

Electricians

At a Glance

Electricians work with the systems that provide electricity to homes and businesses. They may install, test, maintain, and repair wiring, heating, and air-conditioning systems. Electricians generally specialize in construction or maintenance work, though a growing number do both. Electricians in construction work primarily install wiring systems into new homes, businesses, and factories. Electricians specializing in maintenance work primarily upgrade existing electrical systems and repair electrical equipment. Electricians may install the wiring systems needed for telephones, intercoms, and fire alarm and security systems as well. Electricians also may install coaxial or fiber optic cable for computers and other telecommunications equipment. All electricians must follow government codes to ensure their own safety and the safety of the buildings they work on.

Career in Focus: *Maintenance Electrician*

Maintenance work for electricians varies greatly. Electricians who specialize in residential work may rewire a home and replace an old fuse box with a new circuit breaker box, or they may install new lighting and ceiling fans. Those who work in large factories may repair motors, transformers, generators, and electronic controllers on machine tools and industrial robots. Maintenance electricians in factories, hospitals, and other institutional settings may install new equipment.

Where and When

Electricians work at construction sites and in homes, businesses, and factories. The work can be physically demanding, involving standing, stooping, kneeling, and lifting heavy objects. Some electricians may commute long distances to job sites, and all electricians run some risk of injury from electrical shock, falls, and cuts. Most work a standard 40-hour week, and those in maintenance may work nights and weekends.

For More Information

- ✱ National Electrical Contractors Association (NECA), 3 Metro Center, Suite 1100, Bethesda, MD 20814. Internet: www.necanet.org
- ✱ International Brotherhood of Electrical Workers (IBEW), 1125 15th St. NW, Washington, DC 20005. Internet: www.ibew.org
- ✱ Independent Electrical Contractors, Inc., 4401 Ford Ave., Suite 1100, Alexandria, VA 22302. Internet: www.ieci.org

Data Bank

Education and Training: Long-term on-the-job training

Starting Salaries: \$25,000

Average Earnings: \$33,000–\$56,000

Total Jobs Held: 656,000

Job Outlook: Average increase

Annual Job Openings: 68,000

Related Jobs: Heating, air-conditioning, and refrigeration mechanics and installers; line installers and repairers; electrical and electronics installers and repairers; electronic home entertainment equipment installers and repairers; elevator installers and repairers

Personality Type: Realistic

Did You Know?

Many of us learn in elementary school that Thomas Edison invented the lightbulb in 1879, but the truth is much more complicated. In fact, an English chemist named Humphry Davy invented the first electric light almost 70 years earlier. In addition, Edison's lightbulb was actually based on one developed by Henry Woodward in 1875. On top of that, a year before Edison's bulb, Sir Joseph Swan, an English physicist, invented a bulb that lasted for more than 13 hours. Just how many inventors does it take to make a lightbulb?