

GF9-H

SAFETY INSTALLATION, SETUP & INSTALLATION SECTION

**Manufactured by
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A COMMITMENT TO SAFETY

SandenVendo America, Inc. is committed to safety in every aspect of our product design. SandenVendo America, Inc. 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 SandenVendo America, Inc.'s 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 ensure 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. SandenVendo America, Inc. could not possibly know, evaluate, or advise of all the conceivable ways in which service might be done or predict all 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 service 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. SandenVendo America, Inc. has no control over the machine once it leaves its 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 SandenVendo America, Inc. office nearest you.

SAFETY RULES

- **Place and store unit inside. Outdoor use or storage voids warranty and can result in an unsafe condition**
- 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 before servicing.
- 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 SETUP & 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 boards attached to the vendor base by the vendor leveling screws. Make certain the leveling screws are in place and functional.
- C. Position the vendor on a flat smooth surface 3 to 4 inches (7.6 cm to 10.2 cm) from a well-constructed wall.

IMPORTANT: *The vendor requires 3 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 (2.5 cm) above the ground.**
- E. Check the manufacturer's nameplate on the left or right side of the vendor's outer door 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 into a properly grounded outlet.
DO NOT USE EXTENSION CORDS.
DO NOT USE PLUG ADAPTORS.
- F. Recommended voltage specs = 115V ± 10%
- G. Dedicated 15A service required for 1 machine.
- H. Power outlet must be properly polarized and grounded.

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

SECTION I: VENDOR SETUP & INSTALLATION (CONTINUED)



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

NOTE: Refer to the appropriate parts and service manual available online @ www.vendoco.com for detailed instructions, operating principles, and recommended maintenance intervals and procedures.

SECTION I: VENDOR SETUP & INSTALLATION (CONTINUED)

Set up Procedure

Note: Do not plug in the vendor until

Step 5

1	Unwrap the machine
2	Remove all the tie wraps and packaging material
3	Level machine as needed - See leveling instructions
4	Confirm the trays fully seated in the base
5	Power on the machine
Display will read-Memory operation, Data Transfer in Process This is the process of communication between the Vending Machine Controller (VMC) and Delivery Mechanism Controller (DMC)	
6	Close the door –The machine will start initialization. The catcher will perform a product drop movement The product catcher will move up and scan for each shelf location - then move towards the right side of the machine and then will move to the left side at position (bottom hinge side)
CAUTION: Do not open the door while the elevator is in motion.	
8	The display should read "Ice cold Beverages!! Please Make a Selection"
9	Open the door – load the machine
10*	Set the machine to free vend
11	Test vend to check the vendor is working properly
12*	Set Price for all selection

*Refer to Programming Manual

Products Specification – General Guidelines

Products* (PET, glass bottles, cans):

Height range:	3 in – 9.25 in (76mm - 235mm)
Diameter range:	1.7 in – 3 in (43mm - 76mm)
Weight range:	0.41 lb.-1.62 lb. (185g - 736g)

Carton packs* (Aseptic package):

Height range:	3.3 in – 5.3 in (85mm - 134mm)
Width range:	2 in – 2.6 in (52mm - 67mm)
Depth range:	1.6 in – 1.8 in (40mm - 47mm)
Weight range:	0.47 lb. – 0.88 lb. (213g - 400g)

*Note: Due to variability of package design, material & weight, performance may vary. Testing of odd shaped/sized products should be done to determine acceptability. ***Continued.***

Loading Instructions

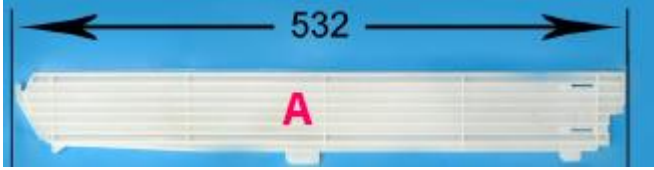




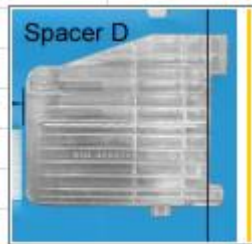
Please note: To ensure freshness of the product - do not load from the front of the vendor. GGFV has FIFO product loading capability

1	Lift and pull the front of the tray assembly.
2	Push and lock the product pushers to the back of the tray.
3	Load the products into the tray.
4	Once the products are loaded - push the tray back in its position – The product pushers will automatically snap back behind the last product For proper vending – Please make sure the products are not leaning forward or sitting up on tray front. Do not activate the product pusher when the columns are empty (damage will occur)
5	Check the tray is fully seated on the front support bar.
6	To ensure the product pusher is engaged - Gently push the front product inward to check for resistance
7	Check to confirm all products are resting on tray bottom (behind the tray product retaining hooks)

Loading selection # 50, 51, 52:

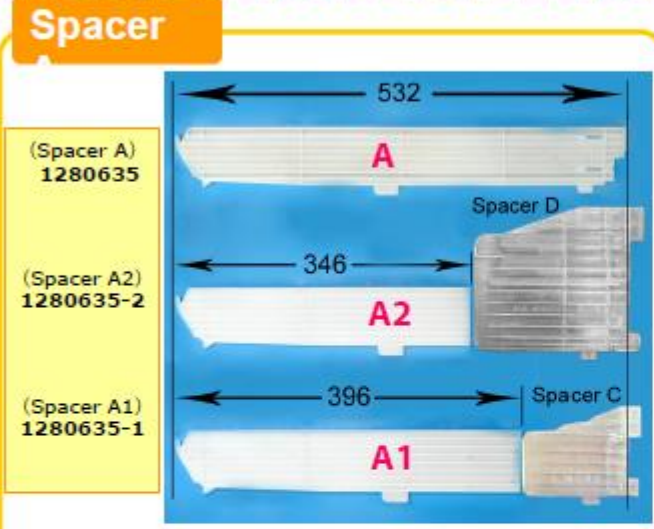
Push and hold the product delivery port flap open until the product catcher moves towards the right side of the vendor to clear the loading zone for 50, 51 and 52. Load the shelves as indicated by Step 1 – 7 Close the door. The catcher will move to home position

*For tall/unstable bottles or cans with a diameter $\leq 2.25''$, we recommend using side spacers to keep the products properly aligned. (Please see below).

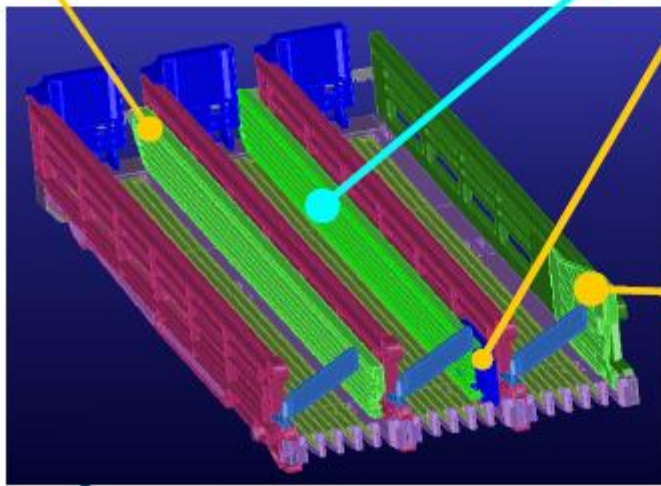
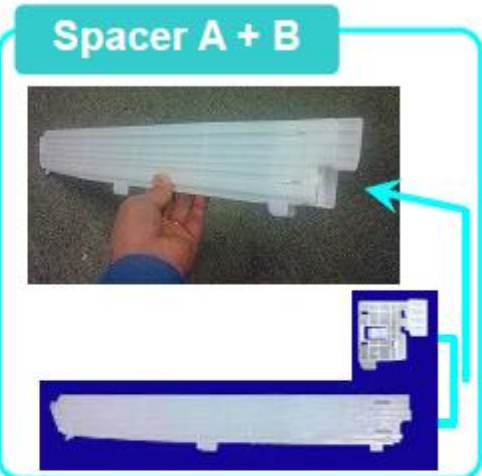
Part No.	Spacer
1280635	 <p data-bbox="1136 625 1247 657">Spacer A</p>
1280635-1	 <p data-bbox="1128 829 1263 861">Spacer A1</p>
1280635-2	 <p data-bbox="1128 1024 1263 1056">Spacer A2</p>
1280636	 <p data-bbox="1136 1270 1247 1302">Spacer B</p>
1280637	 <p data-bbox="1136 1564 1247 1596">Spacer C</p>
1280638	 <p data-bbox="1136 1848 1247 1879">Spacer D</p>

Those spacers help delivering the product in an optimal (smooth and correct) way.
 Tetra pack requires "Spacer A" or "Spacer CL & Pusher L".
 The products should be tested (with or without spacers) before installing the machine in the field.
 Questi spaziatori aiutano erogare i prodotti in modo ottimale.
 Usare "Spacer A" oppure "Spacer CL & Pusher L" per Tetra pack.
 Effettuare sempre alcuni test di vendita (con/senza spaziatori) prima di installare il distributore.

N.B.
 For this combination, you need to order both Kit A and B
 Per questa combinazione, si deve ordinare sia Kit A che Kit B.



N.B. Use the Spacer A1 combined with Spacer C & A2 with Spacer D.
 Usare Spaziatore A1 con Spacer C e Spaziatore A2 con Spacer D.



SECTION II: MAINTENANCE REQUIREMENT

- 1- Remove Trays and clean bottom slider (Every Six months or when spills occur)
(Note: dirty slider can prevent bottles from advancing)
- 2- Apply grease into the side partitions and pushers (Every Six months or as needed).
- 3- Clean the X-rail from any debris or syrup along the ribbon cable guide (When spills occur)
- 4- Vacuum the Condenser fins and clean the base from any dust (Every 3 months or as needed)
- 5- Check all harnesses in the drawer assembly are intact (Every 6 months)
- 6- Check Bucket motor switch/bucket base for any syrup or debris (Every 3 months or as needed)

SECTION III: ELECTRICAL HAZARDS

GENERAL

SandenVendo America, Inc. vending machines are provided with the appropriate power supply setting for your area.

The power sources 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 the normal precautions observed in handling electrical circuits, such as:

- Unplug the vendor 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, polarized, and protected with fuses or circuit breakers.
- All electrical connections must be dry and free of moisture before applying power.
- Replace Fuses with same type.
- Refrigeration servicing to be performed by qualified personnel only.

A. Grounding Systems

SandenVendo America, Inc. 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.

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.



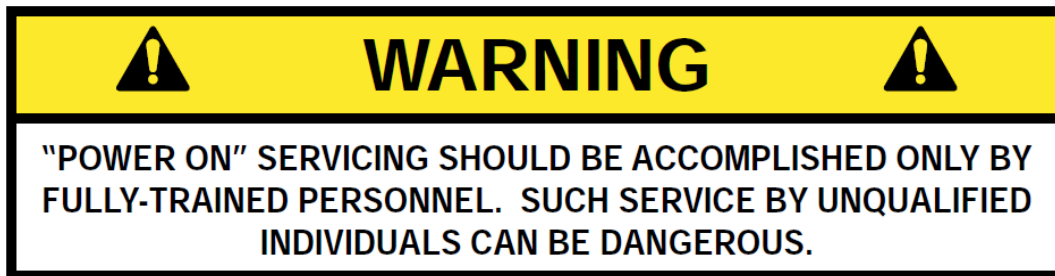
SECTION III: ELECTRICAL HAZARDS (CONTINUED)

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.

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**. 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.



Power to the lighting and refrigeration system is shut off automatically by the electronic controller when the outer door is opened. However, it is strongly recommended that servicing the lighting system or the refrigeration system only be performed after unplugging the vendor power cord, or by turning the power switch off (See Figure 1).

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.

Always make sure the path of the elevator and the rail is clear before closing the door.

Caution: Do not open the door while the elevator is moving.

For power-on servicing of the vendor's refrigeration system, turn refrigeration power on by accessing the Compressor test function of the electronic controller. Note that there will be a delay of 3 minutes before the compressor is energized.

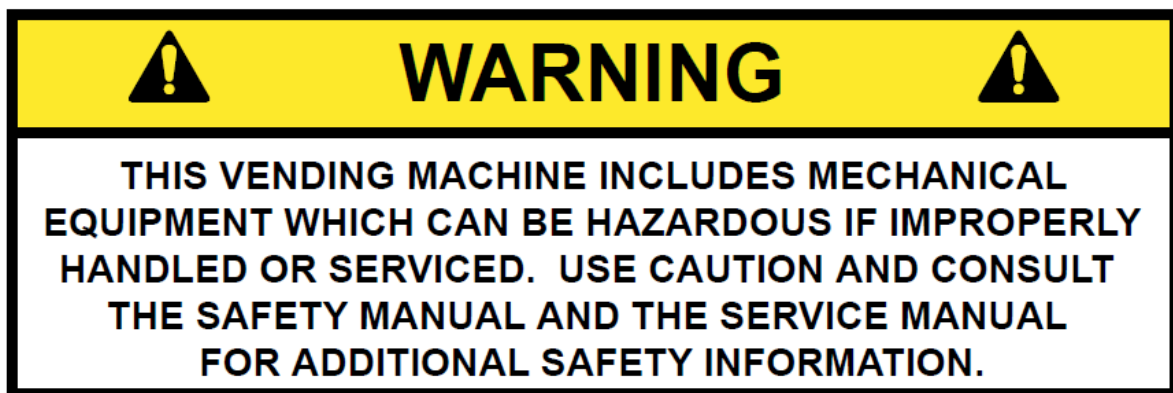
SECTION IV: MECHANICAL HAZARDS

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, 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 V: 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.

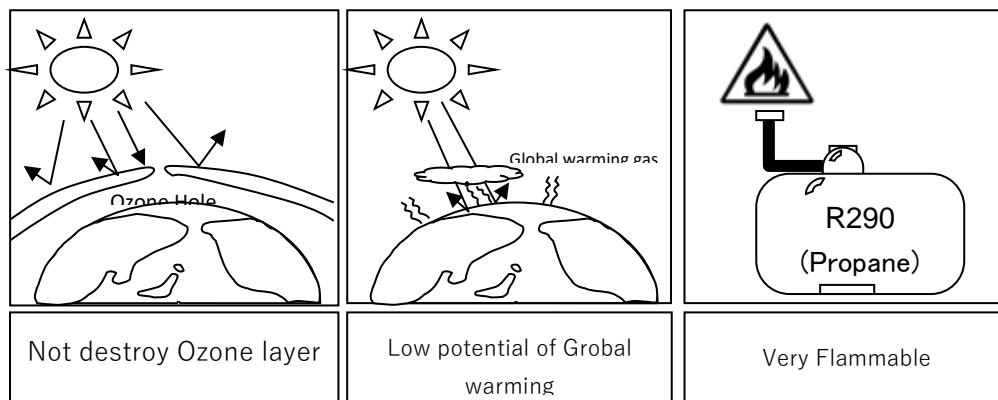
B. Physical Protection

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.



R290 REFRIGERANT (PROPANE)

For units that use R290 refrigerant, please use additional caution as described below.



Refrigerant	R290 (Propane)
Ozone Destructive Potential	0
Global Warming Potential	3
Permission Concentration	1,000 ppm
Operating pressure	180 psig (1.2 MPa)

DANGER:

Risk of fire or explosion. Flammable refrigerant used. Use extreme caution when handling, moving unit as to not increase risk of damage to refrigerant tubing or increasing the risk of a leak.

Caution:

The refrigeration unit contains R290 (Propane). Only a service technician that has been trained with the operation of R290 (Propane) should service the refrigeration system, to minimize the risk of possible ignition due to incorrect parts or improper service. Components parts shall be replaced with like components.

Notice:

This vending machine uses 114 grams (3xLFL) or less of R290 (A3 Propane) refrigerant. For R290 LFL=38 g/m³. Therefore, has no special placement restrictions (as compared to A1 refrigerants e.g. R134a) and can be used in lobbies or locations of egress, such as hallways or public corridors.

SECTION VI: 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 VII: 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 SandenVendo America, Inc. 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.



A. Service Cord Replacement

SandenVendo America, Inc. 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 SandenVendo America, Inc. office in your area.