



JOB TITLE:	COMMUNICATIONS ELECTRONICS TECHNICIAN	DIVISION:	BRIDGE
REPORTS TO:	COMMUNICATIONS ELECTRONICS SUPERVISOR	EEO CATEGORY:	03 – TECHNICIAN
FLSA:	NON-EXEMPT	SAFETY- SENSITIVE:	YES (PUBLIC-SAFETY)
CLASSIFICATION:	REPRESENTED	LOCATION:	SAN FRANCISCO

Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the job.

Position Summary

This position demands a wide range of technical skills. Under the direction of the Communications Electronics Supervisor, this position provides technical support for the communications, access control, video and electronics control system in place throughout the District. The Communications Electronics Technician installs, maintains, test and repairs electronics communications system located at various District facilities from San Francisco to Santa Rosa. These include, but is not limited to, P25 trunked radio system, microwave equipment, video cameras and management system, access control system, programmable logic controllers, fiber optics and network communications equipment. The position is also involved in the installation and maintenance of communication and fiber optic cabling systems.

Essential Responsibilities

- Installs and maintains the following: P25 trunked radio system, access control system, video management system, programmable logic controllers and associated controls, microwave equipment, public address systems, telephone lines and fiber optic cables
- Installs, tests, and maintains electronic and two-way radio equipment in Buses, Ferries, District vehicles and facilities, and radio sites
- Setups and services access control system, including card readers, electromechanical locks, gate controllers and associated software
- Installs and maintains video surveillance system, including cameras, servers and management software
- Installs and maintains different computer aided equipment such as radio dispatch consoles, access control monitoring, video management system, & distributed control system for PLC
- Tests, troubleshoots and repairs fiber optic using OTDR and splice equipment
- Installs, configures and maintains servers, database and network equipment such as routers and switches
- Performs regular, preventive maintenance and documents system and equipment repairs, modifications and changes
- Assists in the design, fabrication and modification of electronics communications equipment
- Updates and corrects manufacturers' documentation to increase maintenance and repair efficiency
- Knows and follows the safety and health rules and safe working practices applicable job



- Establishes and maintains effective working relationships with District employees, customers, vendors and all others contacted during the course of work using principles of excellent customer service.
- Performs additional related duties as assigned
- Regular and reliable attendance and performance is required

Required Knowledge, Skills and Abilities

Knowledge of:

- Occupational health and safety rules and working practices applicable to this position
- P25 trunking system, simulcast and multicast system, site trunking and Failsoft modes, microwave digital modulation theory and techniques, telecommunication theory, computer aided dispatch systems, voice logging recorders
- Access Control System (card readers, electromechanical locks, gate controllers and associated software)
- Video Management System (cameras, storage servers and management software)
- Programmable Logic Controllers (system automation software and hardware e.g., Opto22)
- Fiber Optic termination and connections
- IP based networking principles, VLANs and routing protocols
- Tools, equipment and methods of electronic technology
- Installation and wiring methods of mobile and fixed site communications equipment, telephone, data communications systems

Ability to or Skill in:

- Carry out verbal and written instructions
- Work with minimal supervision
- Use telecommunication and electronic test set, service monitor, digital multimeter, OTDR
- Read equipment and system schematic diagrams
- Proficient in use of computer workstation and laptop PCs for testing, diagnostics, and programming telecommunications equipment
- Work closely and interact professionally with other District employees
- Establish and maintain cooperative, effective and productive working relationships with District employees and all those contacted in the course of work

Minimum Qualifications

Education and/or Experience:

- Associate's degree in Electronics, Communications Technology or completion of electronics, communications technology certification program
- Minimum of four years of experience as Communications Electronic Technician working with P25 radio system, access control, video surveillance, PLCs and similar technologies
- FCC General Radio Operator License (GROL) license preferred

**Required License:**

Must possess and maintain a current, valid California driver's license and satisfactory driving record. No reckless driving and DUI infractions within the last 7 years. No more than 2 moving violations within the last 3 years. Operates District vehicles on a regular basis.

Physical Requirements:

Must be available for emergency repair call backs. Must be able to work outside in inclement weather. Able to lift up to 50 lbs. Able to climb towers, bridge main cables, radio antenna towers and structural steel. Must be able to bend and crawl in small areas to install security equipment requiring bending and reaching. Put arms, hands, and fingers into narrow openings. Exposure to exhaust fumes, noise, and sharp edges. May encounter reptiles, spiders and venomous species at remote radio sites.

This position may have a potential for or actual exposure to lead. Pursuant to OSHA regulations, District employees are not exposed to lead at concentrations greater than 10 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) of air averaged over an 8-hour period.

Hours of Operation:

Monday - Friday, subject to 24-hour call back and monthly rotational on-calls. Must go to all District locations, including Bridge Towers, Bus Depot, Ferry Piers, remote mountain tops, etc.