

Operating Manual for #2001-SDCC Kendrick Standard Dual Channel Controller



- Plug power cord into back of controller.
- Plug power cord into a 12 volt battery.
- Turn controller on by sliding the on/off switch to "I". The LEDs will light up.
- Adjust the knobs to your preferred power setting. Each knob controls two heater outputs. We recommend about a 50% setting as a start.

LED Colour chart:

Red = ON, **Orange** = Protection mode (*Over current, over voltage).
NOTE: The LEDs directly below the knobs will be orange if set to on and no heaters are attached.

This controller has the following built in features:

- Zero to 100% heater control.
- Fused onboard. Auto Reset (no other dew controller on the market has this).
- On board protection from over current, over temperature, over voltage.
- LED overcurrent indication on both channels.*
- 10 amp capacity (5 amps per channel).**
- Reverse polarity protected.
- On/off switch (no other dew controller on the market has this).
- RFI (radio frequency interference) free. A critical feature for astro imagers!
- Pulse Width Modulation duty cycle control.
- 4 outputs, 2 for each control knob.
- LED Power on indicator for both outputs.
- Low voltage cut-off control with LED indication (a Kendrick standard!).
- Mosfet transistors built on board and on EACH output (no voltage drops!). Get the best possible performance out of your heaters!
- 6' detachable fused Power cord (no other controller on the market has a detachable power cord).
- Velcro attachment. Parts included.
- 12 VDC operation.
- 1 Year limited warranty (parts and labour)

TECHNICAL SPECIFICATIONS:

Operating voltage: 12 vdc

Weight: 190 grams, 6.6 ounces

Dimensions: 4" x 3" x 1.35" (1.75" with knobs).

Amperage capacity: 7 amps per channel, 14 amps total.

Power cord fused at 7 amps. Fuse located in tip.

TROUBLESHOOTING

- The LEDs directly below the knobs are orange. They will be orange if the channel is set to "on" and no heaters are attached. The controller sees this as a fault situation, even though it is not and turns the LEDs orange.
- Voltage measured out is zero. When no heaters are attached to a channel, the controller will consider that a fault and shut down the channel, giving zero voltage.
- Voltage measured is less than 12 volts. The control uses a voltage control method called Pulse Width Modulation. When the channel is set, for example, to about 50%, the voltage will read about 6 to 7 volts (a heater must be attached to one output on a channel in order to get a measurable voltage).
- No LEDs come on. You most likely have a blown fuse in the tip of the cigarette lighter socket. Unscrew the tip, remove the fuse and inspect. If the thin wire is broken, the fuse is blown and must be replaced. A blown fuse is indicative of a possible heater problem so your heaters will need to be inspected for possible electrical shorts.

*In an over-current situation, the defective heater or device that is drawing too much current must be removed from the controller. The fuse will automatically reset.

** The controller itself has an amperage capacity of 10 amps (5 amps per channel) but the detachable Power Cord is fused at 7 amps. We do not recommend against upgrading to a larger fuse.