CONVECTRONICS

# Operating Instructions for Convectronics Flameless Electric Air Heaters

## !! ATTENTION !!

**It is crucial to read and adhere to the following 3 warnings before continuing on with the setup and operation of your heaters.**

Only individuals with knowledge of electrical codes and wiring should install heaters and their controls.
Failure to do so may result in electrical shock.

Air Heaters should only be used to heat air or inert gases. Reactive gases should never be used as this may result in bodily injury.

Care should be taken to avoid physical contact with the hot air coming out of the air heater. Avoid physical contact with the body of the air heater as well. Contact with air or heater may result in severe burns.

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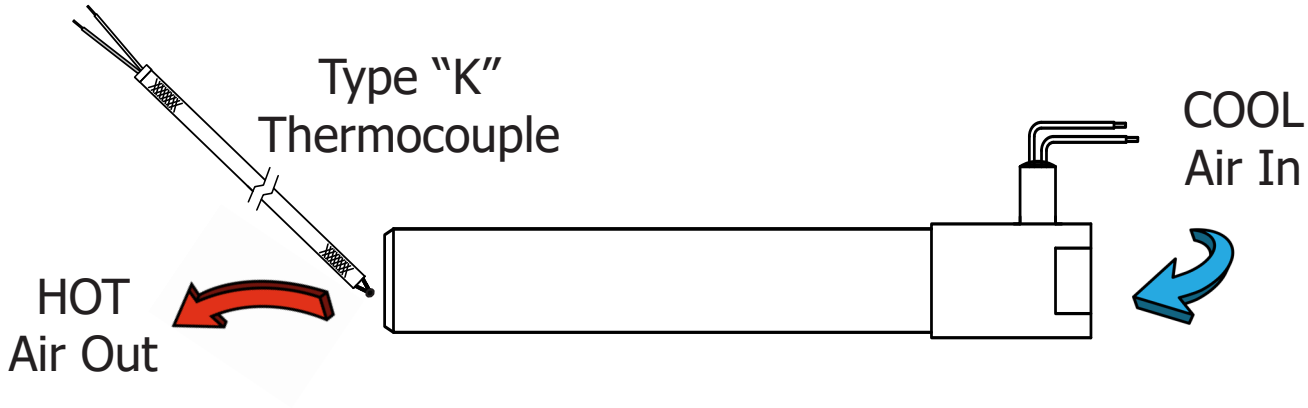
# * Precautions to be taken *

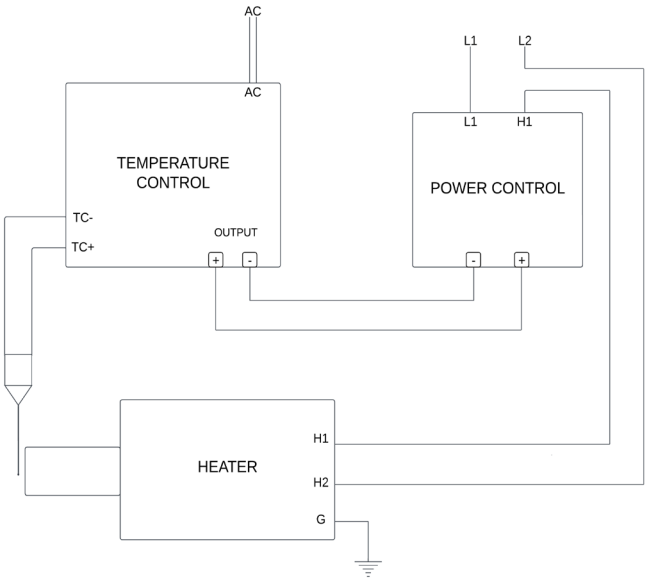
It is critical that air or inert gas be flowing through the air heater before, during and after power is applied to the heater. Reactive gases should never be used with air heaters.

Air being heated must be free of dirt, grease, oil and water.

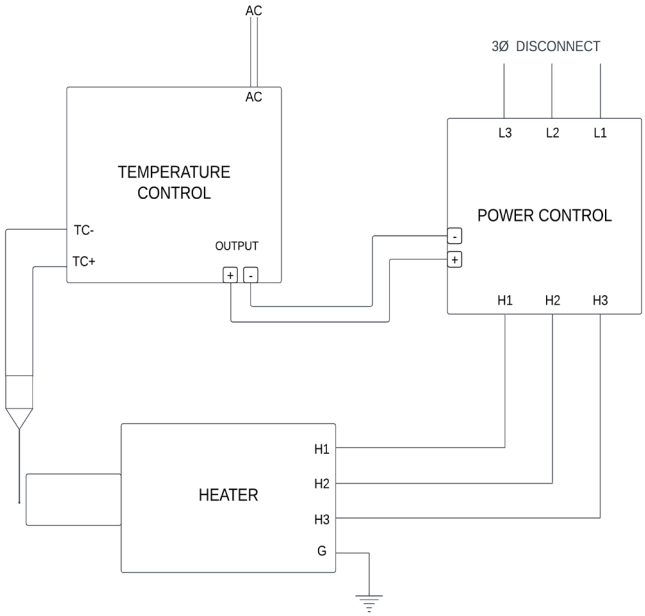
For best results, monitoring and controlling air heaters should be done with an exposed junction Type K thermocouple positioned as close to the heater outlet as possible (less than 1”).




## Single Phase Wiring




## Three Phase Wiring

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# Air Heater Operation

## Startup -

1) Individual heater performance curves should be referred to before operating the air heater. These curves will detail the safe limits of the heater. Failure to adhere to these guidelines could result in shortened heater life. These can be found at https://convectronics.com/technical-information/electric-air-heaters/air-heater-performance-characteristics.

2) Air needs to be turned on with flow and pressure set to desired operating levels.

3) If powering up heater with an open loop system (No feed-back) slowly power from the power controller until desired temperature is aquired. If the element is yellowish-white in color you are outside of the safe operating limits of the air heater. If a closed loop system is being used, apply power to the temperature and power controller and set the desired temperature on the temperature controller. If applications are at the limits of the heater's capabilities a "soft-start" is recommended.

## Shutdown -

1) While air is still present, lower the setpoint to 68°F and either disconnect the main power line or turn off the main power circuit breaker.

2) Let air flow through the heater for 5 min. or until exit air temperature is 125°F or lower.

3) At this point air can now be turned off.