



City of Phoenix ELECTRONIC SYSTEMS SPECIALIST

JOB CODE 74200

Effective Date: 12/03

DISTINGUISHING FEATURES OF THE CLASS:

The fundamental reason this classification exists is to perform highly skilled electronic systems work in the design, installation, maintenance, and repair of electronic systems and equipment, such as security, alarm, and life safety networks; building automation; carbon monoxide measuring and alert; fuel management; and parking automation. Work involves evaluating present systems and recommending system expansion, modification, and replacement. Incumbents of the classification install, maintain, troubleshoot, repair, and calibrate electronic computerized local and wide area network (LAN/WAN) system components; develop and maintain controls and computerized energy management systems; develop, modify, and implement new and existing software programs; and perform system database maintenance. These positions are also responsible for installing and maintaining network wiring and wireless communications using copper, fiber optics, switches, and microprocessor-based network controllers. Work is performed under general supervision of a Communications Engineer, Senior User Technology Specialist, or other supervisor, and is subject to review through conferences, reports, and observation of results achieved. Some positions require shift, weekend, and holiday work hours.

ESSENTIAL FUNCTIONS:

- Evaluates the utility and condition of electronic systems and equipment, such as security, alarm, and life safety networks; building automation; carbon monoxide measuring and alert; fuel management; and parking automation;
- Troubleshoots, repairs, maintains, designs, and installs security and life safety wire-line and wire-less communications network equipment and communications network infrastructure equipment;
- Configures computer equipment, utilizing management software to assist with system problem analysis for repair, maintenance, and programming of communications equipment office and field environments;
- Oversees the work of contracted vendors performing installation work, ensuring standards in connectivity, quality, and workmanship are met;
- Uses hand tools and diagnostic equipment appropriate for installation, maintenance, and repair of electronic communications equipment;
- Checks equipment, including test instruments, for preventive maintenance and to ensure compliance with FCC requirements;



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- Creates and updates records of electronic systems performance, work accomplished, or related information;
- Utilizes specialized test equipment and diagnostics to locate and correct faults and trouble in the computer system and associated peripheral equipment;
- Services electronic equipment and systems associated with departmental radio dispatching operations;
- Evaluates the utility and condition of consoles, map boards, or other control or display systems;
- Constructs or creates complex communications equipment or test devices;
- Maintains regular and reliable attendance.
- Demonstrates superior seamless customer service, integrity, and commitment to innovation, efficiency, and fiscally responsible activity.

Required Knowledge, Skills and Abilities:

Knowledge of:

- The electronic systems field, with mastery in digital systems and associated peripheral equipment.
- The uses, calibration, and care of electronic test equipment.
- Specialized test equipment and diagnostics used for troubleshooting computer systems.
- Computer programming, computer systems, and peripheral equipment.
- Preventive maintenance procedures for computers and peripheral equipment.
- Cable distribution and basic principles of electricity.
- Advanced electronic data communications systems and equipment.
- Standard electronic wiring, color coding, and connection schemes.
- Computerized and microprocessor controlled electronic systems operation and theory.
- Analog and digital electronics.

Ability to:

- Perceive the full range of the color spectrum in working with electrical wires.
- Diagnose problems or malfunctions and accomplish repairs in a minimal amount of time.
- Make independent decisions quickly in emergency situations.
- Remain aware of changes in the field by reading, attending training, actively participating in the day-to-day activities of the job, etc.
- Work cooperatively with other City employees.
- Communicate orally in the English language with individuals in a face-to-face, one-on-one setting or by telephone.



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- Comprehend and make inferences from material written in the English language and understand and follow complex schematics, circuit diagrams, service orders, work sheets, floor plans, electrical wiring plans, construction blueprints and related documents.
- Make skillful, controlled manipulations of small objects such as wiring, tools, and small equipment parts.
- Work in small cramped areas, such as ceiling spaces, and equipment enclosures.
- Climb ladders or steps to reach objects.
- Move objects weighing 50 pounds or more short distances.
- Learn job-related material through oral instruction, observation, structured lecture, and reading.
- Enter data or information into a computer terminal, personal computer, or other keyboard device.
- Perform mathematical calculations such as addition, subtraction, multiplication, division, and algebra.
- Work under pressure, handling significant problems or tasks which come up simultaneously or unexpectedly.
- Establish priorities for own workload.
- Work safely without presenting a direct threat to self or others.

Additional Requirements:

- Some positions will require the performance of other essential and marginal functions depending upon work assignment, location, or shift.
- Some positions require the use of a personal or City vehicle on City business. Individuals must be physically capable of operating the vehicles safely, possess a valid driver's license and have an acceptable driving record. Use of a personal vehicle for City business will be prohibited if the employee does not have personal insurance coverage.

ACCEPTABLE EXPERIENCE AND TRAINING:

Three years of journey level experience in installation and maintenance of electronic and digital systems or related distribution systems and an associate's degree in electronics or related field. Other combinations of experience and education which meet the minimum requirements may be substituted.