

**ELECTRONIC SPECIALIST**

**DEFINITION**

Under general supervision, design, install, test, service, monitor, document, and repair the District's electronic and electromechanical equipment; perform system administrative software modification and configuration of electronic databases in support of telephone company circuitry, site, and user related information; provide user training as necessary; assist with skilled and semi-skilled tasks in other trades.

**EXAMPLES OF DUTIES**

*The following duties are typical for this classification. Incumbents may not perform all of the listed duties and/or may be required to perform additional or different duties from those set forth below to address business needs and changing business practices.*

1. Responds to user requests in support of the District's Local Area Network and Wide Area Network through the establishment of new data drops.
2. Troubleshoots and repairs existing communications systems.
3. Builds computer lab and media distribution infrastructure, including all media (fiber, coax, data cabling).
4. Assembles, installs, repairs, and maintains a variety of fire alarm systems, electronic equipment, including intercommunications systems, centralized sound systems, public address systems, electronic security alarms, intercom telephone systems, video surveillance systems, bell and buzzer systems, and clock systems.
5. Troubleshoots and repairs cabling media, program and identify related software configuration issues, various telephone key system programming, such as Direct In-ward Dialing (DID), electronic and hybrid key systems, and private branch exchange systems.
6. Coordinates line installation and problem diagnostics with the telephone company.
7. Interprets technical manuals to perform repairs.
8. Programs communication switches.
9. Plans the installation of telephone systems.
10. Evaluates existing systems and develops specifications for expansion or upgrade.
11. Tests equipment to certify installations; tests and diagnoses equipment malfunctions and replaces defective electronic components and wiring utilizing a variety of specialized tools.
12. Aligns, adjusts, and calibrates equipment and tests instruments according to local and state codes.
13. Synchronizes, adjusts, and repairs systems to component level.
14. Disassembles, adjusts, and repairs secondary time clocks.
15. Programs Simplex and electronic control systems.
16. Diagnoses and isolates faulty mechanical and electronic problems.
17. Evaluates existing cabling and determine requirements for expansion or upgrade; installs cable, conduit and wiring.
18. May coordinate or participate in the digging of trenches.
19. Plans and organizes assignments.
20. Uses an oscilloscope, volt meter, signal generator, Fluke testers, and other instruments to determine source of problems.
21. Orders and maintain an inventory of parts and supplies.
22. Estimates labor and material costs; maintains records of work performed and material used.
23. Drives a District vehicle to and from work sites.
24. Loads and unloads vehicle; transports, lifts, and carries equipment, tools and supplies.
25. May direct the work of maintenance assistants.
26. Performs other related duties as required.

## **QUALIFICATIONS**

### **Knowledge of:**

Methods, procedures, standards, and theories of communication networks, of fire alarm systems; operation of electronic equipment, materials, tools, and techniques used in installation, maintenance, and repair; voice over Internet Protocol phones utilizing Cisco AVVID architecture, Toshiba Voice over Internet Protocol, and related equipment (i.e., voice mail, PBX, telephone company lines, media distribution, unified messaging); principles of electronics and electrical theory; applicable codes and regulations; principles of electronic and electrical theory; current developments in voice/video/data communication systems; safe working methods and procedures. Understanding in the use of diagnostic testing equipment; tools used in the installation, maintenance and repair of cable media. Skill in personal computer use utilizing Windows-based operating systems for switch configurations; understanding of circuit switched and Internet Protocol switched networks, software utilities, cable requirements, and interface technology; applicable state and local codes; safe working methods and procedures.

### **Ability to:**

Install, repair, test, and maintain LAN/WAN communication systems and electronic equipment; operate various related tools used in testing and repair; ability to read and develop scope of work which may include blueprints, technical drawings, flow charts, and technical manuals; perform heavy manual labor; distinguish color and have visual depth perception; maintain records; independently analyze problems and implement solutions; communicate effectively both orally and in writing; work flexible hours when necessary; understand and carry out oral and written instructions; establish and maintain cooperative working relationships; comply with the District's customer service standards, as outlined in Board policy.

### **Education/Experience:**

Any combination equivalent to: Associate of Arts degree in networking technology or related field and two years LAN/WAN systems experience involving installation and maintenance of communication networks. Experience and education may be substituted on a year-for-year basis or by year-for-year experience received in CUSD Electronic Technician or Electrician or Communications Technician positions.

### **License/Certificate Requirement:**

Possession of a valid California Driver's License.

Cisco, Microsoft, or Toshiba certification desirable.

## **PHYSICAL DEMANDS AND WORKING ENVIRONMENT**

*The conditions herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.*

**Environment:** Work is performed in an indoor and outdoor setting, with travel from site to site, exposure to all types of weather and temperature conditions, electrical energy, noise, and dust.

**Physical:** Primary functions require sufficient physical ability and mobility to work in an indoor and outdoor school campus setting; lift, carry, push, pull or otherwise move moderately heavy to heavy loads; bend, stoop, squat, and reach; climb ladders; verbally communicate to exchange information.

**Vision:** See in the normal visual range with or without correction.

**Hearing:** Hear in the normal audio range with or without correction.

12/01

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