

# Flow Torch™ 800 Quick Guide



## Product Description

Your Flow Torch™ 800 is an open coil heater designed for high flow rates at low pressure drop due to its efficient design with minimal flow restrictions

## Operation

To operate this heater, ensure the blower or fan is running and energize the main supply disconnect. Set the controlling device to the desired temperature.

During initial heating, it is recommended to slowly ramp up the process set point and inspect the heating system for problems

**DO NOT** operate the heater at voltages higher than the recommended use

**DO NOT** operate the heater at flow rates below the minimum flow range—reduced flow can shorten heater life

Supply clean, dry air to the heater

## Wiring your Flow Torch™ 800

1. A terminal block is located inside your junction box
2. Wire your FT400 according to the diagram
3. **Note the number of wires already fastened to the terminal block when first opening the junction box**

(H1-H6) is occupied—use 6 lead config.

(H1-H3) is occupied—use 3 lead config.



**WARNING: DO NOT TURN ON THE HEATER UNTIL PROPER AIRFLOW IS ESTABLISHED**

## CAUTION

Tutco-Farnam Custom Products recommends installation be performed by qualified personnel familiar with the National Electrical Code and all local codes and standards. It is the responsibility of the installer to verify the safety and suitability of the installation.

Failure to follow Tutco-Farnam's recommendations could result in premature failure, serious equipment damage, injury or death.

## WARNING

**DO NOT** mount heaters in an atmosphere containing combustible gases, vapors, dusts or fibers. Horizontal mounting is preferred. Do not subject heater to physical shock loads.



Hazardous voltages are present in this equipment. Lock out and tag the branch circuit disconnect switch before working on this heater.



Exterior of heater at exhaust is approximately the air temperature. Treat the exterior of the heater as a burn hazard. An insulation blanket is available and recommended. See **Accessories**.

Typical causes for uneven airflow are structural components blocking air or mounting the heater too close to elbows, transitions or the fan/blower.

## Electrical Information

Tutco-Farnam Custom Products strongly recommends the use of an electrical interlock with the air source—this helps ensure that the heater will not run without air.

Where thermocouple extension wire is required between the heater and control panel, verify that it is connected with proper polarity. Failure to do so may result in an uncontrolled heater. **For Standard type K thermocouple: Yellow + and Red -**

Attach a ground wire to the ground lug located in the heater junction box. **The heater must be grounded.**

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## Installation

Fasten the unit at the (4) designated mounting holes. Use 3/8" or M10 hardware.

## Dimensions

Please visit [www.farnam-custom.com](http://www.farnam-custom.com) for detailed drawings

### Maintaining your Flow Torch™ 800

Periodically check all electrical connections, including field and factory-made connections for tightness and all wiring for deterioration

Inspect periodically for moisture buildup, airway obstructions and corrosion

**DO NOT** continue using a heater if there are signs of damage. Consult Farnam Custom Products.

### Troubleshooting your Flow Torch™ 800

Check the thermocouple wire polarity

If reduced heat output is suspected, verify the condition of the heating elements by using an ohmmeter to check the resistance.

1. Disconnect power to the heater
2. When the heater is fully cooled, check the resistance across each pair of leads. Example: H1-H2, H2-H3, H3-H1. The resistance across each pair of power leads should be approximately (±5%) the same—if there is a significant difference it indicates damage to the heater. Cease operation and replace heater.
3. Use an ohmmeter to check the resistance between the terminal block heads and ground—if there is a low resistance measured it indicates that the coil has shorted to ground. Cease operation and replace heater.



**CAUTION: Troubleshooting and repairs should only be attempted by qualified maintenance personnel**



## Accessories

### Flow Torch Insulation Blanket



- Reduces heat loss due to radiation and convection
- Saves money in energy costs
- Improves safety
- Easy installation
- Fire retardant and puncture resistant
- Visit [www.farnam-custom.com](http://www.farnam-custom.com) for more information!

### Regenerative Blowers



- Works well with FT400 heaters
- Trouble-free installation
- Easy replacement of parts
- Continuous, low-maintenance operation
- Visit [www.farnam-custom.com](http://www.farnam-custom.com) for more information

TFC-KPHRB300—141 CFM

TFC-KPHRB500—212 CFM

TFC-KPHRB750—353 CFM

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Innovative Heat Solutions