

Power Supply Kit

USER MANUAL



TECHSHOP

B a n g l a d e s h

Our Power supply kit consists of the following components.

- DC Jack
- Transformer(12V,1000mA)
- AC cable
- 1N4007(2 PCS)
- 5V power supply stick bare PCB.
- Necessary components for the PCB:
 - Slide switch x1 (B1)
 - DC socket x1 (J1)
 - 1N4007 x1(D1)
 - 2.7K Ohm x1(R1)
 - Male connector x2 (5V-Gnd)
 - Female connector x1(Vin-Gnd-5V)
 - Red LED x1(D3)
 - 470uF/50V x1(C1)
 - 47uF/25V x1(C2)
 - 104 pF ceramic capacitor x2(C3,C4)
 - Regulator-LM7805 x1 (U1)

You have to solder the components in the PCB. You can use our [soldering kit](#) for this purpose.

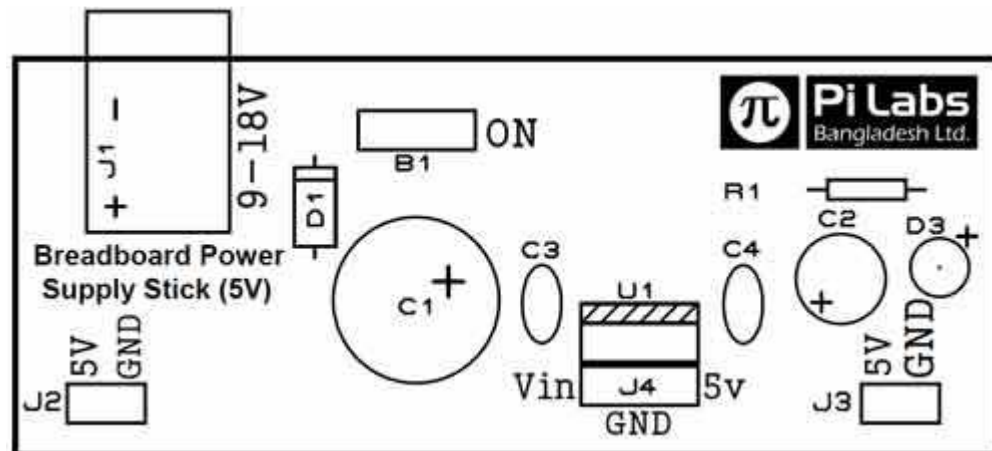


Fig: Bare PCB of Breadboard Power Supply Stick

How to get 12V DC from this kit?

With the AC cable, transformer and two 1N4007 diodes supplied with this kit, you can convert 220V AC to 12V DC.

Procedure: With the help of AC plug, give 220V AC input to the primary side of the transformer. The output of the transformer will be 12V-0-12V. Then connect to diodes with the 12V and 0V terminals. Now you will get 12V Pulsating DC. To get

pure DC, you must use a capacitor of 50V,10-25uF value(Not included with the current lot of the package).

The schematic of this circuit arrangement is shown below:

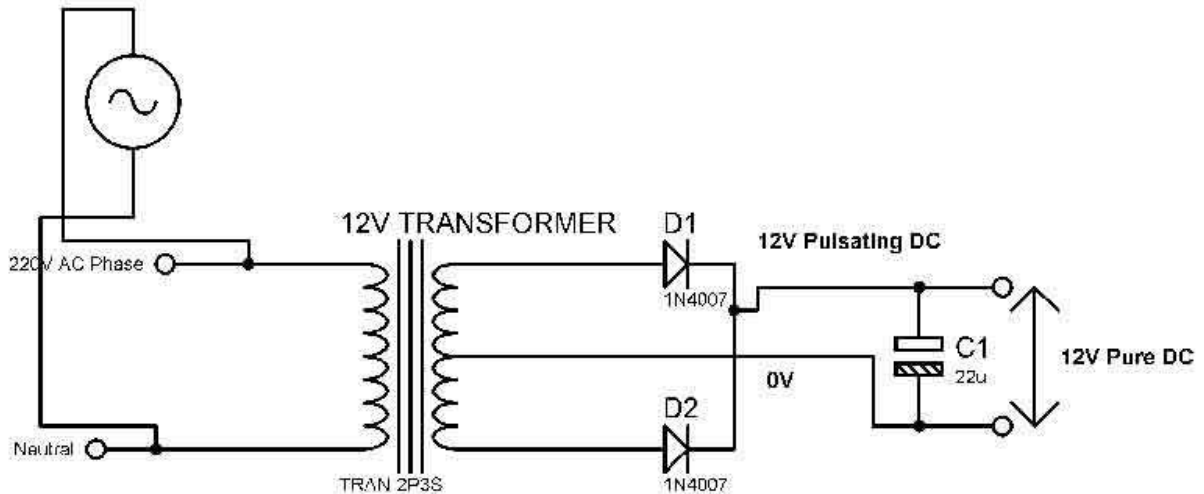


Fig: 220V AC to 12V DC Conversion.

Now you can use this 12V DC supply as the input of the power supply stick with the help of DC socket.