

# **VULCAN**

## *INSTALLATION & OPERATION MANUAL*

### *VRB AND VIR SERIES TOP FIRED BROILERS*

#### *MODELS*

<i>VRB36</i>	<i>ML-44953Z</i>
<i>VRB36C</i>	<i>ML-44954Z</i>
<i>VRB36M</i>	<i>ML-44959Z</i>
<i>VRB36S</i>	<i>ML-44955Z</i>
<i>VRB36F</i>	<i>ML-44956Z</i>
<i>VRB36FM</i>	<i>ML-44960Z</i>
<i>VRB36FC</i>	<i>ML-44957Z</i>
<i>VRB36FS</i>	<i>ML-44958Z</i>
<i>VIR36</i>	<i>ML-44947Z</i>
<i>VIR36C</i>	<i>ML-44948Z</i>
<i>VIR36M</i>	<i>ML-44961Z</i>
<i>VIR36S</i>	<i>ML-44949Z</i>
<i>VIR36F</i>	<i>ML-44950Z</i>
<i>VIR36FM</i>	<i>ML-44962Z</i>
<i>VIR36FC</i>	<i>ML-44951Z</i>
<i>VIR36FS</i>	<i>ML-44952Z</i>



# **IMPORTANT FOR YOUR SAFETY**

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

**POST IN A PROMINENT LOCATION THE INSTRUCTIONS TO BE FOLLOWED IN THE EVENT THE SMELL OF GAS IS DETECTED. THIS INFORMATION CAN BE OBTAINED FROM THE LOCAL GAS SUPPLIER.**

## **IMPORTANT**

**IN THE EVENT A GAS ODOR IS DETECTED, SHUT DOWN UNITS AT MAIN SHUTOFF VALVE AND CONTACT THE LOCAL GAS COMPANY OR GAS SUPPLIER FOR SERVICE.**

## **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 THIS EQUIPMENT.**

**IN THE EVENT OF A POWER FAILURE, DO NOT ATTEMPT TO OPERATE THIS DEVICE.**

# TABLE OF CONTENTS

GENERAL .....	4
INSTALLATION .....	4
Unpacking .....	4
Location .....	4
Installation Codes and Standards .....	5
Leveling .....	5
Gas Connections .....	5
Testing the Gas Supply System .....	6
Flue Connections .....	6
OPERATION .....	7
Controls .....	7
Lighting Instructions .....	7
Grid Position and Gas Setting .....	7
Preheating .....	7
Operating VRB36 Series Models .....	7
Operating VIR36 Series Models .....	7
Shutdown .....	7
Cleaning .....	8
MAINTENANCE .....	8
Lubrication .....	8
Pilot Lights .....	8
Vent .....	8
Recommended Service Frequency .....	8
Service and Parts Information .....	8

# **INSTALLATION, OPERATION AND CARE OF VRB AND VIR SERIES TOP FIRED BROILERS**

**PLEASE KEEP THIS MANUAL FOR FUTURE USE**

## **GENERAL**

Vulcan-Hart Broilers are produced with quality workmanship and material. Proper installation, usage and maintenance of your broiler will result in many years of satisfactory performance.

It is suggested that you thoroughly read this entire manual and carefully follow all of the instructions provided.

## **INSTALLATION**

Before installing, verify that the type of gas supply (natural or propane) agrees with the specifications on the rating plate located on the front left side of the broiler. If the supply and equipment requirements do not agree, do not proceed with the installation. Contact your dealer or Vulcan-Hart Company immediately.

### **UNPACKING**

This broiler 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. If the broiler is found to be damaged, save the packaging material and contact the carrier within 15 days of delivery.

Carefully unpack broiler and place in a work-accessible area as near to its final installed position as possible.

### **LOCATION**

The equipment area must be kept free and clear of combustible substances.

To install the broiler without legs on a non-combustible curb or platform, the front must extend 3" (7.6 cm) beyond the curb or platform.

To install the broiler on a combustible floor, the 6" (15 cm) legs must be installed, and minimum side and rear clearances of 6" (15 cm) from combustible construction and 0" from non-combustible construction must be provided.

The installation location must allow adequate clearances for servicing and proper operation. A minimum front clearance of 24" (61 cm) is required.

Do not obstruct the flow of combustion and ventilation air. Adequate clearance for air openings into the combustion chamber must be provided. Make sure there is an adequate supply of air in the room to replace air taken out by the ventilating system. Do not permit fans to blow directly at the broiler. Avoid wall-type fans which create air cross currents within the room. Avoid open windows next to the broiler.

## **INSTALLATION CODES AND STANDARDS**

The broiler must be installed in accordance with:

### **In the United States of America:**

1. State and local codes.
2. National Fuel Gas Code, ANSI-Z223.1 (latest edition). Copies may be obtained from The American Gas Association, Inc., 1515 Wilson Blvd., Arlington, VA 22209.

### **In Canada:**

1. Local codes.
2. CAN/CGA-B149.1 Natural Gas Installation Code (latest edition).
3. CAN/CGA-B149.2 Propane Installation Code (latest edition), available from The Canadian Gas Association, 178 Rexdale Blvd., Etobicoke, Ontario, Canada M9W 1R3.

## **LEVELING**

Place a carpenter's level inside the broiler. Level the broiler front to back and side to side. Unless the broiler is level, it will not give proper cooking results.

## **GAS CONNECTIONS**

**CAUTION: Gas supply connections and any pipe joint compound must be resistant to the action of propane gases.**

Location of the gas inlet is on the lower rear right corner of the broiler. Codes require that a gas shutoff valve must be installed in the gas line ahead of the broiler.

Connect gas supply to the broiler. Make sure the pipes are clean and free of obstructions.

**Connection of Manifolds in a Battery:** Two or more broilers can be coupled together at the manifold by removing the front control panel to make necessary connections. Be sure to cap open ends. To connect, adjust manifold by loosening U-bolts. In a large battery of eight or more units, the gas should be fed from both ends of the battery. T gas connections can be installed whenever necessary for increased gas supply.

For further details, consult your local gas company.

The top roll front may also be removed for your convenience.

A gas pressure regulator suitable for the V Series Heavy Duty Range battery application or single unit **MUST** be furnished by the installer or plumber at the time of installation. Connect the unit to 1<sup>1</sup>/<sub>4</sub>" pipe or larger. Check rating plate(s) for proper gas, gas pressure, and total BTU input for each application. The gas pressure regulator must have proper **OUTLET PRESSURE** and capacity for battery application.

**The warranty is void if the proper gas pressure regulator is not installed.**

All model VIR burners and air shutters are of the fixed type and require no adjustments.

**WARNING:** PRIOR TO LIGHTING, CHECK ALL JOINTS IN THE GAS SUPPLY LINE FOR LEAKS. USE SOAP AND WATER SOLUTION. DO NOT USE AN OPEN FLAME.

After piping has been checked for leaks, all piping receiving gas should be fully purged to remove air.

### **TESTING THE GAS SUPPLY SYSTEM**

When gas supply pressure exceeds 1/2 psig (3.45 kPa), the broiler and its individual shutoff valve must be disconnected from the gas supply piping system.

When gas supply pressure is 1/2 psig (3.45 kPa) or less, the broiler should be isolated from the gas supply system by closing its individual manual shutoff valve.

### **FLUE CONNECTIONS**

**DO NOT** obstruct the flow of flue gases from the flue located on the rear of the broiler. It is recommended that the flue gases be ventilated to the outside of the building through a ventilation system installed by qualified personnel.

From the termination of the flue to the filters of the hood venting system, a minimum clearance of 18" (46 cm) must be maintained.

Information on the construction and installation of ventilating hoods may be obtained from the standard for "Vapor Removal from Cooking Equipment," NFPA No. 96 (latest edition), available from The National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

# OPERATION

**WARNING:** THE BROILER AND ITS PARTS ARE HOT. BE CAREFUL WHEN OPERATING, CLEANING OR SERVICING THE BROILER.

## CONTROLS

**Gas Valves** — Regulate gas flow to the burners.

**Elevator Lever** — Use elevator lever on the right to position the grill in relation to the burner heat.

**Grease Drawer** — Collects grease from broiled food.

## LIGHTING INSTRUCTIONS

1. Turn the gas shut-off and gas valves to the OFF position and wait 5 minutes.
2. Turn gas shut-off valve ON and light two pilots with a lit taper. Adjust until the pilot flame is 1/4" (6 mm) high. The flame should have a slight yellow tip. Pilot valves are behind the plug button on the right panel.
3. The only adjustment needed may be the air shutter located at the front face of the burner where the orifice enters the venturi. Adjust all traces of yellow out of the burner flame.
4. To relight, follow steps 1-3.

## GRID POSITION AND GAS SETTING

Each operator will find the optimum grid position and gas setting for various products; however, it is recommended that gas input be reduced first when lower grid temperatures are desired. Further reduction in grid temperatures, if necessary, can then be adjusted by lowering the grid position.

## PREHEATING

Allow broiler to preheat approximately 30 minutes with burners full-on. Rub grates with grease before using. The excess grease will run forward and drip onto the front grease drawer.

## OPERATING VRB36 SERIES MODELS

1. Load broiler.
2. Turn gas valve to the left (counterclockwise) as far as the knob will go.
3. When the burner lights, turn the knob to the right (clockwise) until the flame is the desired height.

## OPERATING VIR36 SERIES MODELS

1. Turn valves full ON to light.
2. Do not adjust lower than one-half flame.

## SHUTDOWN

1. For complete shutdown, turn gas and shut-off valves to the OFF position.
2. Turn pilot adjustment valve fully closed until gas stops flowing.

## **CLEANING (DAILY)**

Allow broiler to cool.

Thoroughly scrape grill so that grease flows into grease drawer. This prevents flare-ups.

Soak grill overnight and rinse.

Remove and empty grease drawer. Wash, rinse, and dry with a soft clean cloth. Once broiler is clean, replace grease drawer.

Clean stainless steel surfaces with a mild detergent and water, using a damp cloth, or with a commercial stainless steel cleaner. Rinse thoroughly and wipe dry with a soft clean cloth.

Burner ports and throats should be thoroughly cleaned. Venturi must be free from grease and lint. **DO NOT** insert pick in burner port hole.

## **MAINTENANCE**

**WARNING:** THE BROILER AND ITS PARTS ARE HOT. BE CAREFUL WHEN OPERATING, CLEANING OR SERVICING THE BROILER.

### **LUBRICATION**

All moving parts must be checked for wear and lubricated. Contact your local Vulcan authorized servicer.

### **PILOT LIGHTS**

Pilot lights are to be kept clean and adjusted at the proper flame height.

### **VENT**

Annually, when the broiler is cool, check the flue and clear any obstructions.

### **RECOMMENDED SERVICE FREQUENCY**

Frequency of service maintenance will be largely dependent upon customer usage.

10-12 hours operation per day, 7 days a week	—	Every 30-60 days
4-6 hours a day, 5 days a week	—	Every 120 days
Limited daily usage	—	Every 180 days
All equipment	—	At least once a year

### **SERVICE AND PARTS INFORMATION**

To obtain service and parts information concerning this broiler, contact the Vulcan-Hart Service Agency in your area (refer to listing supplied with the broiler), or Vulcan-Hart Company Service Department at the address or phone number shown on the front cover of this manual.