

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.

! 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.

! 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.

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, 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 Hot Dawg 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

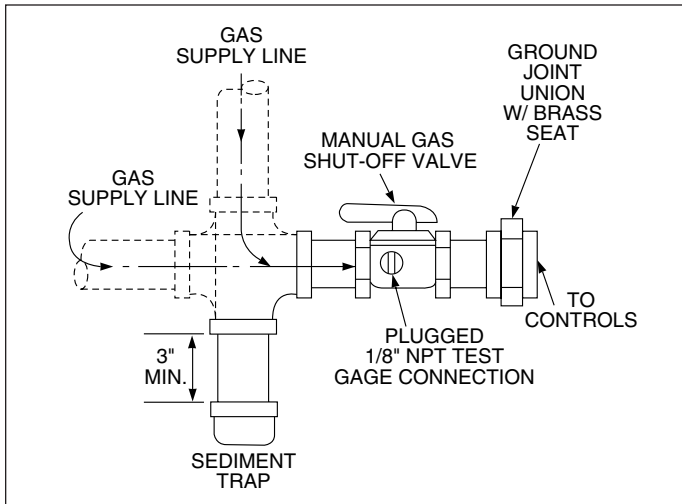
1. Set thermostat to lowest setting.
2. Turn manual shut-off valve located outside of the unit to the closed position (see Figure 1).
3. Turn off all electric power to the appliance if service is to be performed.
4. Remove access panel.
5. Turn the gas valve switch to the "OFF" position.
6. Replace the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

IMPORTANT

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

TROUBLESHOOTING INFORMATION	MAINTENANCE
<p>General There are a few troubleshooting items that you may perform. They are listed below. All other troubleshooting MUST BE PERFORMED BY A QUALIFIED INSTALLATION AND SERVICE AGENCY.</p> <p>If the heater does not light</p> <ol style="list-style-type: none"> 1. Make sure the thermostat is set above room temperature. 2. Make sure there is power to the heater (check the circuit breaker). 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). 4. If none of the above solve the problem, contact a qualified installation and service agency. <p>Air feels cold coming out of the heater</p> <ol style="list-style-type: none"> 1. Make sure the burner lit. If it didn't, refer to "If heater does not light" above. 2. If the room WAS cold, it will take a while for the air coming out of the heater to feel warm. 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. 	<p>It is recommended that a qualified installation and service agency inspect the heater and vent system prior to each heating season.</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>(REMEMBER TO ALWAYS TURN OFF THE POWER AND SET THERMOSTAT TO THE LOWEST SETTING BEFORE PERFORMING ANY MAINTENANCE TO THE HEATER)</p> <ol style="list-style-type: none"> 1. Periodically dust and clean the heater. 2. Periodically remove the dust from the fan blades. 3. Remove the deflector blades and vacuum inside the heat exchanger area. 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.

Figure 1
Recommended Piping to Controls



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

COMMERCIAL WARRANTY

Seller warrants its products to be free from defects in material and workmanship, EXCLUSIVE, HOWEVER, of failures attributable to the use of materials substituted under emergency conditions for materials normally employed. This warranty covers replacement of any parts furnished from the factory of Seller, but does not cover labor of any kind and materials not furnished by Seller, or any charges for any such labor or materials, whether such labor, materials or charges thereon are due to replacement of parts, adjustments, repairs, or any other work done. This warranty does not apply to any equipment which shall have been repaired or altered outside the factory of Seller in any way so as, in the judgment of Seller, to affect its stability, nor which has been subjected to misuse, negligence, or operating conditions in excess of those for which such equipment was designed. This warranty does not cover the effects of physical or chemical properties of water or steam or other liquids or gases used in the equipment.

BUYER AGREES THAT SELLER'S WARRANTY OF ITS PRODUCTS TO BE FREE FROM DEFECT IN MATERIAL AND WORKMANSHIP, AS LIMITED HEREIN, SHALL BE IN LIEU OF AND EXCLUSIVE OF ALL OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, WHETHER ARISING FROM LAW, COURSE OF DEALING, USAGE OF TRADE, OR OTHERWISE, **THERE ARE NO OTHER WARRANTIES, INCLUDING WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE, WHICH EXTEND BEYOND THE PRODUCT DESCRIPTION CONFIRMED BY BUYER AND SELLER AS OF THE DATE OF FINAL AGREEMENT.**

This warranty is void if the input to the product exceeds the rated input as indicated on the product serial plate by more than 5% on gas-fired and oil-fired units, or if the product in the judgment of SELLER has been installed in a corrosive atmosphere, or subjected to corrosive fluids or gases, been subjected to misuse, negligence, accident, excessive thermal shock, excessive humidity, physical damage, impact, abrasion, unauthorized alterations, or operation contrary to SELLER'S printed instructions, or if the serial number has been altered, defaced or removed.

BUYER'S REMEDY FOR BREACH OF WARRANTY, EXCLUSIVE OF ALL OTHER REMEDIES PROVIDED BY LAW, IS LIMITED TO REPAIR OR REPLACEMENT AT THE FACTORY OF SELLER, ANY COMPONENT WHICH

SHALL, WITHIN THE APPLICABLE WARRANTY PERIOD DEFINED HEREIN AND UPON PRIOR WRITTEN APPROVAL, BE RETURNED TO SELLER WITH TRANSPORTATION CHARGES PREPAID AND WHICH THE EXAMINATION OF SELLER SHALL DISCLOSE TO HAVE BEEN DEFECTIVE; EXCEPT THAT WHEN THE PRODUCT IS TO BE USED BY BUYER AS A COMPONENT PART OF EQUIPMENT MANUFACTURED BY BUYER, BUYER'S REMEDY FOR BREACH, AS LIMITED HEREIN, SHALL BE LIMITED TO ONE YEAR FROM DATE OF SHIPMENT FROM SELLER. FOR GAS-FIRED PRODUCTS INSTALLED IN HIGH HUMIDITY APPLICATIONS AND UTILIZING STAINLESS STEEL HEAT EXCHANGERS, BUYER'S REMEDY FOR BREACH, AS LIMITED HEREIN, SHALL BE LIMITED TO TEN YEARS FROM DATE OF SHIPMENT FROM SELLER.

These warranties are issued only to the original owner-user and cannot be transferred or assigned. No provision is made in these warranties for any labor allowance or field labor participation. Seller will not honor any expenses incurred in its behalf with regard to repairs to any of Seller's products. No credit shall be issued for any defective part returned without proper written authorization (including, but not limited to, model number, serial number, date of failure, etc.) and freight prepaid.

OPTIONAL SUPPLEMENTAL WARRANTY

Provided a supplemental warranty has been purchased, Seller extends the warranty herein for an additional four (4) years on certain compressors. Provided a supplemental warranty has been purchased, Seller extends the warranty herein for an additional four (4) years or nine (9) years on certain heat exchangers.

EXCLUSION OF CONSUMABLES & CONDITIONS BEYOND SELLER'S CONTROL

The above referenced warranty shall not be applicable to any of the following items: refrigerant gas, belts, filters, fuses and other items consumed or worn out by normal wear and tear or conditions beyond Seller's control, including (without limitation as to generality) polluted or contaminated or foreign matter contained in the air or water utilized for heat exchanger (condenser) cooling or if the failure of the part is caused by improper air or water supply, or improper or incorrect sizing of power supply.

Component Applicable Models	"APPLICABLE WARRANTY PERIOD"
<u>Heat Exchangers</u> Gas-Fired Unit Heaters	TEN YEARS FROM DATE OF FIRST BENEFICIAL USE BY BUYER OR ANY OTHER USER, WITHIN TEN YEARS FROM DATE OF RESALE BY BUYER OR ANY OTHER USER, WITHIN TEN YEARS FROM DATE OF RESALE BY BUYER IN ANY UNCHANGED CONDITION, OR WITHIN ONE HUNDRED TWENTY-SIX MONTHS FROM DATE OF SHIPMENT FROM SELLER, WHICHEVER OCCURS FIRST
<u>Heat Exchangers</u> Low Intensity Infrared Units <u>Compressors</u> Condensing Units for Cassettes	FIVE YEARS FROM DATE OF FIRST BENEFICIAL USE BY BUYER OR ANY OTHER USER, WITHIN FIVE YEARS FROM DATE OF RESALE BY BUYER OR ANY OTHER USER, WITHIN FIVE YEARS FROM DATE OF RESALE BY BUYER IN ANY UNCHANGED CONDITION, OR WITHIN SIXTY-SIX MONTHS FROM DATE OF SHIPMENT FROM SELLER, WHICHEVER OCCURS FIRST
<u>Burners</u> Low Intensity Infrared Units <u>Other</u> Components excluding Heat Exchangers, Coils, Condensers, Burners, Sheet Metal	TWO YEARS FROM DATE OF FIRST BENEFICIAL USE BY BUYER OR ANY OTHER USER, WITHIN TWO YEARS FROM DATE OF RESALE BY BUYER IN ANY UNCHANGED CONDITION, OR WITHIN THIRTY MONTHS FROM DATE OF SHIPMENT FROM SELLER, WHICHEVER OCCURS FIRST
<u>Heat Exchangers/Coils</u> Indoor and Outdoor Duct Furnaces and System Units, PSH/BSH, Steam/Hot Water Units, Oil-Fired Units, Electric Units, Cassettes, Vertical Unit Ventilators <u>Compressors</u> Vertical Unit Ventilators <u>Burners</u> High Intensity Infrared Units <u>Sheet Metal Parts</u> All Products	ONE YEAR FROM DATE OF FIRST BENEFICIAL USE BY BUYER OR ANY OTHER USER, WITHIN ONE YEAR FROM DATE OF RESALE BY BUYER IN ANY UNCHANGED CONDITION, OR WITHIN EIGHTEEN MONTHS FROM DATE OF SHIPMENT FROM SELLER, WHICHEVER OCCURS FIRST

As Modine Manufacturing Company has a continuous product improvement program, it reserves the right to change design and specifications without notice.



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