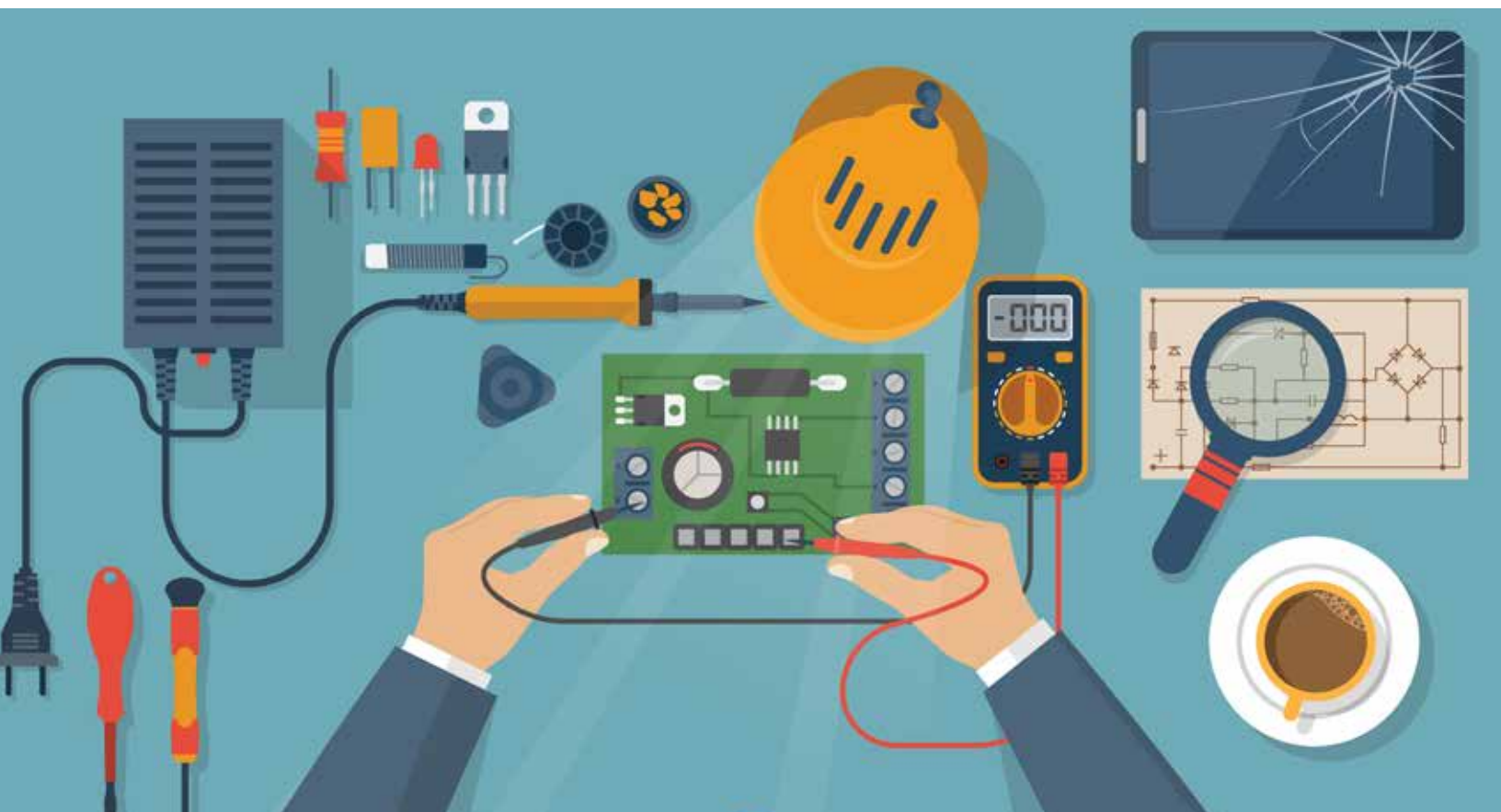


# Linear Troubleshooting Guide

## AN-109

SL Power Application Note 5/00





## NO OUTPUT

- Visually inspect the supply for open fuses, burnt or discolored parts vented capacitors and loose wiring.
- Verify AC and DC fuses are not open.
- Verify AC voltage is reaching the input of the transformer.
- OHM output diodes and transistors to see if they are shorted.
- Check for solder fractures or traces of arcing on circuit side of PCB.

## LOW OUTPUT

- Visually inspect for open fuses, loose wiring, burnt or discolored parts and vented capacitors.
- Use sense wires to compensate for up to 0.25 volts of drop in the DC load cables.
- Monitor the output voltage and readjust the voltage POT if necessary.
- Check the current limit POT and verify the seal has not been broken, if so readjust it.
- With a meter, check the output diodes and transistors to see if they are shorted.

## POORLY REGULATED OUTPUT

- Visually inspect for poorly soldered or loose output wiring.
- Verify pass transistors screws are properly not loose.

## HIGH RIPPLE

- Visually inspect for poorly soldered or loose output wiring.
- Inspect for dried out capacitors or vented output capacitors.

## OUTPUT OSCILLATES

- Visually inspect for burnt or discolored parts, vented capacitors and shorted components.

## ADJUSTMENT OF OUTPUT VOLTAGE POT

- To raise the output voltage, monitor the output and turn the voltage POT clockwise.

## ENVIRONMENTAL SPECIFICATIONS

- Maximum ambient temperature for continuous output is 50°C.
- For operation above 50°C., see Operation Temperature Limits chart below.
- See installation instructions for models that require fan cooling.
- Operating temp: 0-50°C. full load, for 70 degrees C., de-rate to 40%.



- Non-Operating temp: -40 to +85 °C.
- Operating altitude: -500 to 10,000 feet.
- Non-Operating altitude: -500 to 40,000 feet.
- Maximum Relative Humidity 96%, non- condensing.

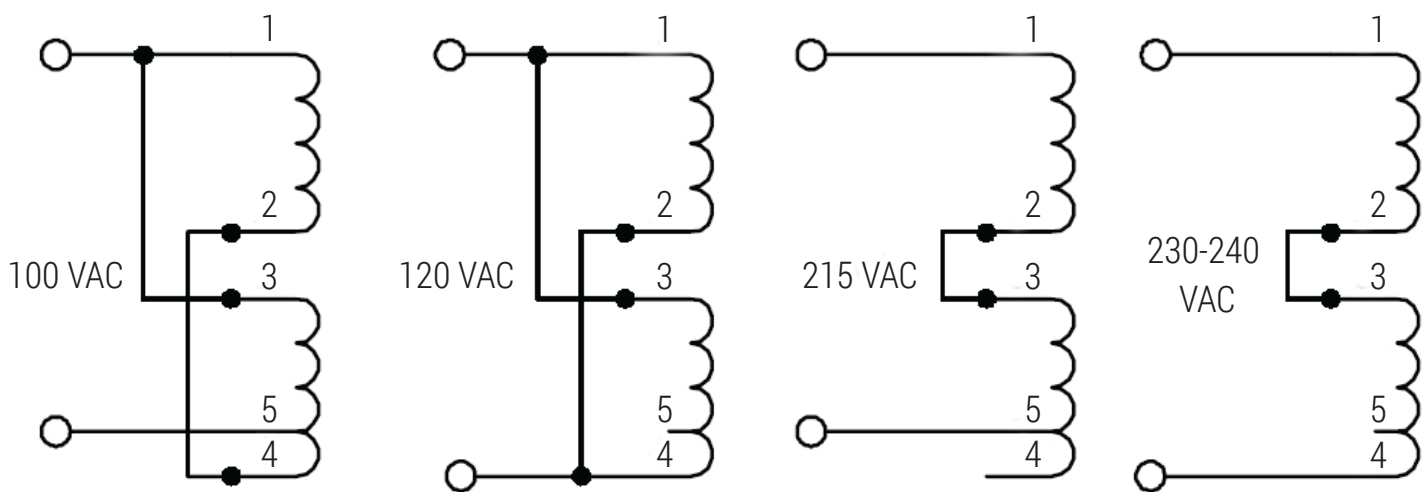
### LINEAR ENCLOSURES

- Condor doesn't provide off the shelf enclosures for the Linear line. An enclosure may be used, but may require airflow and or de-rating of the output current. Verify the heat sink temperature does not exceed 90°C. for any length of time.

### LOW OUTPUT

- OV-12 & OV-24 is user adjustable from 6.2 to 33 volts. A single OV module is required for both single and dual output power supplies.
- For specific instructions see application data sheet #11327.
- OV-12 protects up to a maximum continuous current of 8A and protects up to 12amps intermittent and is used on the 12V to 28V & +/- 12 & 15V models.
- OV-24: protects up to a maximum continuous current of 20A.
- Protects up to 24 amps and is used on the E & F Cases.

### AC HOOK UP CHART



### AC HOOK UP EXAMPLE

For 120 VAC operation, connect AC Line to transformer pin 1, Neutral to transformer pin 4, and put a jumper wire from pin 1 to 3 and a separate jumper wire from pin 2 to 4.



### OPERATING TEMPERATURE LIMITS

