

Instruction Manual

RDK-100 Controller for Hot Runner Coil Heater

Version 1.3 (January, 2015)

Caution

- Check pin assignment before connecting a coil to the controller (see section 3.4). The pin assignment on RDK-100 is different from RDK-110.
- The default set temperature on RDK-100 is 700 °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.
- Disconnect the coil from the controller before you change any of the parameter that is locked with pass code. Failure to do so may result in the damage to coil heater by overheating.
- The coil heater should NOT be heated above 1000 °F.
- When controller is turned off, the coil will stay at very high temperature for at least 20 minutes. The heated coil is very dangerous. It will cause severe burn if touched.
- One (1) year warranty for the controller; 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 1.5 x 5.0 inch, (93 x 37 x 129 mm).
Temperature control range	Less than 1000 °F
Coil Heater	
Power rating	120VAC, 250 Watt
Coil size	15.8 mm ID, 14 mm width
Cable length	30 inches
Temperature range	200 to 1000 °F

2. Front Panel

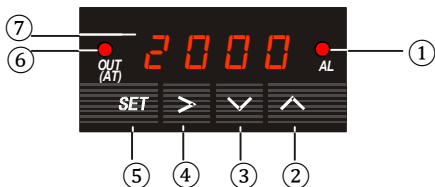


Figure 1. Front Panel.

- ① AL- Alarm indicator.
- ② Temperature increment.
- ③ Temperature decrement.
- ④ Not used for normal operation.
- ⑤ Not used for normal operation.
- ⑥ OUT- Indicator of power output.
- ⑦ LED display window. During operation, it displays the temperature of the coil. When flashing (by pressing the ▲ or ▼ key once), it displays the target temperature.

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

The rocker type power switch is on the back of the controller. Press the side with "I" to turn it on. When it is on, the LED display at the front will lit and temperature is going to rise immediately. Press the "o" to turn it off.

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 15 min. Do not touch the coil until it is cooled down. The 700 °F coil is very dangerous and will cause severe burn if touched.

3.3 Controller Setup

This controller is programmed for 100 ~ 250 Watt hot runner coil. No parameter adjustment is needed if your coil is within this specification.

The temperature has been set at 700 °F. If you want to change it to a different value, please follow the steps below:

- 1) Press Up or Down arrow key once to switch the display from actual temperature to set temperature. The display will start to blink.
- 2) Press Up or Down key again to increase or decrease the setting temperature. When finished, wait for 8 seconds and the setting will take effect automatically (the display will stop blinking). The recommended temperature is between 500 to 700 °F. Running above 900 °F will probably shorten the coil life and make its color turn to dark red.

If you ever want to change the other controller parameter such as the alarm temperature, temperature unit (Celsius or Fahrenheit), or P, I and D values for coil that is not in the wattage range specified, you can refer to the instruction manual of SYL-1512A from Auber Instrument. **Important:** before you change any of the parameter that is locked with pass code, please disconnected the coil first. Otherwise, the coil may be damaged instantly; because the controller will maintain a constant output when it is in parameter setting mode.

3.4 XLR Connector Pin Assignment of RDK-100

IMPORTANT: pin assignment of RDK-100 is different from RDK-110.

1	TC+
2	TC-
3	Ground
4	AC Power (hot)
5	AC Power (neutral)

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