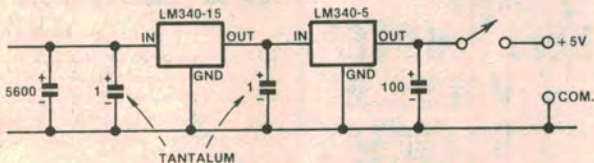


Pre-regulator for EA power supply



In the EA dual tracking power supply described in March 1982, the current from the fixed 5V output is limited to about 0.9A by temperature rise of the regulator. If an attempt is made to draw more than this current, thermal shutdown will occur.

This is because the voltage drop across the LM340-5 is 20 volts, thus producing a power dissipation of over 20 watts. Extra heat sinking is not feasible in the existing cabinet, so a pre-regulator (LM340-15) interposed between the unregulated line and the input of the LM340-5, and mounted

on the rear wall of the cabinet is the solution. The result is a drop of 10 volts across each regulator instead of 20 volts across just one.

While the same power (about 24 watts) still has to be dissipated by the same total heat sink area, it is now being generated at two different locations on the sink and this obviously helps. In any event the 5 volt output can now supply well over 1A continuously without thermal shutdown.

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