

THERMOSTATS & CONTROLLERS

SELF LEARNING SETBACK ON DEMAND THERMOSTAT

SDHW1001



DESCRIPTION

The Columbus Electric model **SDHW1001** setback on demand thermostat is a self learning 7 day setback thermostat designed specifically for commercial and industrial applications. Unlike most setback thermostats this thermostat doesn't require programming. With the use of a motion sensor, it learns your schedule, and changes automatically with schedule changes.

Regardless of your schedule, it automatically returns to economy after you leave. The Auto Comfort feature recovers to the comfort mode before you arrive. The holiday feature automatically sets back the temperature to the economy setting on any day that no-one shows up.

This one model will work on single and multistage equipment up to 4 stages of heat, 4 stages of cool, or any combination of heat and cool up to 4 stages. Also compatible with 2 stage heat, 1 stage cool heatpumps.



SDHW1001

FEATURES

- **Auto Comfort learns your schedule**
- **Computed recovery**
- **Seven day automatic setback**
- **No programming**
- **Set comfort temperatures and setback only**
- **Works with 27 types of low voltage systems**
- **Auto Changeover with adjustable deadband**

- **Comfort settings adjustable from 50° - 90°F (10° - 32°C)**
- **Economy Offset adjustable from 0° to 12°F**
- **Display in °F or °C**
- **Battery or AC powered. Battery backup**
- **Remote motion and temperature inputs**
- **Locking keypad**
- **Adjustable comfort periods**
- **Short cycle and compressor protection delays**
- **Low battery indicator**

SPECIFICATIONS

Supply Voltage	20-30 VAC
Amp Load per Contact	1.0A
Batteries	3AA (included), required
Battery Life	2+ years
Low Battery Indicator	6+ weeks
Keypad Lock	Locks all settings
System Compatibility	Single transformer, 27 types
Protection Delay	
Compressor	5 minutes
Other Systems	2 minutes
Minimum Run Time	2 minutes
Case Size	5.5" W x 4.5" H x 1.5" D (13.9 x 11.4 x 3.8 cm)
Remote Sensor	Motion & temp. optional
Temperature Display	°C or °F
Computed Recovery	10 min. per degree
Motion Sensor Range	16' max
Display	3" W x 2" H (7.6 x 5.1 cm)

Temperature Resolution	0.1°F, 0.1°C
Temperature Range	
Comfort	50° to 90°F (10° to 32°C)
Economy	38° to 102°F (2° to 40°C)
Economy Offset	0° to 12°F, 0° to 8°C
Differential	0.6°F
Deadband	2F (default) Adj 1°F-5°F
System Switch	Push button
Fan Switch	Push button
Comfort Periods	10, 30, 60, 90, or 120 min.
Activity Settings	1, 3, 5 within 10 min.
Comfort/Economy	Motion or push button
Motion Sensor Control	On/Off switch
Economy Offset	Set via slide control
Motion Beam Angle	94°



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SPECIFICATIONS

Connections are system dependant. Not all systems will use all connections. The following are a list of the available connections and their functions. Every thermostat comes with the label sheet below. Select your system from the sheet and apply matching label to the terminal strip. Wire thermostat to system.

R	Hot Leg	W3	3rd Stage Heat	Y2	2nd Stage Cool	The SDHW1001 thermostat comes with terminal strip labels to match your system
C	Common (not required)	W4	4th Stage Heat	Y3	3rd Stage Cool	
W	Heat	G	Fan	Y4	4th Stage Cool	
W1	1st Stage Heat	Y	Cool	B	Reversing Valve Heat	
W2	2nd Stage Heat	Y1	1st Stage Cool	O	Reversing Valve Cool	

Apply to terminal strip							Setback on Demand System Selection Chart				
C	R	1	2	3	4	5	Model	Stages Heat	Stages Cool	System Type	System Notes
C	R					W	110	1	0	Single Stage Gas/Oil Heat	Fan controlled by system.
C	R	G	Y			W	111	1	1	1 Stage Heat, 1 Stage Cool, Gas/Oil Heat	System controls fan in heat mode.
C	R	G	Y1	Y2		W	112	1	2	1 Stage Heat, 2 Stages Cool, Gas/Oil Heat	System controls fan in heat mode.
C	R	G	Y1	Y2	Y3	W	113	1	3	1 Stage Heat, 3 Stages Cool, Gas/Oil Heat	System controls fan in heat mode.
C	R				W2	W1	120	2	0	2 Stages Gas/Oil Heat	Fan controlled by system.
C	R	G	Y		W2	W1	121	2	1	2 Stages Heat, 1 Stage Cool, Gas/Oil Heat	System controls fan in heat mode.
C	R	G	Y1	Y2	W2	W1	122	2	2	2 Stages Heat, 2 Stages Cool, Gas/Oil Heat	System controls fan in heat mode.
C	R				W3	W2	130	3	0	3 Stages Gas/Oil Heat	Fan controlled by system.
C	R	G	Y		W3	W2	131	3	1	3 Stages Heat, 1 Stage Cool, Gas/Oil Heat	System controls fan in heat mode.
C	R	G	W4	W3	W2	W1	140	4	0	4 Stages Gas/Oil Heat	Fan controlled by system.
C	R	G	Y				201	0	1	Single Stage Cool	Auto Fan
C	R	G	Y1	Y2			202	0	2	2 Stages Cool	Auto Fan
C	R	G	Y1	Y2	Y3		203	0	3	3 Stages Cool	Auto Fan
C	R	G	Y1	Y2	Y3	Y4	204	0	4	4 Stages Cool	Auto Fan
C	R					W	210	1	0	Single Stage Electric Heat	Auto Fan
C	R	G	Y			W	211	1	1	1 Stage Heat, 1 Stage Cool, Electric Heat	Auto fan both heat and cool
C	R	G	Y1	Y2		W	212	1	2	1 Stage Heat, 2 Stages Cool, Electric Heat	Auto fan both heat and cool
C	R	G	Y1	Y2	Y3	W	213	1	3	1 Stage Heat, 3 Stages Cool, Electric Heat	Auto fan both heat and cool
C	R	G			W2	W1	220	2	0	2 Stages Electric Heat	Auto Fan
C	R	G	Y		W2	W1	221	2	1	2 Stages Heat, 1 Stage Cool, Electric Heat	Auto fan both heat and cool
C	R	G	Y1	Y2	W2	W1	222	2	2	2 Stages Heat, 2 Stages Cool, Electric Heat	Auto fan both heat and cool
C	R				W3	W2	230	3	0	3 Stages Electric Heat	Auto Fan
C	R	G	Y		W3	W2	231	3	1	3 Stages Heat, 1 Stage Cool, Electric Heat	Auto fan both heat and cool
C	R	G	W4	W3	W2	W1	240	4	0	4 Stages Electric Heat	Auto Fan
C	R	G	Y1	O		B	311	1	1	Single Stage Heat Pump	Reversing valve terminals for Heat or Cool
C	R	G	Y1	B	W2	E	421	2	1	Multistage Heat Pump	Reversing valve in heat. "B" Terminal
C	R	G	Y1	O	W2	E	521	2	1	Multistage Heat Pump	Reversing valve in cool. "C" Terminal

Align C under first terminal

ORDERING INFORMATION

MODEL
SDHW1001

DESCRIPTION
Hard wired setback on demand thermostat

SDRMT001
TG6

RELATED PRODUCTS
Remote motion and temperature sensor
Custom locking thermostat gaurd custom designed for SD thermostats