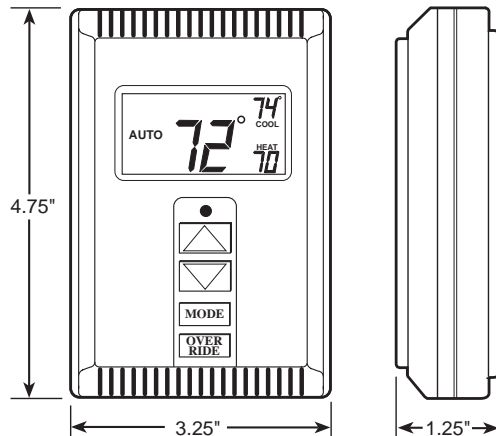




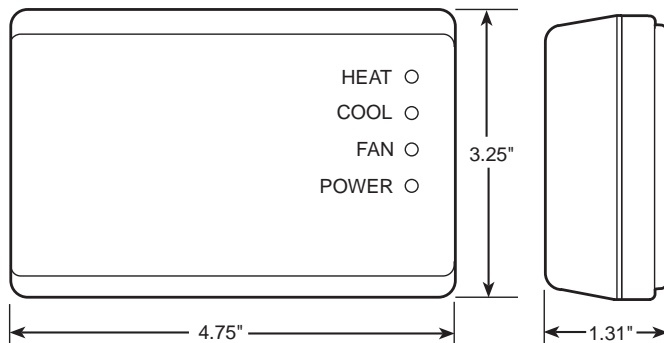
# Product Specification

## 33CS Debonair™ 250 Commercial Programmable Wireless Thermostat

Part Number 33CS250-RC/RE



**33CS250-RC  
TRANSMITTER DIMENSIONS**



**33CS250-RE  
RECEIVER DIMENSIONS**

The Debonair commercial programmable wireless thermostat provides the following features and benefits:

- compatible with electric heat, gas heat, and heat pump operation
- transmits up to 500 ft through walls and ceilings
- seven-day programmable clock with 4 time periods per day
- wireless operation
- one transmitter can transmit to a maximum of 16 receivers
- up to 4 transmitters work with one receiver
- holiday scheduling (up to 99 consecutive days)
- copy command for programming schedules
- four-hour setback override
- service filter indicator
- energy-saving Smart Fan
- three security levels with keypad lockout
- large Thermoglow™ configurable display
- heating and cooling operation LED
- zone temperature control to 1-degree accuracy
- auto-changeover
- Neverlost™ non-volatile memory
- five-minute compressors time guard
- adjustable heat/cool set point limiting
- soft start/staggered start
- pre-occupancy purge (0-3 hours)
- Title 24 compliance
- Carrier warranty

# Features/Benefits



Carrier's Debonair™ line of commercial programmable light-activated thermostats are wall-mounted, low-voltage thermostats which maintain room temperature by controlling operation of an HVAC (Heating, Ventilation, and Air Conditioning) system. Separate heating and cooling set points and auto-changeover capability allow occupied and unoccupied programming for energy savings.

The thermostat can be configured to accept several different equipment configurations, including single-stage heating and cooling, 2 stages of heating and cooling, heat pumps, gas or electric heating, and hydronic systems.

This thermostat allows up to 4 time/temperature settings to be programmed per 24-hour period. Each thermostat stores schedules for 7 independent days. During power interruption, the internal memory stores schedules for an unlimited time while the clock will continue to run for at least 48 hours.

## Flexibility for every application

**Thermostat** can be programmed and configured for use with many different applications including single-stage heating and cooling, 2 stages of heating and cooling, heat pumps, gas or electric heating, and hydronic systems.

**Flexible configuration** allows up to 4 transmitters to be used with one receiver within the same space. The transmitter most recently adjusted retains control. A transmitter can work with up to 16 receivers if needed, for added flexibility.

**A 7-day clock** is provided with 3 occupied and 1 unoccupied time periods for scheduling of heating and cooling set points. Occupied and unoccupied schedules allow for energy savings by changing set points during time periods when the zone is normally unoccupied.

**Holiday programming** allows the thermostat to run under unoccupied temperature set points for up to 99 consecutive days. This is beneficial in schools or businesses where long breaks are common.

**Wireless operation** enables transmitter to function anywhere within the space that user specifies (within 500 ft of its receivers). Thermostat does not have to be wall-mounted. Backplate has horizontal and vertical mounting options. Locations for wall mounting are not restricted, due to wireless design. Receiver requires hard wiring. It can be installed in the location of the previous thermostat or in the HVAC unit itself, with the antenna outside the unit.

**Preoccupancy purge** enhances indoor air quality by initiating the fan before the programmed occupancy time. The purge is user-configured from 0 to 3 hours.

**Heating and cooling operation LED** glows red when unit is in the Heating mode and green when unit is in the Cooling mode.

## Reliability for year-round comfort

**One-degree control accuracy** precisely controls the desired space temperature to within 1 degree of user set point. A solid-state, laser-trimmed sensor is used.

**Four-hour setback override** returns the system to occupied set points if heating or cooling is needed during unoccupied hours. The override is adjustable in 30-minute increments and returns the system to Unoccupied mode when override expires.

**Neverlost™ memory protection** on the thermostat eliminates the need to reprogram the thermostat after power outages. Comfort programming and configuration will remain intact indefinitely. Clock and day of the week settings will be retained for a minimum of 48 hours.

**Service filter indicator** lets maintenance personnel know when the filter needs cleaning or replacing, which aids in equipment efficiency and prolongs equipment life.

**Energy saving Smart Fan** is configurable for two modes of operation: automatic and continuous. In automatic Smart Fan operation, the fan will only run when the system calls for heating or cooling. In continuous Smart Fan operation, the fan will run continuously in occupied time periods and will only run when the system calls for heating or cooling during unoccupied periods.

**Five-minute compressor time guard** protects HVAC equipment by preventing compressor short cycling and limits the number of cycles per hour with an adjustable cycle limit.

**Soft start/staggered start** is used to stagger the start of the HVAC equipment. This ensures there is no sudden power peak if multiple units energize simultaneously, especially after a power failure.

**Carrier warranty** ensures peace of mind well after installation.

**Adjustable heat/cool set point limiting** allows building owner to set separate heating and cooling set points to minimum and maximum within desired range. This allows building occupant limited adjustment capabilities to ensure energy cost control for building owner.

## Ease of programming for quick installation

**Copy command** for programming schedules saves time when multiple daily schedules are similar.

**Thermoglow™ display** is large and easy to read. Backlit display allows programming in poorly lit areas and can be

configured for button activation or continuous lighting. A single adjustment shows temperature in Celsius or Fahrenheit.

**Four time periods** per day allow flexibility to create schedules for every application. Start and stop times along with heating and cooling set points are easily entered into the schedule.

## Safety features for added security and protection

**Three levels of security and keypad lockout** protect against unauthorized usage of the thermostat. The 3-level security adjustment eliminates the need for bulky and unattractive locking covers. Schedules, set points, and thermostat configurations are protected by locking out keypad operation. An easily memorized button sequence unlocks the keypad and allows access to configuration, set point, and scheduling information.

## SPECIFICATIONS

<b>Recommended Wiring (receiver)</b>	22 AWG (36 ft max) 18 AWG (100 ft max)
<b>Operating Temperature F (C)</b>	41 to 104 (5 to 40)
<b>Storage Temperature F (C)</b>	-40 to 135 (-40 to 57)
<b>Operating Relative Humidity</b>	0 to 95% (non-condensing)
<b>Dimensions (in.)</b>	4.75 x 3.25 x 1.25 (Transmitter) 4.75 x 3.25 x 1.31 (Receiver)
<b>Power</b>	5 va at 24 vac, 60 Hz (Receiver) 2 AA lithium batteries (Transmitter)

AWG — American Wire Gage

## Agency approvals

**Complies with FCC Part 15 rules.** Thermostat does not cause harmful interference and accepts all interference received.

**UL and UL, Canada approval.** These thermostats are considered low-voltage devices by UL and do not require UL approval. As an added assurance to the quality of the thermostats, these thermostats are UL listed.

**Title 24 compliance.** Meets specified requirements of programming capability for all California commercial installations.

**Meets European Community (CE) standards.** Thermostat conforms to European (CE) requirements and is designed in accordance with IEC (International Electrotechnical Commission) standards.



**Carrier**

A United Technologies Company