

USER'S MANUAL

Single Package Gas Heating / Electric Cooling Unit

13 SEER MODELS



IMPORTANT! Please read all information in this manual thoroughly and become familiar with the capabilities and use of your appliance before attempting to operate or maintain this unit. Keep this literature where you have easy access to it in the future. If a problem occurs, check the instructions and follow recommendations given. If these suggestions don't eliminate your problem, call your servicing contractor. Do not attempt to service this unit yourself!

Under no circumstances should the appliance owner attempt to install and/or service this equipment. Some local codes require licensed installation / service personnel for this type of equipment. Improper service, adjustment, or maintenance may cause explosion, fire, electrical shock or other hazardous conditions which may result in personal injury or property damage.

⚠ WARNING:

FIRE OR EXPLOSION HAZARD

- Failure to follow safety warnings exactly could result in serious injury or property damage.
- Installation and service must be performed by a qualified installer, service agency or the gas supplier.
- 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 neighbors phone. Follow the gas suppliers instructions.
- If you cannot reach your gas supplier, call the fire department.

DO NOT DESTROY. PLEASE READ CAREFULLY AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.

GENERAL INFORMATION

This gas heating / electric cooling unit has been designed and built to provide many years of safe and dependable comfort, providing it is properly installed and maintained. With regular maintenance, this unit will operate satisfactorily year after year. Abuse, improper use, and/or improper maintenance can shorten the life of the appliance and create unsafe hazards. A regular service and maintenance schedule should be established to ensure efficient and safe operation of the unit. See System Maintenance on pages 3 - 4.

To achieve optimum performance and minimize equipment failure, it is recommended that periodic maintenance be performed on this unit. The ability to properly perform maintenance on this equipment requires certain mechanical skills and tools. Please consult your dealer for maintenance information and availability of maintenance contracts.

WARNING:

To avoid possible equipment damage, fire, or death, the following instructions must be observed regarding unit location, combustion air requirements, and operational procedures.

Gas Heating / Electric Cooling Unit Location

The area around the gas heating/electric cooling unit and the vicinity of any other gas appliances must be kept clear and free of combustible materials, gasoline, and other flammable vapors and liquids. Do not store or use flammable items such as paint, varnish, or strippers in the vicinity of the unit.

Do not use the area around the unit as a storage area. This area must be kept clean and clear of loose or exposed insulation materials. Examine the unit's area when it is installed or when insulation is added, since some insulation materials may be combustible.

Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the unit and to replace any part of the control system and any gas control which has been under water.

Familiarize yourself with the controls that shut off the gas and electrical power to the unit. If the unit is to be shut down for an extended period of time, turn off both the gas and electrical power. For your safety always turn off both the gas and electrical power before performing service or maintenance on the furnace. If the gas supply to the unit must be shut off, refer to the gas valve label (Figure 3, page 5).

Combustion Air Supply

The gas heating/electric cooling unit needs an adequate supply of combustion and ventilation air for proper and safe operation. Do not block or obstruct air openings on the unit or air openings supplying the area where it is installed.

If the unit is operated with inadequate combustion air supply, the flame roll-out control switch located above the burners will open, turning off the gas supply to the burners. The flame roll-out control is a manual reset device. Do not attempt to reset this device yourself! Call your servicing contractor.

WARNING:

Combustion air must not be drawn from a corrosive atmosphere.

To maximize heat exchanger life, the combustion air must be free of chemicals which form corrosive acidic compounds in the combustion gases.

IMPORTANT NOTE: Do not store any chemicals with flammable or caustic vapors near the vent termination. Some examples of these chemicals are:

- Gasoline/Kerosene
- Permanent wave solutions
- Chlorinated waxes and cleaners
- Chlorine based swimming pool chemicals
- Water softening chemicals
- De-icing salts or chemicals
- Carbon tetrachloride
- Halogen type refrigerants
- Cleaning solvents
- Cements, glues, paint removers, varnishes, etc.
- Hydrochloric acid
- Masonry acid washing materials
- Plumbing Stack

Ductwork

WARNING:

Failure to prevent products of combustion from being circulated into the occupied space can create potentially hazardous conditions including carbon monoxide poisoning that could result in personal injury or death.

The duct connections must be physically sound and sealed to the unit's casing to prevent products of combustion from entering the occupied space.

The return air and circulating air ductwork must not be connected to any other heat producing device such as a fireplace insert, stove, etc. Doing so may result in fire, explosion, personal injury, carbon monoxide poisoning, or property damage.

OPERATING INSTRUCTIONS

Thermostat styles vary. Some models may not include the AUTO mode and others will have the AUTO in place of the HEAT and COOL. Others may include all three. Please refer to the thermostat manufacturer's User manual for detailed programming instructions.

The thermostat should be mounted about 5 feet above the floor on an inside wall and not on an outside wall or other location where its operation may be adversely affected by radiant heat from fireplaces, sunlight, or lighting fixtures, and convective heat from warm air registers or electrical appliances.

Cooling Operation (1 or 2-Stage Operation)

1. Set the thermostat system mode to COOL and the thermostat fan mode to AUTO. See Figure 1.
2. Set the thermostat temperature selector to the desired temperature level. The outdoor fan, compressor, and indoor blower will all cycle on and off to maintain the indoor temperature at the desired cooling level.

NOTE: If the temperature level is re-adjusted, or the system mode is reset, the fan and compressor in the outdoor unit may not start immediately. A protective timer circuit holds the compressor and the outdoor fan off for approximately 5 minutes following a previous operation or the interruption of the main electrical power.

Heating Operation (2 Stage)

1. Set the thermostat system mode to Heat and the thermostat fan mode to AUTO. See Figure 1.
2. Set the thermostat temperature selector to the desired temperature level. The indoor blower and gas heat module will cycle on and off to maintain the indoor temperature at the desired heating level.
NOTE: On some units there is a factory set 3 minute time delay between Stage 1 and Stage 2 heat when Stage 2 heating is required. See Unit wiring diagram label.

WARNING:

If overheating occurs, or the gas supply fails to shut off, shut off the gas valve to the unit before shutting off the electrical supply.

NOTE: This unit is equipped with a manual-reset flame roll-out limit switch. This switch acts to verify that the burner flame is being drawn into the heat exchanger tubes. If the flame is not being drawn into the tubes, the flame roll-out switch will open within several seconds. When this switch opens, the gas valve will de-energize to stop the flow of gas. The combustion inducer will stay energized and continue to operate until the thermostat is satisfied or the switch is closed. Do not reset the flame roll-out switch before identifying and correcting the fault

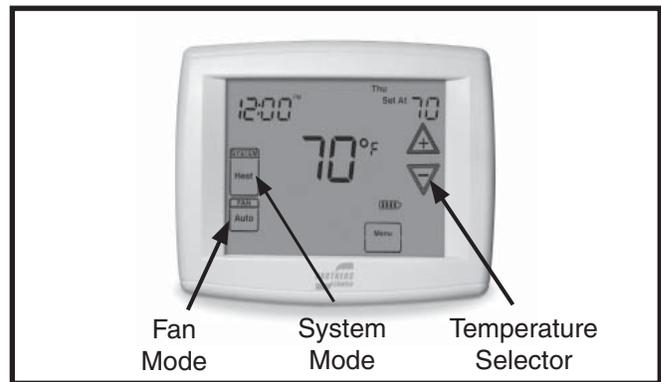


Figure 1. Digital Thermostat

condition that caused the switch to open. If the switch will not reset or continues to open, immediately contact a qualified serviceman to identify and repair the problem.

System Shutdown

Set the thermostat system mode to OFF and the thermostat fan mode to AUTO. See Figure 1. **NOTE:** The system will not operate, regardless of the thermostat temperature selector's setting.

Operating the Indoor Blower Continuously

Set the thermostat fan mode to ON (or CONT on some thermostat models). See Figure 1.

The indoor blower will start immediately, and will run continually until the fan switch is reset to AUTO.

The continuous indoor blower operation can be obtained with the thermostat system switch set in any position, including OFF.

The continuous indoor blower operation is typically used to circulate the indoor air to equalize a temperature imbalance due to a solar load, cooking, or fireplace operation.

SYSTEM MAINTENANCE

CAUTION:

Verify all electrical power to the unit is disconnected and the gas is shut off before performing the following recommended maintenance.

Proper maintenance is most important to achieve the best performance from the appliance and should be performed by a qualified service technician at least once a year. Follow the maintenance schedule and the instructions below for years of safe, trouble free operation.

- Do not place combustible materials on or against the cabinet.
- Do not store gasoline or any other flammable vapors and liquids in the vicinity of the unit.
- Annually inspect the physical support of the unit to ensure that it is physically sound without sagging,

- cracks, gaps, etc., around the base so as to provide a seal between the support and the base.
- Annually inspect the return-air connection to ensure that it is physically sound and is still sealed to the casing of the unit. Also inspect the unit, ductwork, and vent system for signs of physical deterioration.
 - Always replace the doors on the unit after servicing. Do not operate the unit without all doors and covers in place. Avoid operating the unit when windows and doors are open.
 - Refer to the Maintenance Schedule (Table 1, page 8) for recommended maintenance information.

⚠ CAUTION:

DO NOT come into contact with any of the internal electrical components while cleaning the unit.

Regular Cleaning

- Remove any leaves and grass clippings from the outdoor coil. **IMPORTANT: Be careful not to damage the aluminum fins.**
- Check for and remove any obstructions such as twigs, sticks, etc.
- Clean the blower compartment regularly during the heating and cooling seasons to remove any dust that may have accumulated in the compartment or on the blower and motor. Buildup of dust on the blower and motor can create excessive loads on the motor resulting in higher than normal operating temperatures and possible shortened service life.

Air Filters

⚠ WARNING:

Never operate the unit without a filter in the return air system. Dust and lint in the return air can build up on the internal components, resulting in loss of efficiency, equipment damage, and possible fire risk.

This unit is not supplied with air filter(s) and has no means for accommodating internal air filter(s). The installer is responsible for installing a filtration system into the return air duct of this system. The filter(s) of this system should be checked at monthly.

It is very important to replace or clean the filter(s) installed in the return air duct of this system. A clogged filter could cause airflow related problems and reduce the overall efficiency of your unit. Depending upon which type of filter was installed with your unit, clean (permanent) or replace (disposable) filter(s) of your system at the beginning of every heating season, the beginning of every cooling season, and when an accumulation of dust and dirt are

visible on the filter. **IMPORTANT:** Replace disposable filter(s) installed in your system only with the same size dimensional filters that are being replaced. Clean permanent filter(s) as described by the manufacturer.

Motor Lubrication

The motors for the circulating air blower, outdoor fan, and combustion blower are pre-lubricated and sealed by the manufacturer. No further oiling is required for the life of this product.

Burner Maintenance

⚠ CAUTION:

Some components in the burner vestibule are at high temperatures while the burners are operating. Use caution to avoid personal injury.

Check the burner flames at the start of every heating season. Set the thermostat above the room temperature. Remove the control access panel to the unit and visually inspect the burner assembly to make sure that the flame is drawn directly into the center of the heat exchanger tube (See Figure 2). In a properly adjusted burner assembly, the flame bends up and to the left at the end of the heat exchanger tube, and the end of the flame will be out of sight around the bend. The flame color should be blue, however some light yellow streaks may occur on the outer portions of the flame.

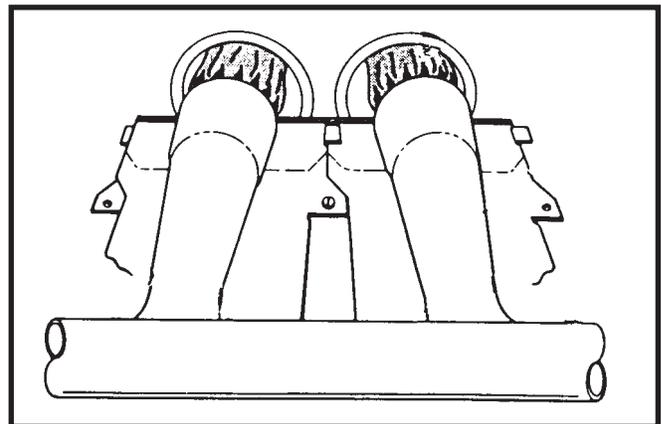


Figure 2. Burner Inspection

TROUBLESHOOTING

Before you call a Technician, check the following:

- Check the thermostat setting. Make sure the system mode and temperature settings are correct.
- Check the electrical panel for tripped circuit breakers.
- Check the filters for dust accumulation.
- Check the unit and make sure it is clean and not covered with grass or leaves.
- If the items above don't resolve your problems, then call your nearest service technician.

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 does not have a pilot. It is equipped with an ignition device which automatically lights the burner. Do **not** try to light the burner 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 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.
- C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or move 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 to replace any part of the control system and any gas control which has been under water.

POUR VOTRE SÉCURITÉ. À LIRE AVANT L'EMPLOI

ATTENTION! L'inobservation de ces instructions peut entraîner un incendie ou une explosion pouvant causer des dommages à votre propriété à votre personne, ou la mort.

- A. Cet appareil ménager n'a pas de veilleuse. Il est doté d'un système d'allumage automatique. Ne pas essayer d'allumer le brûleur manuellement.
- B. AVANT L'USAGE. Attention à une possible odeur de gaz surtout au niveau du plancher où les gaz les plus lourds ont la tendance de se concentrer.
- EN CAS D'ODEUR DE GAZ.**
- Ne mettre en marche aucun appareil électrique.
 - Ne toucher à aucun commutateur électrique, ne pas employer le téléphone.
 - Quitter le bâtiment immédiatement et avvertir la compagnie du gaz en utilisant le téléphone d'un voisin.
 - A défaut de la compagnie du gaz, avvertir le service des pompiers.
- C. Enfoncer ou faire tourner le robinet à gaz à la main seulement. Ne jamais utiliser d'outils. S'il n'est pas possible de faire tourner ou d'enfoncer le robinet à la main, ne pas essayer de le réparer. Faire appel à un spécialiste. Forcer ou tenter de réparer le robinet pourrait être à l'origine d'une explosion ou d'un incendie.
- D. Il est déconseillé d'utiliser cet appareil en contact prolongé avec l'eau. Faire inspecter ou remplacer toute commande par un technicien qualifié si un des systèmes de contrôle du gaz s'est trouvé sous l'eau.

OPERATING INSTRUCTIONS

1. **STOP!** Read the safety information above on this label.
2. Set the thermostat to the lowest setting.
3. Turn off all electrical power to the appliance.
4. The appliance's ignition device automatically lights the burner. Do not try to light burner by hand.
5. Remove the control access door/panel (upper door if two-door model).
6. Move the gas control knob clockwise  to "OFF". (See Figure 1)
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 above information. If you don't smell gas, go to the next step.
8. Move the gas control knob counterclockwise  to "ON". (See Figure 1)
9. Replace the control access door/panel (upper door if two-door model).
10. Turn on all electrical power to the appliance.
11. Turn the thermostat to a 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.

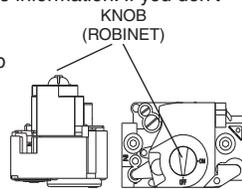


Figure 1

MODE D'EMPLOI

1. **ATTENTION!** Lire d'abord la liste des mesures de sécurité ci-dessus.
2. Mettre le thermostat à la position minimale.
3. Couper le courant électrique qui mène à l'appareil.
4. Cet appareil ménager étant doté d'un système d'allumage automatique, ne pas essayer d'allumer le brûleur manuellement.
5. Retirer le panneau/volet d'accès de commande (panneau supérieur s'il s'agit d'un modèle à deux panneaux).
6. Faire tourner le robinet à gaz dans le sens des aiguilles d'une montre  pour l'amener sur la position OFF (Arrêt) (Voir Figure 1).
7. Attendre cinq (5) minutes pour s'assurer de la dissipation du gaz.
En cas d'odeur, **ARRÊTER LE PROCÉDÉ.** Suivre les instructions ci-dessus (Section B). En l'absence de toute odeur de gaz, avancer à l'étape suivante.
8. Faire tourner le robinet à gaz dans le sens inverse des aiguilles d'une montre  pour l'amener sur la position ON (Marche) (Voir Figure 1).
9. Remettre le panneau/volet d'accès de commande en place (panneau supérieur s'il s'agit d'un modèle à deux panneaux).
10. Rebrancher l'appareil sur le réseau électrique.
11. Ajuster le thermostat à la position désirée.
12. Si l'appareil ne fonctionne pas, suivre les "Directives d'arrêt" cidessous et appeler le technicien de service.

TO TURN OFF GAS TO APPLIANCE

1. Set the thermostat to the lowest setting.
2. Turn off all electrical power to the appliance if service is to be performed.
3. Remove the control access door/panel (upper door if two-door model).
4. Move the gas control knob clockwise  to "OFF". Do not use force. (See Figure 1)
5. Replace the control access door/panel (upper door if two-door model).



DIRECTIVES D'ARRÊT

1. Mettre le thermostat à la position minimale.
2. Débrancher l'appareil en prévision de la réparation.
3. Retirer le panneau/volet d'accès de commande (panneau supérieur s'il s'agit d'un modèle à deux panneaux).
4. Faire tourner le robinet à gaz dans le sens des aiguilles d'une montre  pour l'amener sur la position OFF (Arrêt) Ne pas forcer (Voir Figure 1).
5. Remettre le panneau/volet d'accès de commande en place (panneau supérieur s'il s'agit d'un modèle à deux panneaux).

7106750 (Replaces 710329A) (03/07)

Figure 3. Gas Valve Label

MAINTENANCE ITEM	FREQUENCY OF MAINTENANCE		
	BEGINNING OF EACH HEATING SEASON	END OF EACH HEATING SEASON	MONTHLY
Verify area around the unit is free of combustible materials	X		X
Verify combustion and ventilation air is not restricted	X	X	X
Verify no signs of physical deterioration of the furnace	X	X	X
Verify burner flame	X		
Inspect unit support	X	X	
Inspect return air connections	X	X	
Clean or replace filter(s)			X
Clean blower compartment			X
Clean burner vestibule	X		

Table 1. Maintenance Schedule



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Specifications & illustrations subject to change without notice or incurring obligations.
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