



DO NOT TRY TO DO THIS MOD !!! IF YOU ARE NOT AWARE OF THE SHOCK RISK !!!

I got two old PC powersupplies for free, to be used for this test..
They are named **DTK Computer model PTP-2008. 200 Watt Output.**

Original outputs are:

+5V 20A
+12V 8A
-5V 300mA
-12V 300mA

After modification:

+13.5V 14Amp cont. 20 A for 20 sec.



The external 230 Volt AC power ON/OFF switch is removed and bypassed.
Old unused outputs are removed. Over voltage protection changed to only protect one output at 16 V,
Voltage regulating resistor net changed to only monitor a single output,

Do it like this:

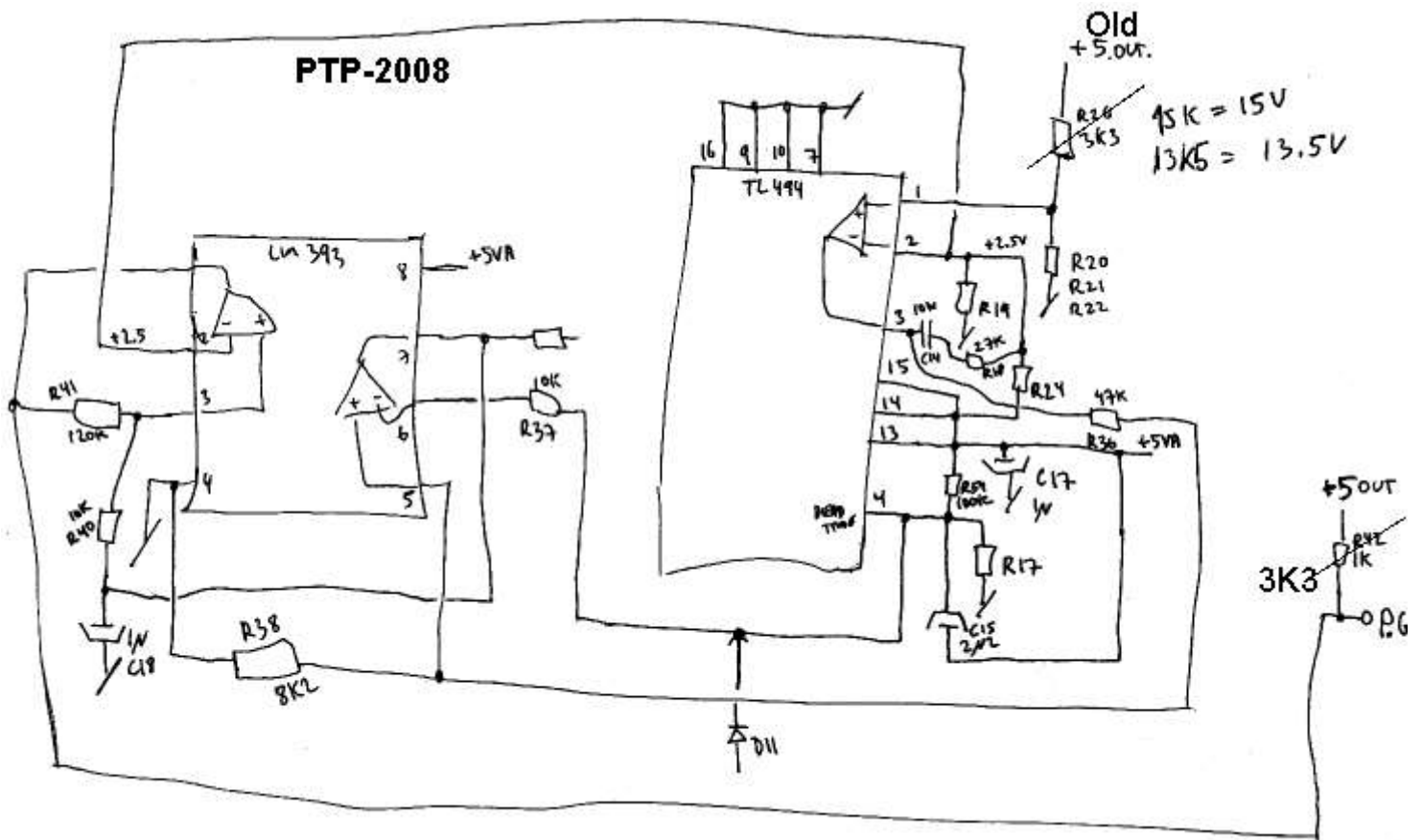
Cut: white, orange, blue, and yellow wires as close as possible to the pcb.

Cut: all plugs away in the other end of the black and red wires, parallel all red and black wires..

Desolder: Fan wires, L1, L3, L4, R25, R26, R27, R29, R50, R51, R52, R61, R66, D10, D16, D17, C29,
C28, ZD1

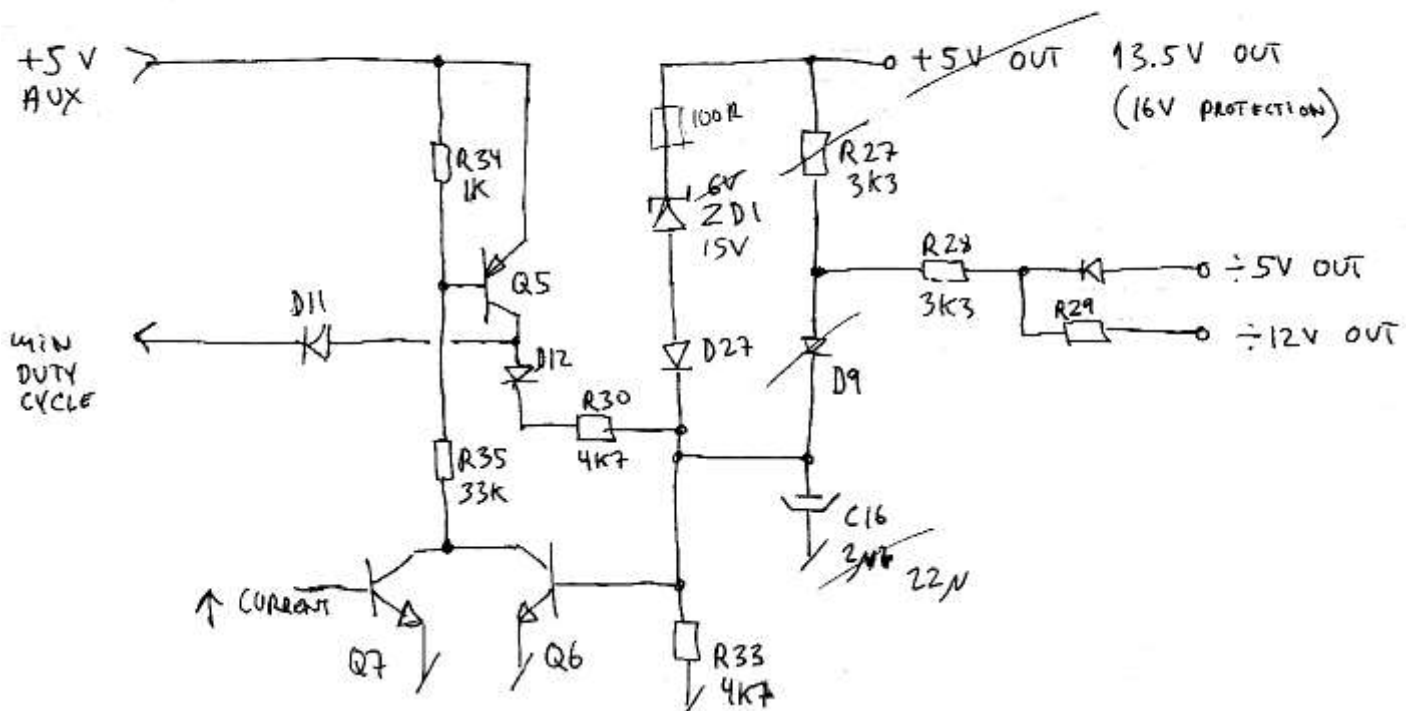
Mount a 680 Ohm 1/4 Watt at R50 location.

Mount solderpins in the holes for R26, R61 and Fan connection.



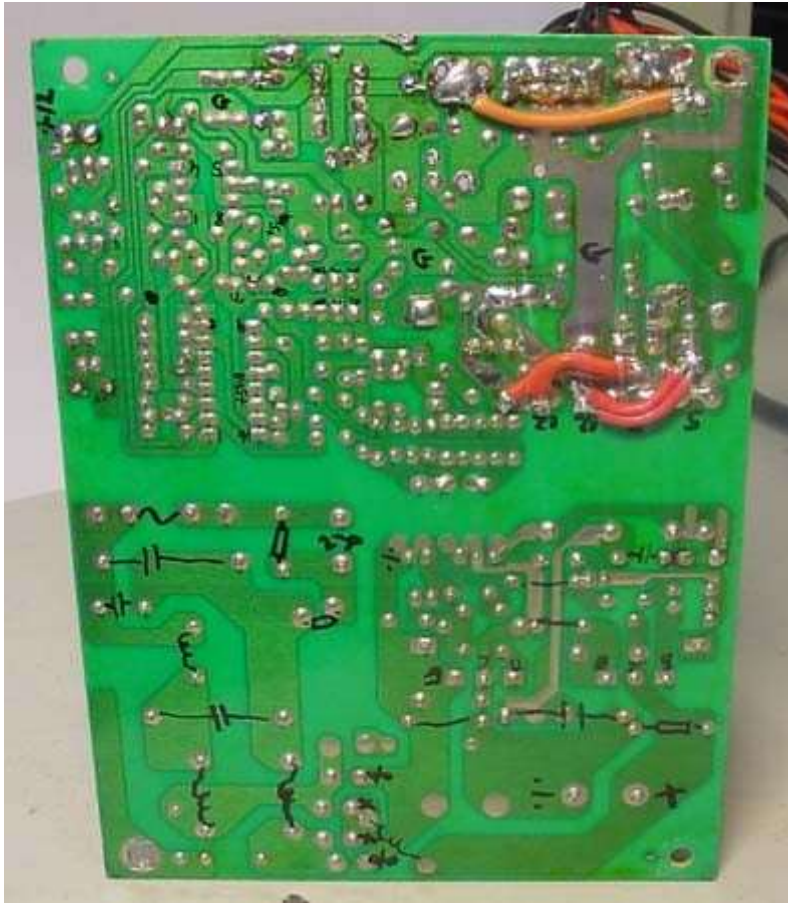
This is a fast part-drawn schematic that only covers what I wanted to know. Mount 13.5 K Ohm at the solderpins at R26. (13.5 Volt output adjust point)

PTP-2008
CURRENT & VOLTAGE PROTECTION



Mount 15 V Zener and 100 Ohm in series in the ZD1 holes. (Over voltage protection)
If two or more powersupplies needs to be paralled, then cut R30,

now it is possible to enter constant current mode operation without shutting down.
This is also needed if your load (or radio) has big capacitors in parallel with the power supply line.



Orange wire connects unused cap to the new 13.5 Volt output (old +5 Output).

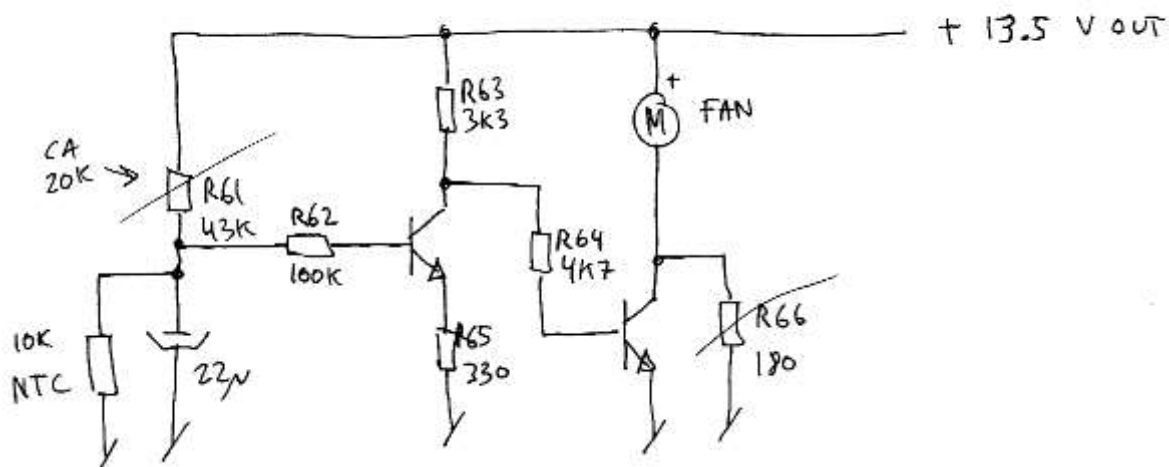


Transformer low voltage outputs are cutted,
and 12 volt output vindings are connected to the high current double diode.



The fan is reverse mounted so that it will blow cold air into the heatsinks and transformer.
 The NTC is glued with epoxy to the heatsink with the power diode,
 The fan controller is changed so that the fan starts to rotate at +40 C on the heatsink,
 If the temperature goes further up, the fan will rotate faster.

PTP - 2008
 FAN REGULATION



Mount potentiometer 47 K at R61 solderpoints. (adjust to fan start at 40 C then change to normal resistor)

Output ripple is under 5mV pp at 20 Amp. (0 - 100 Mhz)
 I have tested it with my HF VHF and UHF rig, and could not hear any more noise than usual.
 Output power has been tested with 14 Amps cont. for one hour, no problem at all !!
 Efficiency at full max load is 60 %

This mod done April 2002 by me OZ2CPU.
 Dont ask for schematics or any more info. All I have is here on this page..

Idea to this mod was found here:

http://www.grp4u.de/index_en.html

If you want to know more about switchmode converters get the "bible" called:
Switchmode power supply handbook by Keith Billings. From McGraw-Hill Company ISBN: 0-07-
006719-8

