Instruction Manual

RDK-150-DC Controller for Hot Runner Coil Heater

Version 1.2 (June, 2015)

⚠ **Caution**

- Please check pin assignment before connecting a coil to the controller (see section 3.4).
- The default set temperature on RDK-150-DC is 500 °F. The controller will start to heat the coil immediately after it is power up; so 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 coil heater damage from overheating.
- The coil heater should NOT be heated above 1000 °F. Build-in alarm is preset to 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

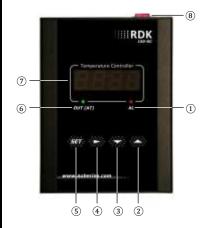| Controller	
Operating voltage	12VDC
Maximum current	8 Amp
Input power connection	Barrel Connector 5.5 mm OD, 2.1 mm Pin. Center Positive
Coil connection	Mini XLR 4 Pin
Dimension	3.1 x 1.2 x 4.2 inch, (80 x 30 x 107 mm).
Temperature control range	Less than 1000 °F

2. Front Panel

① AL- Alarm indicator.
② Temperature increment.
③ Temperature decrement.
④ Digit shift / Alarm mute
⑤ Set/confirm.
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.
⑧ Power switch

Figure 1. Front Panel.

3. System Setup

3.1 Connecting the Coil Heater

To connect the coil heater, align the Mini XLR connector slot on the controller with Mini XLR connector tab on the coil cable, and then push it in.

To disconnect it, press the tab on the female connector and pull the connector out.

3.2 Power On/Off

The power switch is on the back panel of the controller. Press ON" to turn it on. When it is on, this power switch will lid; the LED display at the front will lit and temperature is going to rise immediately. Press the side with "OFF" to turn it off. The built-in alarm is preset to 1000°F. It will be activated when reading temperature is over 1000°F. When hearing the buzzing, you can press shift key to mute or power it off. To change this limit, please refer supplementary manual.

Warning: This controller can only be powered by 12VDC power supply. It 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. Do not touch the coil until it is cooled down. The 700 °F coil is very dangerous; severe burn will be caused if touched.

3.3 Controller Setup

This controller is programmed for 70 Watt hot runner coil. No parameter adjustment is needed if your coil is within this specification.

The temperature has been set at 500 °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 range 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 parameters 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 RDK-150-DC Controller supplementary manual. **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 Mini XLR Connector Pin Assignment of RDK-150-DC

1	DC Power +
2	DC Power -
3	TC +
4	TC -