

### Operation:

Your CB-22S+ Ceiling Box model is equipped with load sensing circuitry to automatically turn on and off the four switched AC receptacles and automatically control the fan speed based on the internal temperature in the enclosure.

When the projector or any load plugged into the two “UNSWITCHED, SENSED RECEPTACLES” is turned on causing the current draw to exceed the sense threshold, the four “SWITCHED RECEPTACLES” will turn on and power will be applied to the cooling fan. The fan will only run when the temperature within the unit exceeds 29C/84F. The fan speed will increase as the internal temperature increases and reach its maximum airflow at 40C/104F. The cooling capacity is approximately 150 watts / 500 BTU/hr. with a 10° temperature rise above ambient. The Max Fan Speed LED (If installed) illuminates at full speed.

When the projector or load is turned back off, the decrease in current draw tells the sense circuitry to turn off the four switched receptacles and disable fan operation. The circuit can reliably sense a change of 50 watts. Hysteresis is built in to avoid false AC tripping and short cycling the fan.

### Setting the Current Sense Threshold / Testing the AC Switching and Fan Operation:

1. Connect the projector or other load to be sensed to one of the two “UNSWITCHED, SENSED” receptacles provided.
2. Ensure the projector is in the “off” mode.
3. Slowly turn the “SENSITIVITY ADJUST” pot clockwise until the “RELAY ON” LED illuminates. Note the pot position.
4. Turn the projector to the “on” or active mode.
5. Slowly turn the “SENSITIVITY ADJUST” pot counterclockwise until the “RELAY ON” LED extinguishes. Note the pot position.
6. Set the pot to the middle of the settings noted in steps 3 and 5.
7. Test the setting by turning the projector on and off and noting that the “RELAY ON” LED follows the projector state. There may be a delay of a few seconds when turning the projector off. This is a normal condition.
8. To test the FAN, make sure the “RELAY ON” LED is lit and **warm** the temperature sensor on the Fan Control Board.

### External Control Option:

If desired, the switched receptacles and fan can be controlled from an external dry contact closure. Move the Fan (-) wire from the “SENSE OUT” terminal to the “RELAY IN” terminal, remove the jumper from “SENSE OUT”, and connect the dry contact from “RELAY IN” to “GND”. When the “RELAY IN” is connected to “GND” the switched receptacles will turn on and fan operation will be enabled. The dry contact must be rated at 12VDC@ 0.25 Amps or higher. Refer to label above marked "External Control".

### For Full Time Operation of the Fan and/or Receptacles:

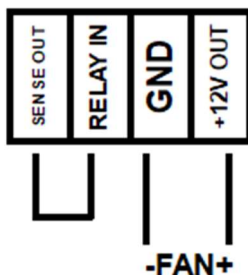
#### **To enable full time temperature-controlled operation of the fan:**

Move the Fan (-) wire from “SENSE OUT” to “GND”. The fan will run any time the temperature exceeds 29C/84F.

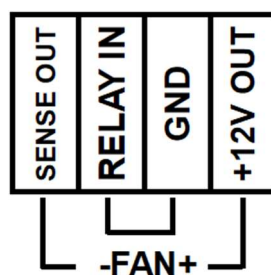
#### **To override the current sensed AC switched receptacle feature:**

Move jumper to “RELAY IN” and “GND”. Receptacles will always be powered.

### Full Time Fan Ctrl Brd Pwr



### Switched Receptacle Override



### Temperature Sensor Location

