

Instruction Manual

RDK-300 Controller for Hot Runner Coil Heater

Version 1.2 (April, 2015)

⚠ Caution

- Check pin assignment before connecting a coil to the controller (see section 3.4). The pin assignment on RDK-300 is different from RDK-100.
- The default set temperature on RDK-300 is 500 °F. The controller will start to heat the coil immediately after it is power up if coil is connected. Please make sure the coil is placed in a secure place before power up.
- The coil heater should NOT be heated above 1000 °F. By default, the auto-shutoff temperature and time are set to 900°F and 60 minutes.
- When controller is turned off, the coil will stay at very high temperature for at least 20 minutes. DO NOT TOUCH the coil until controller stops flashing "Hot". The heated coil is very dangerous. It will cause severe burn if touched.
- One (1) year warranty for the controller; six (6) months for the coil heater*

Note: * Our warranty for coil heater only covers manufacturing defects; it does NOT cover damages caused by high temperature (≥ 1000 °F) use.

1. Specification

| Controller | |
|---------------------------|--|
| Operating voltage | 120V/240V AC |
| Maximum current | 5 Amp |
| Input power connection | IEC 320 C14 |
| Coil connection | XLR 5 Pin |
| Dimension | 3.5 x 1.7 x 4.7 inch, (90 x 47 x 120 mm) |
| Temperature control range | 200 to 1000 °F |

2. Front Panel



Figure 1. Front Panel.

- ① Current Temperature
- ② Set Temperature
- ③ Power Button/Standby Status Indicator
- ④ Rotary Knob. Access and change parameters

3. System Setup

3.1 Connecting the Coil Heater

To connect the coil heater, align the slot on the XLR connector on the coil cable with the tab on the female XLR connector on the controller, and then push it in. To disconnect it, press the "PUSH" tab on the female connector and pull the connector out.

3.2 Power On/Off

After you plug the power cord to the wall outlet, the power button will lit in red, which means the controller is in standby status. Both displays are dim and no power output to the coil heater at this time. Press the power button once will power on the controller and the power button will lit in white. The bottom display will show the current set temperature value, and the top display will show the ambient temperature. Controller will start heating the coil to the set temperature.

- **Warning: The controller will start to heat the coil immediately** after it is power up. Please make sure that the coil is placed in a secure place before power up. When controller is turned off, the coil will stay at a very high temperature for at least 20 min. It will flash "hot" and coil temperature at top display, and it will show "off" at bottom display. DO NOT TOUCH the coil until the controller stop flashing "hot". The heated coil is very dangerous. It will cause severe burn if touched. **It is strongly recommended that the power cord should be unplugged after use.**

3.3 Controller Setup

This controller has been programmed for 100 Watt hot runner coil. The set temperature has been set to 500 °F. If you want to change the set temperature, please follow the steps below:

- 1) Press down the knob once. The decimal point in the lower right corner of the bottom display will start flashing.
- 2) Turn the rotary encoder to adjust the set temperature. Turn it clockwise to increase the value; counter-clockwise to decrease the value. Larger and fast rotation accelerates the amount of adjustment. Small rotation for single digit adjustment.
- 3) Press down the knob again to confirm. The controller will also exit the editing mode if the knob was untouched for 10 seconds.

3.4 XLR Connector Pin Assignment

| | |
|---|--------------------|
| 1 | AC Power to Heater |
| 2 | AC Power to Heater |
| 3 | TC + |
| 4 | TC - |
| 5 | Ground |

3.5 Advanced Parameter Settings

Please see RDK-300 Supplementary Manual for Advanced Parameters for details.