

# SUNCOURT DUCTSTAT FAQ'S

## WHAT'S A SUNCOURT® DUCTSTAT®?

The Suncourt® DuctStat® also known as a Plug In Thermostat, Inline Thermostat, or a Plug In Temperature Sensitive Switch is an economical way to turn a 110 volt device on or off due to temperature rise or fall from a user predetermined set point. The DuctStat® is adjustable between 45 degrees F (7 C) to 110 degrees F (43 C).

## WHAT WOULD I USE A SUNCOURT® DUCTSTAT® FOR?

The DuctStat® has a wide range of applications. A few of them are:

Suncourt Inline Fans-Use a DuctStat® to turn an Inline Fan on or off that is installed in the ductwork. This keeps you from having to run potentially long wires back to a fan motor in your furnace and reading its wiring diagram to correctly connect the wires.

Lights-The DuctStat® can be used to turn on a light bulb or heat lamp when the temperature falls below your set point in a hot box or other contained space that you want to keep above a certain minimum temperature.

Hydroponics- Indoor gardeners use the DuctStat® to turn on fans to help cool hot grow lights.

Ventilation-The DuctStat® can activate a wide variety of fans if temperature in a room or space rises above a user-determined maximum.

## HOW DOES THE SUNCOURT® DUCTSTAT® WORK?

The DuctStat® contains a thermistor, which is a very sensitive temperature-sensing device. When the thermistor detects a change in temperature from your set point the DuctStat® activates. The min/max switch on its face controls the maximum differential between on and off. Max stands for maximum differential of about 7 degrees F. Min stands for minimum differential of about 3 degrees F. Simply plug-in your 110 volt device to the DuctStat's grounded outlet and begin the setting procedure described in the included instructions. If you want the DuctStat® to turn a device on when the temperature rises above your set point you put it on the heat setting. If you want the DuctStat® to turn a device on when the temperature falls below your set point you will want to put it on its cool setting. The DuctStat® will deactivate when the temperature returns to your predetermined set point. Please see the operating instructions for more detail on setting the DuctStat®.

## WHAT WILL A DUCTSTAT® DO FOR ME?

The DuctStat® Line Voltage Thermostat greatly simplifies the installation of the power supply to any of our Inductor® In-Line Duct Booster Fans.

### Tell me how it simplifies the installation:

When you install an Inductor®, it often happens to be in a location far from your furnace system. Air has a long run to those areas and loses much of its volume and heat (cool in the summer) along the way.

This also means that the wire you must run has to go a long distance.

Perhaps you have a dry-walled ceiling in your basement, making it difficult if not impossible to run a wire from the Inductor to the furnace for operating power. No matter what reason, the DuctStat® allows you to control the automatic ON/OFF function of your Inductor locally, both for winter heating and summer cooling.

## WHERE DO I INSTALL THE DUCTSTAT®?

The preferred location of the DuctStat® is just ahead (downstream) from the Inductor fan but not closer than 8 inches. Otherwise, anywhere on a duct where it can sense heated or cooled air.

## HOW DO I INSTALL THE DUCTSTAT®?

The DuctStat® is an electronic temperature sensitive line voltage thermostat, meaning it switches a 110-120 Volt AC outlet on the front panel ON and OFF depending on the user preset temperature.

It mounts on the duct in which your Inductor® is installed with 2 or 4 sheet metal screws. You will make a small ½" hole in the metal duct before installing the DuctStat®. The DuctStat® has a corresponding hole in the back of the housing. This allows a small amount of air to flow through the DuctStat® over the temperature-sensing element, thus sensing if your furnace is running (heated air) or if your air conditioner is running (cooled air).

## CAN I BUILD A DUCTSTAT® INTO A WALL, I.E. DRYWALL OR PANEL OVER IT?

No. The DuctStat® must remain accessible. You will have to switch the function switch to HEAT for the winter and COOL for the summer. You may also need access for service, cleaning or to replace the front panel fuse.

**CAN I USE IT TO CONTROL OTHER STUFF DEPENDING ON TEMPERATURE?**

Yes. Simply mounted on a wall, the DuctStat® will sense ambient temperature and turn device ON or Off at a user selected temperature. You may control any device with a 5 Amp maximum load such as: a warning siren or light, electric operated vent louver, the Suncourt ThruWall Fan, solar panel fans, greenhouse louvers or fans, etc.

**HOW MANY INDUCTOR FANS CAN I CONTROL WITH THE DUCTSTAT®?**

The maximum load is 5 Amp. Simply add up the Amp rating and do not exceed 5 Amp.

**CAN I SWITCH LOADS GREATER THAN 5 AMP?**

No. However, you can switch a large relay ON and OFF with the DuctStat®. Your maximum load is now determined by the current capacity of that relay.

**HOW DO I GET 110-120 VOLT AC POWER TO THE DUCTSTAT®?**

The DuctStat® has a 6 foot long power cord with a grounded plug. Simply plug it into the nearest outlet. If you do not have an electric outlet within 6 feet, you will have to install one.

**HOW DO I CONNECT THE INDUCTOR® TO THE DUCTSTAT®?**

You will have to install a cord and grounded plug assembly on the Inductor. That plug will simply plug into the outlet on the front of the DuctStat®.

**WHAT IS THE TEMPERATURE ADJUSTMENT RANGE OF THE DUCTSTAT®?**

The user selectable temperature range (ON/OFF switching range) of the DuctStat® is approximately 40°F (4°C) to 110°F (43°C).

**HOW SENSITIVE IS THE DUCTSTAT®?**

The electronic circuitry is very sensitive. The sensing element will react to changing temperatures in a few seconds. The differential between ON and OFF can be selected by the user to be 3°F and 7°F with a Min-Max switch on the control panel.

The higher 7°F differential setting is provided to reduce possible ON/OFF cycling of the thermostat when temperature increases or decreases are not smooth.

**HOW SAFE IS THE DUCTSTAT®?**

The DuctStat® has been rigorously tested to the standards of Underwriters Laboratories Inc. (UL®). The housing is made of a high strength ABS - Polycarbonate, flame retardant alloy. The electronics and panel outlet are fused by a replaceable 5 Amp panel fuse. Internally, the unit has two additional levels of fuse protection. Both the power cord and panel outlet are 3-prong grounded.

**HOW MUCH POWER DOES THE DUCTSTAT® USE?**

The standby power consumption of the DuctStat® is minimal. Less than 2 Watts.