

## RESIDENTIAL OWNER'S MANUAL gas-fired unit heaters models HD, HDB, HDS, and HDC



All models approved for use in California by the CEC, in New York by the MEA division, and in Massachusetts. Unit heater is certified for residential and commercial applications.

### **! CAUTION**

To prevent premature heat exchanger failure do not locate ANY gas-fired units in areas where chlorinated, halogenated or acid vapors are present in the atmosphere.

### **IMPORTANT**

All installation and service of these units ***MUST*** be performed by a qualified installation and service agency.

### **FOR YOUR SAFETY**

The use and storage of gasoline or other flammable vapors and liquids in open containers in the vicinity of this appliance is hazardous.

### **FOR YOUR SAFETY**

#### WHAT TO DO IF YOU SMELL GAS:

- Open windows.
- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call your fire department.

### **! WARNING**

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death, and could cause exposure to substances which have been determined by various state agencies to cause cancer, birth defects or other reproductive harm.

### **! WARNING**

If the information in this manual is not followed exactly, a fire or explosion may result, causing property damage, personal injury or death.

# IMPORTANT

All installation and service of these units ***MUST*** be performed by a qualified installation and service agency.

## INTRODUCTION AND GENERAL COMMENTS

### Congratulations on Your New Purchase

Thank you for choosing Modine's low profile, tubular "Hot Dawg" unit heater. We are convinced that you will be pleased with the design and quality of this heater. You should receive years of trouble-free heat and comfort from the Hot Dawg with proper maintenance and care.

### Keep the heater area clear:

1. Do not use the area around the heater for storage.
2. Never obstruct the air openings into the heater.
3. Never place any items (paper, tools, etc.) on top of the heater. There are air openings on the top of the heater.
4. Do not place any combustible materials (paper, wood, cloth, etc.) next to the heater or vent.

### Supply Air:

1. Make certain that the fan guard in the rear of the heater is unobstructed.
2. For optimum performance, do not completely close the deflector blades. If needed, adjust the deflector blades slightly to direct the air towards the ground.
3. When initially started in a cold environment, the air coming out of the heater may not feel warm. As the temperature in the environment increases, and as the heat exchanger tubes become hot, the air temperature coming out of the heater will increase.

### Combustion Air: (Power Vented Unit Only)

This gas-fired unit heater must be supplied with adequate combustion air. Today's current construction techniques, which result in tighter homes and buildings (or significantly less air infiltration from the outside), makes it more important than ever that heating equipment have adequate combustion air.

The installer of this unit heater has determined what it takes to be assured that your unit heater has adequate combustion air. If this heater has been installed in a confined space, two permanent openings (one near the top of the enclosure and one near the bottom) have been provided. These two openings must freely communicate with areas having adequate combustion infiltration from the outside. Do not block or alter in any way the combustion air openings.

It is very important to abide by the following:

1. Do not block or alter in any way the combustion air openings.
2. Refrain from creating excessive amounts of dust near the heater (i.e. saw dust from sanding, cutting, etc.)
3. Do not use or store corrosive chemicals in the area near the heater (these include pool chlorine, fertilizers, etc.)
4. Refrain from prolonged use of ventilation fans or hoods as this may deplete the amount of combustion air.

## GENERAL OPERATIONAL INFORMATION

### Start Up - General

**Before start up, it is important to read the "For Your Safety Read Before Operating" message below. This message also appears on the access cover of your HD gas-fired unit heater. The message follows:**

### FOR YOUR SAFETY READ BEFORE OPERATING

**WARNING:** If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or death.

- A. This appliance does not have a pilot flame. It is equipped with an ignition device which automatically lights the burner.
- B. BEFORE OPERATING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

### WHAT TO DO IF YOU SMELL GAS:

- Do not try to light any appliance.
  - Do not touch any electric switch; do not use any phone in your building
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- C. Use your hand to move the gas control switch. Never use tools. If the switch will not move, don't try to repair it; call a qualified technician. Force or attempted repair may result in a fire or explosion.
  - D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and replace any part of the control system and any gas control which has been under water.

The control operating sequence of your gas-fired unit heater is as follows:

- Upon a call for heat from the thermostat, power is supplied to the power exhaust motor.
- The unit will go through a pre-purge period.
- The igniter provides for the establishment of the flame while the main valve in the control opens to allow gas flow to the burners.
- If the fan motor has not already started, it will start shortly.
- If a burner flame is not sensed for any reason, the main valve will close and there will be a short purge period before ignition is tried again.
- If the flame is not sensed after four tries there will be at least a one hour wait before ignition is tried again.

### Shut Down - General:

#### TO TURN OFF GAS TO APPLIANCE

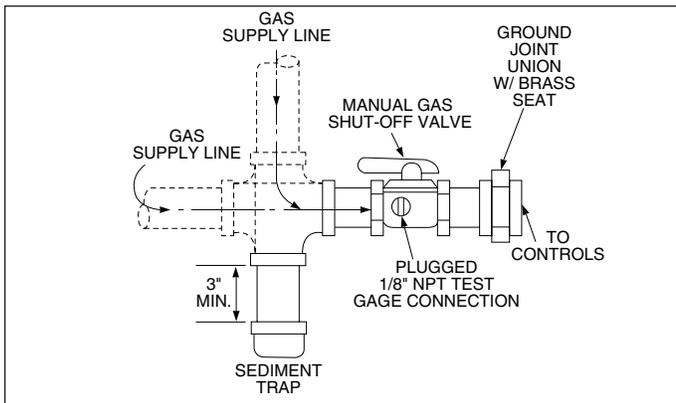
1. Set thermostat to lowest setting.
2. Turn manual shut-off valve located outside of the unit to the closed position (see Figure 1).
3. Turn off all electric power to the appliance if service is to be performed.
4. Remove access panel.
5. Turn the gas valve switch to the "OFF" position.
6. Replace the access panel.

# IMPORTANT

All installation and service of these units ***MUST*** be performed by a qualified installation and service agency.

TROUBLESHOOTING INFORMATION	MAINTENANCE
<p><b>General</b> There are a few troubleshooting items that you may perform. They are listed below. All other troubleshooting <b>MUST BE PERFORMED BY A QUALIFIED INSTALLATION AND SERVICE AGENCY.</b></p> <p><b>If the heater does not light .....</b></p> <ol style="list-style-type: none"> <li>1. Make sure the thermostat is set above room temperature.</li> <li>2. Make sure there is power to the heater (check the circuit breaker).</li> <li>3. Make sure the main gas supply is on (check the manual shut-off valve outside the unit and make sure it is in the open position - see Figure 1).</li> <li>4. If none of the above solve the problem, contact a qualified installation and service agency.</li> </ol> <p><b>Air feels cold coming out of the heater .....</b></p> <ol style="list-style-type: none"> <li>1. Make sure the burner lit. If it didn't, refer to "If heater does not light" above.</li> <li>2. If the room <b><i>WAS</i></b> cold, it will take a while for the air coming out of the heater to feel warm.</li> <li>3. If the air coming out of the heater continues to feel cold after 5 minutes and the room is not warming up, contact a qualified installation and service agency.</li> </ol>	<p><b>It is recommended that a qualified installation and service agency inspect the heater and vent system prior to each heating season.</b></p> <p>There are no components behind the service access door that are serviceable by the homeowner, however, there are a few checks that you can do:</p> <p><b>(REMEMBER TO ALWAYS TURN OFF THE POWER AND SET THERMOSTAT TO THE LOWEST SETTING BEFORE PERFORMING ANY MAINTENANCE TO THE HEATER)</b></p> <ol style="list-style-type: none"> <li>1. Periodically dust and clean the heater.</li> <li>2. Periodically remove the dust from the fan blades.</li> <li>3. Remove the deflector blades and vacuum inside the heat exchanger area.</li> <li>4. The motors on the heater (power exhaust and fan) do NOT require oiling. They are permanently lubricated at the factory. DO NOT attempt to oil the motors.</li> </ol>

**Figure 1**  
**Recommended Piping to Controls**



• Manual shut-off valve is in "off" position when perpendicular to pipe.

**MODINE MANUFACTURING COMPANY  
LIMITED WARRANTY  
(Residential Use Only)**

**WHAT THIS WARRANTY COVERS**

This warranty covers all defects in material and workmanship in your Modine unit heater, when used for your home or garage.

**WHAT THIS WARRANTY DOES NOT COVER**

Unit heater, or any of its parts:

1. which have been improperly installed or removed.
2. which have been damaged other than by normal use.
3. which have not been properly maintained.
4. which have been exposed to gas input more than 5% higher than specified on the serial plate of the unit heater, resulting in over-firing of the heater.
5. which have been exposed to possibly corrosive chemicals or chemical vapors (such as those found in swimming pools), or potentially explosive or flammable atmospheres laden with grain dust, sawdust, or similar air-borne materials.
6. where any defect has been caused by abuse, misuse, neglect, carelessness, or accident.
7. where the serial number of the unit heater has been altered, defaced, or removed.
8. which are used in a confined space without adequate combustion air, such as can be found in more air-tight construction.

**WHO THIS WARRANTY COVERS**

This warranty covers the purchaser of the unit heater or anyone else who owns it during the warranty period.

**HOW LONG THE WARRANTY LASTS**

1. The warranty for the heat exchanger of the unit heater remains in force for ten years from the date you purchased the unit heater.
2. The warranty on all other parts of the heater remains in force for two years from the date you purchased the unit heater.

**WHAT MODINE WILL DO TO CORRECT ANY WARRANTY DEFECTS, AND HOW YOU CAN GET WARRANTY SERVICE**

In the event of a warranty failure, Modine will provide replacement parts at Modine's cost. To obtain warranty repairs or replacement of defective parts, you must, within the period of warranty coverage, contact the agency from whom you purchased the unit heater. That seller, or the service agency performing service for the seller, will determine whether or not the unit heater, or any of its parts, is in fact defective, and will then either repair or obtain and install the necessary replacement parts for you. If it is determined that the unit heater or parts were not defective, you may be charged for any replacement parts.

**CAUTION** - Do not attempt to repair the unit heater yourself, nor remove it or any of its parts. This must be done by a qualified service agency.

If you have any questions about this warranty, call the person from whom you purchased the unit heater; or a Modine Heating Products Representative at 1-800-828-4328.

**WHAT MODINE WILL NOT DO**

Modine will not reimburse you for any labor costs or service charges related to warranty repairs or replacements.

**INCIDENTAL AND CONSEQUENTIAL DAMAGES DISCLAIMED**

This warranty does not cover incidental damages, such as use of substitute heating equipment, or other costs arising from the loss of use of the unit heater. This warranty also does not cover consequential damages, such as the cost of repairing or replacing other property which is damaged when this unit heater does not work properly.

**HOW STATE LAW RELATES TO THIS WARRANTY**

Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitations or exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.



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