

# SmartSuite Digital Thermostat

ERT-Stat



energy conservation - home and office

## Overview

Hotel operators are seeking solutions to drive-down their facilities energy footprint without enduring the expense and disruption of a major retrofit.

Echoflex's Thermostat is the primary component in the SmartSuite energy solution designed specifically for the hospitality marketplace. The SmartSuite thermostat is based on a standard digital thermostat hardware platform enabled with EnOcean wireless technology. Receiving messages from the Echoflex keycard switch, occupancy sensor, window/door switches and remote temperature sensors, the thermostat can determine appropriate operating mode and climate requirements for the space.

Using suite occupancy to activate operating modes within the thermostat, the heating and cooling equipment only operates when needed reducing the energy consumed during periods of vacancy. This eliminates the equipment operating around the clock when there are no guests while ensuring the suite environment can be brought to a comfortable level quickly once a guest arrives.

Facility operators can easily make configuration changes and a plug-in key makes copying settings from one thermostat to others plug and play.

Installation costs are kept to a minimum with Echoflex's wireless battery free switches eliminating wiring runs or replacement of hardwired switches. The thermostat is a drop-in replacement connecting directly to common mechanical equipment via a low voltage wiring interface.



## Features

- ⇒ Connects directly to common heat pump, unit ventilator and fan coil equipment
- ⇒ Large buttons and easy-to-read user interface allows temperature set point adjustment
- ⇒ Displays temperature, set point with degrees adjustment for °F and °C
- ⇒ Upper and lower control limits provide facilities with maximum flexibility on setback range
- ⇒ Solid-state relays for silent operation
- ⇒ Peel n' Stick switch and sensor installation provides exceptional space flexibility options
- ⇒ Listens for Echoflex's battery-free wireless key-card switches, window/door switches and occupancy sensors
- ⇒ Supports remote temperature sensors for averaging or improved sensing performance

## Ordering Information

| Model Number  | Description          | Part Number |
|---------------|----------------------|-------------|
| ERT-STAT-LVCW | 24VAC, 315MHz, white | 001-0303    |
| ERT-STAT-LVCT | 24VAC, 315MHz, tan   | 001-0327    |



## Operational Specifications

The SmartSuite thermostat is a component in the Echoflex SmartSuite hospitality application. It communicates wirelessly with the Echoflex Key Card Switch, Magnetic Window / Door Switch, Occupancy Sensors and Temperature Sensors.

There are three primary thermostat operating modes:

- Normal - standard default comfort zone temperature setpoints
- Economy - economy temperature setpoints intended to maintain climate in the space that can be quickly recovered to normal comfort levels
- Stand-By - The mode does not try to condition the space climate, includes periodic fan purge

### Thermostat Application with the key card switch or occupancy sensor



The key card switch is used with the room key card. When the guest inserts their assigned room key card into the switch, the switch will transmit indicating the room status to the thermostat. The thermostat will enter **Normal** operating mode and allow the guest to adjust the heating and cooling temperature setpoints via the thermostat's button interface. When the guest leaves the room taking their room key with them, the switch will again broadcast room status and the thermostat will enter **Economy** mode immediately.



### Thermostat Application with the window / door switch

The window or door switch is a magnetic switch that indicates if the patio door or window is open. In the closed state with the suite occupied by a guest, the thermostat will be in the **Normal** operating mode. When the door is open, the switch will broadcast status to the thermostat which will enter **Economy** mode. After a configurable time-out period, the thermostat will enter **Stand-By** operating mode.



The time-out period between **Economy** and **Stand-By** Mode can be preset to 0 minutes (enters **Stand-By** immediately), 15 minutes, 30 minutes, 60 minutes, or indefinitely (does not enter **Stand-By** mode).

## Operational Specifications (continued)

### Thermostat Application with remote temperature sensors

The remote temperature sensors broadcast temperature on a regular heartbeat, approximately every 100 seconds. Remote temperature sensors can be assigned to the thermostat to work, in lieu of or in conjunction with, the internal temperature sensor of the thermostat.



The thermostat can be configured to:

- Ignore all temperature readings except furthest from setpoint, includes internal & remote sensors
- Ignore all temperature readings except closest to setpoint, includes internal & remote sensors
- Calculate the average of all temperature readings, includes internal & remote sensors
- Ignore all remote sensor temperature readings except furthest from set-point. Internal sensor is ignored.
- Ignore all remote sensor temperature readings except closest to set-point. Internal sensor is ignored.
- Calculate average of remote sensor temperature readings. Internal sensor is ignored.
- Ignore all remote temperature reading – forces the internal sensor reading as default

### Assignment of Sensors and Switches

#### LEARN Mode

The thermostat must be set to **LEARN** mode in order to assign the switches and sensors. Pushing the **UP** and **DOWN** buttons in together for 5 seconds will enter **LEARN** mode. The screen will alternate the display with **LRN** and **00**. Assign key card switches by activating 3 times with the card. Assign temperature sensors, occupancy sensors and door switches by pressing the **TEACH** button. The thermostat display will flash the codes in the table below 4 times while learning a device. During this short period, the thermostat disables learn mode. Other devices can be assigned when the display returns to displaying the **00** code. To exit **LEARN** mode, press any button on the thermostat key pad.

The thermostat can learn up to 9 of any device type with a maximum of 25 devices.

Continued on next page.

## Assignment of Sensors and Switches

### LEARN Mode (continued)

The display will update with the number of the learned devices and type according to the following table.

|                                    |    |
|------------------------------------|----|
| Keycard Switch                     | 1x |
| Window / Door Switch               | 2x |
| Window / Door Switch & Temperature | 3x |
| Temperature Sensor                 | 4x |
| Occupancy Sensor                   | 5x |

**x** will increment counting the number of devices learned

### Clear Mode

To clear **ALL** devices assigned to the thermostat, press and hold the **FAN** and **DOWN** buttons together for 5 seconds; the display will flash **CLR** for 15 seconds. If any button on the thermostat is pressed during the first 12 seconds, the clear process will be cancelled.

### Hardware Specifications

|                |                                |
|----------------|--------------------------------|
| Input Voltage  | 24VAC                          |
| Load ratings   | 24VAC: 1.5A/circuit            |
| Communications | 315 MHz [TCM200] EnOcean radio |
| Antenna        | Integrated 15cm whip (315 MHz) |

### Mechanical Specifications

|                   |  |
|-------------------|--|
| Temperature range | 60 °F to 85 °F (16 °C to 29 °C)                    |
| Enclosure         | Flame retardant, high impact plastic, white or tan |
| Dimensions        | 3.5" x 5.0" x 1.5" (88 mm x 127 mm x 38 mm)        |
| Mounting          | Standard junction box                              |

### Agency Listing and Compliance

ETL Listed  
FCC Part 15.231 - Remote Control Transmitter

### Echoflex Solutions, Inc.

# 1, 38924 Queens Way, Squamish, BC, Canada V8B 0K8  
Toll Free: (888) ECH-OFLX (324-6359)  
Phone: (604) 815-0091  
Fax: (604) 815-0078  
[www.echoflexsolutions.com](http://www.echoflexsolutions.com)



Specifications subject to change without notice.

Echoflex™ and SmartSuite are trademarks of Echoflex Solutions, Inc.  
Part # 8DC-0226 | Revision 1.1