

ALL-POSITION GAS FURNACE



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We're pleased you've chosen our gas furnace to supply your heating needs. Please keep this manual in a safe, yet readily available place. It contains important and useful information.

ATTENTION, INSTALLER! After installing furnace, give the user:

- Users' Information Manual
- Parts List
- Installers' Information Manual
- Warranty Information

ATTENTION, USER! Your furnace installer should give you the above four important documents relating to your furnace. Keep these as long as you do your furnace. Pass these documents on to later purchasers or furnace users. If any of the four documents is missing or damaged, contact your installer or furnace manufacturer for replacement. For efficient service, please give your furnace model and serial number, from Section 1 or from your furnace rating plate.

WARNING: If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- 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.
 - 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.

WARNING: Read and follow all safety information in this manual, operating instructions and furnace safety labels. Section 4.C. identifies location of safety labels. Failure to follow safety precautions could result in damage, injury or death.

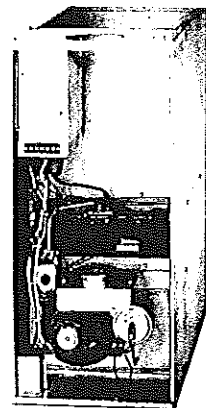
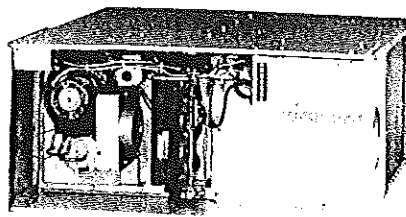
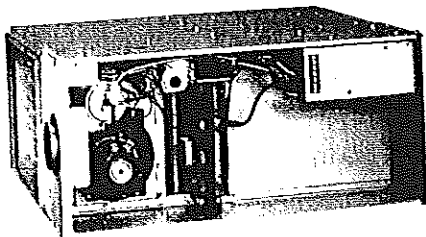
IMPORTANT SAFETY NOTE: You must know how to turn off gas and electricity to furnace. Your qualified installer, service agency or gas supplier can teach you to use controls and switches. More information is in Section 6.

WARNING: Do not use this furnace if any part has been under water. Corrosion can start if electrical and gas control systems become wet. Corrosion can cause gas to leak, which could result in damage, injury or death. Consult a qualified installer, service agency or gas supplier to inspect furnace. Instruct them to replace any part which has been under water.

Thank you for reading these safety statements. Please read on so you will know how to maintain your furnace for years of dependable service.



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SECTION 1 — RECORDING RATING PLATE AND OTHER INFORMATION.

Record the manufacturer's name, furnace model number and serial number below. These are on your furnace rating plate; located on blower door. Record installation date, which is portant for warranty purposes.

Also fill in the installer's name, address and telephone number. This will be handy if you have questions later. Some companies install an identification tag on furnaces they install or service. If not, ask for the information.

YOUR FURNACE INFORMATION

Furnace Type _____

Manufacturer's Name _____

Model Number _____

Serial Number _____

Date Installed _____

Installer/Serviceer _____

Address _____

City/State/Zip Code _____

Telephone Number _____

SECTION 2 — IDENTIFYING YOUR FURNACE TYPE.

Your furnace is induced draft with electronic ignition. Your furnace's installation position is one of the six positions shown in Figures 1 and 2. Consider the figures to identify your furnace type and enter the type in Section 1.

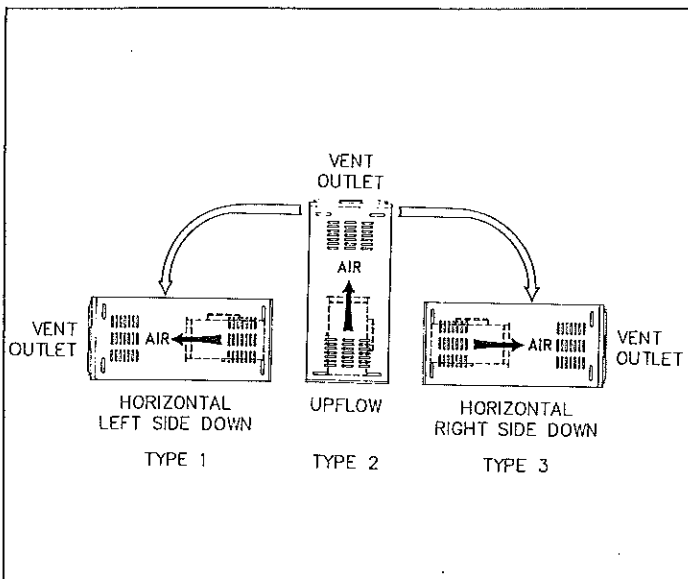


FIGURE 1

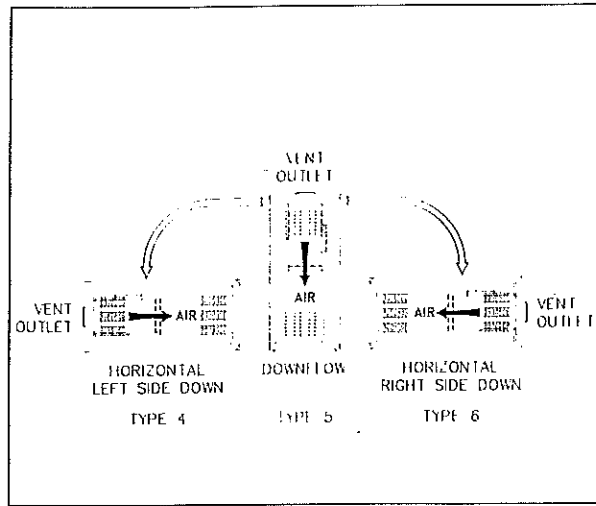


FIGURE 2

SECTION 3 — GETTING THE MOST FROM YOUR NEW FURNACE.

We designed your furnace to give years of reliable service. Following operation and maintenance procedures in this manual will help assure better, longer, more reliable service. Please take time to read and understand this information before using your new furnace.

Figures 3A and 3B are furnaces with their front doors removed.

This will help you become familiar with the different components and their locations.

If you have a horizontal installation, you will have one of the horizontal configurations shown below.

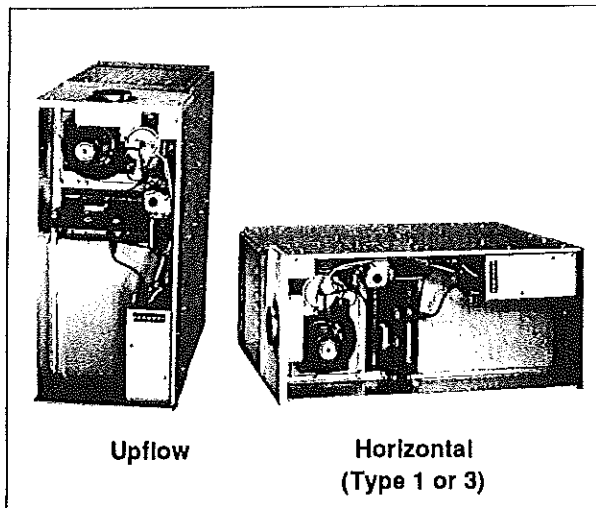


FIGURE 3A

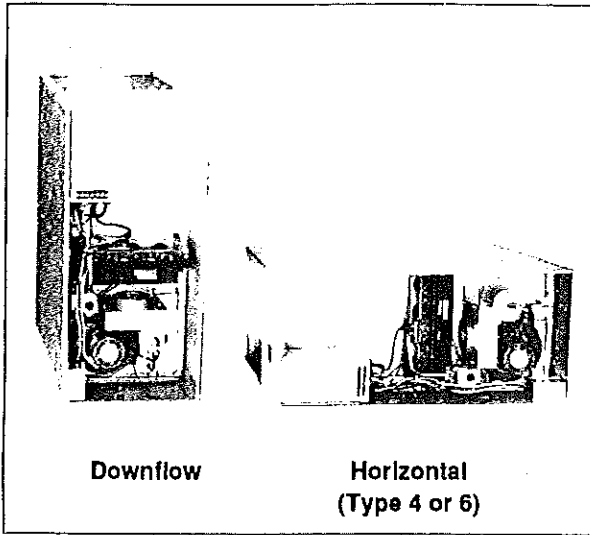


FIGURE 3B

SECTION 4 — IMPORTANT SAFETY PRECAUTIONS.

A. Signal Words.

Years of safe, dependable service, are assured when you understand and follow all safety precautions. **Remember:** your furnace contains flames, gas, electricity, rotating parts and metal edges.

Signal words **“WARNING”** and **“CAUTION”** alert you to potential hazards.

“WARNING” alerts you to situations that could cause serious injury or death.

“CAUTION” alerts you to situations that could cause minor or moderate injury or property damage.

B. Safety Precautions.

These are some of our most important safety precautions; others are throughout this manual. Please read and follow them.

1. Gas and Combustion Products.

WARNING: Any condition that will allow gas or combustion products to enter furnace area can cause nausea, asphyxiation or fire resulting in damage, injury or death.

Natural gas and propane (LP) gas have characteristic odors. When your furnace is operating correctly, you should not smell any unfamiliar odor. Normally, burning gas with air produces combustion products which contain carbon dioxide, oxygen and water vapor. Under abnormal conditions, combustion products can contain aldehydes and carbon monoxide.

— Aldehydes have a strong, pungent, acrid smell that can cause nausea.

— Carbon monoxide is tasteless, colorless and odorless. It can cause headaches, flu-

like symptoms or nausea. We refer to all these symptoms as nausea in this manual. It can also cause death by asphyxiation.

WARNING: Any unfamiliar smell can alert you to presence of gas or aldehydes. If you detect any unfamiliar odor, follow instructions in Section 6.B.1. Otherwise, nausea, asphyxiation or fire could occur, resulting in damage, injury or death.

WARNING: Do not block or cover combustion openings in the furnace door or closet door. Blocking or covering these openings could cause nausea, asphyxiation or fire resulting in damage, injury or death.

WARNING: Do not block or cover any openings from outside the furnace area which supply combustion and ventilation air to your furnace. Keep insulation away from these openings. Blocking or covering these openings could cause nausea, asphyxiation or fire, resulting in damage, injury or death.

WARNING: A loud noise may mean faulty burner ignition. If your furnace makes a loud noise, turn it off. Follow instructions in Section 6.B.2. If you don't turn your furnace off, it could cause fire or an explosion, resulting in damage, injury or death.

WARNING: If your furnace is in an attic or other insulated space, keep all insulating materials at least twelve inches away from its burner combustion air openings. Blocking or covering these openings could cause nausea, asphyxiation or fire resulting in damage, injury or death.

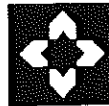
WARNING: Do not operate furnace with blower door open or removed. Do not alter furnace to allow operation with blower door removed. Doing either could allow combustion products to circulate throughout the furnace area, causing nausea, asphyxiation or fire resulting in damage, injury or death.

WARNING: Front door must be in place during furnace operation. Hot surfaces behind front door could cause damage or injury.

2. Storage and Use of Flammable, Corrosive and Combustible Products Near Your Furnace.

WARNING: Never store or use flammable liquids or vapors near or on your furnace. These include gasoline, kerosene, cigarette lighter fluid, cleaning fluids, solvents, paint thinners or painting compounds. Flammable vapors can travel great distances before igniting. Flammables could cause fires or explosions and result in damage, injury or death.

WARNING: Never store or use anything near or on your furnace that can produce vapors that are corrosive to gas-fired furnaces. Vapors from products containing chlorines, fluorines, bromines & iodines can cause vent system or heat exchanger failure. Examples of such products are spray or aerosol containers, detergents, bleaches, cat litter, waxes, adhesives, solvents and other cleaning



compounds. Vent system or heat exchanger failure could cause nausea, asphyxiation or fire, resulting in damage, injury or death.

WARNING: Never store anything combustible near or on your furnace. These include brooms, dustmops, vacuum cleaners, other cleaning tools or items, plastic or plastic containers, paper bags or other paper products. A fire could occur, resulting in damage, injury or death.

3. Alteration of Furnace Controls.

WARNING: Do not alter any gas or electrical controls (gas control, pilot or safety controls) in any manner. Altering them could cause furnace to operate unsafely, resulting in damage, injury or death.

C. Safety Label Location and Information.

Be sure your furnace's safety labels are in place and visible. If they are worn or missing, contact your installer or furnace manufacturer for replacement using the information in Section 1.

LOCATION	LABEL
Front Door (front)	Instruction Label - For Your Safety - Operating Instructions - Turn Off Gas To Appliance - Installation Information - Additional Information
Front Door (back)	Clearance Label Wiring Diagram
Blower Door	Rating Plate Operating Sequence
Blower Housing	Warning Label
Control Box	Warning Label
Junction Box	Warning Label
Casing	Warning Label

SECTION 5 — UNDERSTANDING HOW YOUR HEATING SYSTEM WORKS.

Induced Draft with Electronic Ignition Furnaces.

Your furnace operates automatically after you set your room thermostat at a specific temperature. When inside temperature drops below the set temperature, your thermostat turns on furnace and pilot lights. Inducer motor starts and main burners light. Main blower comes on after burners light. Blower pulls air from conditioned space through air filter and over heat exchanger. Warmed air moves through air ducts to room registers.

If the pilot does not ignite within 75 seconds the furnace will lock out. If furnace locks out, set thermostat to its lowest setting for 10 seconds to reset pilot then set thermostat to

desired temperature. If pilot does not ignite on the second try, call a qualified service agency or gas supplier.

When room temperature reaches thermostat setting, your furnace turns off. Inducer motor stops, gas control closes and gas flow to burners stop. Blower stops automatically after it removes heat from heat exchanger.

SECTION 6 — TURNING OFF YOUR FURNACE IN AN EMERGENCY.

WARNING: Have a qualified installer, service agency or gas supplier teach you location and operation of gas and electrical shutoff devices. Ask them any questions you have about this section. If you don't turn off your furnace in an emergency, damage, injury or death could result.

In an emergency you **MUST** know how to turn off gas and electricity. Find out how **BEFORE THE EMERGENCY.**

WARNING: Should overheating occur or the gas supply fail to shut off, shut off the manual gas control to furnace before shutting off the electrical supply, failure to do so can cause a fire or explosion which could result in damage, injury or death.

A. Gas and Electrical Shutoff Devices.

1. Gas Shutoff Devices.

In an emergency, you may not be able to reach all the gas shutoff devices. You must know how to turn off gas using any one of the three manual types:

a. **Manual Shutoff Knob on Gas Control.**

Gas control location is behind front door. Figure 4 shows location of gas control knob in ON position.

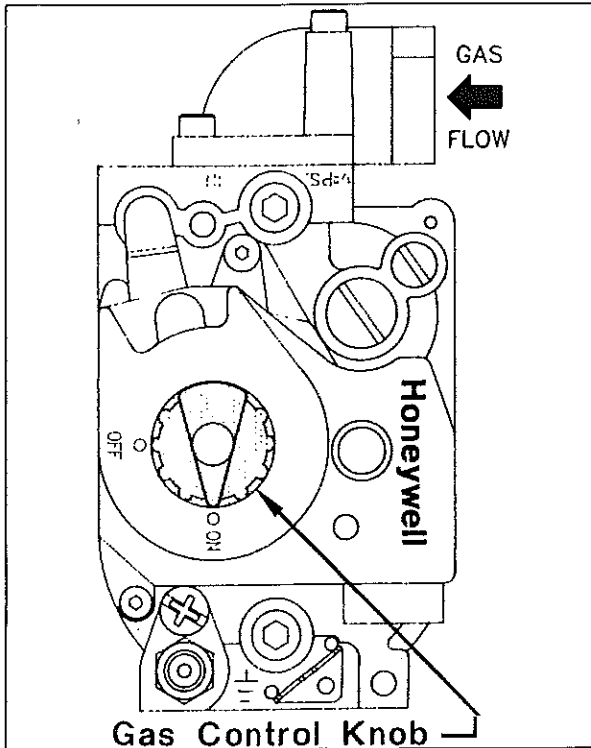


FIGURE 4

To turn gas control furnace knob OFF, turn it clockwise >. Use this same procedure when you leave a vacation home vacant and do not want the furnace to operate.

b. Manual In-Line Shutoff Valve in Gas Supply Line.

This valve is next to furnace. Figure 5 shows two types of shutoff valves.

Normally, gas is ON when you turn the shutoff valve handle parallel to gas pipe. Gas is OFF when you turn handle 90-degrees from gas pipe. See Figure 5.

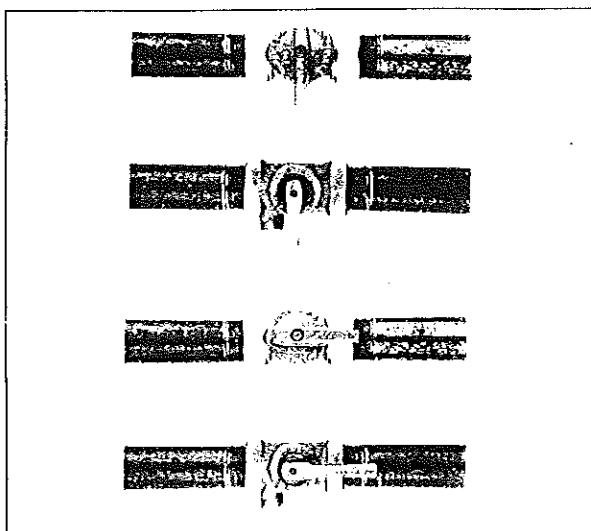


FIGURE 5

c. Manual Shutoff Valve at Natural Gas Meter or Propane (LP) Gas Tank.

Normally, natural gas is ON when you turn shutoff parallel to gas pipe. Gas is off when you turn shutoff 90-degrees from gas pipe. Some valves require a wrench or other tools. See Figure 6.

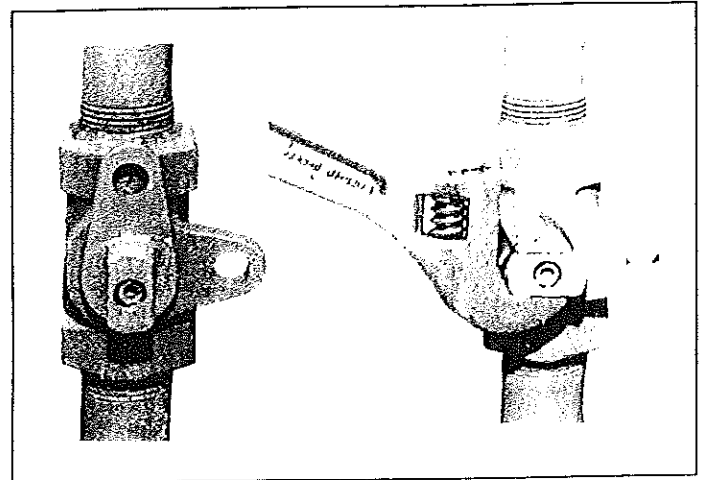


FIGURE 6

Normally, propane (LP) gas is ON when you turn shutoff knob fully counterclockwise <. Gas is OFF when you turn shutoff knob fully clockwise >. Some shutoff valves require a wrench or other tools. See Figure 7.

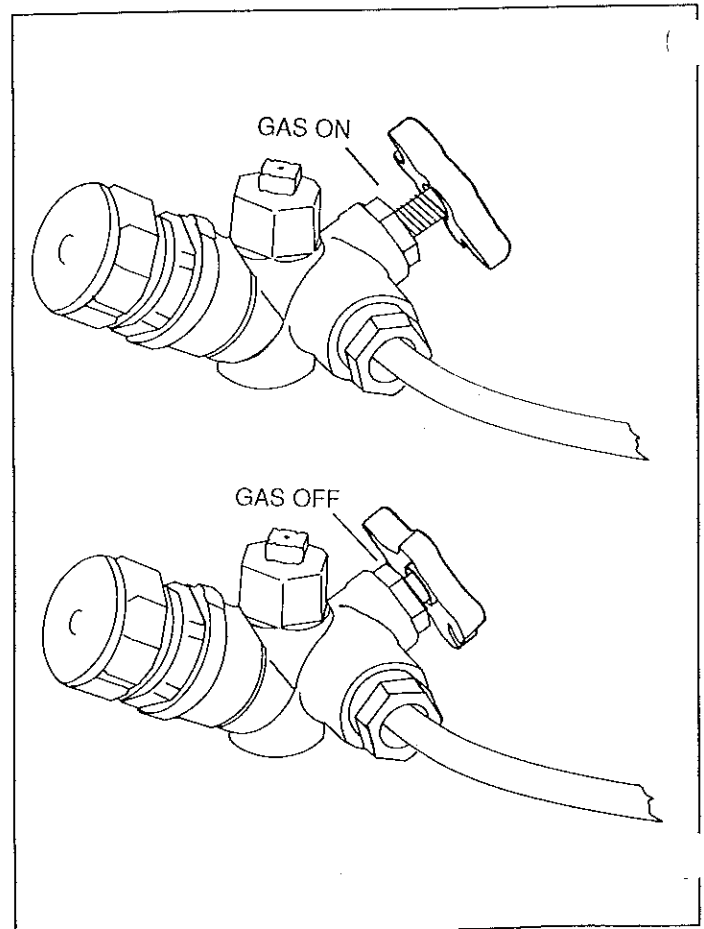


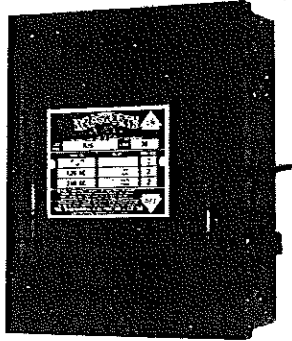
FIGURE 7

You may have different gas shutoff devices than those shown above. Before you need to use them, take time now to learn where they are and how to shut them off.

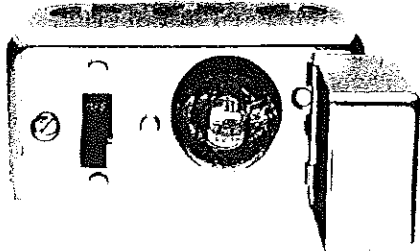
2. Electrical Shutoff Devices

In an emergency, you may not be able to reach both of your electrical shutoff devices. Therefore, you must know how to turn off electricity using either one of them. Here are two types of electrical shutoff devices:

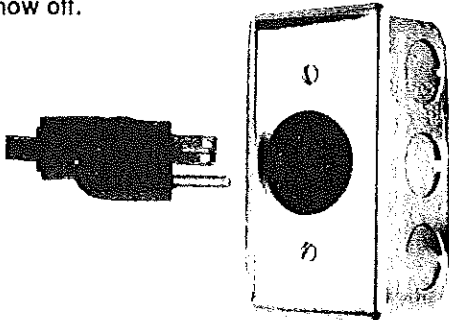
- a. Depending on local codes, one of the following electrical shutoff devices will normally be near your furnace:



Move lever to OFF position. Your electricity is now off.



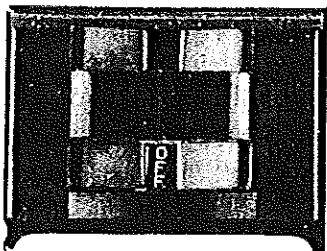
Move switch to OFF position. Your electricity is now off.



Unplug cord. Your electricity is now off.

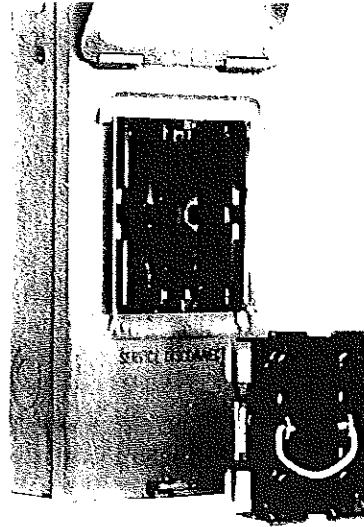
FIGURE 8

- b. Depending on local codes, you will normally find one of the following electrical shutoff devices at your main electrical circuit panel.

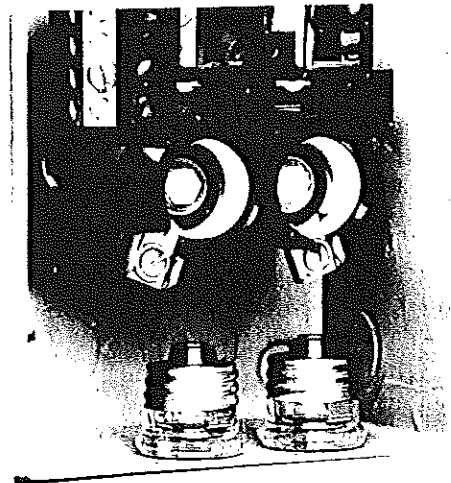


Push IN circuit breaker. Your electricity is now off.

NOTE: You can usually identify furnace circuit breaker by looking inside main electrical panel.



Pull fuse block OUT. Your electricity is now off.



Unscrew fuses. Your electricity is now off.

FIGURE 9

Your electrical shutoff devices may differ from those described. Before you need them, take time now to learn how to operate your electrical shutoff devices.

B. Possible Emergencies and Recommended Actions.



WARNING: If gas or electricity is off due to an emergency, only a qualified installer, service agency or gas supplier should turn it back on. Doing it yourself could result in damage, injury or death.

1. **Possible emergency:** Smelling gas or other unfamiliar smell; or not knowing what may be wrong or what to do about it.

Action: For your safety:

- a. Leave your house or building immediately.
- b. Go to a neighbor's or another building.
- c. Use their telephone.
- d. Call your gas supplier; tell them you smell gas; give them your name and address.
- e. If you cannot reach gas supplier, call fire department.

CAUTION: Three important things not to do:

1. Don't try to light any gas appliances.
 2. Don't touch any electrical switches.
 3. Don't use the telephone in your house or building.
2. **Possible emergency:** Your thermostat is set below room temperature: yet, whether the blower is off or on, the air coming from your room registers continually gets hotter.

Action:

- a. Turn room thermostat to its lowest or OFF setting.
 - b. If you can do so safely, turn gas off. Use manual shutoff valve at gas meter or on propane (LP gas) tank (you may need wrench or tools). If you can safely turn off electricity at the main circuit panel, do so. If you cannot do these safely, leave your home or building immediately. Call your gas supplier or fire department from a neighbor's phone for help.
 - c. Your furnace should now be off. If it is, call your service technician or gas supplier.
 - d. If your furnace continues to run, leave your home or building immediately. Call your gas supplier or fire department from a neighbor's phone for help.
3. **Possible emergency:** Your thermostat is set above room temperature. The blower is on, but the air coming from your room registers is hot, then cold, then hot, then cold in a continuing cycle. This condition indicates lack of airflow through furnace.

Action:

- a. Make sure air filters are clean and installed correctly.
 - b. Check that registers and return air grilles are open and unobstructed.
 - c. If condition continues, call your local qualified service technician or gas supplier.
4. **Possible emergency:** While furnace is operating, you smell unfamiliar odors that go away when furnace is off.

WARNING: Unfamiliar odors may mean gas or aldehydes are present which could result in damage, injury or death.

Action:

- a. Turn thermostat to its lowest or OFF setting.
 - b. Turn gas control knob clockwise > to OFF.
 - c. If blower is not operating, immediately turn off electricity to furnace using shut off device near furnace or at main circuit panel.
 - d. If blower is operating, wait five minutes for furnace to cool down and then turn off electricity to furnace using shutoff device near furnace or at main circuit panel.
 - e. Call your local qualified service technician or gas supplier.
5. **Possible emergency:** Main electrical circuit breaker for furnace cannot be reset without tripping again or new fuses continue to blow.

Action:

- a. Turn gas control knob clockwise > to OFF.
- b. Call your local qualified service technician or gas supplier.

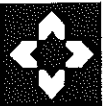
SECTION 7 — OPERATING YOUR FURNACE.

After reading the Safety Information and Precautions, follow Operating Instructions on front door of furnace and instructions repeated here.

WARNING: If you do not exactly follow these instructions, a fire or explosion could occur, resulting in damage, injury or death.

WARNING: Never use tools to turn gas control knob. Only use your hand. If gas control knob will not turn by hand, do not force it or try to repair it. Call a qualified installer, service agency or gas supplier. Forcing knob can cause gas to leak which could result in fire or explosion.

Properly operating your furnace requires certain abilities, mechanical skills and tools. If you are uncertain about your abilities or if you lack proper skills or tools, do not proceed. Instead, contact a qualified installer, service agency or gas supplier.



405070 A

SUPPLY MODEL NUMBER AND SERIAL NUMBER
WHEN ORDERING REPLACEMENT PARTS.

HW 8204 IID



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 loss of life.

- A.** This appliance is equipped with an ignition device which automatically lights the pilot. Do not try to light the pilot by hand.
- 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

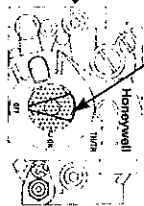
- Do not try to light any appliance.
- Do not touch any electric switch; do not use any phone in your building.

- 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 only your hand to turn the brown gas control knob. Never use tools. If the knob will not turn by hand, do not try to repair it, call a qualified service 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.

OPERATING INSTRUCTIONS



1. STOP! Read the safety information above on this label.
2. Set the room thermostat to lowest setting.
3. Turn off all electric power to the appliance.
4. This appliance is equipped with an ignition device which automatically lights the pilot. Do not try to light the pilot by hand.

GAS FLOW ↓ FROM SUPPLY



BROWN GAS CONTROL KNOB
SHOWN IN "OFF" POSITION

GAS FLOW ↓ TO BURNERS

5. Remove this door.
6. Turn brown gas control knob clockwise  to "OFF".
7. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in safety information above (to the left) on this label. If you don't smell gas, go to the next step.
8. Turn brown gas control knob counterclockwise  to "ON".
9. Replace this door.
10. Turn on all electric power to the appliance.
11. Set room thermostat to desired setting.
12. If the appliance will not operate, follow the instructions "To Turn Off Gas To Appliance" and call your service technician or gas supplier.

TO TURN OFF GAS TO APPLIANCE


1. Set room thermostat to lowest setting.
2. Turn off all electric power to the appliance if service is to be performed.
3. Remove this door.
4. Turn brown gas control knob clockwise  to "OFF". Do not force.
5. Replace this door.

FIGURE 10



Operating Your Induced Draft Electronic Ignition Furnace.

An automatic ignition device lights the burners. Do not try to light manually. See Figure 10 for step by-step instructions.

WARNING: If you do not exactly follow these instructions, a fire or explosion could occur, resulting in damage, injury or death.

SECTION 8 — TAKING RESPONSIBILITY FOR PROPER MAINTENANCE OF YOUR FURNACE.

You need special abilities, mechanical skills and tools to maintain your furnace properly. If you are uncertain about your abilities or if you lack proper skills or tools, do not try to maintain or repair your furnace yourself. Instead, contact a qualified installer, service agency or gas supplier.

A. If You Smell Gas or Any Unfamiliar Smell While Working on Your Furnace:

1. Do not try to light main burners.
2. Do not touch or turn on any electrical switch.
3. Do not use any phone in your building.
4. Immediately call your gas supplier from a neighbor's phone. Follow gas supplier's instructions.
5. If you cannot reach your gas supplier, call fire department.

B. Make Sure Air Filters Are In Place.

Ask your installer, local qualified service technician or gas supplier to make sure your filters are in place properly. Become familiar with their location and procedures for removing, cleaning and replacing them.

Air filters are not factory-supplied with this furnace. Your installer will supply them at time of installation. Look for air filters in return air duct work immediately before furnace or in a return air grille in structure. Access to return grille air filters is through face of return grille.

CAUTION: Operating furnace without clean air filters can damage blower motor, heat exchanger, or air conditioning system components. This can cause system failure which could result in damage or injury.

C. Use the Correct Size Air Filters.

Four air filter sizes cover all furnace sizes. Down flow position furnaces use (2) 16x20x1 air filters. For Upflow and horizontal position furnaces, determine filter size and number to be used with your furnace using Figure 11.

NOTE: Disposable filter sizes are based on an air velocity of no more than 300 feet-per-minute. Cleanable filters are based on air velocity of no more than 650 feet-per-minute.

*GAS INPUT BTU/HR	*MOTOR H.P.	DISPOSABLE AIR FILTERS (FIELD SUPPLIED) (Two Required) SIZE	CLEANABLE AIR FILTERS (FIELD SUPPLIED) (One Required) SIZE
40,000	1/4	14 X 25 X 1	14 X 25 X 1
40,000	1/3	14 X 25 X 1	14 X 25 X 1
60,000	1/4	14 X 25 X 1	14 X 25 X 1
60,000	1/3	14 X 25 X 1	14 X 25 X 1
60,000	1/2	16 X 25 X 1	16 X 25 X 1
80,000	1/4	14 X 25 X 1	14 X 25 X 1
80,000	1/3	14 X 25 X 1	14 X 25 X 1
80,000	1/2	16 X 25 X 1	16 X 25 X 1
80,000	3/4	20 X 25 X 1	20 X 25 X 1
100,000	1/3	16 X 25 X 1	16 X 25 X 1
100,000	1/2	16 X 25 X 1	16 X 25 X 1
100,000	3/4	20 X 25 X 1	20 X 25 X 1
120,000	1/2	20 X 25 X 1	20 X 25 X 1
120,000	3/4	20 X 25 X 1	20 X 25 X 1
140,000	3/4	20 X 25 X 1	20 X 25 X 1
140,000	3/4	20 X 25 X 1	20 X 25 X 1

*GAS INPUT and MOTOR H.P. can be found on furnace rating plate.

FIGURE 11

D. Keep Air Filters Clean

As a user, your personal responsibility is to keep air filters clean.

CAUTION: Dirty air filters reduce system efficiency and can cause erratic control performance. These could result in damage to blower motor or heat exchanger.

WARNING: To prevent electric shock, turn off electricity to furnace before removing, cleaning or replacing air filters. Failure to do so could result in injury or death.

WARNING: To prevent possibility of electrical shock or touching rotating parts, do not operate furnace with blower door removed. Doing so could result in injury or death.

1. During the first four weeks after your furnace is installed, inspect your air filters for dirt every week. Then check them monthly.
2. Replace disposable air filters with same type and size. Always do this at the beginning of heating and cooling seasons. Also, replace them whenever they appear dirty.
3. When cleanable air filters become dirty, remove, clean and reinstall them. Some can be cleaned with a hose and water. Clean others with a vacuum cleaner or shake them out.

Follow filter manufacturer's cleaning recommendations available through your local qualified service technician or gas supplier.

WARNING: After cleaning or changing filter, filter access cover(s) must be replaced. Failure to do so could cause nausea, asphyxiation, or fire, resulting in damage, injury or death.

E. Do Not Obstruct Duct Work

For proper operation, keep registers and return air grilles open. Do not cover them with rugs, carpets, drapes or furniture.

F. Keep Insulation Clear of Furnace

If your furnace is in an attic or other insulated space, keep insulating material at least twelve inches away from it. It is especially important to keep insulation material away from burner opening areas. Some insulation is combustible. If you add insulation in furnace area, inspect burner openings to make sure no insulation is nearby.

WARNING: Keep insulating materials at least twelve inches away from a furnace installed in an attic or other insulated space, especially burner combustion air openings. Failure to do so could cause nausea, asphyxiation, or fire, resulting in damage, injury or death.

G. Have Your Furnace Checked Annually

Every year check your furnace and make sure:

1. Furnace vent connector, vent pipe and chimney should be clear and free of obstructions.
2. Vent connector or vent pipe should be in place. Its upward slope from furnace should be at least 1/4" per foot. It should be physically sound, without holes or excessive corrosion.
3. Return-air duct connection should be physically sound, sealed to furnace casing and ending outside the space containing furnace.
4. Furnace should be well supported, without sagging, cracks or gaps around the base. This is important in providing a good seal between support and base.
5. Signs of obvious deterioration need immediate attention.
6. Main burner and pilot burner flames should be in good adjustment.

a. Main Burner Flames.

When gas input is correct, main burner flame should be clear blue. Burners should be centered within the heat exchanger openings. See Figure 12.

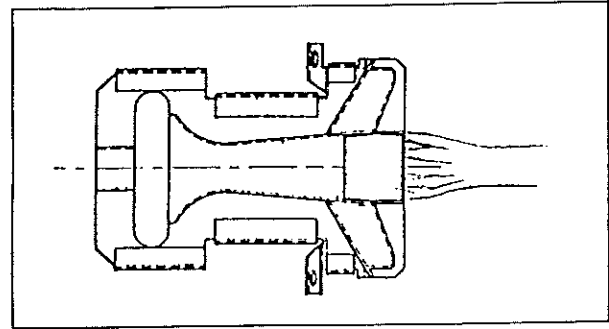


FIGURE 12

b. Pilot Burner Flame.

When main burners are on, pilot burner flame should be as shown in Figure 13.

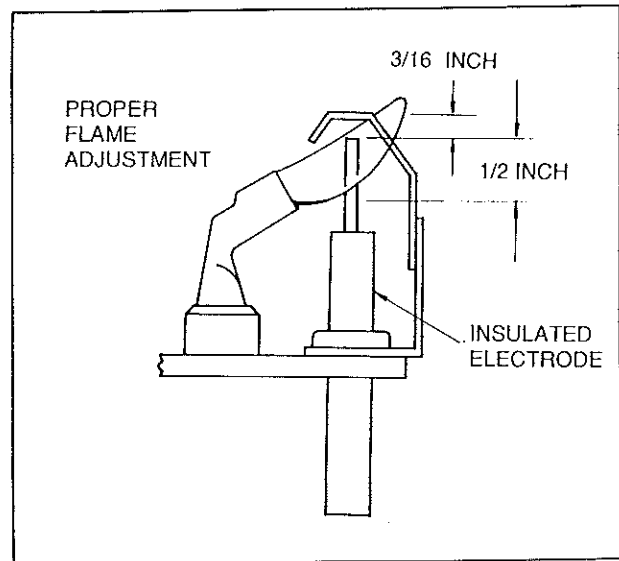


FIGURE 13

Contact your qualified installer, service agency or gas supplier if you have any questions after checking these items.

H. Arrange for Periodic Preventive Maintenance

1. Your furnace's life depends on your care. Proper care assures economical, dependable and safe performance. Your furnace requires periodic preventive maintenance by a qualified installer, service agency or gas supplier. Lack of proper care can damage furnace and result in possible hazards which cause **DAMAGE, INJURY OR DEATH.**

WARNING: Follow these procedures before inspecting furnace. Failure to do so could result in damage, injury or death.

- a. Turn room thermostat to its lowest or off setting.
- b. Wait at least five minutes for furnace

- c. Turn off furnace electrical power (see Section 6.A.).
 - d. Turn off manual gas shutoff valve located in gas supply line (see Section 6.A.).
2. Have periodic preventive maintenance once before heating season begins and once during heating season to assure proper furnace operation and safe working conditions. This service should include inspection, cleaning, and needed repair of the following items:
- a. Combustion and ventilation air openings.
 - b. Burner combustion air openings.
 - c. Flue product passages: inspect burners, pilot, heat exchanger, collector box, draft inducer and complete vent system.
 - d. Gas pipes leading to furnace.
 - e. Electrical wiring and connections, including grounding.
 - f. Air filters, supply air and return air ducts. Make sure there are no obstructions, air leaks or loose insulation.
 - g. Blower housing, blower motor, blower wheel and inducer motor do not require oiling.
3. Make sure room thermostat is not near a heat source, such as a lamp, television, radio, computer, direct sunlight or fireplace. These can make your thermostat sense that the room is warmer than it is. Move heat source away from room thermostat.
4. If furnace now provides sufficient heat, set room thermostat to desired temperature. If your furnace still fails to provide sufficient heat, call your local qualified service technician or gas supplier for repairs. Give furnace model and serial numbers, recorded in Section 1.

B. If Your Furnace Is Not Operating At All

1. Make sure room thermostat is in HEAT position.
2. Set room thermostat above current room temperature.
3. Make sure electrical disconnect switch for furnace is ON.
4. Check to see if main fuses have blown or main circuit breaker has tripped.
5. Make sure blower door is securely in place. The blower door interlock switch prevents furnace operation if the door is not secured.
6. Make sure gas is ON. If gas is OFF because of an emergency or unsafe condition, **DO NOT** turn gas ON. Call your local qualified service technician.
7. If furnace now operates because electricity, gas or thermostat were off, set thermostat to desired temperature.
8. Your furnace will not operate if the burner limit switches or other limit switches are open. These switches sense unsafe operating conditions and prevent furnace operation until the condition is corrected. **DO NOT** bypass these switches, they are safety devices for your protection. Call your local qualified service technician or gas supplier to correct the unsafe condition.
9. If your furnace still fails to operate, follow instructions in Section 7 and on furnace front door, entitled "To Turn Off Gas to Appliance." Call your local qualified service technician or gas supplier for repairs. Give model and serial numbers of your furnace, recorded in Section 1.

SECTION 9 — CHECKING YOUR FURNACE BEFORE REQUESTING A SERVICE CALL.

Before you call a local qualified service technician or gas supplier, check these items:

A. If Your Furnace Is Operating But Not Heating Your House to Desired Temperature:

1. Check to see if air filter is clean. See Section 8.D. for checking instructions.
2. Check both supply air register and return air grilles. They should be open, clean and unobstructed by rugs, carpets, drapes or furniture.
3. a. Make sure room thermostat is in HEAT position and gas is ON, see Section 6.
b. Set room thermostat above current room temperature.