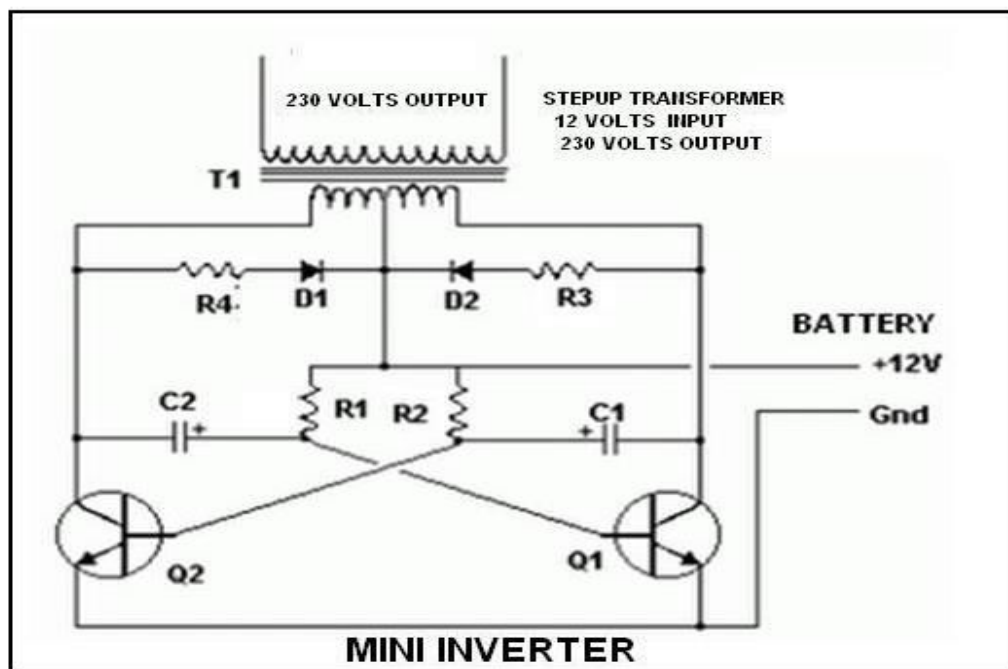


Mini Inverter



This is a basic circuit of an Inverter which converts 12volt DC to 230volt AC using a step up transformer with an oscillator circuit consisting of Q1, Q2, R1, R2, C1, C2, and the primary winding of the step up transformer. The frequency of the oscillator is 50 hertz which is the same as the existing electrical frequency. By using this circuit we can switch ON a tube light with a 12 volt UPS battery during the emergency. R1, R2, C1, C2 are responsible for the frequency. A step up transformer (230 volts – 12 volts rated at 5 amps) can be used as a step up transformer, when the primary and the secondary winding are used in reverse configuration. That is to say that, secondary windings must be used as input and the primary windings must be used as output. A higher rating battery can be used for a long duration output.

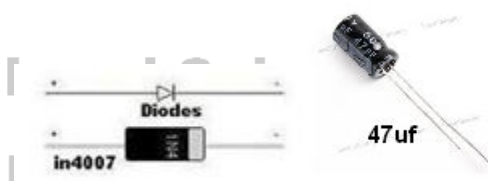
Components: T1:Step-up Transformer, D1 & D2- diodes, R1 & R2-150E, Q1 & Q2-IRF Z44, C1 & C2-47uf, Battery-12Volt UPS battery to be used.



Step-up
Transformer



IRFZ44N



Note: 1: Use proper aluminium Heatsinks for the transistors Q1 & Q2 to minimize the heat.

2: The 230 volts output wires will measure higher ohmic value than the 12Volts winding wires when measured in ohms range with a multimeter.