLY, 110V	1	1124549	--
26	BRACKET - CAPACITOR	1	1112848	--
27	CAPACITOR-START/END, 110V	1	1122999	--
28	CAPACITOR CLIP	1	1076481	--
29	EDGE TRIM - SHORT	3	388304-1	388304-1
30	EDGE TRIM - LONG	1	388304-3	388304-3
31	COMPRESSOR POWER HARNESS	1	1121019-1	1121019-1
32	EVAPORATOR FAN HARNESS	1	1122193	1122193
33	EVAPORATOR POWER HARNESS	1	1124185	1124185
34	EVAPORATOR	1	1122235	1122235
35	EVAPORATOR COVER	1	1124099	1124099
36	CONDENSER FAN BLADE	1	389614	389614

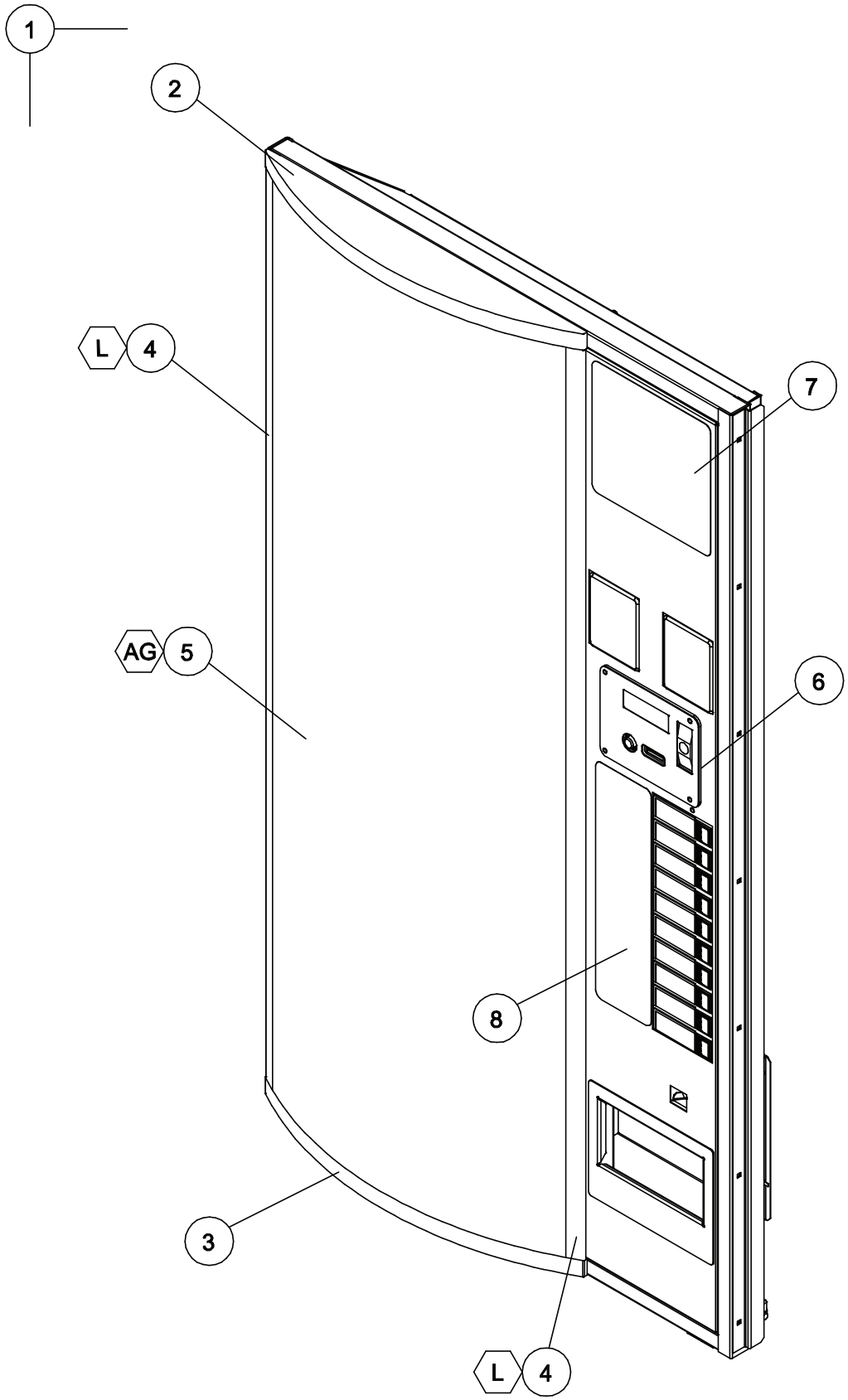
VARI-PAK HARNESS QUICK REFERENCE GUIDE

PART NO.	DESCRIPTION	PURPOSE
1124402	Door Harness	Connects vend mechanism, temp. sensor, transformer, drop sensors and relays to the control board.
1111287	Selection Harness	Connects selection buttons to the control board.
1124570	MDB Harness	Connects the control board to the payment systems.
1124782	Door Switch Harness	Connects the door switch to the control board.
1124876	Display Harness	Connects the display to the control board.
1124401	Cabinet Harness	Connects the vend mechanisms to the door harness.
1124289	Module Harness	Connects each vend mechanism to the cabinet harness.
1122193	Evaporator Fan Harness	Connects the evaporator fans to the evaporator power harness.
1124185	Evaporator Power Harness	Connects the evaporator fan harness to the power distribution box.
1121019-1	Compressor Power Harness	Connects the compressor to the power distribution box.
1123444	Power Distribution Harness	Input for 110v service cord and output to compressor, evaporator, fans, control board, and transformer.

NOTES

VARI-PAK

DOOR PARTS SECTION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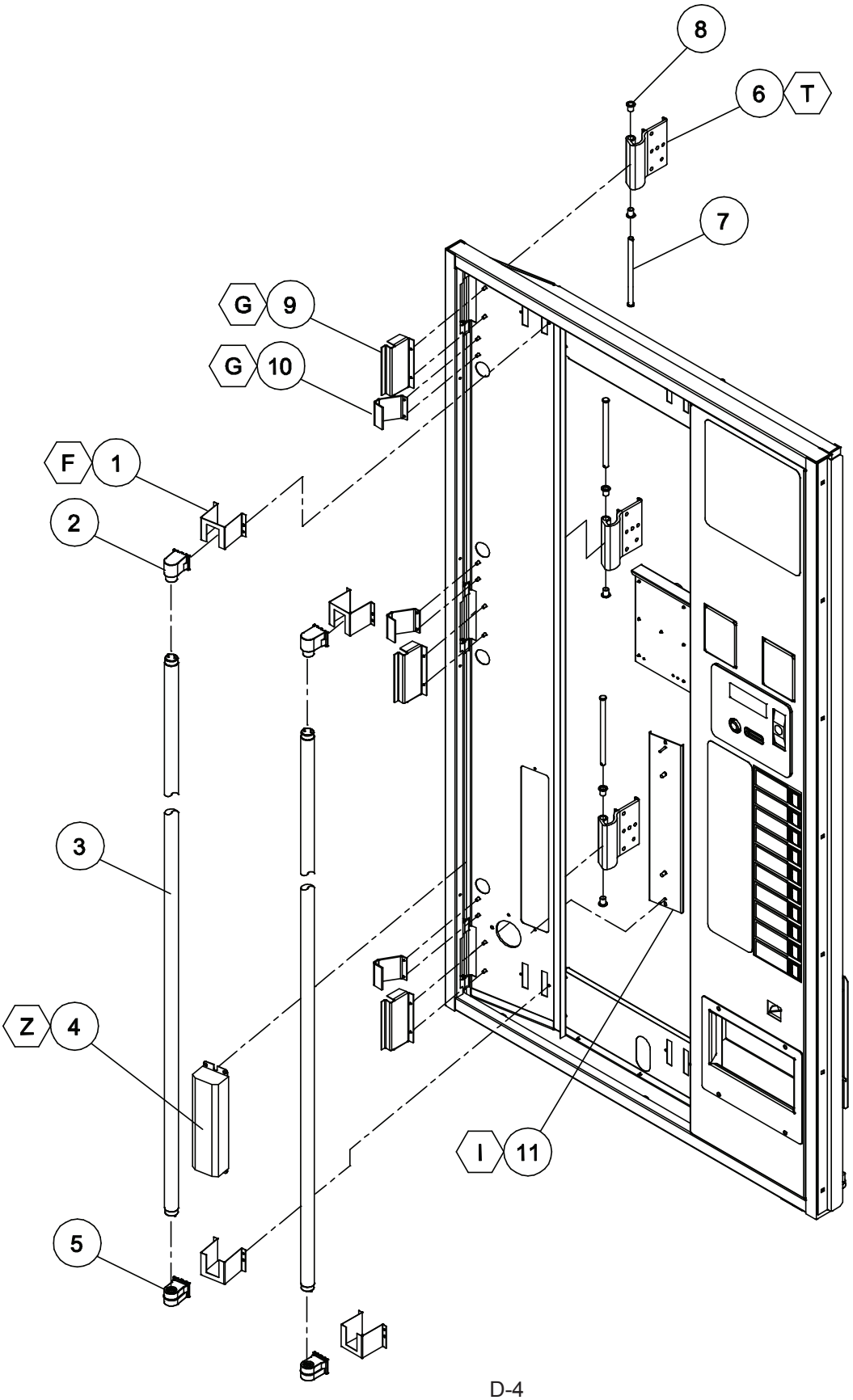
VARI-PAK DOOR ASSEMBLY

ITEM NO.	DESCRIPTION	QTY REQ	PART NO.
1	OUTER DOOR ASSEMBLY	1	*
2	SIGN CAP - UPPER	1	1119694
3	SIGN CAP - LOWER	1	1119694-1
4	SIGN TRIM - LEFT & RIGHT	2	1125702
5	SIGN FACE	1	**
6	SELECTION ASSEMBLY (SEE PAGES D8-D9)	1	~
7	POS LABEL, UPPER (OPTIONAL)	A/R	**
8	POS LABEL, LOWER (OPTIONAL)	A/R	**

* NOTE: WHEN ORDERING OUTER DOOR ASSEMBLY, PLEASE PROVIDE **9-CODE** OR **11-CODE** AND **MANUFACTURER'S DATE CODE**.

NOTE: WHEN ORDERING, PLEASE PROVIDE **FRANCHISE AND **STYLE**.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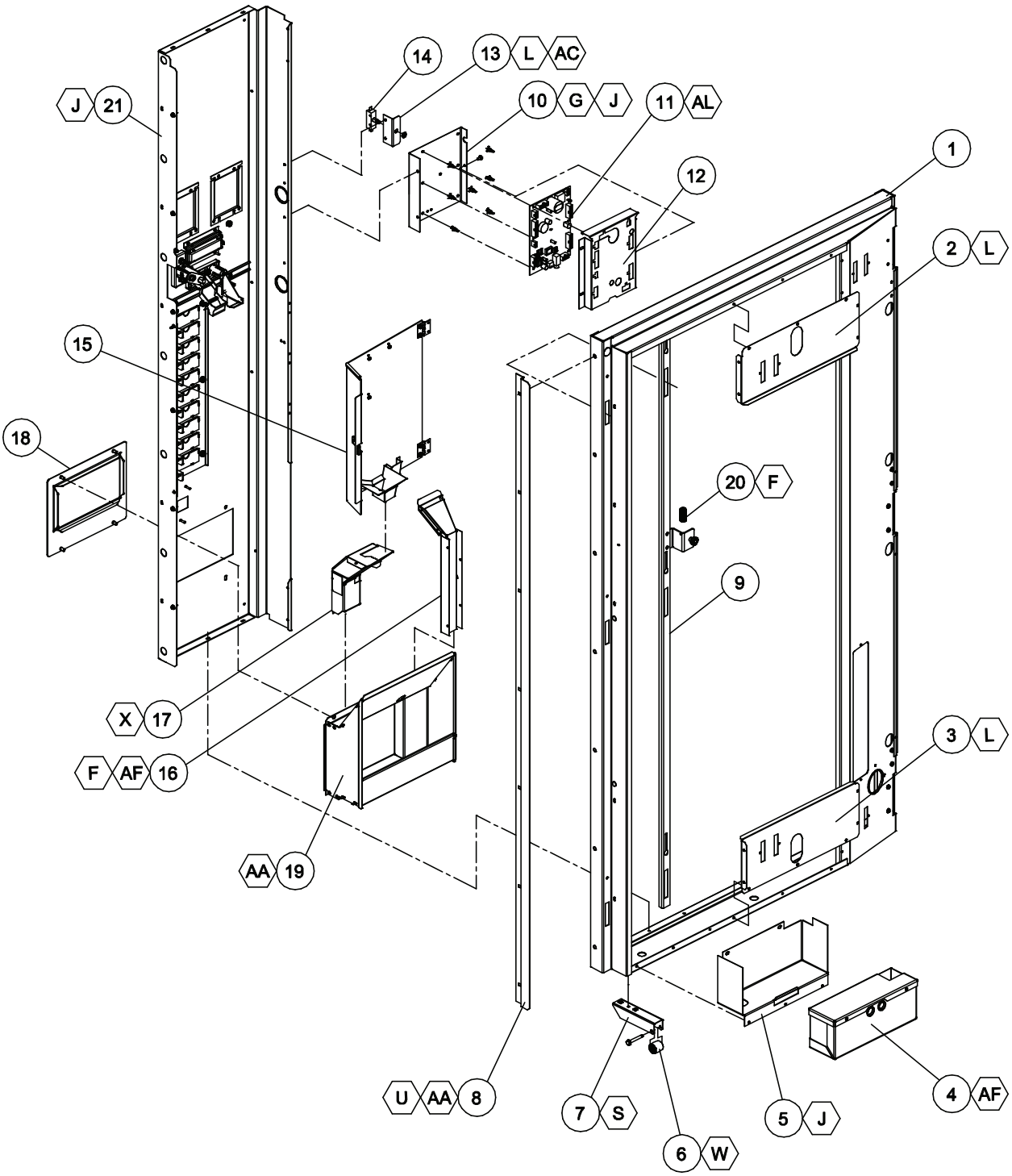
VARI-PAK DOOR ASSEMBLY (CONTINUED)

ITEM NO.	DESCRIPTION	QTY REQ	PART NO.
1	LAMP BRACKET	4	1122305
2	LAMPHOLDER PLUNGER	2	388532
3	LAMP - FO40W T-8 (U.S.) LAMP - L58W/21-840 T-8 (INTERNATIONAL)	2 2	1125858 1121030
4	BALLAST 115V (U.S.) BALLAST 220/240V (INTERNATIONAL)	1 1	1122380 1120450
5	LAMPHOLDER FIXED	2	388531
6	HINGE	3	1122888
7	HINGE PIN	3	1123501
8	HINGE BEARING	6	1125122
9	HINGE GUARD	3	1124146
10	HINGE PIN GUARD	3	1124145
11	BALLAST MOUNTING BRACKET (U.S.) BALLAST MOUNTING BRACKET (INTERNATIONAL)	1 1	1125282 1125282-1
12	CAUTION, T-8 LAMP LABEL (NOT SHOWN)	1	1122973
13	58W LAMPS LABEL (INTERNATIONAL) (NOT SHOWN)	1	1122353
14	RAIN CURTAIN, T-8 BULB (NOT SHOWN)	2	1121838-1
15	RAIN CURTAIN, BALLAST (NOT SHOWN)	1	1121837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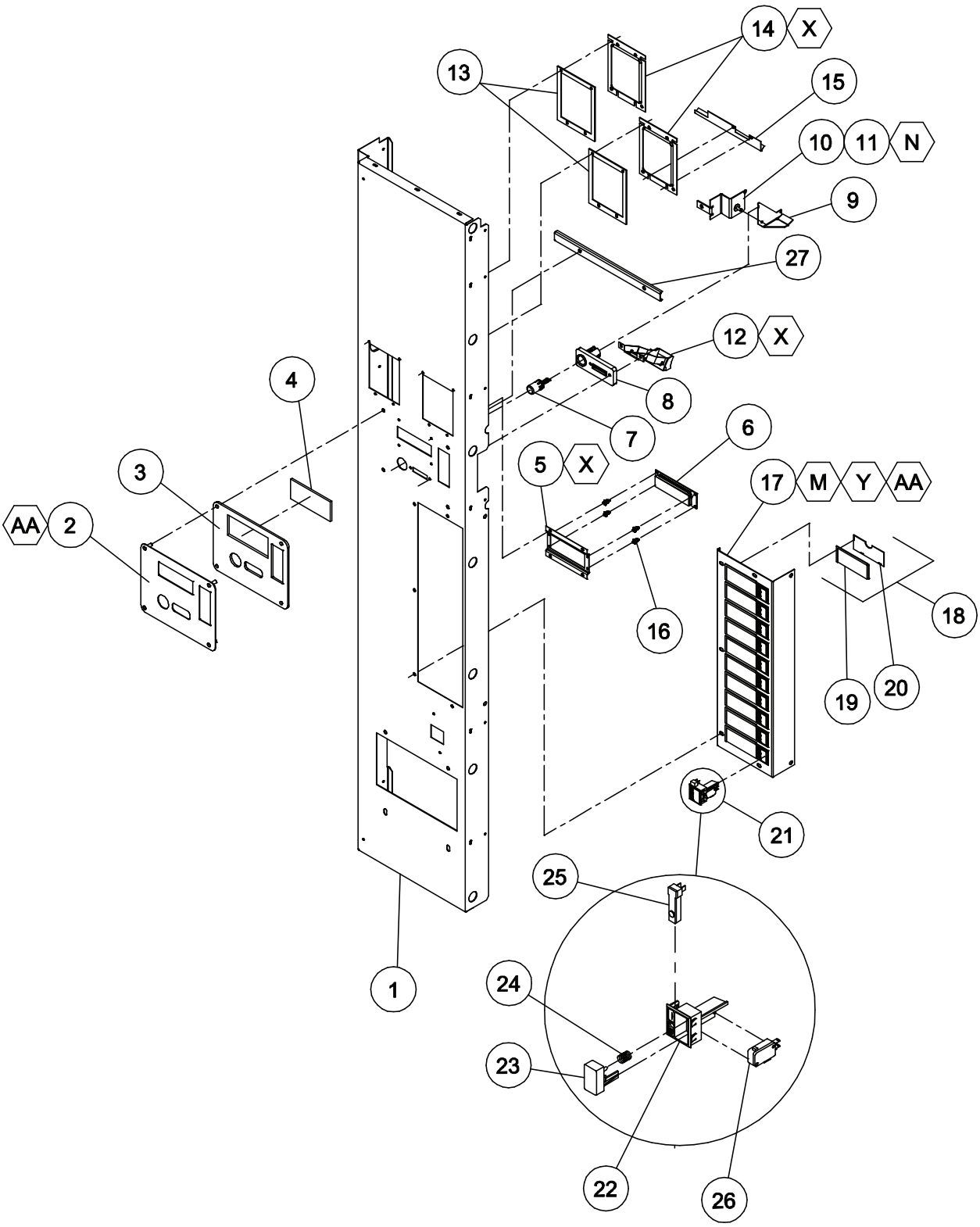
VARI-PAK DOOR ASSEMBLY (CONTINUED)

ITEM NO.	DESCRIPTION	QTY REQ	PART NO.
1	DOOR WELD - BLACK	1	1125790
2	UPPER SHEAR PANEL	1	1124144-1
3	LOWER SHEAR PANEL	1	1124144
4	COIN BOX ASSEMBLY	1	1124850
5	SHELF - COIN BOX	1	1125298
6	ROLLER - DOOR	1	1120388
7	ROLLER BRACKET	1	1125280
8	DOOR GUARD - BLACK	1	1125717
9	LOCKING ASSEMBLY (SEE PAGES D10-D11)	1	~
10	MOUNTING BRACKET - CONTROL BOARD	1	1077716
11	CONTROL BOARD	1	1124555-12.1
12	COVER - CONTROL BOARD	1	1123049
13	BRACKET - DOOR SWITCH	1	1124623
14	DOOR SWITCH	1	323007
15	COINAGE DOOR ASSEMBLY (SEE PAGES D12-D13)	1	~
16	CHUTE ASSEMBLY - COIN BOX	1	1124780
17	COIN CUP ASSEMBLY	1	1079546
18	HOPPER TRIM	1	1124761
19	HOPPER ASSEMBLY	1	133574-14
20	SPRING	1	387849
21	SELECTION ASSEMBLY (SEE PAGES D8-D9)	1	~
22	DOOR SWITCH HARNESS (NOT SHOWN)	1	1124782
23	DOOR HARNESS (NOT SHOWN)	1	1124402
24	MDB HARNESS (NOT SHOWN)	1	1124570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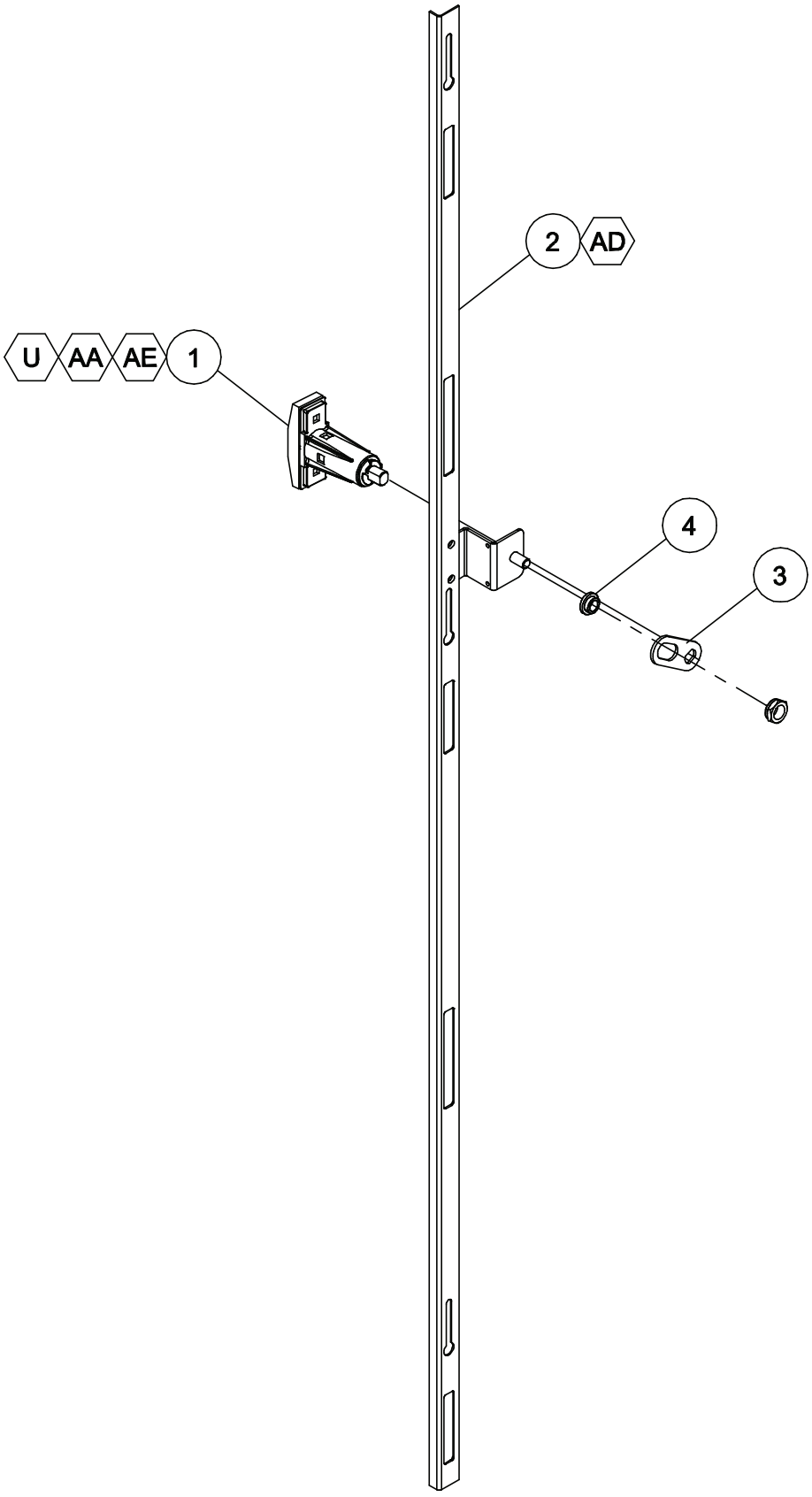
VARI-PAK SELECTION ASSEMBLY

ITEM NO.	DESCRIPTION	QTY REQ	PART NO.
1	CONTROL PANEL	1	*
2	COVER PLATE - COIN INSERT, PRINTED	1	1124556
3	COIN INSERT PLATE	1	1124746
4	DISPLAY WINDOW	1	1124108
5	BRACKET - DISPLAY	1	1125390
6	DISPLAY - 2 X 20	1	1121184
7	COIN RETURN BUTTON	1	1050473
8	COIN INSERT GUIDE	1	1123820
9	COIN RETURN LEVER	1	1124467
10	COIN RETURN BRACKET	1	1124738
11	NYLON SHOULDER WASHER	1	1122715
12	COIN INSERT CHUTE	1	1121066
13	GASKET - DBV PLUG	2	1086759
14	DBV FILLER PLATE (WHEN USED)	2	2000856
15	WATER DIVERTER - DBV	1	1125616
16	CIRCUIT BOARD SUPPORT	1	1125500
17	BUTTON PANEL	1	*
18	SELECTION WINDOW ASSEMBLY	10	133431
19	SELECTION WINDOW	1	388223
20	SELECTION WINDOW BACK	1	388116
21	SELECTION BUTTON ASSEMBLY	10	1017128-1
22	BUTTON HOUSING	1	1006932
23	SELECTION BUTTON - GRAY	1	1116775
24	SELECTION SPRING	1	388858
25	SOLD OUT PLUG	1	1006975-1
26	SELECTION SWITCH	1	368299
27	CONTROL PANEL STIFFENER	1	1124737
28	SELECTION HARNESS (NOT SHOWN)	1	1111287
29	FLAVOR STRIP (NOT SHOWN)	A/R	**
30	RAIN CURTAIN - DISPLAY (NOT SHOWN)	1	1124742
31	DISPLAY HARNESS (NOT SHOWN)	1	1124876

* NOTE: WHEN ORDERING CONTROL PANEL & SELECTION PANEL, PLEASE PROVIDE **9-CODE** OR **11-CODE** AND **MANUFACTURER'S DATE CODE**.

NOTE: WHEN ORDERING FLAVOR LABELS, PLEASE PROVIDE **FRANCHISE AND **STYLE**.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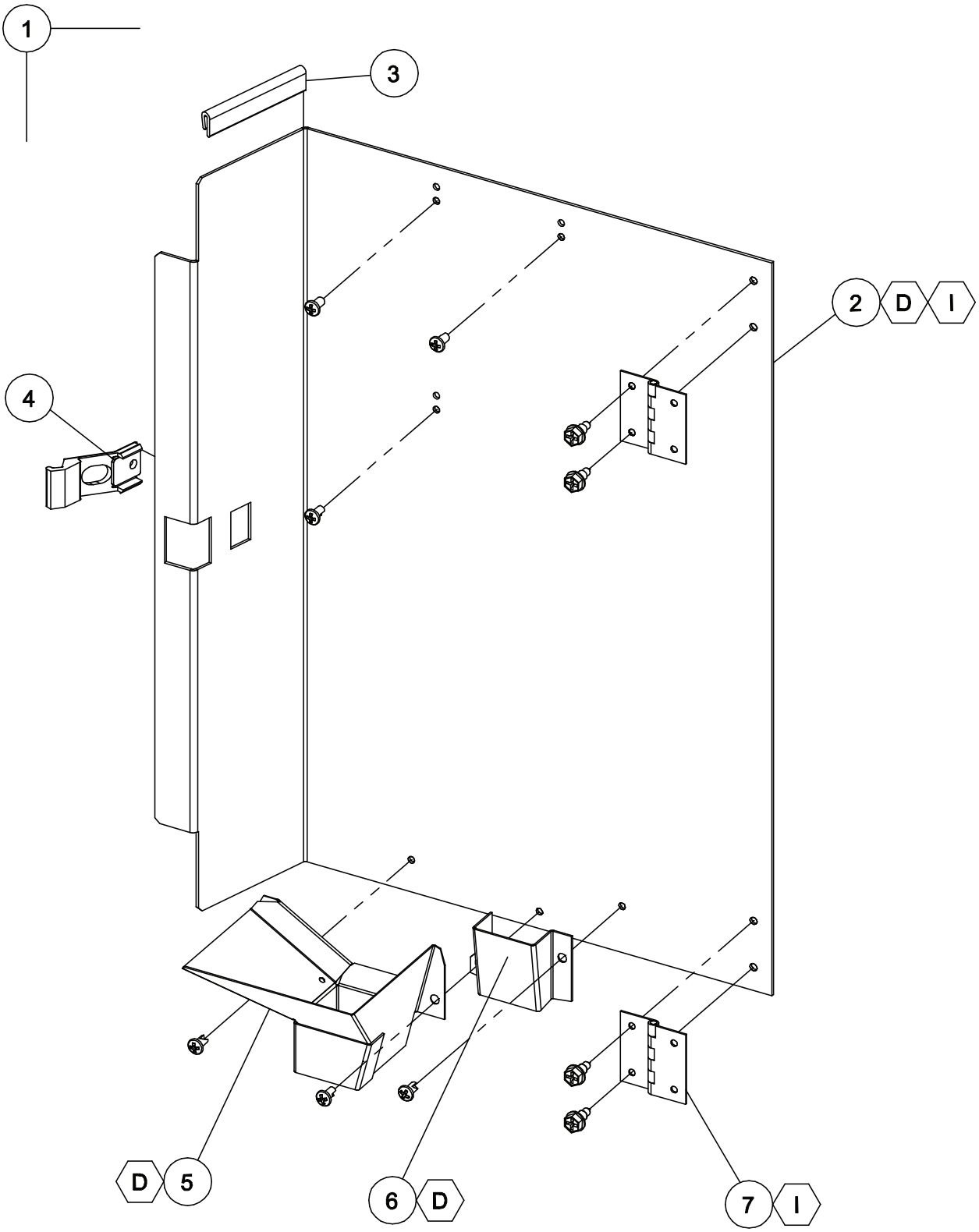
VARI-PAK LOCKING ASSEMBLY

ITEM NO.	DESCRIPTION	QTY REQ	PART NO.
1	T-HANDLE LOCK ASSEMBLY	1	1124561
2	SLIDER BAR ASSEMBLY	1	1125797
3	LOCK CAM	1	1124526
4	BUSHING	1	1124527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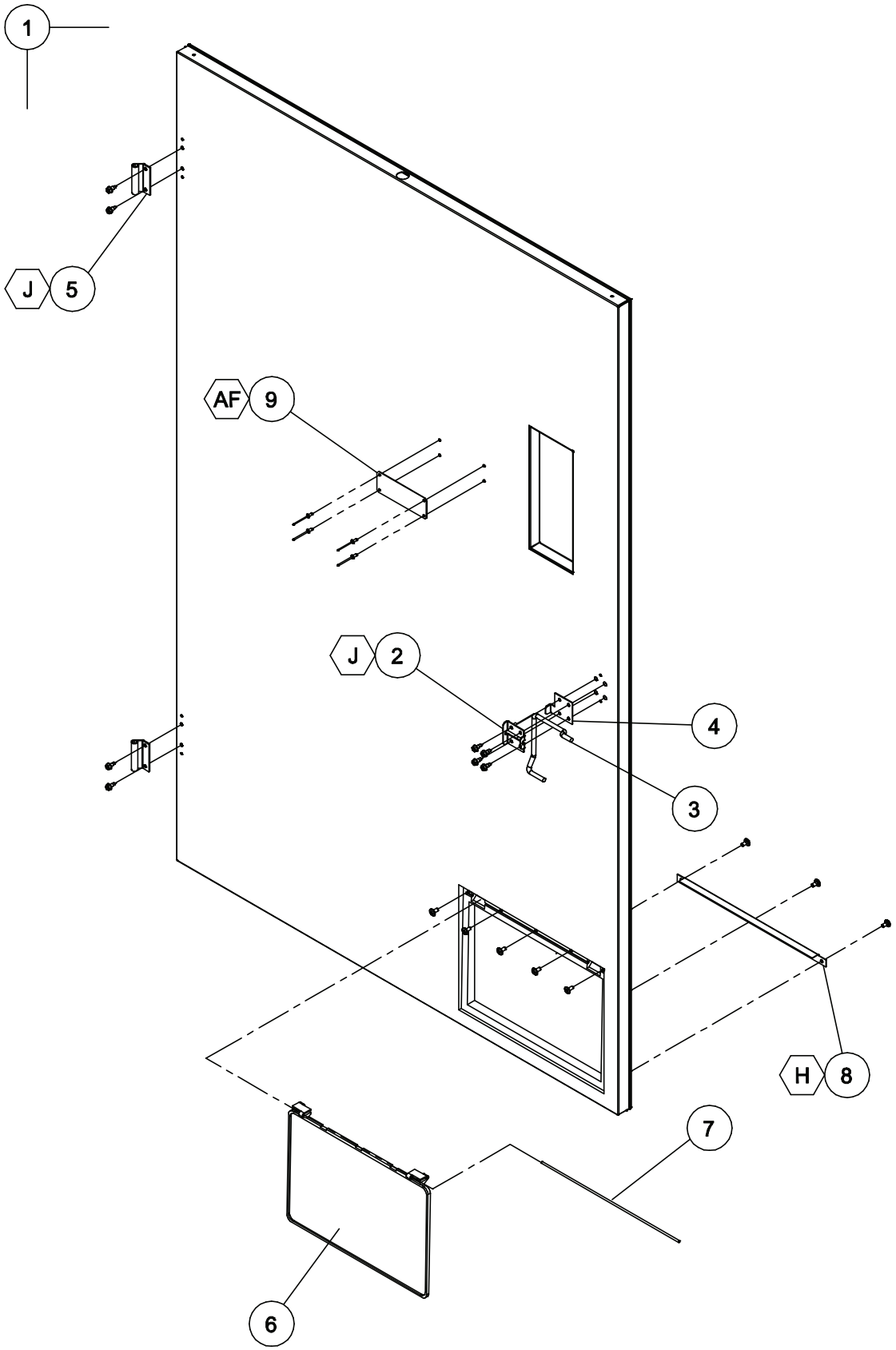
VARI-PAK COINAGE DOOR ASSEMBLY

ITEM NO.	DESCRIPTION	QTY REQ	PART NO.
1	COINAGE DOOR ASSEMBLY	1	1125865
2	COINAGE DOOR	1	1125697
3	EDGE TRIM	1	388304-1
4	COINAGE DOOR LATCH	1	1085546
5	CHUTE ASSEMBLY - COIN RETURN	1	1125022
6	COIN CHUTE - COIN BOX	1	1069554
7	HINGE	2	388124


1
J
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VARI-PAK INNER DOOR ASSEMBLY

ITEM NO.	DESCRIPTION	QTY REQ	PART NO.
1	INNER DOOR ASSEMBLY	1	134302-111
2	LATCH BRACKET - INNER DOOR	1	1125303
3	LATCH - INNER DOOR	1	1125301
4	LATCH PLATE - INNER DOOR	1	1125304
5	INNER DOOR HINGE	2	1123502
6	VEND FLAP	1	1013076
7	HINGE PIN	1	389985
8	EDGE TRIM - INNER DOOR EYELET	1	1125181
9	SWITCH ACTUATOR PLATE	1	1125794

VARI-PAK INNER DOOR LABELS - NOT SHOWN

DESCRIPTION	QTY REQ	PART NO
ERROR CODE LABEL, VEC 14.1	1	1125180
PROGRAMMING LABEL, VEC 14.1	1	1124731
WIRING DIAGRAM LABEL, VEC 14.1	1	1125804
PRODUCT SET UP AND LOADING, VARI-PAK	1	1125656
SPACE TO SALES, VEC 14.1	1	1125822
INNER DOOR LABEL, DOMESTIC	1	1125783-1
INNER DOOR LABEL, INTERNATIONAL	1	1125783
SHELF STABLE PRODUCTS ONLY LABEL	1	1125135

NOTES

VARI-PAK

MAINTENANCE SECTION

MAINTENANCE

The following section is a basic guide for general maintenance and servicing of the vendor. This section is divided into three parts: (I) Preventative Maintenance, (II) Lubrication Guide, and (III) Care and Cleaning.

I. PREVENTATIVE MAINTENANCE SUGGESTIONS:

Whenever a vendor is visited on its site, the following service should be performed. Preventative maintenance will help prevent future problems with the vendor.

A. Observe the vendor and its surrounding area for any unusual indications of problems (rear of cabinet, obstructions of the air flow, dark spots on the sign face, etc.).
B. Open the door and visually check the inside of the vendor (water accumulation, rust marks, moisture around the edges of the inner door, etc.).
C. Check the fluorescent lamps, replace as necessary. Replace all lamps within 24 to 48 hours of burnout. This will prevent damage to the ballast.
D. Check the product temperature for proper cooling.
E. Check the evaporator drain for obstruction; water in the evaporator area must drain to the condensation pan.
F. Empty condensation pan.
G. Clean the condenser filter.
H. Check that evaporator fan runs normally.
I. Check that the compressor and condenser fan run normally.
J. Investigate any unusual sounds (fan blades hitting something, refrigeration lines rattling, etc.).
K. Clean coin acceptor.
L. Check for proper operation of the coinage mechanism by inserting all denominations of coins accepted by the vendor.
M. Test the vendor and make a report on the problems.

II. LUBRICATION GUIDE:

Lubricate indicated areas as directed on the chart below.

INTERVALS	PARTS	LUBRICANT
Every six months	Door latch slide mechanism & T-handle assembly	Grade two, high low temperature grease

REFRIGERATION OPERATION

The refrigeration operation section is divided into three areas: Basic Refrigeration Principle, Detailed Vending Machine Refrigeration Cycle, and Parts Description.

BASIC REFRIGERATION PRINCIPLE

What a refrigeration system really accomplishes is the transfer of heat. A refrigeration system removes the excess heat from a refrigerated area and then transfers it to a condenser where it is dissipated. As heat is removed, the refrigerated area cools.

In vending machines, large quantities of the heat must be transferred rapidly, economically and efficiently. This process must be able to withstand continuous repetition, without loss of refrigerant, over an extended period. The most common system used in the vending industry is the vapor compression (or simple compression) cycle system. It consists of four basic elements: An evaporator, a compressor, a condenser, and a pressure-reducing device (all part of a sealed system).

The compression system operates at two pressure levels: The low evaporating pressure and the high condensing pressure. The refrigerant acts as the transport medium, in which heat is moved from the evaporator to the condenser; at the condenser, the heat is dissipated into the surrounding air.

The liquid refrigerant changes from a liquid to a vapor and back to a liquid again. This change of state allows the refrigerant to absorb, and rapidly discharge, large quantities of heat efficiently.

BASIC VAPOR COMPRESSION SYSTEM CYCLE:

In the evaporator, the liquid refrigerant vaporizes. This change occurs at a temperature low enough to absorb heat from the refrigerated space. The temperature of vaporization is controlled by the pressure maintained in the evaporator (the higher the pressure, the higher the vaporization point).

The compressor pumps the vapor from the evaporator, through the suction line, and to the condenser. The compressor takes the low pressure vapor and compresses it, increasing both the pressure and the temperature. The compressor pumps the vapor at a rate rapid enough to maintain the ideal pressure. The hot, high pressure vapor is forced out of the compressor, into the discharge line and then into the condenser.

Air is blown through the condenser, allowing heat to transfer from the condenser and into the passing air. As the heat is removed, the stored refrigerant is condensed into a liquid. The liquid refrigerant is stored in the lower tube of the condenser. This is where it flows through the capillary tube back into the evaporator, where the refrigeration cycle is repeated.

DETAILED REFRIGERATION CYCLE

The following is a detailed refrigeration cycle as it applies to the refrigeration system installed in Vendo equipment. (Refer to the flow chart in Figure 1.)

As the air temperature in the cabinet rises, the electronic temperature sensor reports the air temperature to the electronic controller. The electronic controller actuates the refrigeration control relay, which turns on both the compressor and condenser fan motor.

The evaporator fan pulls air from the front of the refrigerated space of the cabinet. It pulls the air through the evaporator, and blows it up the rear of the vend stack. (The evaporator fan runs continuously.) As the air passes through the evaporator, heat is drawn from the air and transferred to the liquid refrigerant. As the cooled air circulates through the vend stack, heat is drawn from the product and transferred to the circulating air. The heated air is again drawn through the evaporator where the heat is removed.

In the evaporator, the liquid refrigerant draws heat from the circulating air. As refrigerant receives heat, it vaporizes.

The compressor pumps the vapor from the evaporator and compresses it, increasing both pressure and temperature. The compressor forces the compressed vapor out, through the discharge line and into the condenser.

The condenser fan pulls air through the condenser. As the hot refrigerant vapor passes through the condenser tubes, heat is drawn from the vapor. This heat is dissipated into the passing air. The air then exits out the back of the vendor. As the refrigerant vapor in the condenser lines is cooled, it returns to a liquid state.

From the condenser the liquid flows to the drier. The drier removes any water and solid particles from the liquid refrigerant.

The cooled liquid refrigerant continues from the drier, through the capillary tube, to the evaporator. The capillary tube steadies the flow rate of the refrigerant. Its small inside diameter allows the pressure in the evaporator to remain low while the pressure in the condenser is high.

The cool refrigerant in the evaporator draws heat from the circulating air in the cabinet. As the temperature in the cabinet drops, the electronic temperature sensor reports the air temperature to the electronic controller. The electronic controller deactivates the refrigeration control relay, which turns off the compressor and condenser fan motor.

When the air temperature in the cabinet rises above the electronic controller's cut in setting, the compressor and the condenser fan engage again.

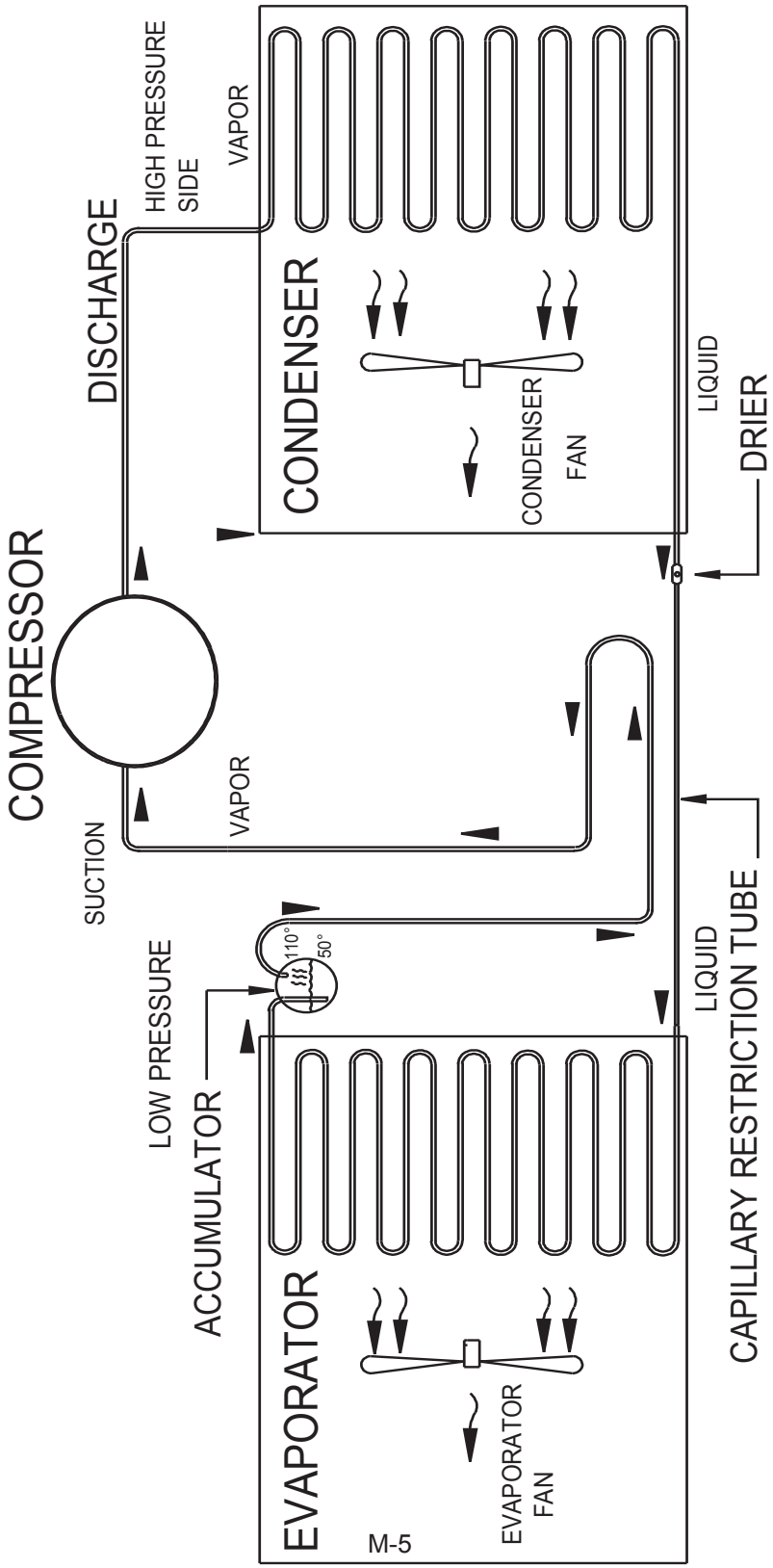
COMPRESSOR
DISCHARGE
HIGH PRESSURE SIDE
VAPOR
CONDENSER
CONDENSER FAN
LIQUID
DRIER
SUCTION
VAPOR
LOW PRESSURE
ACCUMULATOR
110°
50°
LIQUID
CAPILLARY RESTRICTION TUBE
EVAPORATOR
EVAPORATOR FAN
M-5

FIGURE 1

REFRIGERATION PARTS DESCRIPTION

The compressor, condenser, drier, capillary tube, evaporator, and accumulator are part of a sealed system (refer to Figure 2). These items are not available separately.

COMPRESSOR
The compressor takes in low pressure vapor and compresses it, increasing both the pressure and the temperature. The hot, high pressure gas is forced out to the condenser. The compressor and the motor that drives the compressor are sealed inside a housing. The compressor, as a unit, is mounted on the refrigeration base. The base is mounted in the bottom of the vendor, outside the sealed refrigeration space.

CONDENSER
The condenser takes heat out of the high pressure vapor that it receives from the compressor. As the vapor passes through the condenser it cools and returns to a liquid state. The condenser is mounted to the refrigeration base near the front of the vendor. It is easily accessible for cleaning.

DRIER
The drier is a molecular sieve strainer drier. It removes water and solid particles from refrigerant liquid. One side of the drier is connected to the outlet line of the condenser; the other side is connected to the capillary tube going to the evaporator.

CAPILLARY TUBE
The capillary tube controls, at a steady rate, the flow of refrigerant liquid to the evaporator. It has a very small inside diameter to keep pressure in the evaporator low while the pressure in the condenser is high. It is the connecting link between the condenser and evaporator.

EVAPORATOR
The evaporator is a heat transference device. It removes the heat from the air in a refrigerated space and transfers it to the refrigerant liquid. This liquid evaporates into a vapor and is removed by the compressor. The evaporator is mounted inside the refrigerated space of the cabinet, directly below the delivery chute.

ACCUMULATOR
The accumulator traps any refrigerant liquid, which did not boil off into a vapor before reaching the compressor. The accumulator allows the refrigerant liquid to boil off as a vapor (preventing damage to the compressor). It also prevents suction line sweating. The accumulator is mounted in the suction line on the outline side of the evaporator.

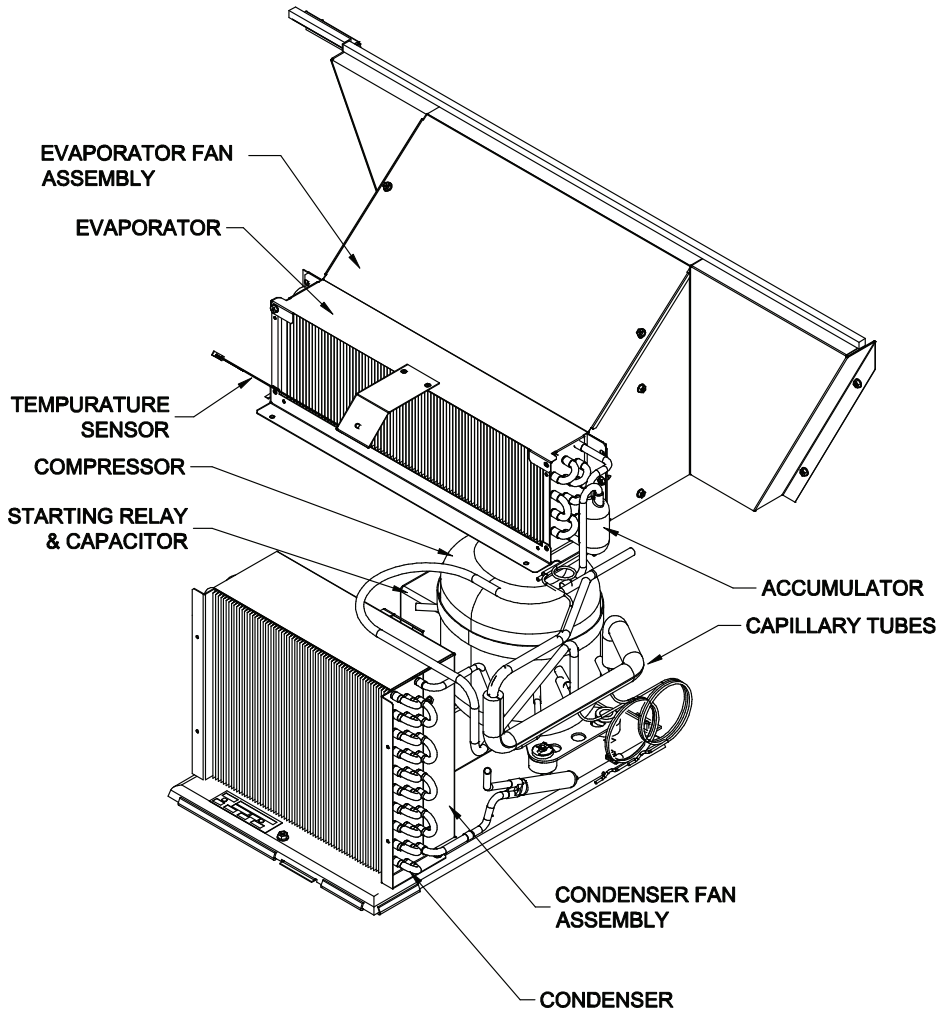
EVAPORATOR FAN ASSEMBLY
EVAPORATOR
TEMPURATURE SENSOR
COMPRESSOR
STARTING RELAY & CAPACITOR
ACCUMULATOR
CAPILLARY TUBES
CONDENSER FAN ASSEMBLY
CONDENSER

FIGURE 2

The parts listed below are not part of the sealed refrigeration system and are available separately.

START CAPACITOR - P/N: 1124549
The start capacitor is used to increase power during the start. This additional power will help get the compressor running in case there is any back pressure.

STARTING RELAY – INCLUDED IN ASSEMBLY P/N 513506066
The starting relay is mounted in the terminal box on the outside of the compressor under the housing. When the compressor first starts up, the starting relay closes and completes a starting circuit. When the compressor motor reaches operating speed, the starting relay opens and breaks the starting circuit.

THERMAL OVERLOAD SWITCH – INCLUDED IN ASSEMBLY P/N 513506066
The thermal overload switch is mounted in the terminal box on the outside of the compressor under the housing. If the compressor motor gets hot or draws too much current, the thermal overload opens and breaks the starting and running circuit of the motor. As the motor cools, the thermal overload closes, allowing the compressor to restart.

TEMPERATURE SENSOR – P/N 1122924
The temperature sensor is mounted in the inlet airflow of the evaporator. This monitors the air temperature and reports it to the electronic controller so that the controller can operate the refrigeration system via the power box.

NOTES

VARI-PAK

TROUBLESHOOTING SECTION

THE VENDO COMPANY
NEW EQUIPMENT WARRANTY
VARI-PAK VENDING MACHINES
Distributor North America/ Canada

I. This warranty benefits each current owner of a Vari-Pak vending machine, whether that owner is the original purchaser or a transferee.

II. The Vendo Company warrants each part of each new vending machine for a period of fifteen (15) months from the date of shipment, to be free from defects in material and workmanship. This includes electronic control boards, LED displays and vend mechanisms. This Warranty DOES NOT include light bulbs, fluorescent tubes, fuses, finish or operating supplies.

III. The hermetically-sealed refrigeration system used in machines designed to vend bottles, cans, and aseptic cartons is warranted to be free from defects in materials and workmanship for six (6) years, provided the hermetically-sealed portion of the system has not been opened or damaged. This six (6) year warranty DOES NOT include fan motors, temperature controls, capacitors, overload switches or starting relays.

IV. Return authorization is required to qualify for warranty replacement. All requests for returns must be in writing or via phone, within the warranty period, and accompanied by a record of the cabinet model and serial number of the machine. Freight carrier return tickets will only be issued to the machine owner for refrigeration system returns. This warranty is voided when the serial number of a machine is missing. If a return is found to be inoperative due to defects in material and/or workmanship, we will, at our option, make necessary repairs or furnish a reconditioned or new replacement part or refrigeration system at no charge.

V. “Return Material Tags” indicating cabinet model, machine serial number and explanation of defect must accompany all returned parts or machines. “Return Material Tags” will be furnished upon request. On-site inspection of defective parts, at The Vendo Company’s option, may be used to facilitate credit approval or the replacement of parts.

VI. The Vendo Company will pay normal transportation charges on refrigeration systems and parts replaced under this warranty. If special handling or premium transportation is requested, those charges will be assumed by the machine owner.

VII. Any parts and/or refrigeration systems replaced during the warranty period are warranted for the remaining time on the original warranty

VIII. This warranty DOES NOT apply to machines located outside the United States and Canada, reconditioned equipment, equipment sold “as is”, or components designed to work on electric currents other than 110v/120hz 60 cycle or 208v/220hz 50 cycle, as specified on the serial tag.

IX. Title and risk of loss pass to the machine owner on delivery of the vending machine, replacement parts and/or refrigeration system to the common carrier. All loss and damage claims are the responsibility of the machine owner and must be filed with the delivering carrier.

X. This warranty DOES NOT include any service guarantee, either explicit or implied, nor will it extend to cover incidental or consequential damages resulting from purchaser or third party negligence, accident, vandalism, or an act of God.

XI. The Vendo Company reserves the right to make design changes, additions to, and improvements upon any of our product without incurring any obligation to incorporate same on any product previously manufactured.

XII. This warranty is in lieu of all other express warranties or other obligations or liabilities on our part, and we neither assume nor authorize any person to assume for us, any other obligation for liability in connection with the sale of said machines or parts thereof. EXCEPT AS SPECIFICALLY PROVIDED HEREIN, THERE ARE NO WARRANTIES GIVEN, EITHER EXPRESS OR IMPLIED, AND ALL OTHER WARRANTIES, INCLUDING SPECIFICALLY BUT WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE HEREBY EXPRESSLY DISCLAIMED.

PARTS RETURN PROCEDURES

1. All parts returned must be accompanied by a material return tags (P/N 1122825) Tag must clearly state the reason for the return and the Return Goods Authorization Number received from your Vendo Customer Service Rep at 1-800-344-7216. (Return tags are available from our parts department upon request).

2. All parts should be properly wrapped and packed securely to avoid further damage.

3. To replace an inoperative part, please use the following instructions

4. Complete the return tag making sure to fill in ALL requested information to ensure prompt processing. Keep top (white) copy for your records. Attach tag to inoperative part and send it by the most inexpensive method of transportation (Federal Express Ground or Overnight Transportation) **To: THE VENDO COMPANY, 4015 EAST RAINES ROAD, MEMPHIS, TENNESSEE 38118.**

5. Be sure to check (☑) the box marked "credit" and to fill in the invoice number covering the part sent to you or check the box marked "replace with like part".

6. If the box is marked for replace with like part, a like part will be shipped at no charge if our inspection shows that the inoperative part became defective during the warranty period.

7. If the box is marked for credit, a credit will be issued to cancel the invoice on which the replacement part was shipped. This credit will include any applicable prepaid transportation charges. To receive credit the inoperative part must be returned within 30 days from the date the replacement was shipped.

8. Vendo does not issue cash credit for the return of any part or accessory.

REFRIGERATION UNIT RETURN PROCEDURE

1. All refrigeration units returned must be accompanied by a material return tag (P/N 1122826). Tag must clearly state the reason for the return and the Return Goods Authorization Number received from your Vendo Customer Service Rep at 1-800-344-7216. (Return tags are available from our parts department upon request).

2. All refrigeration units should be properly wrapped and packed securely to avoid further damage.

3. To replace an inoperative part, please use the following instructions.

4. Complete the return tag making sure to fill in ALL requested information to ensure prompt processing. Keep top (white) copy for your records. Attach tag to inoperative part and send it by the most inexpensive method of transportation (Federal Express Ground or Overnight Transportation) **To**: **THE VENDO COMPANY 7209 N. INGRAM AVE. FRESNO, CA. 93650**

5. Be sure to check (☑) the box marked "credit" and to fill in the invoice number covering the part sent to you or check the box marked "replace with like part".

6. If the box is marked for replace with like part, a like part will be shipped at no charge if our inspection shows that the inoperative part became defective during the warranty period.

7. If the box is marked for credit, a credit will be issued to cancel the invoice on which the replacement part was shipped. This credit will include any applicable prepaid transportation charges. To receive credit the inoperative part must be returned within 30 days from the date the replacement was shipped.

8. Vendo does not issue cash credit for the return of any refrigeration unit.

   ***Canadian and International customers please contact your Customer Service Representative for return instructions**

TROUBLESHOOTING GUIDE

The Vari-Pak vendor provides self-diagnostics to aid you in the trouble shooting process. Error codes are stored in the controller's memory when a system error is sensed. These codes can be accessed by following the procedure listed below.

The trouble shooting guide below contains information on how to solve problems with the 1) Vend system; 2) Selection switches; 3) Peripherals; 4) Refrigeration system; and 5) Miscellaneous problems. The guide is divided into subsections with these headings

Accessing Error Codes with 4-button Programming (version 14.1 only)

ERROR	DESCRIPTION OF ERROR CODE	CHECKING METHOD	CORRECTIVE ACTION
Vending Mechanism			
Column Jam #nn	Column jam - vend cycle for column "nn" did not start or complete.	Look in column to see if product is jammed in mechanism.	Clear jam, complete a test vend cycle.
		Insure correct side spacer is used (see setup diagram).	Install correct side spacer and complete a test vend cycle.
		Insure product is loaded correctly.	Load product correctly.
Selection Switches			
Stuck Sel SW #nn	Bad Selection Switch - Selection switch nn is actuated for more than 15 seconds while in the Customer Mode or Door Open Sales Test Mode.	Check the selection switch number shown in the detailed error code "nn" to see if: 1) the button is sticking; 2) the switch is sticking/defective; 3) the harness is wired wrong/shorted.	Try to correct the problem if one of the three items is found. If you can't correct it, then replace the component in question.
Space to Sales Column			
Unassigned Column #nn	Column nn is not assigned to a selection.	Access space-to-sales mode and go to custom space-to-sales.	Change space-to-sales setting as required. In some situations, it may be quicker to completely reset all space-to-sales.
		Check all selections for the column shown in the detailed error description (nn).	
Space to Sales Selection			
Unassigned Sel SW #nn	Selection switch skipped - switch nn unassigned and a higher number switch is assigned.		Switch is assigned.
Coin Changer			
Coin Communication	Changer communication error - no changer communication for more than 2 seconds.	1) Check that red light is flashing on control board.	If light is not flashing, there is no power to board. Check and replug any unplugged connections.
		2) Check fuse on the power distribution panel.	If fuse is blown replace it.
			Replace transformer.
		3) Defective acceptor.	Replace acceptor.
Tube Sensor	Tube sensor is defective -- reported by changer .	Check changer tubes for blockage.	Clear tube blockage. If no blockage is found, replace changer.

Coin Inlet	Changer inlet chute blocked - no coins sensed for over 96 hours by the changer.	Check inlet chute for blockage. Drop coins in Sales Mode or Tube Fill Mode to test acceptance. Manually clear the error.	Clear inlet chute blockage. If no blockage found, replace changer. If acceptance rate is acceptable, system is OK. If acceptance rate is low or changer will not accept coins, replace changer.
Tube Jam	Tube pay out jam -- reported by changer.	Check changer tubes and payout for blockage.	Clear blockage, if found. If no blockage is found, replace changer.
Coin Read Only Memory	Changer check sum incorrect -- reported by changer.	Unplug machine, wait at least five seconds, replug machine. Manually clear the error.	If error does not clear, replace changer/acceptor.
			Replace acceptor.
Excessive Escrow	Excessive escrow requests -- more than 255 requests since the last coin was sensed.	Check escrow lever and associated mechanisms.	Manually clear the lever and error.
		Close door then reopen. Check to see if error still occurs.	Replace changer/acceptor.
Coin Jam	Coin jam - reported by changer.	Check changer/acceptor for jammed coins or other obstructions.	If no obstructions are apparent, replace changer/ acceptor.
Low Acceptance	Low acceptance rate -- coin acceptance has fallen below 80%.	Check changer/acceptor for obstructions or dirt.	If no obstructions are apparent, and acceptance appears to be OK, this may be an indication of cheating attempts.
		Drop coins test acceptance.	If no obstructions are apparent and coins do not accept, or acceptance rate is poor, replace changer/acceptor.
Accept Disconnect	Disconnected acceptor -- indicates that an acceptor is unplugged.	Check coin mechanism plugs. Check for faulty harness wiring (see wiring diagram for circuit).	Correct connections.
Routing	Coin routing - indicates a coin was routed incorrectly.	Verify acceptor set-up using manufacturer's recommendations.	If acceptor was set up correctly, replace acceptor.
Dollar Bill Validator			
Bill Validator Communication	Bill validator communications - No bill validator communication for 5 seconds.	If changer or card reader is being used, check for "CC" or "rC" errors.	If there are no "CC" or "rC" errors: 1) Check bill acceptor harness; 2) Replace bill acceptor. If there is a "C" or "rC" error: 1) Check control board MDB harness.
		Turn off door switch and wait at least five seconds. Turn on door switch.	
Bill Validator Full	Bill validator full - reported by validator (STACKER command).	Insure bill cashbox is empty and that the cashbox is properly closed and in place.	If cashbox appears to be OK, replace bill acceptor.
Bill Validator Motor	Bill validator motor is reported as defective by validator.	No test available.	Replace bill acceptor.
Bill Validator Jammed	Bill jammed -- reported by validator.	Check bill validator for obstructions or dirt.	If no obstructions are apparent, replace bill validator.
Bill Validator ROM	Bill validator check sum is incorrect.	Turn power switch off. Wait at least five seconds. Turn power switch on. Manually clear the error.	If error does not clear, replace bill acceptor.

Bill Validator Open	Bill validator is open.	Check that bill cashbox is closed and in correct position.	If cashbox appears to be OK, replace bill acceptor.
Bill Validator Sensor	Bill validator sensor is not functioning.	Check bill validator for obstructions or dirt.	If no obstructions are apparent, replace bill validator.
Card Reader			
Card Reader Communication	There is no card reader communication for 5 seconds.	If card reader/bill acceptor is being used, check for “rC’ or “bC” errors.	If there is no “rC” or “bC” error: 1) Check changer harness. 2) Replace changer.
		Turn power switch off. Wait at least five seconds. Turn power switch on.	If there is a “rC” or “bC” error: 3) Check control board MdB harness.
Card Reader	Most recent “non-transient error” from the card reader.	No test available.	Refer to card reader manual for corrective action.
Refrigeration			
Temp Sensor	The temperature sensor is defective or unplugged.	Check to see that temperature sensor harness is plugged into door harness at air dam area.	If the sensor is unplugged, replug it.
		Check for temperature sensor connection J7 on control board is plugged in.	
Compressor	System has failed to decrease temperature 1° per hour while the compressor is running.	Access relay mode (refer to programming manual).	Check to see that the refrigeration harness is connected to the power distribution panel. If they are, refer to the refrigeration troubleshooting flow chart on the following pages.
		Check refrigeration settings (refer to refrigeration section of programming manual).	Change settings as required.
Heater	Heater system has failed to increase temperature 1° per hour while heater is on.	Heater circuit not properly wired.	Check electrical connections.
		Bad sensor on heater circuit.	Replace sensor.
		Defective heating element.	Replace heating element.
Miscellaneous Problems			
Door Switch	Outer door has been open for more than one hour.	Check the vendor’s door switch to see if it’s sticking or miswired.	Replace the door switch, if defective.
Ram Error	Ram check sum for service mode settings stored in non-volatile memory has been corrupted.	No test available.	If error shows up frequently, replace the control board.
AC Low	AC voltage to the controller is less than 20Vrms for more than 30 seconds.	Check for low voltage at the wall outlet at unit start-up.	Contact a qualified electrician.
Scale	Scaling Factor error - one of the credit peripherals has introduced a scaling factor that is not compatible with the current configuration.	Check the connections of changer harness; make sure changer is plugged in and working.	Make corrections to harness or replace the changer if necessary.

Inlet Sensor	Machine's coin inlet sensor is blocked for more than 1 minute.	Check changer harnessing for cut, pinched or crimped wires.	Replace harnesses or changer.
Escrow Return Mech.	3 successive coins are detected at the inlet but do not make it into the changer in 10 seconds.	Check inlet for blockage. If nothing is found, check changer harnessing for cut, pinched or crimped wires.	Clear blockage or replace harness or changer.
Cabinet Switch	Cabinet (inner) door has been open for more than one hour.	Check the cabinet switch to see if it's sticking or miswired.	Replace the cabinet switch, if defective.

ERROR	PROBABLE CAUSE	CORRECTIVE ACTION
Coin Acceptance/Payout (Record all errors for reference if Vendo Technical Service is required)		
Coin mechanism will not accept coins.	No power to control board.	Check to make sure the red LED on the control board is flashing red. If flashing, check MDB harness connections. If connections are good, replace changer.
	Harness from coin mech to board is cut or disconnected.	Use a meter and check each wire for continuity and ground.
	Short in coin mechanism.	Replace coin changer/acceptor.
	Acceptor is dirty or other problem may exist (not tuned).	Clean acceptor or contact your local coin mech dealer.
	Defective control board.	Replace control board.
No acceptance or rejects a percentage of good coins.	Coin return lever pressing down on acceptor's coin plunger.	Make sure changer is mounted correctly and the coin return lever is in the proper position.
	Acceptor is dirty or foreign matter is in the path.	Clean acceptor or contact dealer.
	Coin changer is improperly tuned (if tunable).	Contact manufacturer for tuning.
	Defective controller board.	Replace/test controller.
Always accepts coins but gives erratic/no credit.	If NO CREDIT: Defective harness between coin mech and control board (will have "CC" error).	Check harness for cut wires or wrong/bad connections. Test each wire for continuity or test to ground. If found to be defective, replace.
	If ERRATIC OR NO CREDIT: Acceptor or coin mech.	Replace coin mech and test.
	If NO CREDIT: Defective controller.	Replace/test controller.
Changer will not payout coins.	Defective harness between coin mech and control board.	Test vendor's manual coin payout. If vendor won't pay out using the Coin Payout mode or during sales, check harness for cuts, bad continuity or wrong connections. If defective, replace and test.
	Defective coin mech.	Replace coin mech and test.
	Defective controller board.	If coin mech won't payout coins manually in the Coin Payout mode or during the Sales Mode and the above two procedures have failed, replace the control board and test payout both in the Coin Payout mode and during a sale.
	Changer payout buttons are disabled while door is closed or while in Open-Door Sales Mode.	Enter the Service Mode or access the Coin Payout Mode.

BILL ACCEPTANCE		
Bill Acceptor will not pull bill in.	No power to validator.	Unplug power. Wait for 10 seconds. Reconnect power and see if bill acceptor cycles. If not, check acceptor harnessing or replace the bill acceptor.
	Acceptance disabled by coin mech (if present), or bad harnessing.	Make sure that the coin mech is plugged in (accepts coins) and that the coin tubes have enough coins to enable bill acceptance.
	Coin mech is not operative.	Make sure that the changer harnessing is correctly connected and has continuity. Repair or replace if necessary.
	Replace acceptor and test.	If acceptor accepts, bill acceptor was defective.
Bill acceptor takes a bill but does not establish credit.	Defective acceptor harness (credit not getting from acceptor to control board through the harness).	Make sure that the acceptor and harnessing is correct for your style of acceptor and it is plugged in and wired properly.
	Defective acceptor.	Replace/test acceptor.
	Defective controller.	Replace/test controller.
Bill acceptor takes a bill and credits but not erasing credit.	Defective bill acceptor.	Replace acceptor and test acceptance and erasure of credit.
	Defective controller.	Replace/test controller for erasure of credit.
	Both vend sensors are defective	Replace vend sensor.
Acceptor takes a bill and allows payback of coins without a selection.	Controllers configurations not set properly.	Access vendor configuration mode and check the “Forced Vend” setting.
VENDING PROBLEMS		
Multiple vending (not canceling credit) after vend.	If multiple vending from all selections, sold out sensor may be cut, inproperly grounded, or defective.	Replace sensors and test.
	NOTE: If both sensors are not present or is defective, the Vari-Pak will allow up to one product from each column to vended before the column is determined to be sold out.	Replace sensors and test.
Multiple vending (credit cancelled)	Wrong or no product spacer installed.	Install correct product spacer and test.
Wrong product vending upon selection.	Misload by vendor loader.	Ensure that all product within each column is the same.
	Space-to sales not set properly.	Look for StS error. Check or use preset space-to-sales.
	Miswired selection.	Check the wiring from the controller to the selection switches. Test selection switches
No vend upon selection.	Delivery sensor is malfunctioning or a column is jammed or sold out.	Check to see if the delivery sold-out sensor LED is constantly on. If so, replace sold-out sensor.
	Defective controller board.	Unplug the sensors connection from the control board. Watch LED. IF the sensor LED stays on, replace the defective controller.
Dry Vend (No refund).	Premature vend detection.	Tap on chute and check for a green flashing light on the control board. If no light is flashing or light is on constantly on, replace sensors.

Completely sold out while product is still in the column.	Check to see if blocking is enabled.	Change time or turn off blocking.
	Check if sold-out sensor is unplugged.	Plug back in.
	Space to sales has been cleared.	Reinitiate space to sales.
MISCELLANEOUS PROBLEMS		
Display shows sold out immediately upon pressing selection button of full column (sold out not clearing).	Cabinet switch wired incorrectly or cut/pinched.	Manually press cabinet switch. If still not vending, check wiring or replace cabinet switch.
	Defective control board.	If cabinet switch is replaced and still reading sold out, replace control board.
Vendor appears dead; no digital display and no lights.	Defective main harness.	If red light on control board is off, check fuse and transformer.
No digital display; vendor lights on.	Defective display or display harness.	Check display and display harness. Replace if necessary.
	Check for a flashing red light on control board.	If no light, replace control board.
Vendor scrolls message on display but does not accept money.	Changer out of tune.	See “Tuning Changer”.
	Defective changer.	Replace changer.
	Defective controller board.	Replace control board.
Vendor accepts money but does not display credit.	Defective changer.	Replace changer.
	Defective controller board.	Replace board.
Vendor accepts and credits money but does not vend (does not indicate a sold-out).	Defective selection switch.	Replace switch.
	Defective selection switch harness.	Repair or replace harness.
	Defective controller board.	Replace board.
Vendor delivers wrong product.	Vendor loaded wrong.	Correct loading.
	Vendor space-to-sales set wrong.	See “Space to Sales”.
	Defective control board.	Replace board.
Refrigeration		
Refrigeration unit will not run.	Defective temperature sensor.	1. Check connection.
		2. Replace temperature sensor.
	Defective control board.	Replace board.
Refrigeration unit will not run at all.	No power to vendor.	Check power supply, also check service cord connections.
Unit will only run in the compressor relay test mode. (Located under Test Mode)	Defective cabinet switch.	Open and close the door to make sure lights and fan come on. If not, then check the cabinet switch.
	Defective temperature sensor.	Follow the same steps detailed above about the temperature sensor.
	Wait the 3 minute delay once the cabinet door is closed.	Wait to see if unit comes on.
	Defective control board.	If unit still does not come on, then replace the control board.

Unit will not run in the compressor relay test mode. **NOTE: Leave the compressor relay test mode on, in order to check for voltage.	Defective control board.	Unplug unit at power distibution panel. Remove air dam. Reconnect power. Enable compressor relay through Test Mode. Check 2-pin connection on power distribution for 110V.
	Defective relay.	Upon opening the cabinet door, the lights and fans should shut off. If they don't, replace the cabinet switch.
Refrigeration unit runs constantly.	Defective cabinet switch.	Upon opening the door, the display should read either errors, summary sales, or none. If it does not, then replace the cabinet switch.
	Defective control board.	Replace control board.
	Defective relay - contacts are welded together.	Replace relay.
Compressor will not start.	Overload protector inoperative.	Check overload (apply insulated jumper across terminal, if compressor starts, replace overload).
	Defective cabinet switch.	Check for error codes. Replace cabinet switch.
Compressor will not start, condenser fan motor running - unit hot (power to compressor).	Defective over load relay	Replace the over load relay.
	Compressor motor rocked	Replace the refer unit.
	Defective capacitor	Replace the capacitor.
	Defective PTC relay	Replace the PTC relay.
Compressor starts but does not run.	Loss of refrigerant	Replace the refrigeration unit.
	Smashed tubings and capillary	Replace the refrigeration unit.
	Defective over load relay	Replace the over load relay.
Compressor runs but cabinet temperature warm.	Loss of refrigerant	Replace the refrigeration unit.
	Smashed tubings	Replace the refrigeration unit.
	Defective drainage	Make sure the drain hose is not kinked or clogged.
	Defective temperature sensor	Replace the temperature sensor.
	Poor air flow	Make sure nothing is sitting in front of the evaporator.
	Defective control board	Replace the control board.
	Defective door seal	Make sure the vend flap and gasket are not open.
	Defective heat exchange on condenser/ Blocking air flow by dust, lint or fins damage	Clean the surface of the condenser fins or straighten the bent fins.
Both compressor and condenser fan motors will not operate.	Bad refrigeration control relay.	Test relay using relay test function of the electronic controller. Replace relay if necessary.
	Bad connection at power board.	Check wiring connections. Make corrections if necessary.
Evaporator frosted over.	Loss of refrigerant	Replace the refrigeration unit.
	Smashed tubings	Replace the refer unit.
	Defective drainage	Make sure the drain hose is not kinked or clogged. Re-install hose correctly if kinked or clogged.
	Defective temperature sensor	Replace the temperature sensor.
	Defective control board	Replace the board.
	Poor sealing	Check gasket, vend flap, and permagum on the bulkhead.

Product freezing up (too cold).	Temperature setting too low.	Adjust set point in control board.
	Defective temperature sensor	Replace the temperature sensor.
	Defective control board	Replace the control board.
Excessive noise.	Fan blade hitting shroud or transformation or loose fitting	Replace the fan blade or re-install correctly.
	From the inside of fan motor or loose fitting	Re-install or replace the motor.
	From the inside of compressor or loose fitting	Replace the refrigeration unit.

NOTES

THE VENDO COMPANY
NEW EQUIPMENT WARRANTY
VARI-PAK VENDING MACHINES
Distributor North America/ Canada

I. This warranty benefits each current owner of a Vari-Pak vending machine, whether that owner is the original purchaser or a transferee.

II. The Vendo Company warrants each part of each new vending machine for a period of fifteen (15) months from the date of shipment, to be free from defects in material and workmanship. This includes electronic control boards, LED displays and vend mechanisms. This Warranty DOES NOT include light bulbs, fluorescent tubes, fuses, finish or operating supplies.

III. The hermetically-sealed refrigeration system used in machines designed to vend bottles, cans, and aseptic cartons is warranted to be free from defects in materials and workmanship for six (6) years, provided the hermetically-sealed portion of the system has not been opened or damaged. This six (6) year warranty DOES NOT include fan motors, temperature controls, capacitors, overload switches or starting relays.

IV. Return authorization is required to qualify for warranty replacement. All requests for returns must be in writing or via phone, within the warranty period, and accompanied by a record of the cabinet model and serial number of the machine. Freight carrier return tickets will only be issued to the machine owner for refrigeration system returns. This warranty is voided when the serial number of a machine is missing. If a return is found to be inoperative due to defects in material and/or workmanship, we will, at our option, make necessary repairs or furnish a reconditioned or new replacement part or refrigeration system at no charge.

V. “Return Material Tags” indicating cabinet model, machine serial number and explanation of defect must accompany all returned parts or machines. “Return Material Tags” will be furnished upon request. On-site inspection of defective parts, at The Vendo Company’s option, may be used to facilitate credit approval or the replacement of parts.

VI. The Vendo Company will pay normal transportation charges on refrigeration systems and parts replaced under this warranty. If special handling or premium transportation is requested, those charges will be assumed by the machine owner.

VII. Any parts and/or refrigeration systems replaced during the warranty period are warranted for the remaining time on the original warranty

VIII. This warranty DOES NOT apply to machines located outside the United States and Canada, reconditioned equipment, equipment sold “as is”, or components designed to work on electric currents other than 110v/120hz 60 cycle or 208v/220hz 50 cycle, as specified on the serial tag.

IX. Title and risk of loss pass to the machine owner on delivery of the vending machine, replacement parts and/or refrigeration system to the common carrier. All loss and damage claims are the responsibility of the machine owner and must be filed with the delivering carrier.

X. This warranty DOES NOT include any service guarantee, either explicit or implied, nor will it extend to cover incidental or consequential damages resulting from purchaser or third party negligence, accident, vandalism, or an act of God.

XI. The Vendo Company reserves the right to make design changes, additions to, and improvements upon any of our product without incurring any obligation to incorporate same on any product previously manufactured.

XII. This warranty is in lieu of all other express warranties or other obligations or liabilities on our part, and we neither assume nor authorize any person to assume for us, any other obligation for liability in connection with the sale of said machines or parts thereof. EXCEPT AS SPECIFICALLY PROVIDED HEREIN, THERE ARE NO WARRANTIES GIVEN, EITHER EXPRESS OR IMPLIED, AND ALL OTHER WARRANTIES, INCLUDING SPECIFICALLY BUT WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE HEREBY EXPRESSLY DISCLAIMED.