Testing Samsung Power Board

BN44-00165 KIT98 / BN44-00167 KIT97 / BN44-00168 KIT125

Once you have fitted the relevant kit and after performing cold checks to the Power Board across the Mains Smoothing Capacitor and primary MOSFETs, you can check the O/P voltages of the PSU on the workbench with the following procedure.

Tools Needed: Multimeter

Variable Bench Variable Power Supply (Ohm uses 12V 1.5A)

Method:

1/ Attach an Isolated Mains Supply to the Live & Neutral Connector PD801S. (Fig 1)

2/ Switch on the isolated mains. (Fig 1)

3/ At CN801 Pin 3 check for the Standby +5V. This is an EVER voltage used to Power the Main PCB in Standby mode. (Fig 2)

4/ Turn off the Isolated Mains supply. At CN801, Pin 1, marked **POWER ON/OFF** attach the Variable Power Supply. This is the ON/OFF pin used by the micro to turn ON the Power Supply. (Fig 3)

5/ Turn on the Isolated Mains.

6/ Turn on the Variable Power Supply and apply approx. 1V. (Fig 4)

7/ Test for switched voltage:

- CN801 Pins 7,8 = +12V (Fig 5)
- CN801 Pins 13,14,15,16 = +5.4V (Fig 6)
- CN801 Pins 19,21,22 = 13V (Fig 7)
- CNI803 Pin 1 = +5V (marked DET_5V) (Fig 8)
- CNI806 Pin 1 = +12V (marked VCC_12V) (Fig 9)

This method allows you to check your supply rails before returning the Power Board into the TV for final checking.

This method DOES NOT check the Inverter Supply Circuits.

OHM SUPPLIES

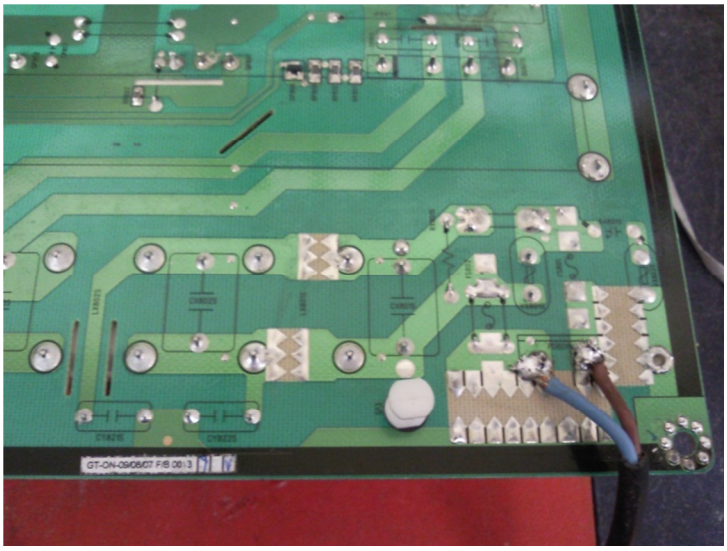

Fig 1 PD801S Mains I/P

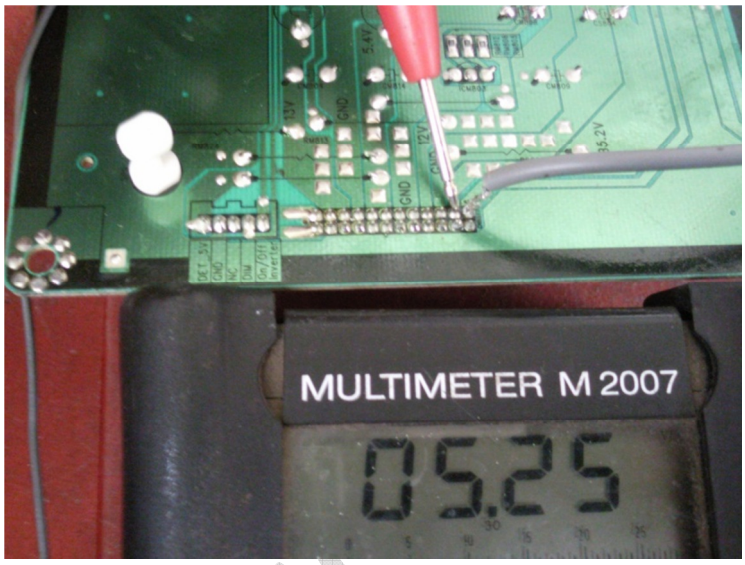

Fig 2 CN801 Pin3, +5V Stby

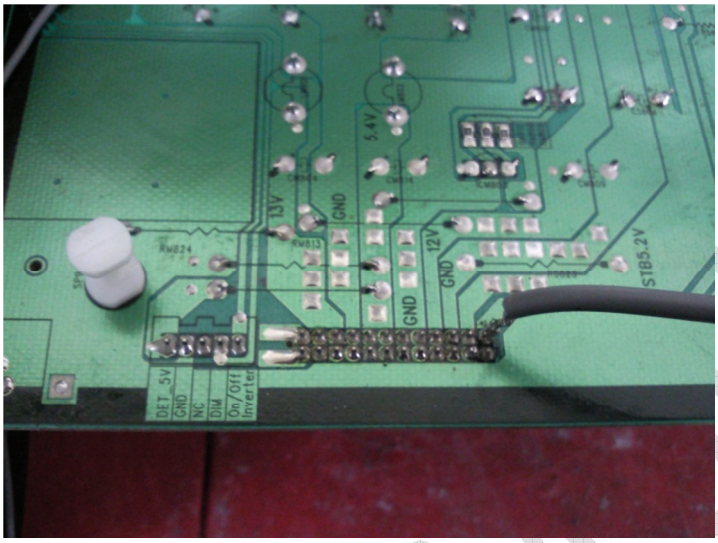

Fig 3 CN801 Pin 1, Power ON/OFF

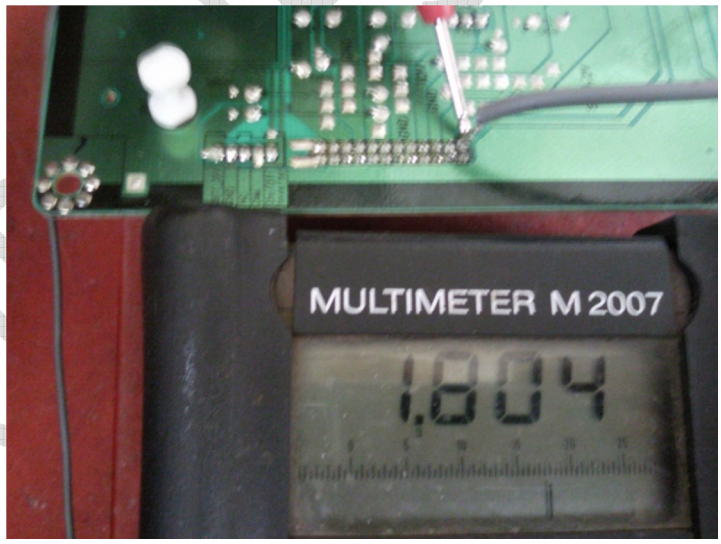

Fig 4 CN801, Pin 1, Voltage applied to ON/OFF Pin

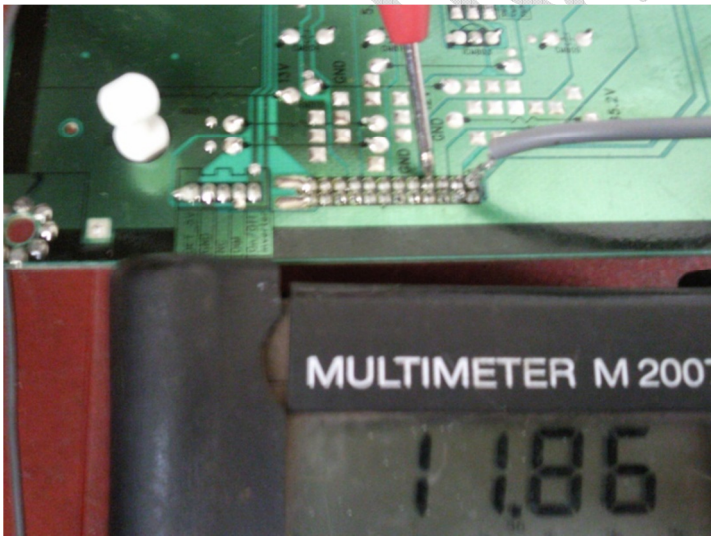

Fig 5, CN801 Pins 7,8 +12V

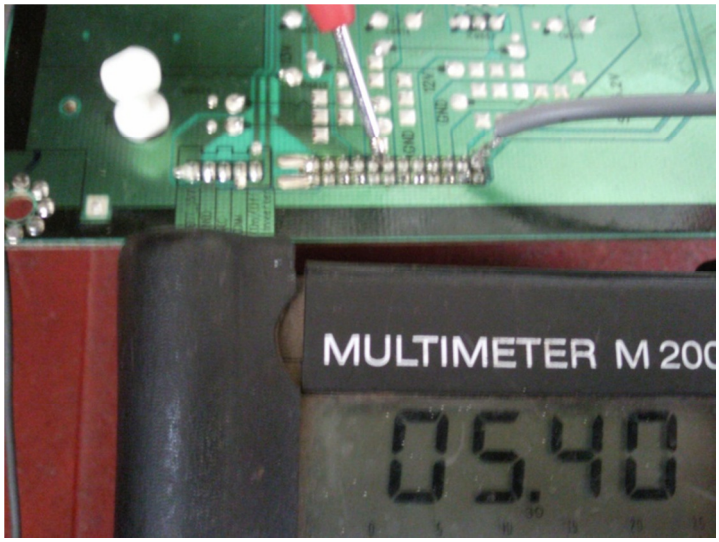

Fig 6, CN801 Pins 13,14,15,16 +5.4V

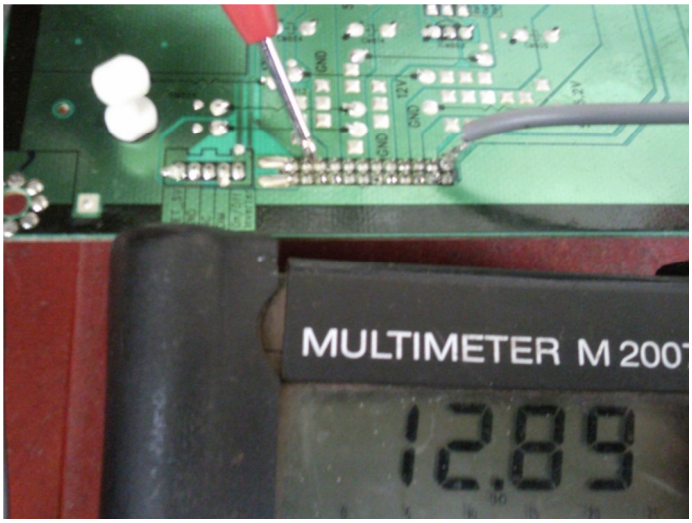

Fig 7: CN801 Pins 19,21,22 +13V

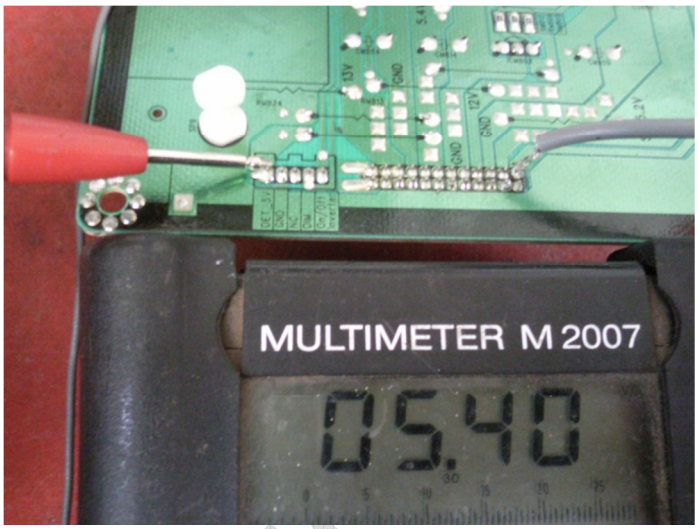

Fig 8, CNI803 Pin 1 DET_5V

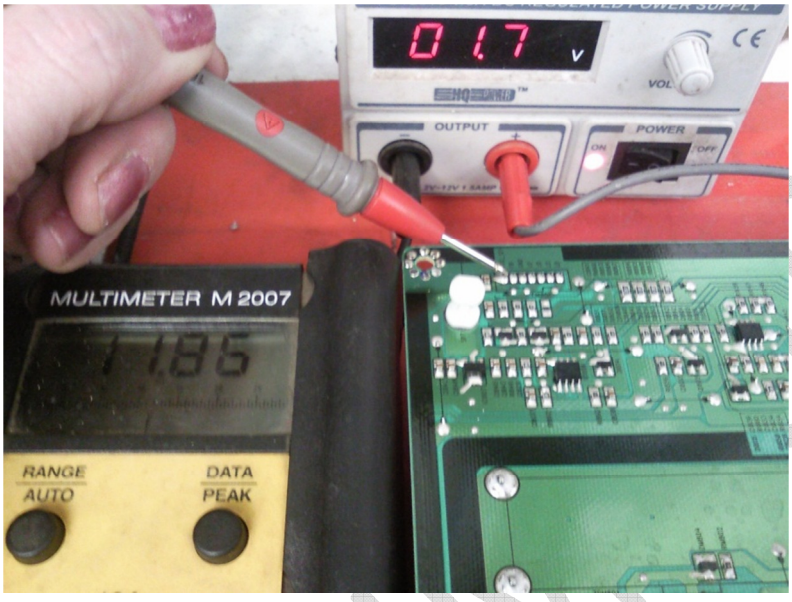

Fig 9 CNI1803 Pin1, VCC_12V

CN801 Pin Configuration

Pin 24 o	o Pin 23
Pin 22 o	o Pin 21
Pin 20 o	o Pin 19
Pin 18 o	o Pin 17
Pin 16 o	o Pin 15
Pin 14 o	o Pin 13
Pin 12 o	o Pin 11
Pin 10 o	o Pin 9
Pin 8 o	o Pin 7
Pin 6 o	o Pin 5
Pin 4 o	o Pin 3
Pin 2 o	o Pin 1

OBSOLETE SUPPLIES

OHM SUPPLIES