



*It's Hard To Stop A Trane.®*

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# Owner's Guide

## **Packaged Systems or All-in-One:**

**Heat Pumps**

**Air Conditioners**

**Dual Fuel**

**Gas / Electric**



**DC-UC-WEB01**

## Safety Section – Dual Fuel and Gas/Electric Systems

**IMPORTANT: Users MUST read all instructions in the manual. All manuals MUST be kept for future reference.**

### **WARNING**

#### SAFETY HAZARD

This information is for use by individuals having adequate backgrounds of electrical and mechanical experience. Any attempt to repair a central air conditioning product may result in personal injury and/or property damage. The manufacturer or seller cannot be responsible for the interpretation of this information, nor can it assume any liability in connection with its use.

### **WARNING**

#### EXPLOSION HAZARD

Propane gas is heavier than air and may collect in any low areas or confined spaces. In addition, odorant fade may make the gas undetectable except with a warning device. If the gas furnace is installed in a basement, an excavated areas or a confined space, it is strongly recommended to contact a gas supplier to install a gas detecting warning device in case of leak. The manufacturer of your furnace does not test any detectors and makes no representations regarding any brand or type of detector.

### **WARNING**

#### FIRE OR EXPLOSION HAZARD

The furnace area must be kept clear and free of combustible materials, gasoline and other flammable vapors and liquids.

### **WARNING**

#### FIRE OR EXPLOSION HAZARD

Do not use this 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, and electrical parts that have been wet if deemed necessary.

### **WARNING**

#### FIRE OR EXPLOSION HAZARD

Should overheating occur, or the gas supply fail to shut off, shut off the manual gas valve to the furnace before shutting off the electrical supply.

In the event that electrical, fuel or mechanical failures occur, the owner should immediately turn off the gas supply at the manual gas valve located in the burner compartment and electrical power to the furnace and contact service technician.

### **WARNING**

#### FIRE OR EXPLOSION HAZARD

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 or combustible materials 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.

— DO NOT RELY ON SMELL ALONE TO DETECT LEAKS. DUE TO VARIOUS FACTORS, YOU MAY NOT BE ABLE TO SMELL FUEL GASES.

- U.L. recognized fuel gas and CO detectors are recommended in all applications, and their installation should be in accordance with the manufacturer's recommendations and/or local laws, rules, regulations, or customs.

— Installation and service must be performed by a qualified installer, service agency or the gas supplier.

# Safety Section – Dual Fuel and Gas/Electric Systems

## General Information

Understand the signal words **DANGER**, **WARNING**, and **CAUTION**. These words are safety alert words. **DANGER** indicates the most serious hazards which **will** result in severe personal injury or death. **WARNING** indicates hazards which could result in personal injury or death. **CAUTION** is used to indicate unsafe practices which **could** result in minor injury or property damage.

## Overview

Your combination dual fuel heating/electric cooling unit is designed to provide comfort all year long with safe, efficient, trouble-free operation. It is important that you understand how to operate and maintain your unit to keep it operating safely and efficiently. This guide will acquaint you with these important procedures. Familiarize yourself with this manual and store it in a convenient location for future reference.

Any additions, changes, or conversions required in order for the unit to satisfactorily meet the application needs, should be made by a qualified product distributor or local dealer, using factory specified and approved parts. See Figure 1 for component layout.

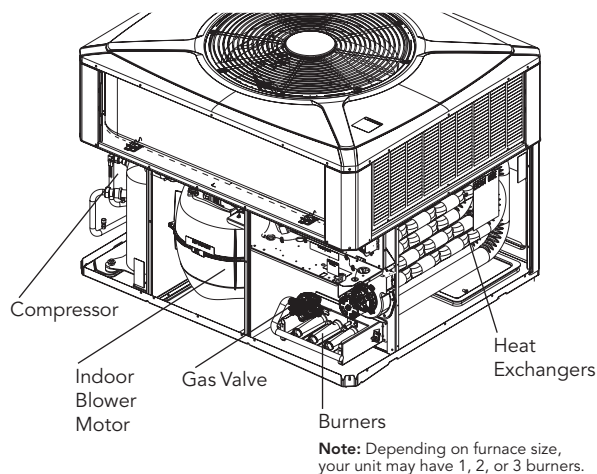


Figure 1. Component Layout

## Thermostat

Room thermostats are delicate temperature-sensing controls. Their main function is to energize and de-energize the heating or cooling circuit to maintain the temperature setting you select.

Many thermostats contain a room thermometer to indicate the approximate room temperature, and a temperature scale to select the desired indoor air temperature. In addition, most thermostats have modes of HEAT, OFF and COOL, and fan modes of ON and AUTO.

When OFF is selected your unit will not operate in either heat or cool modes. If HEAT or COOL is selected, the unit will automatically cycle on and off to maintain the desired temperature settings.

When AUTO is selected, the fan will only operate as required during the heating or cooling cycles. The fan mode can be used to operate the indoor fan continuously by selecting ON. Continuous fan mode during cooling operation may not be appropriate in humid climates. If the indoor air exceeds 60% relative humidity or simply feels uncomfortably humid, it is recommended that the fan only be used in the AUTO mode.

To ensure that the thermostat operates properly, it must be level and positioned to avoid the influence of such external heat sources as lamps, televisions or other heat-producing appliances.

### Remember these instructions at all times:

- Never perform any maintenance procedures until the electrical power to the unit is turned off.
- Never perform any maintenance procedures until the gas valve in the gas supply line is turned off.
- Never remove any panel from the unit while it is operating.
- Never remove panels or parts from the unit that are not discussed in this guide.
- Never cover the unit since it is designed to operate year round.
- Never store anything flammable or combustible around or near the unit.

Your unit is of complex design. To ensure that it performs safely and gives long-lasting service, some of the maintenance work must be performed by a qualified service technician.

When a service technician is referred to in this manual, it is describing a **service technician that has had special training or a number of years experience in servicing this type of equipment**. It is your responsibility to select a qualified service company that can provide a service technician of this caliber.

**Two Stage Cooling Models** – For units with the feature of two staged cooling, the thermostat will determine whether to run the system at the full capacity or a lower capacity. This depends on the daily cooling load of the conditioned space. The system is more efficient when running at low capacity (1st stage). At lower outdoor temperatures 1st stage will be sufficient to maintain indoor comfort.

With the thermostat set to COOL, the system will automatically cycle on and off as well as from low (1st stage) to high (2nd stage) as needed to maintain the thermostat set point for indoor comfort. During 1st stage operation the compressor, as well as the indoor fan, will run at a reduced speed. This produces a reduced capacity which is more efficient than the high capacity 2nd stage. If the low capacity (1st stage) is not sufficient to maintain the thermostat setting, the system will switch to high speed (2nd stage). As the thermostat temperature setting is reached, the system will cycle to low speed then off.

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## Regular Owner Maintenance – All Packaged Systems

### CAUTION

Never use combustible cleaning fluids on any part of the furnace.

You can perform some of the periodic maintenance functions for the unit yourself; this includes replacing (disposable) or cleaning (permanent) the air filters, cleaning the cabinet, cleaning the condenser coil, and conducting a general unit inspection on a regular basis.

### Air Filters

It is very important to keep the central duct system air filters clean. Be sure to inspect them at least once each month when the system is in constant operation (in new homes, check the filters weekly for the first 4 weeks).

If you have a disposable-type filter replace it with a new filter of the same type and size. **DO NOT ATTEMPT TO CLEAN DISPOSABLE FILTERS.**

Permanent-type filters can be cleaned by washing them with a mild detergent and water. Make sure that the filters are thoroughly dry before reinstalling them in the unit (or duct system).

*Note: It may be necessary to replace permanent filters annually if washing fails to clean the filter, or if the filter shows signs of deterioration. Be sure to use the same type and size as was originally installed.*

### Unit Cabinet

Even though the unit cabinet is designed to withstand exposure to outdoor weather, you can extend the life of the cabinet panel by cleaning and waxing it twice each year. Application of a light coat of automobile wax is recommended.

### Condenser Coil

Unfiltered air circulates through the units condenser coil and can cause the coil's surface to become clogged with dust and dirt. Have the coils checked by a service technician each cooling season.

Be sure to keep all vegetation away from the condenser coil area.

### General Unit Inspection

Occasionally check over the unit; look and listen for unusual or abnormal operating characteristics. Do not remove any access panels. If you suspect your unit is not operating properly, contact a service technician for instructions.

# Regular Service Maintenance

For regular dealer maintenance please refer to [www.acca.org/industry/quality](http://www.acca.org/industry/quality)

## ⚠ WARNING

### ELECTRIC SHOCK HAZARD

To prevent injury or death due to electrical shock or contact with moving parts. Lock unit disconnect switch in open position before servicing unit.

## Cooling and Heating Season Basic Maintenance – For All Packaged Systems

To keep your unit operating safely and efficiently, a qualified service technician should check the entire system seasonally, and any other time that you feel a check is needed. Your service technician may examine these areas of the unit:

1. Filters (for possible cleaning)
2. Motors (condenser and evaporator motors are permanently lubricated)
3. Gaskets (for possible replacement)
4. Refrigerant coils (for possible cleaning)
5. Safety controls (for mechanical cleaning)
6. Electrical components and wiring (for possible replacement and connection tightness)
7. Condensate drain (for possible cleaning)
8. Inspect the unit duct connections to see that they are physically sound and sealed to the unit casing.
9. Inspect the unit mounting support to see that it is sound.
10. Inspect the unit to see that there is no obvious unit deterioration.

## Heating Season Additional Maintenance – For Gas/Electric and Dual Fuel Packaged Systems

At the beginning of each heating season arrange for a qualified service technician to complete the unit inspections and service routines described in this section.

These steps should be performed **ONLY** by a qualified service technician.

1. Inspect the control panel wiring and heating controls to make sure connections are tight and wiring insulation is intact.
2. Check the operation of the gas ignition system.
  - a. Turn the unit on and off at the thermostat to be sure the ignition control and spark electrode are operating.
  - b. Turn off the gas supply with the unit operating to verify that the gas valve closes and that a re-ignition cycle is initiated by the ignition control.
3. Check the burner manifold pressure. A pressure tap is provided in the gas valve for this purpose.

## ⚠ WARNING

### HAZARDOUS GASSES

Exposure to fuel substances, or by-products of incomplete fuel combustion, is believed by the state of California to cause cancer, birth defects, or other reproductive harm.

This warning complies with State of California law, Proposition 65.

This product must be gas piped by a Licensed Plumber or Gas Fitter in the Commonwealth of Massachusetts.

4. Visually inspect all of the unit's flue product passageways for excessive deposit buildup or corrosion. If buildup or corrosion is apparent, perform the necessary repairs.
5. Visually check the main burner flames. They should be bright blue flames extending up to the heat exchanger sections.

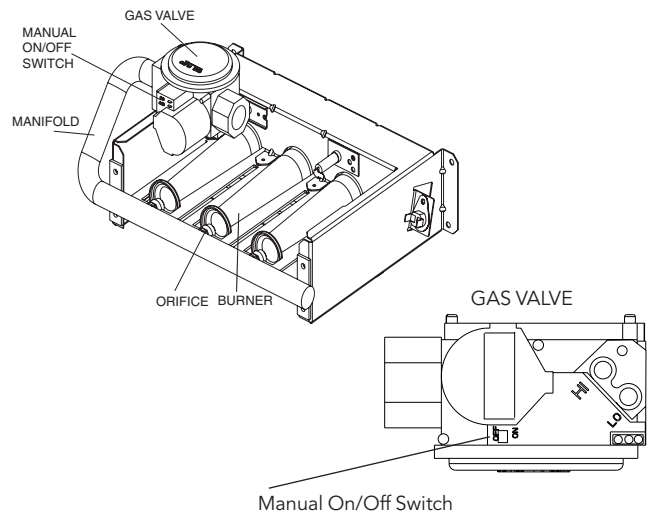


Figure 2. Gas Valve with On/Off "Toggle" Switch

## ⚠ WARNING

### ELECTRIC SHOCK HAZARD

Should overheating occur, or the gas supply fail to shut off, shut off the manual gas valve to the furnace before shutting off the electrical supply.

In the event that electrical, fuel or mechanical failures occur, the owner should immediately turn off the gas supply at the manual gas valve located in the burner compartment and electrical power to the furnace and contact service technician.

**IMPORTANT:** Some of these products have been designed and manufactured to meet ENERGY STAR criteria for energy efficiency. However, proper refrigerant charge and proper air flow are critical to achieve rated capacity and efficiency. Installation of this product should follow the manufacturer's refrigerant charging and air flow instructions. Failure to confirm proper charge and airflow may reduce energy efficiency and shorten equipment life.

# Limited Warranty Information

Subject to the terms and conditions of this limited warranty, Trane U.S., Inc. ("Company") extends a limited warranty against manufacturing defects for the product(s) identified in Table 1 attached hereto ("Products") that are installed in a residential application (personal, family or household purposes) under normal use and maintenance in the United States and Canada.

## This limited warranty applies to Products manufactured on or after August 1, 2011.

In order to maximize the available benefits under this limited warranty, the Purchaser (as defined below) should read it in its entirety. All repairs of Product parts covered under this limited warranty must be made with authorized service parts and by a licensed HVAC service provider. Additionally, commercial applications are treated differently under this limited warranty as stated in Table 1 attached hereto. For purposes of this limited warranty, "commercial applications" shall mean any application other than for personal, family, or household use.

**TERM:** The limited warranty period for Products is as stated in Table 1 attached hereto. If the Purchaser properly registers the Products, the limited warranty period shall be extended as stated in Table 1 attached hereto. Regardless of registration, the Commencement Date for a limited warranty period shall be the date that the original installation is complete and all Product start-up procedures have been properly completed and verified by an installer's invoice. If the installation and start-up date cannot be verified by the installer's invoice, the Commencement Date shall be sixty (60) days after the factory manufacture date which is verified by the Product serial number. Where a Product is installed in a newly constructed home, the Commencement Date is the date the Purchaser purchased the residence from the builder. Proof of Product purchase, installation, and/or closing date of the residence may be required to confirm the Commencement Date.

The installation of Product replacement parts under this limited warranty shall not extend the original warranty period. The warranty period for any Product part replaced under this limited warranty is the applicable warranty period remaining under the original Product warranty.

**WHO IS COVERED:** This limited warranty is provided only to the original owner and his or her spouse ("Purchaser") of the residence where the Products are originally installed. This warranty is not transferable except according to terms stated on the applicable website identified below under Registration Requirements. Company has the right to request any and all proof of Product purchase or installation and/or closing date of the residence.

**WHAT COMPANY WILL DO:** Company may request proof of Product purchase and/or installation in order to provide Product parts under this limited warranty. As Company's only responsibility and Purchaser's only remedy under this limited warranty, Company will furnish a replacement part to the licensed HVAC service provider, without charge for the part only, to replace any Product part that fails due to a manufacturing defect under normal use and maintenance. The Purchaser must pay for any and all shipping and handling charges and other costs of warranty service for the replacement part. If a Product part is not available, Company will, at its option, provide a free suitable substitute part or provide a credit in the amount of the then factory selling price for a new suitable substitute part to be used by the Purchaser towards the retail purchase price of a new Company product. Any new Product purchase shall be at Purchaser's sole cost and expense including, but not limited to, all shipping, removal, and installation costs and expenses.

**REGISTRATION REQUIREMENTS:** All Products must be properly registered online by the Purchaser within sixty (60) days after the Commencement Date to receive the registered limited warranty terms. To register online, go to:

<http://www.trane.com/Residential/Trane/Owners/Warranty-Information> or  
<http://www.americanstandardair.com/servicesupport/pages/warranty.aspx>

and click "Begin Online Registration." If a Purchaser does not register within this stated time period, the base limited warranty terms shall apply.

**ELIGIBILITY REQUIREMENTS:** The following items are required in order for the Products to be covered under this limited warranty:

- The Products must be in the same location where they were originally installed.
- The Products must be properly installed, operated, and maintained by a licensed HVAC service provider in accordance with the Product specifications or installation, operation, and maintenance instructions provided by Company with each Product. Failure to conform to such specifications and/or instructions shall void this limited warranty. Company may request written documentation showing the proper preventative maintenance.
- All Product parts replaced by Company under this limited warranty must be given to the servicing provider for return to Company.

- Air handlers, air conditioners, heat pumps, cased or uncased coils and stand-alone furnaces must be part of an Air Conditioning, Heating, and Refrigeration Institute rated and matched system or a specification in a Company provided bulletin or otherwise approved in writing by a Company authorized representative.

**EXCLUSIONS:** The following are not covered by this limited warranty:

- Labor costs including, but not limited to, costs for diagnostic calls or the removal and reinstallation of Products and/or Product parts.
- Shipping and freight expenses required to ship Product replacement parts.
- Failures, defects, or damage (including, but not limited to, any loss of data or property) caused by (1) any third party product, service, or system connected or used in conjunction with the Products; (2) any use that is not designed or intended for the Products; (3) modification, alteration, abuse, misuse, negligence, or accident; (4) improper storage, installation, maintenance, or operation including, but not limited to, operation of electrical equipment at voltages other than the range specified on the Product nameplate; (5) any use in violation of written instructions or specifications provided by Company; (6) any acts of God including, but not limited to, fire, water, storms, lightning, or earthquakes; or any theft or riots; or (7) a corrosive atmosphere or contact with corrosive materials such as, but not limited to, chlorine, fluorine, salt (provided that indoor and outdoor coils will only be covered if a Sea Coast Kit is installed), sulfur, recycled waste water, urine, fertilizers, rust, or other damaging substances or chemicals.
- Products purchased direct including, but not limited to, Internet or auction purchases and purchases made on an uninstalled basis.
- 3 phase models, cabinets or cabinet pieces that do not affect product performance, air filters, refrigerant, refrigerant line sets, belts, wiring, fuses, surge protection devices, non-factory installed driers, and Product accessories.
- Increased utility usage costs.

**REFRIGERANT POLICY:** Beginning on January 1, 2010, R-22 refrigerant will no longer be used

as a manufacturer-installed refrigerant as required by federal regulation. Any and all expenses or costs associated with replacing Product parts that are not R-410A compatible will not be covered by the terms and conditions of this limited warranty. In addition, all Products containing R-410A refrigerant include a liquid line filter drier which must be replaced when a compressor replacement is necessary. A suction line filter drier must be added for compressors defined as burnouts. Failure to comply with such filter drier requirements or the use of contaminated or alternate refrigerant or any non-approved refrigerant system additives including, but not limited to, dyes, will void this limited warranty.

## ADDITIONAL TERMS:

**THIS LIMITED WARRANTY AND LIABILITY SET FORTH HEREIN ARE IN LIEU OF ALL OTHER WARRANTIES AND LIABILITIES, WHETHER IN CONTRACT OR IN NEGLIGENCE, EXPRESS OR IMPLIED, IN LAW OR IN FACT. THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO THE DURATION OF THE APPLICABLE PRODUCT WARRANTY. COMPANY DOES NOT AUTHORIZE ANY PERSON TO CREATE FOR IT ANY OBLIGATION OR LIABILITY IN CONNECTION WITH THE PRODUCTS.**

**NOTWITHSTANDING ANYTHING IN THIS LIMITED WARRANTY TO THE CONTRARY, COMPANY SHALL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL AND/OR PUNITIVE DAMAGES, WHETHER BASED ON CONTRACT, WARRANTY, TORT (INCLUDING, BUT NOT LIMITED TO, STRICT LIABILITY OR NEGLIGENCE), PATENT INFRINGEMENT, OR OTHERWISE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. COMPANY'S MAXIMUM LIABILITY HEREUNDER IS LIMITED TO THE ORIGINAL PURCHASE PRICE OF THE PRODUCTS.**

No action arising out of any claimed breach of this limited warranty may be brought by a Purchaser more than one (1) year after the cause of action has arisen.

This limited warranty gives you specific legal rights, and you may also have other rights as otherwise permitted by law. If this Product is considered a consumer product, please be advised that some local laws do not allow limitations on incidental or consequential damages, how long a warranty lasts based on registration, or how long an implied warranty lasts, so that the above limitations may not fully apply. Refer to your local laws for your specific rights under this limited warranty.

Residential Systems  
6200 Troup Highway, Tyler, TX 75707  
Attn: Customer Relations

Or visit our website at [www.trane.com](http://www.trane.com) or [www.americanstandardair.com](http://www.americanstandardair.com)

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## Important Product Information

Registering your products helps provide you with one of the strongest manufacturer limited warranties available. To register, go to the manufacturer's website or contact your dealer. You will need the serial number, model number, and installation date for each product being registered. Your dealer may have included these on your invoice or can provide a list for you to use. Please take a few moments to record the following information to ensure your product registration process is quick and easy:

Packaged Unit Serial Number \_\_\_\_\_

Packaged Unit Model Number \_\_\_\_\_

Date of Installation \_\_\_\_\_

Dealer \_\_\_\_\_

### Service Information

Call your installing dealer if the unit is inoperative. Before you call, always check the following to be sure service is required:

- a. Be sure the main switch that supplies power to the unit is in the ON position.
- b. Replace any burned-out fuses or reset circuit breakers.
- c. Be sure the thermostat is properly set.

Service Phone \_\_\_\_\_



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[www.trane.com](http://www.trane.com)

Ingersoll Rand Residential Solutions, a business comprised of well-known brands like Schlage and Trane, delivers safety, comfort and efficiency to homeowners throughout North America. Our quality products, services and solutions include mechanical and electronic locks, heating and air conditioning systems, indoor air quality solutions, advanced controls, portable security systems and remote home management. For more information on these and other residential solutions please visit [www.ingersollrand.com](http://www.ingersollrand.com), [www.schlage.com](http://www.schlage.com), or [www.trane.com](http://www.trane.com).