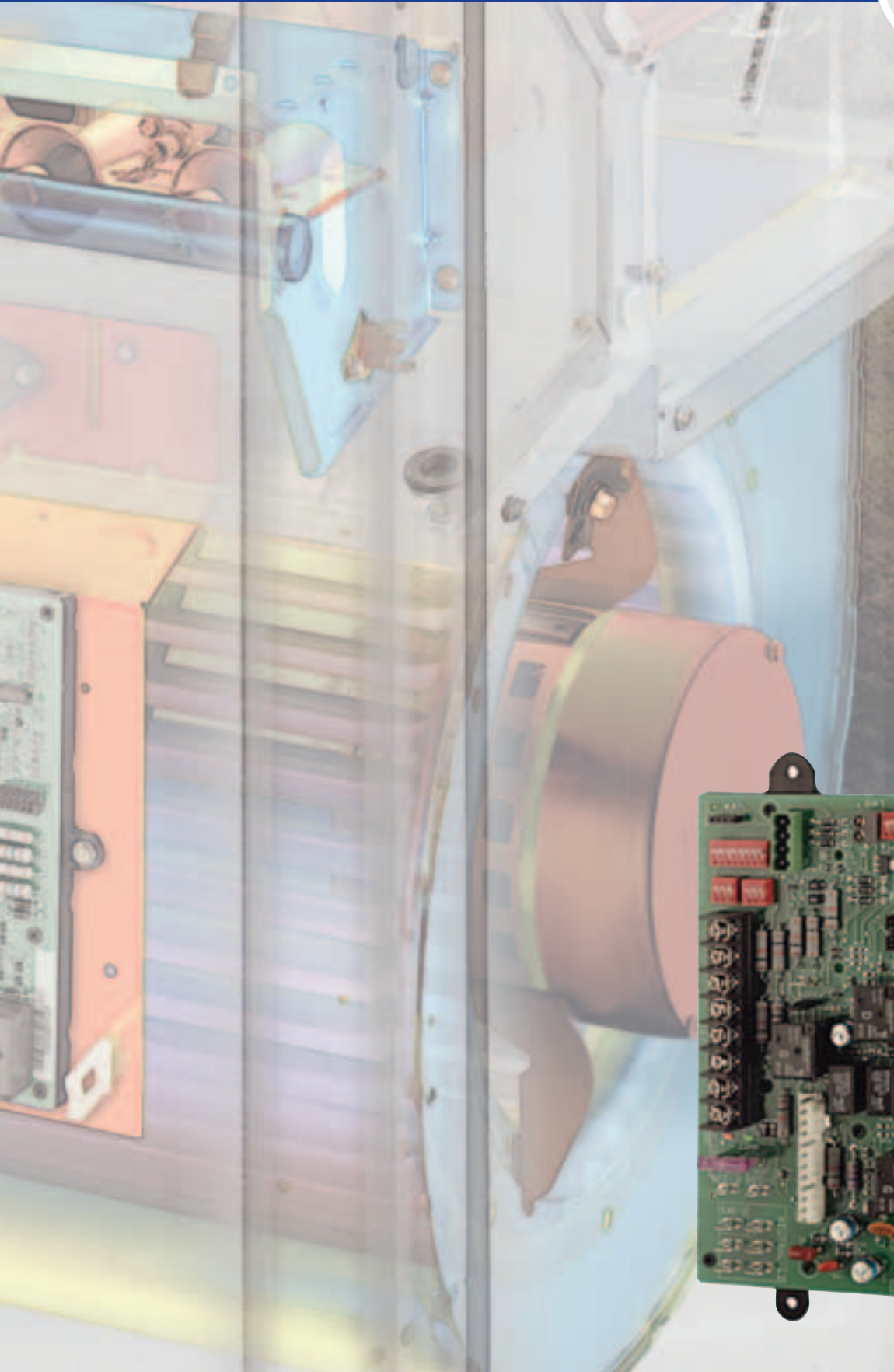


# Benefits of Carrier Gas Furnace Controls Dealer Feature Summary



Turn to the Experts.™




Built-In Comfort, Installation and Service Advantages

# Carrier Controls Put the Heat on the Competition

## Variety

Carrier offers the most complete furnace lineup in the industry. At the same time, we've done our best to reduce the total number of control boards needed to deliver the widest level of performance benefits. This handy reference brochure provides descriptions of the many features offered with our four furnace controls. Also included is a chart showing which furnaces offer each feature.

- 
- **Dehumidification Control** has never been easier or better. Nearly all of our new furnace controls offer improved dehumidification. And you can experience IdealHumidity™ with our variable speed furnace control featuring Super Dehumidification. In conjunction with the Thermidstat™ Control or Comfort Zone II, this function greatly reduces and modulates the fan speed for increased humidity removal. The IdealHumidity™ System will dehumidify even with no call for cooling.
  - **Smart Cooling Blower Off Delay, or SmartEvap™**, overrides the standard 90-second cooling blower off delay, and holds the continuous fan off for a full five minutes during periods of high humidity, when used with the Thermidstat™ Control or Comfort Zone II. This function allows condensate on the coil to drain off instead of re-evaporating and being recycled through your home. The result is economical cooling plus humidity control. This function can reduce indoor humidity levels by up to 10%.
  - **Adjustable Continuous Fan at the Thermostat**, a feature we call ComfortFan™, lets the homeowner enjoy the benefits of continuous fan operation by providing the ability to adjust the fan speed from the Carrier thermostat, based on changing indoor comfort needs, such as entertaining or the change in seasons.
  - **Communication Port** on the variable speed furnace controls is already programmed as the key to connection with future thermostats and data-collection devices. This port and similar ports in older variable speed 90% furnaces also allows for reading non-volatile memory with a laptop or personal digital assistant (Palm Pilot, etc.) when used with the Advanced Product Monitor kit. (Part Number: KGAFP0201APM.)
  - **Service Connection** is provided on current deluxe and two-stage boards for use with future diagnostic tools.
  - **Low Continuous Fan Speed** is available on most furnace controls to allow added efficiency and comfort during continuous fan operation. Two-stage controls use the low heat speed for continuous fan, while other models use a separate relay for continuous fan operation.
  - **Very Low Continuous Fan** is offered with our variable speed furnace controls, providing even quieter, more efficient comfort.
  - **Adjustable Blower Off Delay** controls the amount of time the blower runs after a completed heating cycle. The longer delay allows more heat to be extracted from the heat exchangers after the burners have shut down, which increases efficiency. However, making the delay too long can also increase energy usage and may cause "cold blow" after the heating cycle. This gives you the flexibility to set the delay appropriately for each individual application.
  - **EAC Terminals** on all of our controls allow for easy and convenient connection of 115vac accessories such as Electronic Air Cleaners (EACs). EAC terminals are powered at the same time as the blower motor.

- **Humidifier Terminal** allows easy connection of 24vac accessories such as humidifiers. The humidifier terminal is activated with the gas valve, the inducer fan, or the blower motor.
- **Two-Speed AC/HP Compatible** allows separate connections for high and low air conditioner or heat pump fan speeds. Please note that Carrier recommends installing a variable speed indoor unit to maximize the performance available with a two-speed outdoor unit.
- **Intelligent Heat Staging** allows you to use a two-stage furnace when a single-stage thermostat is the only control option available. Adjusts to high heat based on “time and temp demand” while working to maintain an efficient heating cycle. For the best year-round comfort, use the Thermidistat™ Control when using a two-stage furnace.
- **Intelligent Cool Staging** allows you to use a two-speed air conditioner or heat pump when a single-stage thermostat is the only control option available. Adjusts to high cool based on “time and temp demand” while working to maintain an efficient cooling cycle. For the best year-round comfort, use the Thermidistat™ Control when using a two-speed AC or HP.
- **Service Information Storage** is non-volatile (recoverable) memory that stores status codes and cycle counts for quick, easy troubleshooting even if power is interrupted. Recent status codes can be read from LEDs or full details can be accessed through the service connection or communication port.



Features	Variable Speed	Two-Stage	Deluxe	Standard
	58MVP, 58CVA/CVX (HK42FZ022)	58MTA, 58CTA/CTX (HK42FZ017)	58MXA, 58DLA/DLX (HK42FZ014)	58MCA, 58MSA, 58STA/STX (HK42FZ013)
Dehumidification Control	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Super Dehumidification	<input checked="" type="checkbox"/>			
Smart Cooling Blower Off Delay (SmartEvap™)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Adjustable Con. Fan at Stat (ComfortFan™)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Communication Port	<input type="checkbox"/>			
Service Connection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Low Continuous Fan Speed	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Very Low Continuous Fan	<input checked="" type="checkbox"/>			
Adjustable Blower Off Delay	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
EAC Terminals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Humidifier Terminal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Two-Speed AC/HP Compatible	Best <input type="checkbox"/>	Better <input type="checkbox"/>	Good <input type="checkbox"/>	
Intelligent Heat Staging	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Intelligent Cool Staging	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Service Information Storage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Deluxe/Premium Consumer Feature       Dealer Feature

## Details

Our new furnace controls are designed for backward compatibility so in most cases, they can also be used as replacements in older furnace models. No matter how the control is applied, in a new furnace or as a replacement, you will need to carefully follow the installation instructions to ensure proper operation and maximum performance. Using the feature summaries and the included chart, you should be able to provide your customers with the furnace-based indoor comfort system that best meets their individual comfort needs.

# Carrier Systems for Unmatched Performance

**Humidifier** replenishes moisture to dry air.

**Evaporator Coil** allows the refrigerant to absorb heat from the air as it passes over the coil surface. The evaporator coil is located with the indoor unit and is also referred to as the indoor coil.

**Furnace** provides reliable, high-efficiency heating for long-lasting comfort and energy savings.

**Air Cleaner** improves air quality by removing harmful and irritating airborne pollutants from your home.

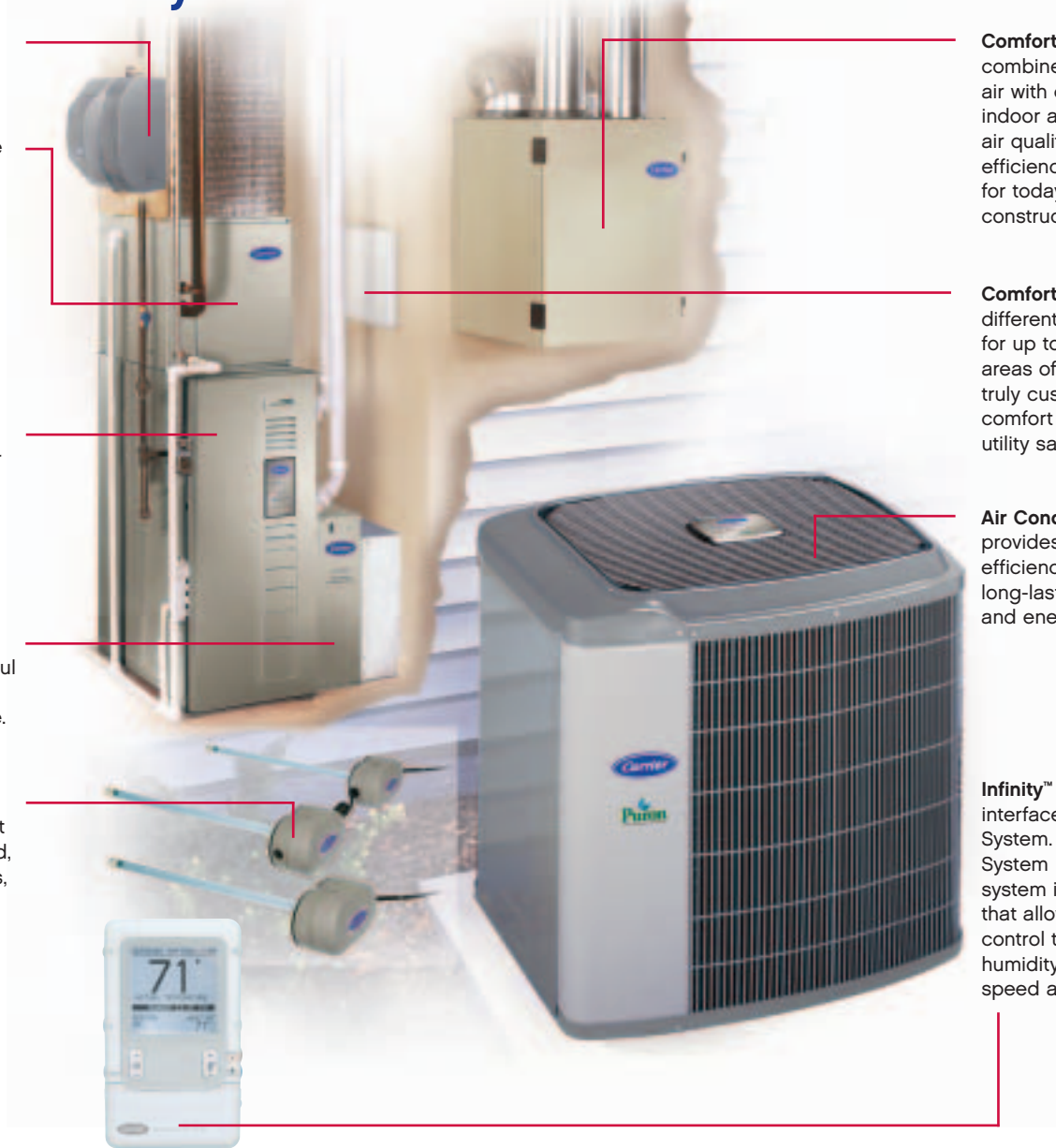
**Ultraviolet Germicidal Lamp** reduces the amount of pollutants, such as mold, bacteria, fungi and viruses, leaving your home with cleaner, fresher indoor air.

**Comfort Ventilator** combines fresh outdoor air with conditioned indoor air for improved air quality and maximum efficiency – great for today's tightly constructed home.

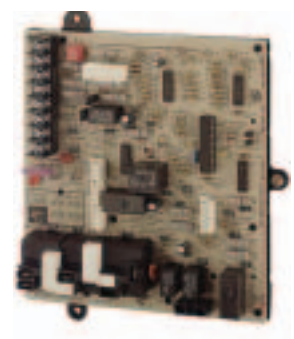
**Comfort Zoning** sets different temperatures for up to eight different areas of your home for truly customized comfort and enhanced utility savings.

**Air Conditioner** provides reliable, high-efficiency cooling for long-lasting comfort and energy savings.

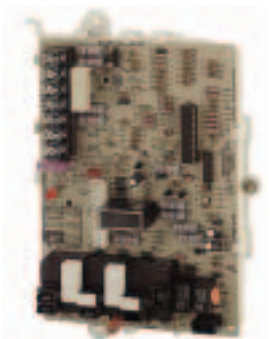
**Infinity™ Control** is the interface to the Infinity™ System. The Infinity™ System is the only system in the industry that allows you to control temperature, humidity, air quality, fan speed and ventilation.



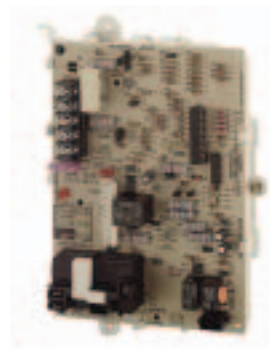
**HK42FZ022**  
**Variable Speed**



**HK42FZ017**  
**Two-Stage**



**HK42FZ014**  
**Single-Stage Deluxe**



**HK42FZ013**  
**Single-Stage Standard**



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1-800-CARRIER



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