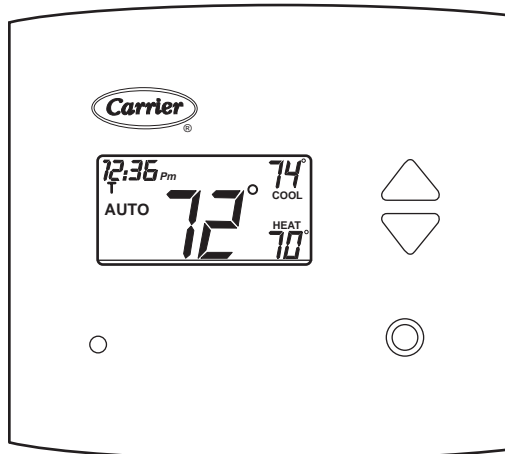




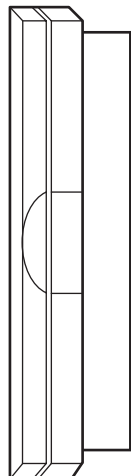
# Product Specification

## 33CS Debonair 220LA Commercial Programmable Light-Activated Thermostat

Part Number 33CS220-LA



**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 operation
- seven-day programmable clock with 4 time periods per day
- holiday scheduling (up to 99 consecutive days)
- copy command for programming schedules
- large Thermoglow™ display
- built-in light sensor
- heating and cooling operation LED
- zone temperature control to 1-degree accuracy
- auto-changeover
- four-hour setback override
- Neverlost™ non-volatile memory (no batteries required)
- service filter indicator
- energy saving Smart Fan
- three security levels with keypad lockout
- five-minute compressor time guard
- adjustable heat/cool set point limiting
- Title 24 compliance
- Carrier warranty



Carrier's Debonair line of commercial programmable 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.

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

**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.

**Light-activated operation** with built-in light sensor maximizes energy savings by placing the thermostat in Occupied mode only when the lights are turned on in the room. The thermostat stays in Unoccupied mode when the lights are off. The light sensitivity of the sensor can be adjusted quickly and easily with the sensor adjustment screw provided on the thermostat. Light activation is a perfect complement to motion sensor lighting installations.

**A 7-day clock** is provided with 3 occupied and one 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.

## 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.

**Schedule 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, 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.

**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.

## Safety features for added security and protection

**Three levels of security and keypad lockout** protects 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</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>	4.8 x 4.3 x 1.1
<b>Power</b>	5 va at 24 vac, 60 Hz

AWG — American Wire Gage

## PRODUCT STANDARDS

FCC Part 15  
UL  
UL, Canada  
Title 24  
CE Mark

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.

