



Office of Human Resources
Electronic Systems Technician - CJ2511
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General Statement of Duties

Installs, modifies, fabricates, troubleshoots, repairs and maintains a wide variety of specialized technical electronic equipment and electrical systems.

Distinguishing Characteristics

This class is distinguished from Electronic Equipment Installer, which installs electronic equipment including two-way radio, cellular phone, mobile computer terminals and ancillary electronic equipment in a variety of City vehicles. This class is distinguished from Communications Electronic Technician, which performs bench and field maintenance and repair work on electronic and electrical systems in radio transmitters and receivers. This class is also distinguished from Maintenance Technician, which performs standard performance, semi-skilled, trades work in a variety of trade areas for the purpose of construction, maintenance, repair and/or installation of equipment and/or facilities (mechanical work).

Level of Supervision Exercised

By position, performs lead work.

Essential Duties

Repairs and maintains electronic systems and equipment such as microwave, radar, radio, computers, cellular phones, closed circuit TV, cable TV, security, runway lighting, paging, fire alarm and other related electronic, control and signaling systems.

Troubleshoots, tests, diagnoses, calibrates, and performs bench and field repairs to the component level.

Designs and fabricates circuits and related equipment as needed to utilize existing equipment, modify applications, or resolve unusual problems.

Installs and maintains radio systems, antennas, transmission lines, power supplies, videos, microwave transmitters and receivers, alarm and signaling equipment, encoders and decoders, computer data systems, and other related communication systems.

Performs preventative maintenance for electronic control and signaling equipment to minimize repair problems and to meet manufacturers' specifications.

Reviews service contracts, evaluates and recommends equipment purchasing as assigned.

Provides training and maintenance instructions to operators or installers of specialized systems and equipment.

Operates a variety of computer systems designed to monitor and/or operate specific electronic and electrical systems.

Researches and prepares technical reports.

Maintains records on required and completed repair work.

By position, writes computer programs compatible with operating systems to expand functions.

By position, may be required to be on-call to address emergent needs.

Any one position may not include all of the duties listed. However, the allocation of positions will be determined by the amount of time spent in performing the essential duties listed above.

Competencies

Attention to Detail - Is thorough when performing work and conscientious about attending to detail.

Decision Making - Makes sound, well-informed, and objective decisions; perceives the impact and implications of decisions; commits to action, even in uncertain situations, to accomplish organizational goals; causes change.

Reading - Understands and interprets written material, including technical material, rules, regulations, instructions, reports, charts, graphs or tables; applies what is learned from written material to specific situations.

Technical Competence - Uses knowledge that is acquired through formal training or extensive on-the-job experience to perform one's job; works with, understands, and evaluates technical information related to the job; advises others on technical issues.

Technical Problem Solving - Troubleshoots diagnoses, analyzes, and identifies system malfunctions to determine the source and cause of the problem.

Technology Application - Uses machines, tools, or equipment effectively; uses computers and computer applications to analyze and communicate information in the appropriate format.

Written Communication – Composes, reviews, edits, and issues written materials for diverse audiences and communicates purpose in a succinct and organized manner that is appropriate for context, time, and place.

Knowledge & Skills

Knowledge of circuit boards, processors, chips, and computer hardware and software, including applications and programming.

Knowledge of electronic theory, circuits, components, and material properties (excluding computers).

Knowledge of electrical equipment, components, instruments, and systems, including their design, installation, testing, uses, repair, or maintenance.

Knowledge of safety hazards and necessary safety precautions sufficient to be able to establish a safe work environment for self and others.

Education Requirement

Graduation from high school or the possession of a GED, HiSET or TASC Certificate.

Experience Requirement

Three (3) years of experience building and maintaining electronic systems and equipment and making component level repairs.

Education & Experience Equivalency

Additional appropriate education may be substituted for the minimum experience requirements.

Licensure & Certification

This job requires driving. Requires a valid Driver's License at the time of application.

By position, requires a valid Commercial Driver's License (CDL "B") with appropriate endorsements by the end of probation.

By position, requires FCC General Radio Telephone Operator's License by the end of the probationary period.

Licenses and certifications must be kept current as a condition of employment.

Working Environment

Potential exposure to temperature changes: variations in temperature from hot to cold.

Potential exposure to hazards from electro/mechanical/power equipment.

Potential exposure to cold temperatures, cold enough to cause marked bodily discomfort.

Potential exposure to heat temperatures, hot enough to cause marked bodily discomfort.

Potential exposure to toxic chemicals.

Subject to precarious or high locations.

Level of Physical Demand

3-Medium (20-50 lbs.)

Physical Demands

(Physical Demands are a general guide and specific positions will vary based on working conditions, locations, and agency/department needs.):

Carrying transporting an object, usually by hand, arm, or shoulder.

Climbing: Ascending or descending objects usually with hands/feet.

Color Vision: Ability to distinguish and identify different colors.

Depth Perception: Ability to judge distances and space relationships.

Field of Vision: Ability to adjust vision to bring objects into focus.

Field of Vision: Ability to see peripherally.

Fingering: Picking, pinching, or otherwise working with fingers.

Lifting: Raising or lowering objects weighing no more than 50 pounds, from one level to another.

Mental Demands: mathematical reasoning, memorization, oral comprehension, spatial orientation, and written comprehension.

Reaching: Extending the hand(s) and arm(s) in any direction.

Repetitive Motions: Making frequent movements with a part of the body.

Vision Far acuity: ability to see clearly at 20 feet or more.

Vision Near acuity: ability to see clearly at 20 inches or less.

Standing: Remaining on one's feet in an upright position.

Background Check Requirement

Criminal Check

Employment Verification

By position, Motor Vehicle Record

Assessment Requirement

None

Probation Period

Six (6) months.

Class Detail

Pay Grade: J-621

FLSA Code: N

Established Date: 9/21/2018

Established By: LS

Revised Date:

Revised By:

Class History: