# SSC-1D installation guide

The Single Stage Control (SSC-1D) automatically controls the temperature in a room by switching fans, lamps, or heaters on or off as the temperature drops below or exceeds the temperature set point.

When the SSC-1D is in cooling mode, it switches on the fans when the temperature exceeds the set point. When the control is in heating mode, it switches on the lamps or heaters when the temperature drops below the set point.

## Features

- Solid-state relay
- Heating and cooling modes
- Adjustable temperature set point, 32 to 99°F (0 to 37°C)
- Fahrenheit and Celsius display
- Error code display for troubleshooting
- Overload protection fuse
- Six-foot temperature probe, extendable to 500 feet
- CSA approval
- Rugged enclosure (corrosion resistant, water resistant, and fire retardant)
- Limited warranty (2 years)

## Electrical ratings

- Input: 120/230 VAC, 50/60 Hz
- Relay: 10 A at 120/230 VAC, general-purpose (resistive)
  1/3 HP at 120 VAC, 1/2 HP at 230 VAC
  360 W tungsten at 120 VAC
- Fuse: 15 A, 250 VAC ABC-type ceramic

# Installing the SSC-1D

Before connecting the incoming power, switch OFF the power at the source. Do not switch ON the power until you have finished all wiring and verified all equipment is properly connected and free of obstructions.

- ◇ Use the electrical knockouts for bringing wires or cables into or out of your control's enclosure. Do not make additional holes in the enclosure; this can damage the watertight seal or control components and void the warranty.
- ◇ Before connecting the power, set the voltage selection switch to the correct voltage.

## Mounting the SSC-1D

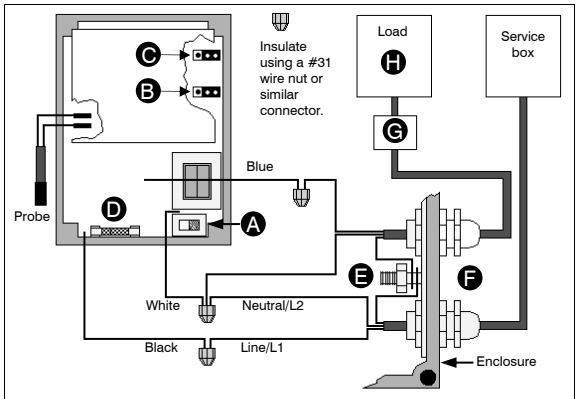
1. Remove the cover from the enclosure.
2. Fasten the SSC-1D to the mounting surface using the fours screws provided.

## Wiring the SSC-1D

1. Set the voltage switch **A** to the correct position for the line voltage used.
2. Set jumper **C** to the correct position for the temperature units (Fahrenheit or Celsius) you want to use.
3. Set jumper **B** to the correct position for the mode (heating or cooling) you want to use.
4. Connect the wires as shown in the wiring diagram.

## Guidelines for connecting the temperature probe

- ◆ Do not run the probe cable in the same conduit as AC power cables
- ◆ Do not run the sensor cable beside AC power cables or near electrical equipment.
- ◆ When crossing other cables or power lines, cross them at a 90 degree angle.

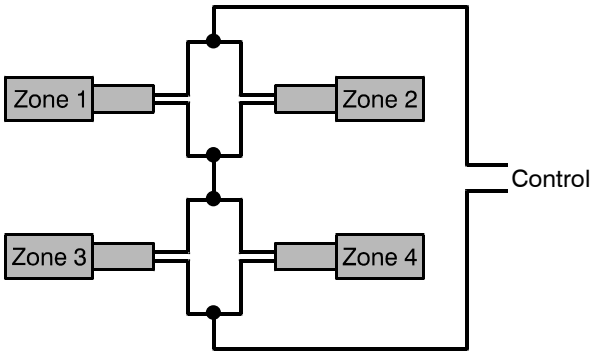



| | | | | |
|---|---|---|---|---|
| A | Before connecting the power, set the switch to the correct setting | 230 VAC | 115 VAC | |
| B | Fahrenheit | | Celsius | |
| C | Cool | | Heat | |
| D | Fuse: 15 A, 250 VAC ceramic | | | |
| E | Connect all ground wires to the grounding terminal located near the cable entry points. | | | |
| F | Use liquid-tight connectors at the cable entry points and seal with an RTV silicone. | | | |
| G | **Important:** A suitable switch must be installed between the control and the load.<br>**Important:** Il est essentiel qu'un interrupteur convenable soit installé entre le contrôle et la charge. | | | |
| H | **Caution:** For controlling shaded-pole, permanent-split-capacitor, universal motors, or incandescent lamps only.<br>**Caution:** Destiné uniquement à la commande de moteurs universels, à bague de déphasage, à condensateur permanent, ou lumières incandesence seulement. | | | |

### Using four-zone averaging

The SSC-1D can monitor the temperature in four different zones. The control takes an average of the four temperatures and operates according to the average temperature.

To use four-zone averaging, you must connect four temperature sensors to the unit. Connect the probes as shown to the right.




## Operation

The SSC-1D controls the temperature in a room by switching fans, lamps, or heaters on or off as the temperature drops below or exceeds the temperature set point. The set point is the desired room temperature and can be set between 32 and 98°F (0 and 38°C).

- When the SSC-1D is in cooling mode, the control switches on the load when the temperature exceeds the set point.
- When the SSC-1D is in heating mode, the control switches on the load (lamps or heaters) when the temperature drops below the set point.

| Switch position | |
|---|---|
| Center | ◇ Displays the ambient temperature |
| Right | ◇ Allows you to view and adjust the temperature set point<br>◇ Clears alarms |
| Left | ◇ Allows you to verify if the control is in heating or cooling mode<br>◇ Allows you to verify if the control is in Fahrenheit or Celsius mode |

### Setting the temperature set point

1. Press and hold the switch to the right.
   The current **TEMP SET** displays.
2. Turn the knob to the desired setting while holding the switch to the right. The **TEMP SET** can be between 32 and 98°F (0 and 38°C).

You must hold the switch to the right while turning the knob. If you do not hold the switch, the display flashes between ᴇ 5 and the temperature display. This means the knob has been turned without holding the switch. The control will not accept the new setting until the switch is clicked to the right.

## Display alerts

| Alert | Description |
|---|---|
| PS | ◇ The temperature probe or sensor cable has short circuited. |
| P0 | ◇ The temperature probe is damaged or the connecting wire is broken. |
| tS | ◇ The Temperature knob has accidentally been turned. The display will alternately flash tS and the ambient temperature. The control will not accept the new setting until the switch is clicked to the set position.<br>*or*<br>◇ The voltage switch is set to 230 volts, but the incoming power is 115 volts. Check the voltage switch. |
| PF | ◇ The power has been interrupted. The display will flash between PF and the temperature. To clear the alarm, click the switch to the right. The control will function normally. |

**Limited warranty**

This warranty applies only to the Phason Inc. (Phason) Single Stage Control (SSC-1D). If you need warranty service, return the product and original proof of purchase to your dealer.

Phason warrants the SSC-1D subject to the following terms and conditions.

This warranty is valid only to the original purchaser of the product, for two years from the manufacturing date. The manufacturing date is stated in the first eight digits of the serial number in the form year-month-day.

Phason hereby warrants that should this product fail because of improper workmanship, Phason will repair the unit, effecting all necessary parts replacements without charge for either parts or labor.

**Conditions**

- ◇ Installation must be done according to Phason's enclosed installation instructions.
- ◇ The product must not have been previously altered, modified, or repaired by anyone other than Phason.
- ◇ The product must not have been involved in an accident, misused, abused, or operated or installed contrary to the instructions in our user and/or installation manuals. Phason's opinion about these items is final.
- ◇ The person requesting warranty service must be the original purchaser of the unit, and provide proof of purchase upon request.
- ◇ All transportation charges for products submitted for warranty must be paid by the purchaser.

Except to the extent prohibited by applicable law, no other warranties, whether expressed or implied, including warranties of merchantability and fitness for a particular purpose, shall apply to this product. Any implied warranties are excluded.

Phason is not liable for consequential damages caused by this product.

Phason does not assume or authorize any representatives, or other people, to assume any obligations or liabilities, other than those specifically stated in this warranty.

Phason reserves the right to improve or alter the SSC-1D without notice.

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