



## ELECTRICAL SAFETY — WHY WE USE POLARIZED AND GROUNDED PLUGS

### How does a three-prong plug work?

#### What is the benefit of using it?

The third prong on a plug provides a path to ground for electricity that is straying or leaking from a product. This helps protect the equipment and can help prevent electric shock. Consumers should *never* remove or bend the third prong to fit a two-slot outlet. Use an adapter or find an appropriate three-slot outlet. Note that GFCIs are required in some places, recommended in others, even if the product has a third wire to ground it. Under some conditions, a shock hazard could still exist even if a product has a grounding wire.

### How does a polarized plug work? What is the benefit of using it?

A polarized plug is a plug with one large or wide prong and one narrow one. It ensures that the plug is inserted correctly in a socket for proper flow of electric current, and reduces the risk of electrical shock. Otherwise, the appliance can have electricity inside even though the switch is not turned on. Consumers should never force a polarized plug into a non-polarized outlet, or shave the wide prong down to fit. Use an adapter or find an appropriate polarized outlet.



**Typical Household Circuit is 15-20 Amps!**

### Effect of current on the Human Body

**0.001 amp • Barely detectable**

**0.005 amp • Painful**

**0.01 amp • Paralyzes some muscles making it hard to let go of conductor.**

**0.02 amp • Paralyzes breathing muscles. Can be fatal if sustained.**

**0.1 amp • Can cause ventricular fibrillation in the heart, which usually continues after the current stops. Death is likely.**