

ADAPTER OR CONVERTER?

Adapter Plugs

If you're traveling outside of North America, you'll most likely need an adapter plug. All over the world, there are different types of electrical wall outlets. Unless your destination country has the same outlet configuration as your home country, you'll need an adapter. Adapter plugs do not convert electricity, they simply allow your device's plug to fit into the foreign outlet.



MIDDLE EAST ADAPTER:
TRAVEL SMART \$2.79

Electricity Converters and Transformers

If you're traveling with certain devices, such as older hair dryers and irons, you may also need a voltage converter or transformer.

The world runs on two types of electricity: 110/125V or 220/240V. North American devices run on 110/125V electricity while the majority of the world runs on 220/240V. Converters and transformers change the voltage of electricity to match the voltage of your device.

How to Determine if You Need a Transformer or Converter

The label on your device will help determine if a voltage converter or transformer is necessary. This label may be: a) affixed directly to the back of the device; b) on the AC transformer box of the power supply lead; or c) molded into the plastic on the plug. It is often in very small print.

The INPUT line contains the key information—whether the voltage (V) is single, dual or multi.

Single-voltage items have a small voltage range (such as 100–120V).

These small ranges are designed to accommodate voltage fluctuations only and will not accommodate a 220V power supply. Single-voltage devices include older appliances, such as hair dryers and irons.

Dual-voltage devices use a slash to separate the 2 voltages. Example: 120V/240V. Common dual-voltage devices include newer hair dryers, electric shavers and toothbrushes, irons, coffee makers and tea kettles.

These do not require a transformer or converter.

Multi-voltage items use a dash to indicate the range of voltages. Example: 100–240V. Common multi-voltage devices include laptops, e-readers, tablets, smartphones, cell phones, MP3 players, cameras and battery chargers. These do not require a transformer or converter.

Converter or Transformer?

Single-voltage **electrical** devices (ones that use heating elements or mechanical motors) can use a converter or a transformer.

Single-voltage **electronic** devices (ones that use chips, circuits or electronic motors) require a transformer.

Good news: Many converters operate as both a converter for high-watt electrical devices **and** a transformer for low-watt electronic devices.

Watts (W) is the amount of power a device uses. Low watts range up to 25W or 50W, depending on the converter. This would be typical of small personal electronics. Electrical heating units will require a “high” setting as they may consume 1000W to 2000W.

Make sure to check the product specifications on your devices and make certain that your converter is rated for the specified power.

Device Conversion Chart

If your device is rated for a single voltage (such as 110V), and this is different than the power supply at your destination (such as 220V), you will need a voltage converter or transformer.

Device and Type of Voltage (INPUT)	Power Supply in Destination Country	Converter Needed?	Transformer Needed?
Electrical, single: 110, 115, 120, 125V	220, 230, 240V	Yes, or a transformer	Yes, or a converter
Electronic, single: 110, 115, 120, 125V	220, 230, 240V	No	Yes

SIMPLE SUMMARY: Almost every American item will need an Adaptor. Check for hair dryers, etc. to see if they have the option to switch from 110 to 220. If not, you will need a Converter to convert to 220/240.

Read the labels on Electronics to see if they are compatible from 110 to 220/240. Then you only need an Adapter.