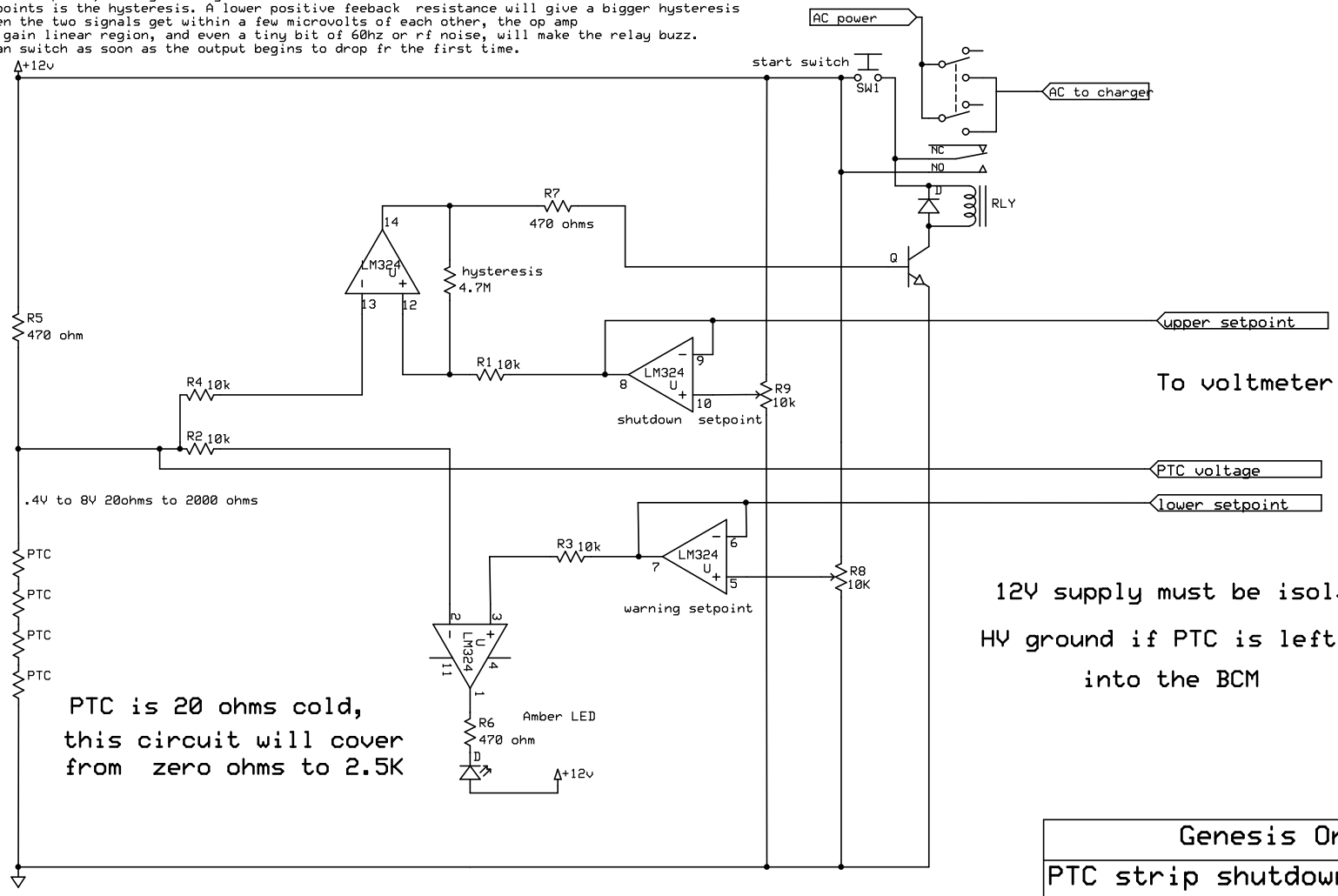
When output is high, the 4M resistor
pulls the positive input slightly higher than the actual setpoint
the PTC resistance/voltage has to raise to this slightly higher point before the op amp
begins to switch off. as soon as it switches off, the 4M resistor now pulls the positive input
a bit lower than the actual setpoint, firmly turning it off
the difference in switchpoints is the hysteresis. A lower positive feeback resistance will give a bigger hysteresis
without the feedback, when the two signals get within a few microvolts of each other, the op amp
gets into its super high gain linear region, and even a tiny bit of 60hz or rf noise, will make the relay buzz.
The feedback makes a clean switch as soon as the output begins to drop fr the first time.



Genesis One		
PTC strip shutdown circuit		
Designer's name	Rev 1.0 6/20/2010	Page # or name