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# PI-100 Hot Air System

Peera Industries Hot Air System is intended to deliver a precise flow of heated air through a nozzle for the purpose of heat fusing, shaping and heat shrinking.

### 1 Contents

- 1.1 Heater Head Assembly.
- 1.2 Controller Assembly.

### 2 Installation

- 1. Place the system on a sturdy level surface.
- 2. Connect the heater head to the controller.
- 3. Connect the power cord to the controller.
- 4. Connect the compressed clean, dry air supply to the controller.

### 3 Controls and features

	Description	Function
3.1	System power switch	Toggles system power and air on and off.
3.2	Heater power switch	Toggles heater power on and off.
3.3	Temperature controller	Controls the temperature of the heater nozzle.
3.4	Hot Air Flow Meter	Controls heater air flow rate.
3.5	Cooling Air Flow	Controls the cooling air flow rate.
3.6	Cooling Air Toggle Switch	Toggles cooling air on and off.

## 4 System Settings

### 4.1 Temperature

4.1.1 Depress and hold the up or down arrow key of the temperature controller to scroll to the desired temperature. After 2 seconds the new value will be accepted and the temperature will ramp to the new set points.

### 4.2 Hot Air Flow

4.2.1 Rotate the flow meter knob until the meter indicates the desired flow rate.



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## 5 System Operation.

- 5.1 Switch SYSTEM POWER on.
- 5.2 Set heated air flow to 10-50 SCFM.
- 5.3 Switch HEAT on.
  - 5.3.1 When the temperature is not within +/-3° of the set point the error message "TEMPERATURE ERROR" will be displayed.
- 5.4 Position components to be processed within the thermal nozzle for a timed duration.
- 5.5 Remove the components from the thermal nozzle and position them at the end of the cooling air nozzle. Depress the foot switch and toggle the panel switch "COOLING AIR" to start the flow of air.
- 5.6 Allow heater head to cool to 245°F before shutdown.

### 6 System Specifications.

Description		Range	Resolution	Accuracy
6.1	Temperature	250-750°F	1.0°	+/25%F.S.
6.2	Air Flow	5-50 SCFM	5.0 SCFM	+/-6% F.S.

### 7 Troubleshooting.

	Issue	Possible Causes	Solution
7.1	Temperature not stable.	Thermocouple loose	Re-install thermocouple.
7.2	S.br	Break in thermocouple wire Thermocouple failure	Verify all connections from controller to remote TC jack. Replace thermocouple.
7.3	No heat at nozzle.	Heated air flow too low. Defective heating element. Defective temperature control	Increase air flow. Replace heating element. Replace temperature controller.
7.4	.Err code in display.	Temperature controller software failure	Replace temperature controller.
7.5	System will not power on.	Power cord not fully connected. Fuse is burned out.	Verify connection. Replace fuse.

### 8 Facilities Requirements.

8.1 Voltage: 108-132 VAC, 50/60 Hz.

8.2 Wattage: 500 W max.

8.3 Compressed air: 80-100psi, 0.5 CFM, filtered, oil and water free.





# 9 Critical Spare Part

Item	Part Number	Description
9.1	TV-2S	2-way pneumatic valve
9.2	35A-AAA-DAAA-1BA	3-way pneumatic valve
9.3	3216	Temperature controller
9.4	Efit 16A	Power controller
9.5	39095K96	Thermocouple
9.6	001-10005TA	Heating element