

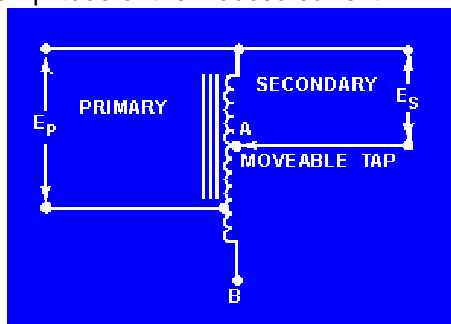
Dimmer Types

Resistance Dimmers

The resistance dimmer uses a wiper that travels along a resistive plate. The further from the input, the more resistance is encountered, and the lower the voltage. Resistance dimmers are very bulky and generate lots of heat.

Variac (Autotransformer with moveable tap)

An autotransformer is a type of transformer with only a single winding. As current is applied to the winding, an electromagnetic field is generated, which gives the iron core of the transformer a magnetic charge. The polarity of the AC field inverts, and as the magnetic field collapses, it induces a charge in the coil. A moveable tap changes the size of the coil, and proportionally changing the amplitude of the induced current.



SCR (Also SSR and Triac)

Currently the most popular form of dimmer, the SCR (Silicon Controlled Rectifier) essentially "chops" the power sinewave, reducing the amount of current available to the load.

