



INSTALLATION & OPERATION MANUAL

VHU18 INSULATED HUMIDIFIED HOLDING & PROOFING CABINET



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F-47668 (02-18)

IMPORTANT FOR YOUR SAFETY

THIS MANUAL HAS BEEN PREPARED FOR PERSONNEL QUALIFIED TO INSTALL ELECTRICAL EQUIPMENT, WHO SHOULD PERFORM THE INITIAL FIELD START-UP AND ADJUSTMENTS OF THE EQUIPMENT COVERED BY THIS MANUAL.

FOR YOUR SAFETY

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS OR LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

WARNING

Improper installation, adjustment, alteration, service, or maintenance can cause property damage, injury, or death.

Read the installation, operating and maintenance instructions thoroughly before installing or servicing equipment.

IN THE EVENT OF A POWER FAILURE,

DO NOT ATTEMPT TO OPERATE THIS DEVICE

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INTRODUCTION

The VHU18 Insulated Humidified Holding and Proofing Cabinet provides an efficient means of holding bulk prepared foods at proper serving temperatures while maintaining food quality. Advanced sensing technology maintains an ideal combination of temperature and humidity, without complicated controls.

Vulcan Heated Holding Cabinets are produced with quality workmanship and material. Proper installation, usage, and maintenance of your cabinet will result in many years of satisfactory performance. It is suggested that you thoroughly read this entire manual and carefully follow all provided instructions.

INSTALLATION

Before installing, verify that the electrical service agrees with the specifications on the Serial Data plate (*Fig. 3*) located on the back or side of cabinet. If the supply and equipment requirements do not agree, do not proceed with unpacking and installation. Contact your Vulcan-Hart Customer Service Department immediately.

UNPACKING:

The Cabinet was inspected before leaving the factory. The transportation company assumes full responsibility for safe delivery upon acceptance of the shipment. Immediately after unpacking, check for possible shipping damage to the cabinet.

If the cabinet is found to be damaged, take photos of the damage (including box), save the packaging material, and contact the carrier within 5 days of delivery.

Carefully unpack and place in a work accessible area near the installation location.

1. Open door and carefully remove packaging materials and components for this unit.
2. Peel off any vinyl protection film that may be present on sheet steel.
3. Ensure all component parts for this unit are accounted for:

Qty	Part Name	Description
20	Universal Tray Slides	Wire racking to be placed in cabinet uprights at desired levels
1	VHU Interior Pan	Special Stainless Steel Pan with High temp black coating on bottom; gets placed in opening above heating element
1	VHU Exterior Pan	Standard Stainless Steel Pan located under unit for water collection

4. Remove universal tray slides from box. Install tray slides in the uprights at desired levels. Make sure the hook on the end of the tray slide is up (*Fig. 1*). To prevent tilting, tray slides should be placed in matching positions on both sides. For this unit, the bottom 2 holes (levels) closest to Interior pan are not intended for use.



Fig. 1, Tray slide install

5. Install both pans by placing the VHU Interior Pan (black coated underside) in the opening above the heating element, and by sliding the VHU Exterior Pan into the underneath position. (*Fig. 2*)



Fig. 2, Pan installation

6. Ensure cabinet interior and exterior are clean prior to use. Whenever cleaning this cabinet, do so using non-corrosive food grade cleaning solutions. Never use harsh chemicals or abrasive pads.
7. Choose a cabinet location that will provide easy loading and unloading without interfering with kitchen operations. **The installation location must be level and allow adequate clearances for proper operation and servicing.**
8. The cabinet is ready for use and can be energized in accordance with the Electrical Requirements section.

ELECTRICAL REQUIREMENTS

ELECTRICAL CODES & STANDARDS:

The cabinet must be installed in accordance with:

In the United States of America:

1. State and Local Codes.
2. National Electrical Code, ANSI/NFPA-70 (latest edition.) Copies may be obtained from: The National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269. 1-617-770-3000 www.nfpa.org

In Canada:

1. Local Codes.
2. Canadian Electrical Code, CSA C22.1 (latest edition.) Copies may be obtained from: The Canadian Standard Association. www.csa.ca

ELECTRICAL CONNECTIONS:

The cabinet is factory wired for 110/120 volt, single phase operation. This cabinet is equipped with an 8-foot cord and NEMA 5-15 plug as standard equipment. The cord and plug supplied is a suitable durable cord, provided with a proper strain relief.

⚠ WARNING All cabinets are equipped with a three-prong plug. It is imperative that this plug be connected into a properly grounded three-prong receptacle. If the receptacle is not the proper grounding type, contact an electrician. *Do not remove the grounding prong from this plug.*

Verify that the power source matches the Serial Data Plate (back or side of cabinet) and plug configuration before the connection is made (*Fig. 3*).

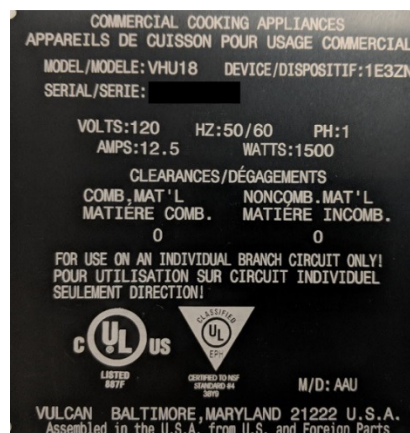
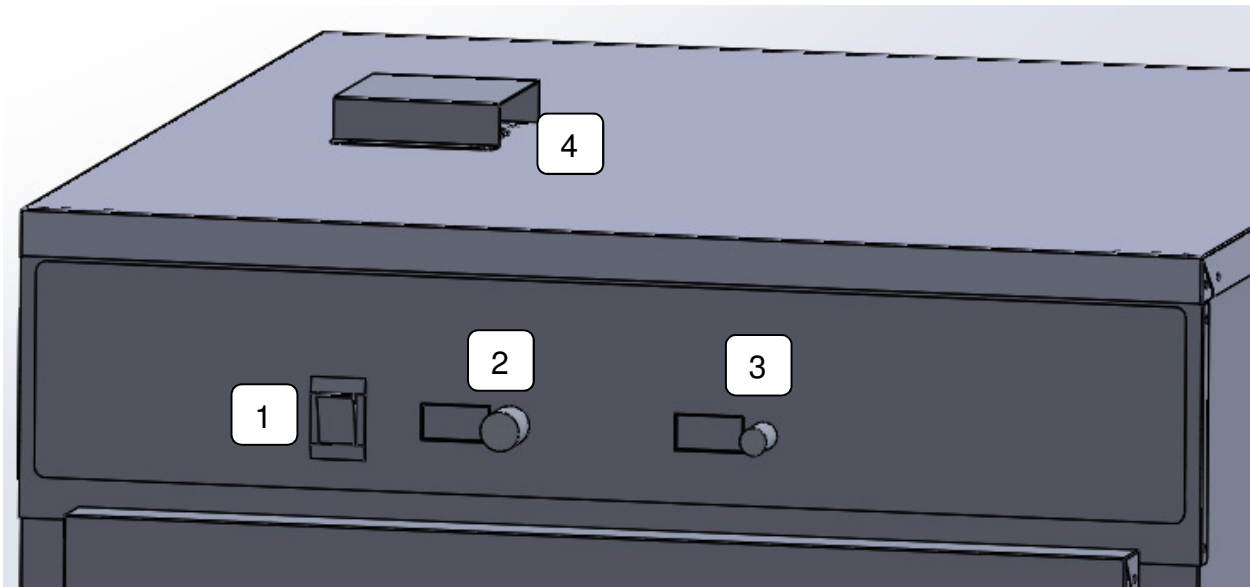


Fig. 3 – Serial Data Plate example, not representative of all units

OPERATION INSTRUCTIONS

⚠ WARNING The Cabinet and its parts are hot. Be very careful when operating, cleaning, or servicing the cabinet. Heating elements are located at the bottom of the unit. Touching the floor of the internal cavity or water pan can result in injury.

CONTROLS – Must read and familiarize before operation.



1. ON/OFF Rocker Switch

2. Temperature Display and Control Knob

- Shows Temperature set point selected by operator (*See Start Up*).
- Upon pressing knob once, reading of cabinet interior temperature will display for 4 seconds, then switch back to showing set temperature.

3. Humidity Display and Control Knob

- Shows Relative Humidity set point, either the default for that temperature, or specific humidity set point selected by operator (*See Start Up*).
- Upon pressing knob once, reading of cabinet interior relative humidity will display for 4 seconds, then switch back to showing set humidity.

4. Vent Fan and Guard

- Provides air intake for maintaining dry and cool controls.
- Leave at least a 1-inch clearance on all sides to prevent premature failure of controls from humidity.
- Do not allow liquids into the vent.

START UP

1. Fill VHU Interior pan $\frac{1}{2}$ – $\frac{3}{4}$ full of clean water (1 – 1.5 gallons). Use hot water to improve preheat times. The max capacity of the water pan is 2 U.S. gallons or 7.5 liters. **NOTE:** Additives such as oils, flavor enhancers, water softeners, or any products other than clean water are NOT permitted for use in this pan.
2. Turn Cabinet ON using the rocker switch. The rocker switch light will illuminate red. Unless it is the first time of use, Temperature and Relative Humidity set points will automatically set to the last operator selections prior to Shut Down.
3. Use the Temperature Control Knob to select desired temperature (cabinet temperature range is 80° – 190° F). The relative humidity setting will adjust on its own to the Automatic relative humidity setpoint based on the set temperature.
4. If an alternate humidity is desired, use the humidity knob to change the relative humidity setting. The **Minimum** relative humidity setpoint is 25% RH. The **Maximum** relative humidity setpoint is variable based on temperature setpoint. A table providing Automatic, Minimum, and Maximum Relative humidity settings can be found in the *Reference and Troubleshooting* section.

PREHEAT

When Proofing:

- Wait approximately 20 minutes for the cabinet to preheat from room temperature.
- Current Cabinet relative humidity may go above the set relative humidity.

When Holding cooked food:

- Depending on the temperature set point, allow up to 45 minutes for the cabinet to preheat from room temperature. (See *Controls* section for how to check interior temperature and relative humidity readings)
- It is possible that the cabinet's relative humidity may go above the set relative humidity during the heat up phase.
- Only load pans with hot, cooked food into cabinet.

DURING OPERATION

1. The VHU Interior water pan will be extremely hot during operation. Refilling of this pan during operation should be carried out by bringing water to the pan by using a pitcher or other pouring device. DO NOT attempt to remove the Interior water pan during cabinet operation as this could result in injury.
2. Refill the interior water pan approximately every 3 hours with 1 gallon of water, during high volume use. The VHU Interior pan should be $\frac{1}{4}$ - $\frac{3}{4}$ full at all times.
3. Water drips into a secondary pan (VHU Exterior Pan) underneath the unit. This pan of water should be emptied each time the internal water pan is filled. Caution, this may be hot.

END OF OPERATION – SHUT DOWN

1. Turn the unit OFF using rocker switch.
2. Leave the door in an open position (at least 2" gap) for at least 30 minutes to remove moisture and cool down. If accelerated drying is needed, the operator can do so using a soft cloth and with proper hand and arm protection. The bottom will be extremely hot and must be avoided until cool.
3. After cool down, wipe out any remaining moisture with a soft dry cloth.
4. Remove any food debris that accumulated on the bottom on the unit.

NOTE: This cabinet is not intended to reheat or cook food. Food must be cooked and at a safe serving temperature prior to being placed in the cabinet.

NOTE: The operator should always monitor the food product to ensure that it remains at a proper temperature.

CLEANING

▲ WARNING Do NOT spray or hose down the unit. Sensitive electronics can be damaged.

▲ WARNING Never use harsh chemicals or abrasive pads to clean the cabinet.

PERIODICALLY AS NEEDED:

1. When cooled to room temperature, empty VHU Interior pan.
2. Lightly clean VHU Interior pan and cabinet interior with non-corrosive food grade cleaning solution and water.
3. Dry with a soft cloth.
4. If removing the Interior Universal Tray Slides (wire racks) for cleaning, we recommend washing by hand to avoid damage to rack coating. Scratches and abrasion to any metal surfaces can lead to rusting.

HEAT TINT:

Darkened areas, called "heat tint," may appear on stainless steel exposed to excessive heat. Excessive heat causes the protective film to thicken. This is unsightly but is not a sign of permanent damage. The VHU interior pan and interior floor of the Cabinet are especially susceptible. The VHU interior pan does contact the element to improve heat transfer.

REFERENCE AND TROUBLESHOOTING

Symptoms	Possible causes	Remedy
Cabinet not operating	Cabinet not connected to power source	Connect cabinet to power source
	No power	Check circuit breaker
		Check GFCI
GFCI or Ground Fault Circuit Indicator tripped	Moisture issue	Dry moisture problem. Find and fix root cause
	Shorted element	Contact Authorized Service Provider
	Pinched/damaged wire	Contact Authorized Service Provider
	Damaged power cord	Contact Authorized Service Provider
Cabinet is connected to power source, switch is ON, circuit breaker is ON, but cabinet is not heating	Defective: element, control, etc.	Contact Authorized Service Provider
Cabinet does not heat properly	VHU Interior Pan not installed correctly.	Use Special Stainless Steel Pan with High temp black coating on bottom. Pan must be ¼ - ¾ full during operation
	Door not shut properly or needs adjustment	Check door seal and contact Authorized Service Provider
	Defective: element, control, etc.	Contact Authorized Service Provider
Fan not operating properly	Fan connection broken	Contact Authorized Service Provider
	Defective fan	
E01 or E03 displayed	Issue with sensor	Try the following: 1. Turn Cabinet OFF then ON 2. Follow: END OF OPERATION – SHUT DOWN instructions 3. Contact Authorized Service Provider
Knobs not working	Corrosion inside the unit or mechanical damage to the encoder	Contact Authorized Service Provider

TABLE providing AUTO/MAX/MIN Relative Humidity for each Temperature.

Temperature (°F)	Auto-set Relative humidity (%)	MAX Relative humidity (%)	MIN Relative humidity (%)
75	90	95	25
80	90	95	25
85	90	95	25
90	90	95	25
95	90	95	25
100	90	95	25
105	90	95	25
110	90	95	25
115	85	90	25
120	80	90	25
125	75	90	25
130	70	90	25
135	65	90	25
140	60	90	25
145	60	85	25
150	55	80	25
155	55	75	25
160	50	65	25
165	45	60	25
170	40	55	25
175	35	45	25
180	30	40	25
185	30	35	25
190	30	30	25

SERVICE & PARTS INFORMATION

To obtain Service and Parts information concerning this model, and for a complete listing of Authorized Service and Parts depots refer to our website or call Customer Service.

www.vulcanequipment.com

Customer Service: 800-814-2028

When calling for service, have the model number and serial number available.