
Home Appliance Repairers

(O*NET 49-9031.00)

Significant Points

- Little or no change in employment is projected; however, very good job opportunities are expected, particularly for those with formal training in appliance repair and electronics.
- Workers learn on the job; good customer service skills and a driver's license are essential.

Nature of the Work

Home appliance repairers, also known as in-home service professionals, install and repair home appliances. Some repairers work on small appliances such as microwave ovens and vacuum cleaners. Others specialize in major appliances such as refrigerators, dishwashers, washers and dryers, and window air conditioning units. (Workers whose primary responsibility is the installation and repair of heating and central air conditioning units are covered in a separate *Handbook* statement on heating, air conditioning and refrigeration mechanics and installers—although some worker responsibilities may overlap.) Home appliance repairers install household durable goods such as refrigerators, washing machines, and cooking products. They may have to install pipes in a customer's home to connect the appliances to a gas or water line. In these cases, once the lines are in place, they turn on the gas or water and check for leaks. Home appliance repairers also answer customers' questions about the care and use of appliances.

When problems with home appliances occur, home appliance repairers visually inspect the appliance and check for unusual noises, excessive vibration, leakage of fluid, or loose parts to determine the cause of the failure. Repairers disassemble the appliance to examine its internal parts for signs of wear or corrosion. They follow service manuals and use testing devices such as ammeters, voltmeters, and wattmeters to check electrical systems for shorts and faulty connections.

After identifying problems, home appliance repairers replace or repair defective belts, motors, heating elements, switches, gears, or other items. They tighten, align, clean, and lubricate parts as necessary. Repairers use common handtools, including screwdrivers, wrenches, files, and pliers, as well as soldering guns and tools designed for specific appliances. When repairing appliances with electronic parts, they may replace circuit boards or other electronic components.

When repairing refrigerators and window air-conditioners, repairers must take care to conserve, recover, and recycle chlorofluorocarbon (CFC) and hydrochlorofluorocarbon (HCFC) refrigerants used in the cooling systems, as is required by law. Federal regulations also require that home appliance repairers document the capture and disposal of refrigerants.

Repairers write up estimates of the cost of repairs for customers, keep records of parts used and hours worked, prepare bills, and collect payments. If an appliance is still under warranty, self-employed repairers will talk with the original appliance manufacturer to recoup monetary claims for work performed.

Work environment. Home appliance repairers who handle portable appliances usually work in quiet and adequately lighted and ventilated repair shops. Those who repair major appliances may spend several hours a day driving to and from appointments and emergency calls. Repairers sometimes work in cramped and uncomfortable positions when they are replacing parts in hard-to-reach areas of appliances. Repairer jobs generally are not hazardous, but workers must exercise care and follow safety precautions to avoid electrical shocks and gas leaks, and prevent injuries when lifting and moving large appliances.

Home appliance repairers usually work with little or no direct supervision. Many home appliance repairers work a standard 40-hour week, but may work overtime and weekend hours in the summer months, when they are in high demand to fix refrigerators and window mounted air-conditioners. Some repairers work early morning, evening, and weekend shifts and may remain on call in case of an emergency.

Training, Other Qualifications, and Advancement

Most entry-level workers in this profession enter without any specific training or experience and learn on the job, although employers prefer to hire those who have completed programs in electronics or appliance repair. A driver's license and good customer service skills are essential to work on appliances in customer's homes.

Education and training. Most home appliance repairers enter the occupation with a high school diploma or its equivalent



Home appliance repairers often make house calls to diagnose and fix stoves, refrigerators, dishwashers, or other appliances.

Projections data from the National Employment Matrix

Occupational Title	SOC Code	Employment, 2006	Projected employment, 2016	Change, 2006-16	
				Number	Percent
Home appliance repairers	49-9031	57,000	58,000	900	2

NOTE: Data in this table are rounded. See the discussion of the employment projections table in the *Handbook* introductory chapter on *Occupational Information Included in the Handbook*.

and very little training in repairing appliances. Most learn their jobs while working with more experienced workers, which can last from several months to a few years. In businesses that fix portable appliances in a repair shop, trainees work on a single type of appliance, such as a vacuum cleaner, until they master its repair. Then they move on to others, until they can work on all appliances repaired by the shop. In companies that repair major appliances, beginners assist experienced repairers on service visits. Up to 3 years of on-the-job training may be needed for a technician to become skilled in all aspects of repair.

While on-the-job training is the most common method of training, employers prefer to hire students of appliance repair or electronics programs offered in high school vocational programs, postsecondary technical schools or community colleges. These programs can last 1 to 2 years and include courses in basic electricity and electronics as most home appliances contain electronic components. These programs can help reduce the amount of on-the-job training required for entry-level workers.

Whether their basic skills are developed through formal training or on the job, trainees usually receive additional training from their employer and from manufacturers. Some appliance manufacturers and department store chains have formal training programs that include home study and shop classes, in which trainees work with demonstration appliances and other training equipment. Many repairers receive supplemental instruction through 2- or 3-week seminars conducted by appliance manufacturers. Repairers authorized for warranty work by manufacturers are required to attend periodic training sessions.

Licensure. The U.S. Environmental Protection Agency (EPA) has mandated that all repairers who buy or work with refrigerants pass a written examination to become certified in their proper handling. Exams are administered by EPA-approved organizations, such as trade schools, unions, and employer associations. There also are EPA-approved take-home certification exams. Although no formal training is required for certification, many of these organizations offer training programs designed to prepare workers for the certification examination.

A driver's license is necessary in order to drive to customer's homes.

Certification and other qualifications. Mechanical and electrical aptitudes are desirable, and those who work in customers' homes must be courteous and tactful. Those who are self-employed need good business and financial skills to maintain a business.

Home appliance repairers may exhibit their competence by passing one of several certification examinations offered by various organizations. Although voluntary, such certifications

can be helpful when seeking employment. The National Appliance Service Technician Certification (NASTeC), which is administered by the International Society of Certified Electronics Technicians (ISCET), requires repairers to pass a comprehensive examination that tests their competence in the diagnosis, repair, and maintenance of major home appliances. The Professional Service Association (PSA) administers a similar certification program. Those who pass the PSA examination earn the Certified Appliance Professional (CAP) designation.

Advancement. Repairers in large shops or service centers may be promoted to supervisor, assistant service manager, or service manager. Some repairers advance to managerial positions such as regional service manager or parts manager for appliance or tool manufacturers. Experienced repairers who have sufficient funds and knowledge of small-business management may open their own repair shops.

Employment

Many communities across the country employ home appliance repairers, but a high concentration of jobs can be found in more populated areas. Home appliance repairers held 57,000 jobs in 2006. About 36 percent of salaried repairers worked for retail trade establishments such as department stores and electronics and appliance stores. About 27 percent of repairers were self-employed. Another 21 percent work in household goods repair and maintenance.

Job Outlook

Little or no change in employment of home appliance repairers is projected. However, very good job opportunities are expected, particularly for individuals with formal training in appliance repair and electronics.

Employment change. The number of home appliance repairers will grow 2 percent between 2006 and 2016, reflecting little or no change. The number of home appliances in use is expected to increase with growth in the numbers of households. The decision to repair an appliance, however, often depends on the price to replace the appliance versus the cost to make the repairs. So while higher priced major appliances designed to have a long life are more likely to be repaired, small appliances are apt to be discarded rather than be repaired. With sales of high-end appliances growing, demand for major appliance repairers should be strong into the future.

Job prospects. In addition to new jobs created over the 2006-16 period, openings will arise as home appliance repairers retire or transfer to other occupations. Very good job opportunities are expected, with job openings continuing to outnumber jobseekers. Individuals with formal training in appliance repair and electronics should have the best opportunities.

Jobs are expected to be increasingly concentrated in larger companies as the number of smaller shops and family-owned businesses decline. Employment is relatively steady and workers are rarely laid off because demand for major appliance repair services is fairly constant.

Earnings

Median hourly earnings, including commissions, of home appliance repairers were \$16.28 in May 2006. The middle 50 percent earned between \$12.37 and \$20.79 a year. The lowest 10 percent earned less than \$9.37, and the highest 10 percent earned more than \$25.84 a year. In May 2006, median hourly earnings of home appliance repairers in the largest employing industries were \$15.18 in electronics and appliance stores and \$17.02 in personal and household goods repair and maintenance.

Earnings of home appliance repairers vary with the skill level required to fix equipment, the geographic location, and the type of equipment repaired. Many repairers receive a commission along with their salary, therefore earnings increase with the number of jobs a repairer can complete in a day.

Many larger dealers, manufacturers, and service stores offer typical benefits such as health insurance coverage, sick leave,

and retirement and pension programs. Some home appliance repairers belong to the International Brotherhood of Electrical Workers.

Related Occupations

Other workers who repair electrical and electronic equipment include electrical and electronics installers and repairers; electronic home entertainment equipment installers and repairers; small-engine mechanics; coin, vending, and amusement machine servicers and repairers; and heating, air-conditioning, and refrigeration mechanics and installers.

Sources of Additional Information

For general information on home appliance repairers, contact the following organizations:

➤ National Appliance Service Association, P.O. Box 2514, Kokomo, IN 46904.

➤ United Servicers Association, Inc., P.O. Box 31006, Albuquerque, NM 87190.

Internet: <http://www.unitedservicers.com>

For information on the National Appliance Service Technician Certification program, contact:

➤ International Society of Certified Electronics Technicians, 3608 Pershing Ave., Fort Worth, TX 76107.