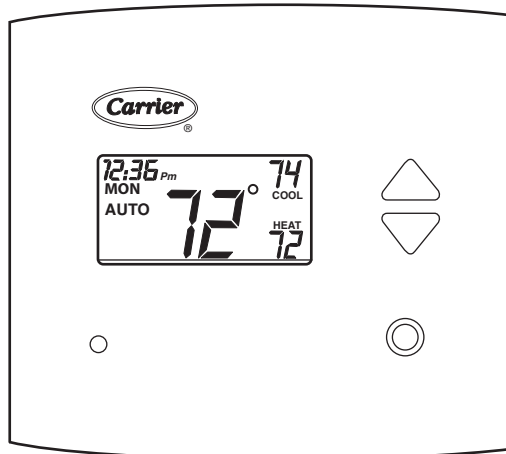




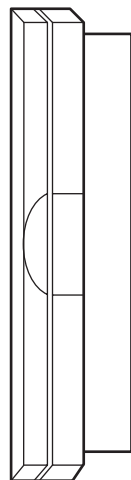
Product Specification

33CS Debonair™ Slimline 450 Commercial Programmable Thermostat

Part No. 33CS450-01



FRONT VIEW



SIDE VIEW

The Debonair line of commercial, 7-day, programmable thermostats provides the following features and benefits:

- compatible with electric heat, gas heat, and heat pump (O/B) operation
- 3-stage heat/2-stage cool
- accepts plug-in humidity module for humidification/dehumidification function
- seven-day programmable clock with 4 time periods per day
- programmable or non-programmable configuration selection
- holiday scheduling (up to 99 consecutive days)
- light-activated occupied period capable
- copy command for programming schedules
- large Thermoglow™ display with keypad and legend backlighting
- heating and cooling operation LED
- zone temperature control to 1-degree accuracy
- manual or auto-changeover
- random/soft start
- four-hour setback override
- Neverlost™ non-volatile memory (no batteries required)
- economizer control
- reheat function
- service filter and drain pan indicator
- energy saving Smart Fan
- three security levels with keypad lockout
- five-minute compressor time guard
- adjustable heat/cool set point limiting with timers and deadbands
- external input (dry contact switch)
- pre-occupancy purge (0-3 hours)
- ability to control to or monitor a remote sensor
- remote room temperature sensor and outdoor air sensor capability
- wired remote averaging
- configurable and programmable outputs
- accepts EZ thermostat programmer
- remote control and receiver compatible
- Title 24 compliance
- Carrier warranty

Features/Benefits



Carrier's Debonair line of commercial programmable thermostats are wallmounted, 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 up to 3 stages of heating, up to 2 stages of cooling, heat pumps, gas or electric heating, and hydronic systems. All thermostats allow up to 4 time/temperature settings to be programmed per 24-hour period. Each thermostat stores schedules for 7 independent days. Batteries are not required. 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

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.

Dry contact switch for external devices allows the thermostat to be controlled by an external switch, light or motion sensor, or time clock. Thermostat will enter into Occupied mode when the switch is energized. The dry contact switch also allows many thermostats to be controlled by one external device.

Remote temperature sensing accessories are available for remote sensing of critical spaces where public access to the thermostat is not desired. Typical applications would include retail stores, public areas, classrooms, and other areas where the thermostat will be mounted away from the controlled space. The degree annunciator flashes when the thermostat is using a remote room sensor. A laser-trimmed, solid-state sensor is used to send the digital signal to the thermostat. The thermostat can then monitor or control to this remote temperature.

Programmable output allows control of a powered contact to open or close based upon a time schedule or temperature condition.

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.

Reliability for year-round comfort

One-degree control accuracy precisely controls the desired space temperature to within 1 degree of user set point. The thermostat uses a solid-state, laser-trimmed sensor.

User override button returns the system to occupied set points if heating or cooling is needed during unoccupied hours. The override is adjustable in 30-minute increments up to 4 hours and returns the system to unoccupied mode when override expires. An override counter is provided to keep track of the number of times that the override button has been pressed.

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, 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.

Plug-in humidity module provides humidify/dehumidify control from the thermostat to the appropriately equipped air source. The module also enables the thermostat to display humidity level measured in the space. Compatible for use with the Carrier rooftop unit Humidi-MiZer™ Adaptive Dehumidification option, COBRA™ Energy Recovery unit, and 62AQ Energy\$Recycler units, the humidity module provides a positive "make-on-rise" signal when the space humidity rises above set point.

Dry contact input overrides current schedule and forces the equipment into occupied or unoccupied mode. Also, if programmed and connected to a condensate pan level switch, will lock out the compressor and indicate service required.

Carrier warranty ensures peace of mind well after installation.

Title 24 compliance meets specified requirements for all California commercial installations.

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.

EZ thermostat programmer allows copying from one compatible Slimline thermostat to the next to facilitate quick setup and commissioning.

Remote control and receiver allow remote operation of basic thermostat features.

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

Recommended Wiring	22 AWG (36 ft max) 18 AWG (100 ft max)
Operating Temperature F (C)	41 to 104 (5 to 40)
Storage Temperature F (C)	-40 to 135 (-40 to 57)
Operating Relative Humidity	0 to 95% (non-condensing)
Dimensions (in.)	4.8 X 4.3 X 1.1
Power	5 va at 24 vac, 60 Hz

LEGEND

AWG — American Wire Gage

PRODUCT STANDARDS

- FCC Part 15
- UL
- UL, Canada
- Title 24

NOTE: This control is considered a low voltage device by UL (Underwriters Laboratories) and therefore does not require UL or CSA (Canadian Standards Association) approval.

