



SC1901L/SC1901VL

Non-Programmable Electronic Thermostat

- Controls Single Stage Cooling Systems
- Compatible with A/C Systems
- 30-Minute Power Loss Memory Retention
- For use with 24 VAC Systems



Installation, Operation & Application Guide

For more information on our complete range of American-made products – plus wiring diagrams, troubleshooting tips and more, visit us at www.icmcontrols.com



Specifications

Input:

- **Voltage:** 18-30 VAC

Output:

- **Maximum:** 1 amp per terminal (2 amp total for all terminals)

Temperature Ranges:

- **Temperature control range:** 45°F to 90°F (7°C to 32°C) **Accuracy:** ± 1°F (± 0.5°C)
- **Differential range:** 1°F to 3°F (0.5°C to 1.5°C) **Accuracy:** ± 1°F (± 0.5°C)
- **System configurations:** Single-stage cool
- **Terminations:** S1, S2, G, Y, C, R

**** Note:** This thermostat is designed for: Single stage cooling systems. It will retain your setpoint temperature in memory for up to 30 minutes during a power outage.

Important Safety Information

- Always turn off the thermostat before installing, removing, cleaning, or servicing; turn off the power at the main power source by unscrewing fuse or switching off circuit breaker
- Do not switch to "Cool" if room temperature is below 50°F; this could damage your A/C system and cause injury
- Do not install on voltages higher than 30 VAC
- All wiring must conform to local and national building and electrical codes and ordinances
- While cleaning, do not get soap directly on thermostat switches; only use a damp cloth with a mild soap to wipe outside of thermostat cover

Package Contents/Tools Required

Package includes: SimpleComfort® non-programmable thermostat on base, thermostat cover, wiring labels, screws and wall anchors, Installation, Operation and Application Guide

Tools required for installation: Drill with 3/16" bit, hammer, screwdriver

General Description

- The SimpleComfort® thermostat is a **hardwired, digital, mercury-free, non-programmable, electronic thermostat**
- Compatible with single-stage **cooling systems**
- **Built-in Compressor Protection** for air conditioners; to protect the A/C's compressor, there is a 5-minute delay between the system turning off and the A/C starting
- 30 minute power loss memory retention

To Remove Existing Thermostat

ELECTRICAL SHOCK HAZARD – Turn off power at the main service panel by removing the fuse or switching the appropriate circuit breaker to the OFF position before removing the existing thermostat.

1. Turn off power to the heating system by removing the fuse or switching the appropriate circuit breaker off.
2. Remove cover of old thermostat. This should expose the wires.
3. Label the existing wires with the enclosed wire labels before removing wires.
4. After labeling wires, remove wires from wire terminals.
5. Remove existing thermostat base from wall.
6. Refer to the following section for instructions on how to install this thermostat.

To Install Thermostat



ELECTRICAL SHOCK HAZARD – Turn off power at the main service panel by removing the fuse or switching the appropriate circuit breaker to the OFF position before removing the existing thermostat.

IMPORTANT: Thermostat installation must conform to local and national building and electrical codes and ordinances.

**** Note:** Mount the thermostat about five feet above the floor. Do not mount the thermostat on an outside wall, in direct sunlight, behind a door, or in an area affected by a vent or duct.

1. Turn off power to the cooling system. Move the **Mode** switch to **OFF**.
2. To remove cover, insert and twist a coin or screwdriver in the slots on the sides of the thermostat.
3. Move the **Fan** switch to **Auto**.
4. Put thermostat base against the wall where you plan to mount it (Be sure wires will feed through the wire opening in the base of the thermostat).
5. Mark the placement of the mounting holes.
6. Set thermostat base and cover away from working area.
7. Using a 3/16" drill bit, drill holes in the places you have marked for mounting.
8. Use a hammer to tap supplied anchors into mounting holes.
9. Align thermostat base with mounting holes and feed the control wires through wire opening.
10. Use supplied screws to mount thermostat base to wall.

CAUTION! Be sure exposed portion of wires does not touch other wires.

11. Tighten screws on terminal block. Gently tug wire to be sure of proper connection. Double check that each wire is connected to the proper terminal.
12. Seal hole for wires behind thermostat with non-flammable insulation or putty.
13. Replace cover on thermostat by snapping it in place.
14. Turn on power to the system at the main service panel.

Replacing Wiring Labels

Replace the old labels with the enclosed new labels:

Old	New	Type
F, G	G	Fan control relay
Y, Y6	Y	Cooling control
	C	Transformer, common side
M, 4, RH, RS, R	R	Transformer, hot side
C	Y or C	If the C terminal is the cooling control, connect to Y terminal. If it is the common side of the transformer, connect to C terminal
N/A	S1, S2	Optional remote sensor

Operation

Setting the Room Temperature (Setpoint Temperature)

Step 1: Press the **up** or **down** button; the current temperature setpoint displays.

Step 2: Press the **up** or **down** button until the desired temperature setpoint displays.

The new temperature setting is automatically saved. After 5 seconds, the display returns to showing the current room temperature.

Setting a New Temperature Differential

The default temperature differential is 1°. When your room temperature varies by 1°F, the thermostat turns on your system. If you notice your system turning on and off too frequently, increase the temperature differential.

Step 1: Remove cover and press the **Reset** button once.

Step 2: For the first 10 seconds of operation, the temperature differential is displayed. Press the **up** or **down** button to select desired setting.

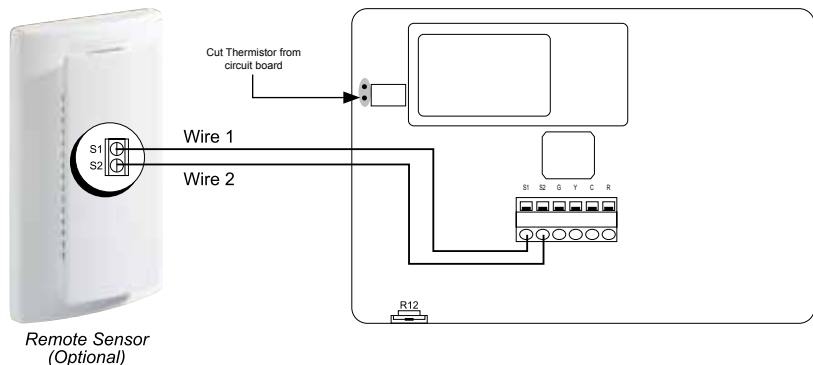
Starting the Thermostat

Step 1: Move the **Fan** switch into the **Auto** position.

Step 2: Move the **Mode** switch to **Cool**.

Remote Sensor Installation (Optional)

1. Remove cover from remote sensor housing.
2. Select an appropriate location for mounting the remote sensor.
3. Mount remote sensor unit using hardware provided.
4. Install two conductor shielded wires between remote sensor and thermostat. Shielded wire must be used. **Do not** run remote sensor wire in conduit with other wires.
 - **Wire 1** should run between the S1 terminal on the thermostat and the S1 terminal on the remote sensor
 - **Wire 2** should run between the S2 terminal on the thermostat and the S2 terminal on the remote sensor
 - Connect the shielding of the wire to the S2 terminal on the thermostat
5. Disable the main sensor on the thermostat by cutting it from the circuit board.



A Quick Test

CAUTION!: Do not switch system to cool if the outdoor temperature is below 50°F (10°C). This can damage the air conditioning system and may cause personal injury.

Action: Set the **Mode** switch to **Cool**. Press the **down** button until the temperature setting is 3°F below the room temperature.

Result: The A/C system and fan should turn on.

Action: Set the **Mode** switch to **Off**.

Result: The A/C should turn off (There may be a fan delay).

Action: Set the **Fan** switch to **On** (continuous indoor fan operation).

Result: The blower fan should turn on.

Action: Set the **Fan** switch to **Auto**.

Result: The blower fan should turn off.

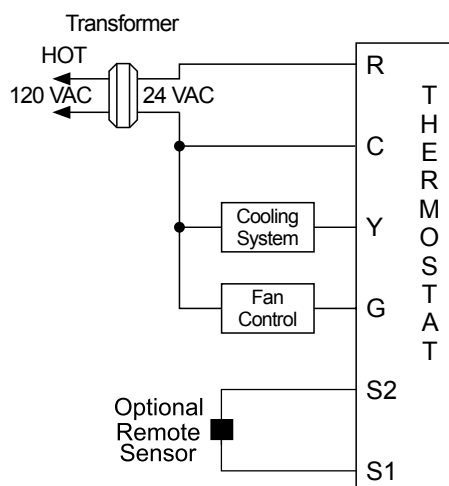
If the above test was successful, you have a proper installation.

If not: Double check that wires are securely connected and are connected to the proper terminals. Consult the troubleshooting section.

Wiring Diagrams

Cooling Only

4-Wire, Single Transformer



Troubleshooting

Symptom	Remedy
The system isn't turning on	Check the wiring, thermostat has 5 minute time delay to protect the compressor
LCD is blank	Check wiring, verify 24 vac is present at R and C terminals
Thermostat is not properly controlling the fan	Check wiring, place fan switch in Auto position
Thermostat is continuously turning on and off	Increase the temperature differential (see Setting a New Temperature Differential)
Temperature display is not accurate	Plug the hole for wiring behind the thermostat with non-flammable insulation to prevent airflow into the thermostat

ONE-YEAR LIMITED WARRANTY

The Seller warrants its products against defects in material or workmanship for a period of one (1) year from the date of manufacture. The liability of the Seller is limited, at its option, to repair, replace or issue a non-case credit for the purchase prices of the goods which are provided to be defective. The warranty and remedies set forth herein do not apply to any goods or parts thereof which have been subjected to misuse including any use or application in violation of the Seller's instructions, neglect, tampering, improper storage, incorrect installation or servicing not performed by the Seller. In order to permit the Seller to properly administer the warranty, the Buyer shall: 1) Notify the Seller promptly of any claim, submitting date code information or any other pertinent data as requested by the Seller. 2) Permit the Seller to inspect and test the product claimed to be defective. Items claimed to be defective and are determined by Seller to be non-defective are subject to a \$30.00 per hour inspection fee. This warranty constitutes the Seller's sole liability hereunder and is in lieu of any other warranty expressed, implied or statutory. Unless otherwise stated in writing, Seller makes no warranty that the goods depicted or described herein are fit for any particular purpose.



Patent No. 424,953

7313 William Barry Blvd., North Syracuse, NY 13212
(Toll Free) 800-365-5525 (Phone) 315-233-5266 (Fax) 315-233-5276

www.icmcontrols.com