



# VULCAN

## INSTALLATION & OPERATION MANUAL



### MGCB SERIES MEDIUM DUTY GAS CHARBROILERS

*MODEL*

|               |                  |
|---------------|------------------|
| <i>MGCB18</i> | <i>ML-103821</i> |
| <i>MGCB24</i> | <i>ML-103822</i> |
| <i>MGCB29</i> | <i>ML-103823</i> |
| <i>MGCB34</i> | <i>ML-103825</i> |



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FORM 31008 (11-96) (Formerly 990503)



## **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.**

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# Installation, Operation and Care of MODEL MGCB SERIES GAS CHARBROILERS

**PLEASE KEEP THIS MANUAL FOR FUTURE USE**

## GENERAL

Vulcan charbroilers are produced with quality workmanship and material. Proper installation, usage and maintenance of your charbroiler 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 inside of the front panel. 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 charbroiler 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 charbroiler is found to be damaged, save the packaging material and contact the carrier within 15 days of delivery.

Remove the packing bag containing the adjustable legs. Carefully unpack the charbroiler and place it in a work-accessible area as near to its final installed position as possible. Lift the grates and radiants out of the carton.

### LOCATION

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

The charbroiler must be installed only in fire resistant locations.

When installed, minimum clearance from combustible construction must be 6" at the sides and 6" at the rear; minimum clearance from non-combustible construction must be 4" at the sides and 4" at the rear.

The installation location must allow adequate clearances for servicing and proper operation. A minimum front clearance of 32" 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 charbroiler. Wherever possible, avoid open windows next to the charbroiler. Avoid wall-type fans which create air cross currents within the room.

## **INSTALLATION CODES AND STANDARDS**

The charbroiler 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 Installation for Natural Gas Burning Appliances and Equipment (latest edition).
3. CAN/CGA-B149.2 Installation for Propane Burning Appliances and Equipment (latest edition), available from the Canadian Gas Association, 55 Scarsdale Road, Don Mills, Ontario, Canada M3B2R3.

## **ASSEMBLY**

The broiler is shipped as a complete unit and does not require field assembly except the supporting legs, grates and radiants.

Screw the legs on four corners of the charbroiler into the permanently fastened nuts. Hand tighten the legs and set the charbroiler in place.

Place the radiants in their position (Fig. 1). Make sure that radiants nestle properly on front and rear supports. **CAUTION: Do not drop radiants on supports.**

Place the top grid grates in place with the grid bars sloping toward the front (Fig. 2), or with grid bars horizontal (facing down). When grid grates are placed sloping toward the front, the grooves on top will guide excess fat drippings into the grease trough.

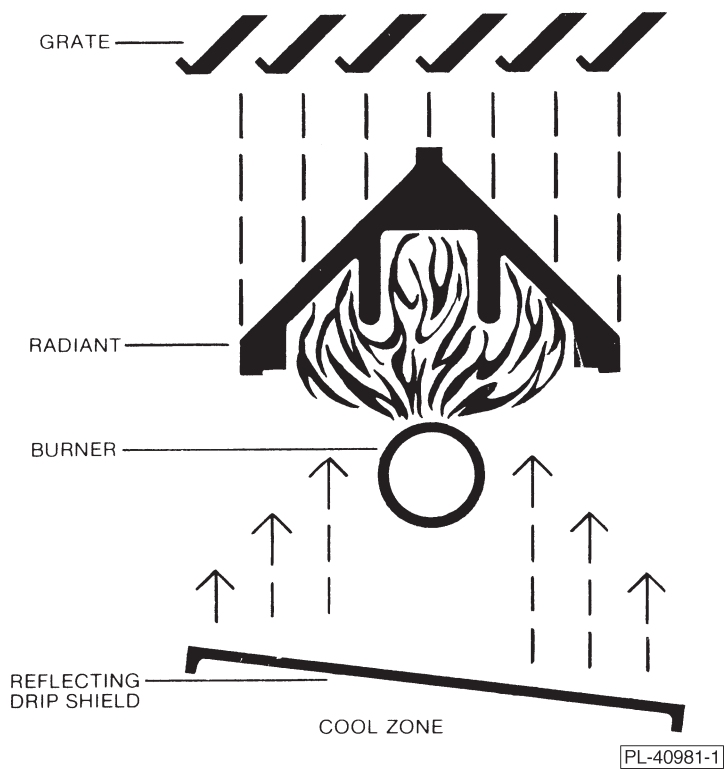


Fig. 1

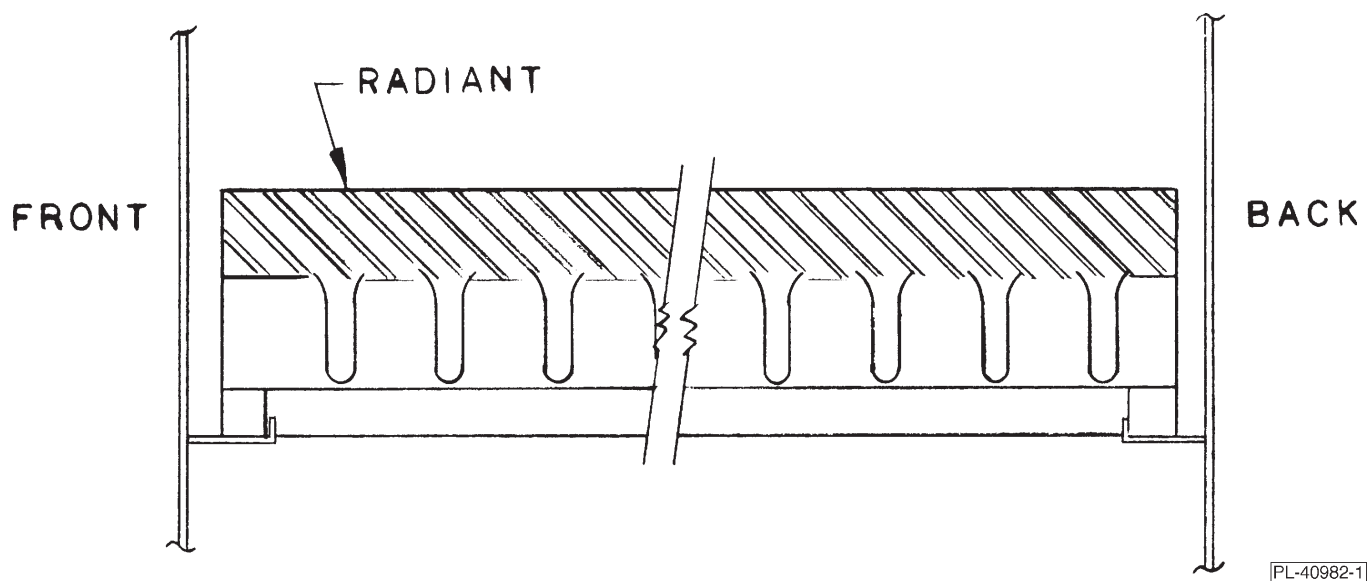


Fig. 2

## LEVELING

Place a carpenter's level on top of the charbroiler. Level the charbroiler front to back and side to side by turning the adjustment screw at the bottom of each leg.

## GAS CONNECTIONS

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

Location of the gas inlet is at the rear on the right side. Codes require that a gas shutoff valve must be installed in the gas line ahead of the charbroiler.

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

Charbroilers are equipped with fixed burner orifices for use with natural or propane gas and no adjustments are necessary.

Natural gas pressure regulators are preset for an outlet pressure of 3.7" W.C. (Water Column); propane gas pressure regulators are preset for 10" W.C.

**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  $\frac{1}{2}$  psig (3.45 kPa), the charbroiler and its individual shutoff valve must be disconnected from the gas supply piping system.

When gas supply pressure is  $\frac{1}{2}$  psig (3.45 kPa) or less, the charbroiler should be isolated from the gas supply system by closing its individual manual shutoff valve.

## VENTILATION

It is recommended that the exhaust fumes be ventilated to the outside of the building through a ventilation system installed by qualified personnel.

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 CHARBROILER AND ITS PARTS ARE HOT. USE CARE WHEN OPERATING, CLEANING OR SERVICING THE CHARBROILER.

## CONTROLS

The Thermostats regulate gas flow to the burners to maintain set temperature.

## BEFORE FIRST USE

Clean the protective metal oils from all surfaces of the charbroiler. Use a non-corrosive, grease dissolving commercial cleaner, following manufacturer's directions. Rinse thoroughly and wipe dry with a soft clean cloth. Clean all accessories. Rinse thoroughly and wipe dry.

## LIGHTING INSTRUCTIONS

Lighting instructions are also inside the front panel. To access, remove thumb screws from the upper front panel. Lift the upper front panel until it clears the lower front panel.

To install the upper front panel, place panel above the lower front panel and slip upper panel down so it engages lower front panel.

### Lighting the Pilot

If the pilot goes out, an automatic shutoff valve turns off the gas supply to the burners. To relight the pilot, follow these procedures:

1. Turn the thermostats to the OFF position.
2. Turn the main shutoff valve to OFF.
3. Wait 5 minutes to allow gas which may have accumulated in the burner compartment to escape.
4. Turn the main shutoff valve ON.
5. Depress and hold in on the red button (Fig. 3) on the automatic shutoff valve while lighting the pilot burner.
6. When gas at the pilot has been running for about 45 seconds, release the red button. If the pilot does not remain lighted, repeat the above procedures, allowing more time before releasing the red reset button.

All initial pilot lighting adjustments must be performed by a qualified installation or service person.



## TURNING THE CHARBROILER ON

All burners are lit from constantly burning pilots. Turn control knobs to HI to ignite the burners.

## TURNING THE CHARBROILER OFF

Turn control knobs to OFF.

### Extended Shutdown

Turn control knobs to OFF. Turn the manual shutoff valve to OFF. Shut off the pilot flame by removing the pilot adjustment cap and turning the adjusting screw on the pilot shutoff valve (Fig. 3).

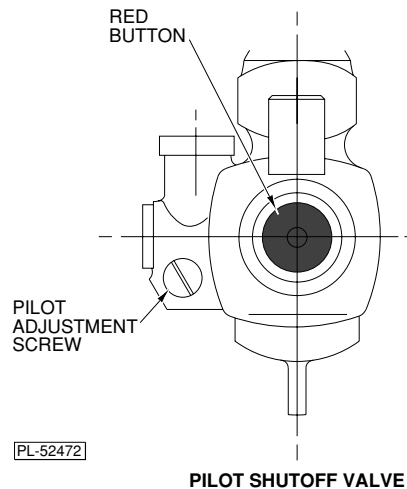


Fig. 3

## USING THE CHARBROILER

To preheat, turn control knobs to HI about 25-30 minutes before cooking time. After this period of preheat, grid temperatures will be in the range of 600°F for best broiling results. Then adjust the control knobs to the LO position to maintain the grid temperature between 575°F and 625°F.

Do not leave the burners on with knobs in the HI position for any extended period of time beyond the recommended preheat time or "burn-off" time (see CLEANING in this manual).

To minimize gas usage, operate only those burners needed for the cooking load.

## GREASE PAN

Grease in the grease pan will not get hot enough to be ignited by the burners; however, under some use conditions, flaming particles may drop into the grease drawer and cause it to ignite. Only if your use conditions warrant, add a 1/16" deep layer of water in the grease pan to prevent this from happening.

## CLEANING

At least once a day, remove the grease pan, empty and wash it out in the same way you would any cooking utensil.

"Burn off" the grease build-up on the grate daily or as dictated by use. Always use insulated gloves when handling grates or radiants to prevent burns.

**CAUTION: Do not cover the top of the grid grates during a burn-off operation. Restricting the air flow by covering the grid grates may cause them to warp.**

The top grid grates and radiants are heavy. They may break if dropped or bumped.

To "burn off" the grates:

1. Place grates on broiler with grid bars horizontal, facing down.
2. Turn control knobs to HI for approximately 45 minutes.
3. Turn broiler OFF and allow it to cool for 20 minutes.
4. Clean top and bottom surfaces of grate with a wire brush to remove animal fats and carbonized grease.
5. Clean channels on grates with a scraper.
6. Remove grates from broiler. Clean top surface of radiants with the wire brush. They may be cleaned in place.
7. Once a week, after completing steps 1-6, remove the radiants. Using a brush, clean reflecting drip shield (see Fig. 1) of any dust or debris.

Once a week, thoroughly clean the exposed surfaces of the broiler (sides, front and top grease trough) with a damp cloth, then polish with a soft dry cloth. A detergent may be used for cleaning. To remove discolorations, use a non-abrasive cleaner.

Burner air shutter openings must be kept clean.

Burner ports must be kept clean. To remove burners:

1. Remove the top grates.
2. Remove the radiants.
3. Remove the burners.

Brush burner ports with a wire brush or clean ports with a sharp pointed metal instrument to ensure open ports.

Reverse above procedure for reassembly.

# MAINTENANCE

**WARNING:** THE CHARBROILER AND ITS PARTS ARE HOT. USE CARE WHEN OPERATING, CLEANING OR SERVICING THE CHARBROILER.

## LUBRICATION

All valves and thermostats must be checked and lubricated periodically by your local service agency.

## SERVICE AND PARTS INFORMATION

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



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