

# GAS FURNACE USER INSTRUCTIONS

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# GAS FURNACE SAFETY

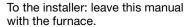


#### **WARNING:**

#### FIRE OR EXPLOSION HAZARD

Failure to follow safety warnings exactly could result in serious injury, death or property damage.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- WHAT TO DO IF YOU SMELL GAS
- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Leave the building immediately.
- 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.
- Installation and service must be performed by a qualified installer, service agency or the gas supplier.



To the consumer: read all instructions in this manual. Keep all manuals for future reference.



### Your safety and the safety of others are very important.

We have provided many important safety messages in this manual and on your appliance. Always read and obey all safety messages.



This is the safety alert symbol.

This symbol alerts you to potential hazards that can kill or hurt you and others.

All safety messages will follow the safety alert symbol and either the word "DANGER" or "WARNING." These words mean:

# **ADANGER**

# AWARNING

You can be killed or seriously injured if you don't immediately follow instructions.

You can be killed or seriously injured if you don't follow instructions.

All safety messages will tell you what the potential hazard is, tell you how to reduce the chance of injury, and tell you what can happen if the instructions are not followed.

WARNING: Gas leaks cannot always be detected by smell.

Gas suppliers recommend that you use a gas detector approved by UL or CSA.

For more information, contact your gas supplier.

If a gas leak is detected, follow the "What to do if you smell gas" instructions.

The California Safe Drinking Water and Toxic Enforcement Act requires the Governor of California to publish a list of substances known to the State of California to cause cancer, birth defects, or other reproductive harm, and requires businesses to warn of potential exposure to such substances.

WARNING: This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

This appliance can cause low-level exposure to some of the substances listed, including benzene, formaldehyde, carbon monoxide, toluene, and soot.

### IMPORTANT SAFETY INSTRUCTIONS

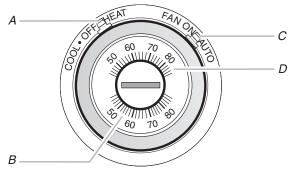
- The furnace area must be kept clear and free of combustible materials, gasoline, and other flammable vapors and liquids.
- Insulating materials may be combustible. A furnace installed in an attic or other insulated space must be kept free and clear of insulating materials. Examine the furnace when it is installed and also any time insulation is added.
- For proper and safe operation, the furnace needs air for combustion and ventilation. Do not block or obstruct air openings on the furnace, air openings to the area in which the furnace is installed, and the spacings around the furnace.
- This furnace is equipped with an ignition device which automatically lights the burners. See the "Gas Furnace Operation" section for information on lighting and shutting down the furnace.
- Should the gas supply fail to shut off or if overheating occurs, shut off the gas valve to the furnace before shutting off the electrical supply.
- Do not use the furnace if any part has been under water. A flood-damaged furnace is extremely dangerous. Attempts to use the furnace can result in fire or explosion. A qualified service agency should be contacted to inspect the furnace and to replace all gas controls, control system parts, electrical parts that have been wet, or the furnace if deemed necessary.

- Examine the furnace installation at least once a year to determine that:
  - All flue gas carrying areas external to the furnace, (i.e. chimney, vent connector) are clear and free of obstructions.
  - The vent connector is in place, slopes upward, and is physically sound without holes or excessive corrosion.
  - The return air duct connection(s) is physically sound, is sealed to the furnace casing, and terminates outside the space containing the furnace.
  - The physical support of the furnace is sound without sagging, cracks, gaps, etc. around the base so as to provide a seal between the support and the base.
  - There are no obvious signs of deterioration of the furnace.
  - The pilot and burner flames are in good adjustment.
    See the "Gas Furnace Maintenance" section.
- It is also recommended that the furnace should be inspected by a qualified person at least once per year.

## SAVE THESE INSTRUCTIONS

# GAS FURNACE OPERATION

#### **Thermostat Control**



- A. Selector switch
- B. Room temperature
- C. Fan switch
- D. Heating & cooling temperature setting

There are many types and styles of thermostats. Your thermostat may look different from the one shown, depending on the type of thermostat and whether cooling was installed with the system. However, almost all thermostats perform the same basic functions.

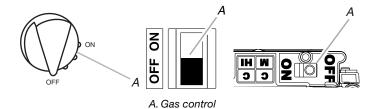
There are 2 switches located on the thermostat. One switch controls the heating and cooling (if applicable) functions. The other switch is for FAN operation, either continuous or automatic.

Also on the thermostat is the temperature range for the desired heating and cooling temperatures.

### **Light Furnace**

- 2. Disconnect power.
- 3. Remove the burner access panel (on some models).
- **4.** This appliance is equipped with an automatic ignition device. Do not try to light the burners by hand.

#### **Gas Control**



- **5.** Place the gas control in the ON position.
- 6. Replace the burner access panel (on some models).
- 7. Reconnect power.
- 8. Set the thermostat to the desired setting.
- 9. If the furnace will not operate, see "Shut Down" and call a qualified person.

### AWARNING



#### **Explosion Hazard**

Furnace must be installed and serviced by a qualified person.

Examples of a qualified person include:

licensed heating personnel, authorized gas company personnel.

Read and follow all instructions provided for installation, adjustment, service, alteration, or maintenance.

Failure to follow these instructions can result in death, explosion, fire, or carbon monoxide poisoning.

1. Set the thermostat control(s) to the lowest setting.

#### Shut Down

- 1. Set the thermostat control(s) to the lowest setting (see Thermostat Control graphic).
- 2. Disconnect power.

- 3. Remove the burner access panel (on some models).
- 4. Turn off the gas supply at the manual gas control valve.
- 5. Replace the burner access panel (on some models).

### **Adjust Controls**

#### Turn System On or Off

- Move the thermostat selector switch to HEAT or COOL to turn on the system.
- Move the thermostat selector switch to OFF to turn off the system.

#### Select Temperature

Move the thermostat dial or lever to select the temperature you would like the system to maintain.

#### Operate Fan

You may wish to increase your comfort by setting your system for continuous circulation of the indoor air. You may do this by moving the fan switch on the thermostat.

- Move the fan switch to ON so the fan will operate continuously.
- Move the fan switch to AUTO for the fan to operate only when the appliance is either heating or cooling.

## GAS FURNACE MAINTENANCE

### AWARNING



#### **Explosion Hazard**

Furnace must be installed and serviced by a qualified person.

Examples of a qualified person include:

licensed heating personnel, authorized gas company personnel.

Read and follow all instructions provided for installation, adjustment, service, alteration, or maintenance.

Failure to follow these instructions can result in death, explosion, fire, or carbon monoxide poisoning.

### AWARNING



#### **Explosion Hazard**

Use nonflammable cleaner.

Failure to do so can result in death, explosion, or fire.

#### WARNING

ELECTRICAL SHOCK, FIRE OR EXPLOSION HAZARD Failure to follow safety warnings exactly could result in dangerous operation, serious injury, death, or property damage.

Improper servicing could result in dangerous operation, serious injury, death or property damage.

- Before servicing, disconnect all electrical power to furnace.
- When servicing controls label all wires prior to disconnecting. Reconnect wires correctly.
- Verify proper operation after servicing.

**IMPORTANT:** It is recommended that the furnace be inspected and serviced at least once per year by a qualified person. Servicing should include the items covered in this section.

Your gas furnace is designed to give many years of efficient, satisfactory service. There are routine maintenance steps you should take to keep your furnace operating efficiently. This maintenance will assure longer life, lower operating costs, and fewer service calls.

In addition to the maintenance procedures listed in this manual, there are also other service and maintenance procedures that require the skills of a qualified person.

- The flue gas passageways should be cleaned.
- The gas burners should be cleaned.
- The condensate flow should be checked.
- The furnace ventilation system should be inspected and serviced.
- Lubrication of the bearings in the circulating air blower motor and the combustion blower motor is not required.

# Condensate Collection and Disposal System Maintenance

If the furnace has a condensate drain, it is incorporated within the furnace and is self-priming.

Check the condensate flow by shining a flashlight on the condensate drain. Look for water dripping from the discharge tube.

If the condensate drain line becomes blocked or plugged, the furnace will not operate properly. If this occurs, the furnace should be inspected by a qualified person.

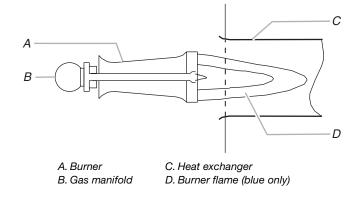
#### **Burner Flame**

**IMPORTANT:** Do not attempt to adjust the burner flame.

While the furnace is in operation, observe the main burner flames. Compare these observations to "Typical Flame Appearance" to determine whether proper flame adjustment is present. If your observations indicate improper flame adjustment, call a qualified person.

Distorted flame or yellow tipping on Natural gas flames, or long, yellow tips on propane flames, may be caused by lint or dirt accumulation, or obstructions over the main burner orifice. Dirt or lint can get inside the burner or burner ports, and into the air inlet between the burner and manifold pipe.

#### **Typical Flame Appearance**



#### **Vent Maintenance**

#### **IMPORTANT:**

- It is recommended that the furnace be inspected and serviced at least once a year by a qualified person.
- Should the vent system become blocked at any time, your furnace is equipped with a special safety control to prevent operation of the furnace until the condition has been corrected. If vent system is blocked, contact a qualified person.
- Keep the outside area where the vent terminates clear from any obstructions which might block or impede the venting of the furnace.

#### **Filter Maintenance**

Your furnace may use either a disposable filter or a cleanable filter.

#### **IMPORTANT:**

- Do not operate your furnace without a filter. A filter is required to protect the coil, blower, and internal parts from excessive dirt and dust.
- The air filter should be inspected at least every 6 weeks and cleaned or replaced as required.
  - **NOTE:** Dirty filters are the most common cause of inadequate heating or cooling performance and can sharply increase the operating costs of your unit.
- When changing any furnace filter, it is important to measure the filter being replaced and to replace it with the same size and type of filter.
- Install new/clean filters with the arrows on the side edges of the filter pointing in the direction of airflow.

#### **Replacing/Cleaning Filters**

#### Disposable Filter(s)

If a disposable filter is used, replace with the same filter type and size.

#### Cleanable Filter(s)

- Cleanable filters may be replaced with disposable filters. See the Minimum Filter Requirements Charts when selecting the proper size and quantity of disposable filters.
- To clean the filter, follow the filter manufacturer's instructions.

#### **Minimum Filter Requirements**

- The Airflow Descriptor is the 2 digits immediately preceding the hyphen (-) in the furnace model number. The model number is located on the rating plate inside the access panel.
- Areas and dimensions shown for cleanable filters are based on filters rated at 600 ft (182.9 m) per minute face velocity.
- Typical filter sizes are shown; however, any combination of filters whose area equals or exceeds the minimum area shown is satisfactory.

#### **Minimum Filter Requirements Chart**

	Disposable Filters		
Airflow Descriptor	Minimum Area – sq. in. (sq. cm)	Size- in. (cm)	Qty.
09	480 (1,219.2)	20 x 25 (50.8 x 63.5)	1
10	480 (1,219.2)	20 x 25 (50.8 x 63.5)	1
12	576 (1,463)	16 x 20 (40.6 x 50.8)	2
14	672 (1,706.9)	20 x 20 (50.8 x 50.8)	2
16	768 (1,950.7)	20 x 20 (50.8 x 50.8)	2
20, 22	960 (2,438.4)	20 x 25 (50.8 x 63.5)	2

#### **Minimum Filter Requirements Chart**

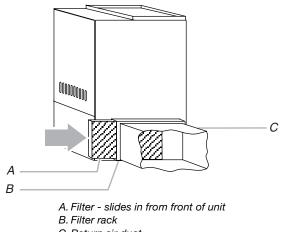
#### **Cleanable Filters**

Airflow Descriptor	Minimum Area—sq. in. (sq. cm)	Size-in. (cm)	Qty.
09	240 (609.6)	16 x 20 (40.6 x 50.8)	1
10	240 (609.6)	16 x 20 (40.6 x 50.8)	1
12	288 (731.5)	16 x 20 (40.6 x 50.8)	1
14	336 (929.6)	20 x 20 (50.8 x 50.8)	1
16	384 (975.4)	20 x 20 (50.8 x 50.8)	1
20, 22	480 (1,219.2)	20 x 25 (50.8 x 63.5)	1

#### **Filter Location**

The filter on your furnace will be located in one of several places on the unit, depending on which furnace style you own. See the sections following to determine where your filter is located.

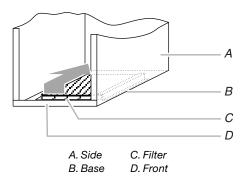
#### Filter Location—Upflow Models (Side Return)



C. Return air duct

If the filter is located in an external filter rack or cabinet on either side of the furnace cabinet, it may be easily removed, cleaned or changed, and reinserted into its proper location.

#### Filter Location—Upflow Models (Bottom Return)



If the furnace has a bottom return air, remove the lower front panel by lifting up and pulling out. The filter(s) may be removed by lifting up and sliding toward the front. Replace in a reverse procedure.

#### Filter Location—Counterflow and Horizontal Models

The filters in counterflow and horizontal furnaces are typically placed by the installer into the return plenum of the furnace.

# TROUBLESHOOTING

First try the solutions suggested here and possibly avoid the cost of a service call.

#### Unit fails to operate

#### Check the following:

Is the main switch that supplies power to the unit in the ON position?

Is the manual gas control valve in the OPEN position?

Has a fuse blown, or has the circuit breaker tripped? If problem continues, call an electrician.

Is the thermostat set properly? See "Adjusting the Controls."

#### Unit is operating but not providing complete comfort

#### Check the following:

Is the thermostat set properly? See "Thermostat Control."

Is the filter clean? Replace or clean filter. See the "Filter Maintenance" section.

Is the air able to circulate freely throughout your home? Do not block supply registers or return grilles with furniture or rugs.

# ASSISTANCE OR SERVICE

If you need further assistance, you can write to the below address with any questions or concerns:

Whirlpool® Home Cooling and Heating 14610 Breakers Drive Jacksonville, FL 32258

Please include a daytime phone number in your correspondence.

### Replacement Parts

To order replacement parts contact your Whirlpool® Home Cooling and Heating dealer.

#### **Gas Control Group**

- Manifold
- Burner
- Orifice
- Flame sensor
- Gas control valve
- Hot surface igniter
- Ignition control

#### **Heat Exchanger Group**

- Primary heat exchanger
- Secondary heat exchanger (if used)
- Condensate drain pan (if used)

#### **Blower Group**

- Blower housing assembly
- Blower wheel
- Blower motor
- **Inducer Group**
- Pressure switch

#### **Electrical Group**

- Limit control
- Transformer
- Rollout switch

- Blower motor mount
- Capacitor
- Inducer blower
- Auxiliary limit (if used)
- Blower door interlock switch

### LIMITED WARRANTY

Applies in U.S.A. and Canada Only

#### FAILURE TO MAINTAIN YOUR EQUIPMENT WILL VOID THIS WARRANTY

#### COVERED EQUIPMENT

The following Whirlpool® and Whirlpool Gold® (G) cooling and heating equipment is covered by the Limited Warranty:

**Condensing Units:** W2C3, W2C4, W2GC3, W4GC3, W4GC4, W4GC6, W4GC8 **Heat Pumps:** W2H3, W2H4, W2GH3, W4GH4, W4GH4, W4GH6, W4GH8

Gas Furnaces: WFAT, WFAR, WFCT, WFCC, WGFA, WGFB, WFAU, WGFD, WGFE

Air Handlers: WAHMS, WAHMV

Electric Furnaces: WMB

Evaporator Coils: WEC1P, WEM1P, WEU1P, WEH1P

Package Equipment: W2PG3, W2PH3, W2PC3, W4PG4, W4PH4

#### FIVE (5) YEAR COVERAGE—RESIDENTIAL APPLICATIONS

The covered equipment and covered component are warranted by Whirlpool® Home Cooling and Heating for a period of five (5) years from the date of the original installation, when installed in a residental application (single-family dwelling which includes homes, duplexes, apartments and condominiums). If, during this period, a covered component fails because of a manufacturing defect, Whirlpool® Home Cooling and Heating will provide a free replacement part to the owner through a licensed service contractor. You must pay shipping charges and all other costs of warranty service. Whirlpool® Home Cooling and Heating will not pay labor involved in diagnostic calls or in removing, repairing, servicing or replacing parts. Such cost may be covered by a separate warranty provided by the installer.

#### ONE (1) YEAR COVERAGE - NON-RESIDENTIAL APPLICATIONS

The covered equipment and covered component are warranted by Whirlpool® Home Cooling and Heating for a period of one (1) year from the date of the original installation, when installed in non-residential applications. If, during this period, a covered component fails because of a manufacturing defect, Whirlpool® Home Cooling and Heating will provide a free replacement part to the owner through a licensed service contactor. You must pay shipping charges and all other costs of warranty service, Whirlpool® Home Cooling and Heating will not pay labor involved in diagnostic calls or in removing, repairing, servicing or replacing parts. Such costs may be covered by a separate warranty provided by the installer.

#### **EXTENDED COVERAGE**

Your Whirlpool® Home Cooling and Heating limited warranty provides extended coverage on the components outlined below. The extended coverage begins with the date of the original unit installation and represents the total warranty period for the specific component.

#### **Heat Exchangers:**

WFAT, WFAR, WGFA, WGFB, W2PG3-Twenty (20) Years-Residential Applications

WFAT, WFAR, WGFA, WGFB, W2PG3-Ten (10) Years-Non-Residential Applications or Subsequent Owner

#### Non-Direct Vent Applications:

WFCT, WFCC, WFB—Twenty (20) Years—Residential Applications

WFCT, WFCC, WFB-Ten (10) Years-Non-Residential Applications or Subsequent Owners

#### **Direct Vent Applications:**

WFAU, WFCT, WFCC, WGFD, WGFE-Limited Lifetime-Residential Applications

WFAU, WFCT, WFCC, WGFD, WGFE-Twenty (20) Years-Non-Residential Applications or Subsequent Owners

For those models for which the limited lifetime heat exchanger warranty is offered, it will apply only to those Residential Applications

Where the original purchaser of the equipment owns and occupies the residence where the equipment is located at the time of the warranty claim. When a warranty claim is made under the limited lifetime heat exchanger warranty for a Residential application and a subsequent owner or a non-owner occupies the residence where the equipment is located, then coverage under the limited lifetime heat exchanger warranty is limited to twenty (20) years. Lifetime coverage under the limited lifetime heat exchanger warranty is subject to proof of purchase and is not transferable. All terms of this warranty must be followed.

Heat Exchanger Availability: If a replacement heat exchanger is no longer available for a unit covered by this warranty, Whirlpool® Home Cooling and Heating will allow a credit toward the purchase of an equivalent furnace (at the current suggested distributor's cost).

#### Compressors:

W2C3, W2H3, W2C4, W2H4, W2PG3, W2PH3, W2PC3-Five (5) Years

W2GC3, W4GC3, W4GC6, W2GH3, W4GH3, W4GH6-Ten (10) Years

Extended warranty coverage on compressors applies to the original equipment purchaser, subject to proof of purchase, and is not transferable. Compressor warranty is five (5) years in all non-residential applications and for subsequent owners in residential applications.

NOTE: If the date of original installation cannot be verified, the warranty period will be deemed to begin six (6) months after the date of manufacture.

#### **EXCLUDED COMPONENTS**

The following components are not covered by this warranty: cabinets, cabinet pieces, air filters, driers, refrigerant, refrigerant line sets, belts, wiring, fuses, oil nozzles and unit accessories.

#### **REPAIRS**

All repairs of covered components must be made with authorized service parts by a licensed service dealer or contractor. Labor charges are not covered by this warranty. Such costs may be covered by a separate warranty provided by the installer.

#### CARE OF EQUIPMENT

Your new unit must be properly installed, operated and maintained in accordance with the unit installation, operation and maintenance instructions provided with each unit. Failure to provide maintenance according to Whirlpool® Home Cooling and Heating instructions will void this warranty. You may be asked to provide written documentation of annual and other periodic preventive maintenance.

#### **WARRANTY PROCEDURE**

When warranty parts are required:

- **1.** Be prepared to furnish the following information:
  - a) Complete model and serial number
  - b) Proof of required periodic maintenance, installation date and location
  - c) An accurate description of the problem
- 2. Call your local licensed service dealer or contractor
- 3. If the installing dealer is unable to provide warranty parts, check the yellow pages for another licensed service dealer or contractor in your area or contact:

Whirlpool Home Cooling and Heating

14610 Breakers Drive

Jacksonville, FL 32258

#### WARRANTY LIMITATIONS

- 1. This warranty is void if the covered equipment is removed from the original installation site.
- 2. This warranty does not cover damage or defect resulting from:
  - a) Flood, wind, fire, lightning, mold, or installation and operation in a corrosive atmosphere, or otherwise in contact with corrosive materials (chlorine, fluorine, salt, recycled waste water, urine, fertilizers, or other damaging substances or chemicals)
  - b) Accident, or neglect or unreasonable use or operation of the equipment including operation of electrical equipment at voltages other than the range specified on the unit nameplate (includes damages caused by brownouts)
  - c) Modification, change or alteration of the equipment, except as directed in writing by Whirlpool® Home Cooling and Heating
  - d) Operation with system components (indoor unit, outdoor unit and refrigerant control devices) which do not match or meet the specifications recommended by Whirlpool® Home Cooling and Heating
  - e) Operation of furnaces with return air temperatures of less than 60°F (16°C) or operation of a furnace field installed downstream from a cooling coil
  - f) Use of contaminated or alternate refrigerant
- 3. The installation of replacement parts under the terms of this warranty does not extend the original warranty period.

Whirlpool® Home Cooling and Heating makes no express warranties other than the warranty specified above. All implied warranties, including the implied warranties of merchantability and fitness for a particular purpose, are excluded to the extent to a period legally permissible. Should such exclusion or limitation of the warranty be unenforceable, such implied warranties are in any event limited to a period of one (1) year. Liability for incidental and consequential damages is excluded. Some states do not allow limitation of incidental damages, so the limitations or exclusions may not apply to you.

Whirlpool® Home Cooling and Heating will not pay electricity or fuel costs, or increases in electricity or fuel costs, for any reason whatsoever, including additional or unusual use of supplemental electric heat. This warranty does not cover lodging expenses or labor charges.

Whirlpool® Home Cooling and Heating shall not be liable for any default or delay in performance under this warranty caused by any contingency beyond its control.

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

Keep this warranty and your sales slip together for future reference. You must provide proof of purchase or installation date for in-warranty service.

Write down the following information about your furnace to better help you obtain assistance or service if you ever need it. You will need to know the complete model and serial number. You can find this information located on the rating plate on the inside panel for all models except for model WFCH, which is located on the outside of the product.

Unit Model Number
Serial Number
Installation Date
Installing Contractor
Phone

4/01/2008

Notes