

# Transformer Purchase Guide

The information provided here will help you select the right transformer for your device. Electrical voltage in USA is 110 volt whereas; the voltage in most of the foreign countries is 220V to 240 volt. A voltage converter/transformer, also known as power converter are used to convert electricity coming out of the wall to match the voltage of your device. These voltage transformers or converters can be used safely with refrigerators, microwaves, juicers, blenders, coffee makers, power tools, stereo systems, TV's, video games, DVDs, hair dryers, chargers, computers and other electronics when travelling abroad.

Remember to leave at least a 100% margin for power surges/spike when buying a transformer. Some items, such as televisions and computer monitors spike when you turn them on. For these products you need to buy a voltage converter transformer that is at least 3 times the rated wattage. For power tools, laser printers and heating appliances like coffee makers, toasters, microwaves, lasers, halogen or fluorescent bulbs you must leave a margin of 4 times. It doesn't hurt to buy a transformer that is rated much higher than listed watts on your device.

## How do I know if I need a Step Up or a Step Down Voltage Converter Transformer?

When you travel from a 110 volt country with your 110 volt device to a 220 volt country (like Europe, Africa, Asia etc.), you will need a **Step Down Transformer**.

If you travel from a 220 volt country (Europe/Asia) to a 110 volt country like USA, you will need a **Step Up Transformer**

Also, there are **Step UP/Down Transformers** and converters available that work both as Step Up and Step Down. These transformers enable the use of your electric devices anywhere in the world.

## How to find correct Voltage Converter?

To determine the right voltage converter for your appliance, first find out the voltage (110 or 220 Volt AC) and wattage rating (watts or amps) information on the back or bottom of the appliance or from the instruction book of an appliance. If no watts are shown and only AMPS are shown, multiply the Volts (input AC) by the amps to find the watts.

For example:

Volts (AC Input) x Amps (amperage) = Watts (Wattage)  
 $110V \times 0.5A = 55W$

Please make sure not to run any appliance with higher wattage than voltage transformer's wattage. This might damage both your appliance and the transformer!