

## Trouble Shooting:

PROBLEM	SOLUTION
1. Temperature will not reach set point	<ul style="list-style-type: none"> <li>Probe has failed. Replace the Thermocouple probe.</li> <li>Check for failure of SCR or contactor. Replace as needed.</li> <li>Check for Fuse failure, replace as needed.</li> <li>Check for air currents blowing across the heater, such as a fan, window or door draft.</li> <li>Element has failed. Replace Element.</li> </ul>
2. Ink will not gel enough.	<ul style="list-style-type: none"> <li>Increase the temperature setting.</li> <li>Lengthen the dwell time setting.</li> <li>Check for air currents blowing across the heater, such as a fan, window or door draft.</li> </ul>

**CAUTION**  
**HEAT PRODUCING UNIT**  
**DO NOT LEAVE HEATER UNATTENDED**

MODEL	WATTS	VOLTS	AMPS	ELEMENT SIZE	OUTER DIMENSIONS (Inches)
RH-3408	3388	208	16.3	18 x 18	18 x 20 x 2
RH-3400	3383	240	14.5	18 x 18	18 x 20 x 2
RH-4008	3528	208	17.0	18 x 22	18 x 24 x 2
RH-4000	3900	240	16.3	18 x 22	18 x 24 x 2
RH-3908	3964	208	19.6	18 x 24	18 x 26 x 2
RH-4200	4169	240	17.5	18 x 24	18 x 26 x 2
RH-5008	4896	208	23.5	22 x 24	22 x 26 x 2
RH-5000	5277	240	22.0	22 x 24	22 x 26 x 2

# Black Body

INFRARED DRYING SYSTEMS®



## BLACK FLASH® REPLACEMENT HEATERS FOR AUTOMATICS 8 MODELS Document # 16-406

ITEM #	QTY	BBC PART #	DESCRIPTION
1	1	RH-XXXX	RH HEATER
2	4	25-101	Bolt ¼ - 20, 1 inch
3	4	23-005	¼" Lock Washer
4	4	23-002	¼" Flat Washer
5	1	22-060	Jiffy Clip
6	6	25-198	Washer
7	1	25-199	Drill Bit, 1/8"
8	6	25-200	Screw, #12, 1 inch
9	2	22-075	Romex Connector
10	1	25-003	Screw, #10, ¾ inch
*	1	Optional	Thermocouple Probe

Tools Required: 7/16" wrench, Phillips & Flat Screwdriver, Power Drill



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# BLACK FLASH® Replacement Heater

The Black Flash® Replacement heater series will install in an automatic press using existing support structures. Consult your automatic press manual to ensure this installation will comply with their safety recommendations.

**CAUTION:** Do **NOT** connect the Black Flash® Replacement Heater to live power during installation.

**IMPORTANT:** Entire raceway must be accessible after installing the heater in the existing support structure. After installing the heater you will need to connect the heater to power and the thermocouple to a temperature control.

### Installing the Heater:

1. Locate the 4 - 1/4" encapsulated nuts at each corner on backside of the Black Flash® Replacement Heater [1].
2. Line up as many of the 4 nuts as possible with the holes on your existing mounting bracket. Use bolts [2] and washers [3, 4] provided to attach Replacement Heater.
3. If none of the 1/4" encapsulated nuts line up with your existing bracket mounting configuration, use the drill bit [7] provided in the hardware kit to customize the heater mounts. Using existing bracket as a template, drill mounting holes as needed.

**CAUTION** ALLOWING THE DRILL BIT TO GO MORE THAN 1 INCH DEEP INTO HEATER WILL **DAMAGE** THE ELEMENT

4. Attach heater using machine screws [8] and washers [6].

### Connecting Power and the optional Thermocouple Probe:

1. Remove & retain 5 screws and perforated raceway. Figure 1
2. Insert Romex connectors [9] in both pre-cut holes in raceway. Tighten nut (on inside) provided with connector.
3. Insert power cord thru Romex connector closest to edge. Connect heater to power cable following local electrical codes. **USE A LICENSED ELECTRICIAN FOR WIRING THE HEATER PANEL TO POWER.**

4. Insert the thermocouple thru the Romex connector (near the center of the raceway) and into the ceramic thermowell provided in the heating element.

**IMPORTANT:** Ceramic tube thermowell has an inside diameter of 0.156". It will accept a 1/8" OD thermocouple probe. Thermocouple probe must be inserted to the point of the bend, 5 inches.

5. Partial insertion will give erratic / inaccurate readings and performance.
6. Using the jiffy clip [5] provided secure thermocouple probe to the heater.
7. Re-attach raceway to heater using the 5 screws from step 1.
8. Tighten the Phillips screws on each Romex connector to firmly hold wires in place.

Initially set the temperature to 1000° F. The heater face will reach 750° in most environments. Flash cure times at this setting 3 – 6 seconds.

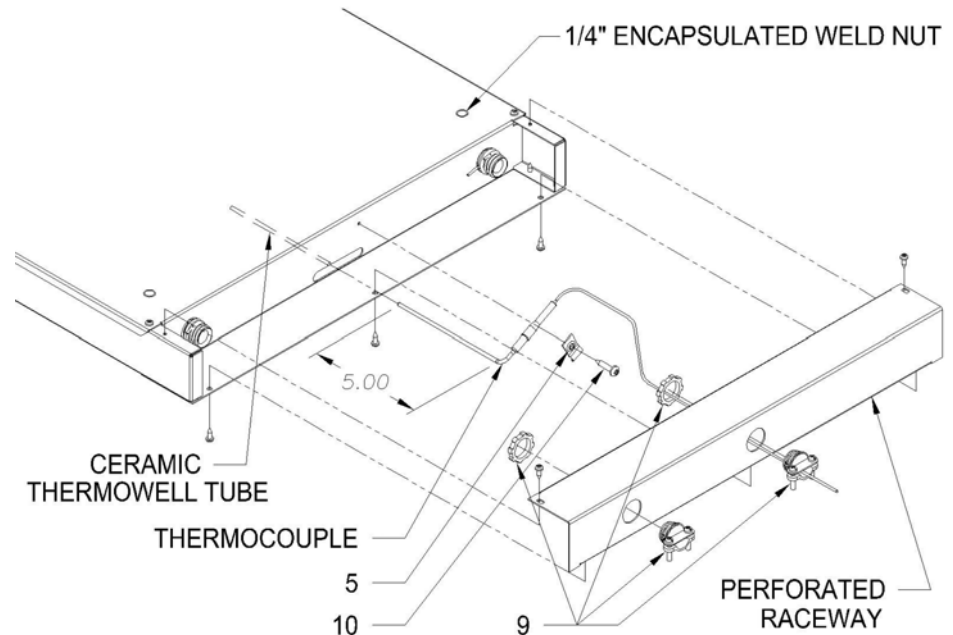


Figure 1