City of Bellingham
Classification Specification

CLASS TITLE	**Communications Electronics Specialist**
DEPARTMENT	**Public Works\Operations**
UNION:	**1937**
SG:	**114**
CS:	**Yes**
FLSA:	**Y**
EE04/SOC CODE:	**TE/49-2021**

NATURE OF WORK:

Performs installation, maintenance, and repair work on a variety of communications systems. Also may perform repairs on a various electronic equipment in use throughout Public Works or other City departments.

DISTINGUISHING CHARACTERISTICS:

The Communications Electronics Specialist performs maintenance, troubleshooting, and repair of a wide variety of communications systems including 911 dispatch console systems. The Communications Specialist works in developing capacity with increased responsibility for performing these assignments. Uses an ever-increasing level of independent judgment with respect to troubleshooting, diagnoses, and repair of equipment and systems.

SUPERVISORY RELATIONSHIPS:

Reports to Communications and Electronics Manager. Works independently under general supervision in accordance with applicable City and departmental policies, procedures and standards. Receives assignments, work direction and training from supervisory personnel.

ESSENTIAL FUNCTIONS:

1. Installs, tests, repairs, calibrates, and maintains base, mobile, portable two-way radios, pagers, and accessory equipment.

2. Installs, tests, repairs, and maintains microwave radio and multiplex equipment and other point to point communications systems such as fiber optic transport. Coordinates maintenance of telco transport circuits with telephone company technicians.

3. Maintains radio dispatch consoles and all associated equipment at both Prospect and WhatComm 911 centers to include but not limited to console system, transport equipment, control stations and interfaces, voting systems, and antenna systems at centers.

4. Installs electronic communications systems equipment in order to implement a new or modify an existing system. Assist in instructing end users on operation of new or modified systems.

5. Processes public safety sensitive and confidential information in a discrete and professional manner.

6. Uses typical radio maintenance test equipment to verify that radio operation complies with FCC regulations and industry standards.

7. Maintains logs, as-built documents, service records, and an inventory of equipment as required.

8. Maintains a positive customer service attitude at all times with the public, user agency members, co-workers, and supervisors. Is committed to providing quality service.

9. Utilizes computer software to perform system diagnostics, and configuration of radio systems and transport as required.

10. Must maintain strict adherence to safety practices as tasks may be performed around high voltage and/or dangerous radio frequency radiation areas.

11. Ability to remain calm, focused, and decisive under highly stressful circumstances. Must have skills in thinking clearly and responding quickly in times of emergency.

12. Performs other related tasks and repairs as assigned.

ADDITIONAL WORK PERFORMED:

1. Troubleshoot and repair a wide variety of electronic equipment in use throughout the various City Departments to include by not limited to video systems, radar / lidar equipment, mobile emergency lighting and siren systems, and intercom systems.

KNOWLEDGE AND SKILLS:

Knowledge of:

- Performing basic math and algebraic calculations as related to electrical theory.
- Working knowledge of the National Electric Code and its application.
- Fundamental knowledge of the principles, applications, and theory of radio systems including but not limited to receivers, transmitters, microwave systems, antenna systems, combiners; 800, VHF, or UHF trunked systems, analog and digital systems, simulcast, voted radio systems, dispatch console systems, and ancillary equipment.
- Working knowledge with radio interfaces and radio service software and the ability to interpret equipment functionality based on programming to configure equipment as requested by end user.

Skill in:

- Strong written and verbal communications.
- Establishing and maintaining effective working relationships with other employees in a team situation.
- Troubleshooting, diagnosing, and repairing a variety of electrical and electronic systems.
- Reading and understanding electrical and electronic schematics, engineering plans, specifications, and wiring diagrams.

Ability to:

- Operate test equipment in order to isolate and repair malfunctioning equipment by monitoring and interpreting readings as registered on test equipment and checking to insure that the equipment and/or components meet specifications using established testing procedures and standards.
- Understand and interpret technical material, including service manuals, rules, regulations, instructions, reports, charts, and narrative instruction; must be able to apply information to specific troubleshooting situations.
- Ability to execute complex written and oral instructions.
- Utilize computerized information systems and proficient use of word processing, spreadsheet and database programs.
- Consistently demonstrate high level of initiative, effort, and commitment toward completing assignments efficiently.
- Use and care for power tools, hand tools, and complex electronics diagnostic equipment effectively and safely.
- Adapt and flex to schedule changes as necessary, and willingness to accept "call out" status for emergency situations.
- Maintain reliable and punctual attendance.
- Ability and willingness to demonstrate the Public Service Competencies of Service Orientation, Results Orientation, and Teamwork and Cooperation.
- Physical ability to perform essential functions of the job including:
  - Adequate hearing to effectively hear voice radio and telephone conversations, road way traffic, and alarms in a noisy environment;
  - Manual and finger dexterity sufficient to manipulate small objects;
  - Adequate vision to view computer terminals, perform close work and distinguish between color-coded electronic parts;
  - Physical ability to climb ladders and lift/carry bulky, heavy objects up to 50 lbs.

WORKING ENVIRONMENT:

May work out of doors up to 100% of the time (depending upon assignment) in all weather conditions and temperatures. May work indoors 100% of the time (depending upon assignment) in an office / lab setting.

EXPERIENCE AND TRAINING REQUIREMENTS:

- Minimum of three years of experience installing, maintaining, troubleshooting, and repairing electronics communications equipment and systems in a two-way radio maintenance facility, including repair to the component level in transmitting and receiving equipment or equivalent experience and training.
- High School Diploma or equivalent.
- Associates Degree in electronics technology preferred.
- Experience with computer networking; design, installation, diagnosing, troubleshooting preferred.
- Familiarity with Zetron series 4000 and/or MAX series console systems preferred.

NECESSARY SPECIAL REQUIREMENT:

- Must possess a Federal Communications Commission (FCC) General Radiotelephone Operator License or have the ability to secure and maintain within one year of promotion or hire into the position.
- Employment contingent upon passing a criminal conviction and local background check.
- Valid Washington State driver's license and good driving record. Candidate considered for hire must submit an abstract of his/her driving records for the past three-years; with biennial submission of driving abstract (Policy ADM 10.03.02.4).
- Willingness to work varied shifts including evenings and weekends as assigned.
- Must be able to report to Operations Division for emergency call-out within one (1) hour response time.

PREPARED BY:
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7/14

REVIEWED BY: _____

Eric Johnston, P.E.
Asst. Director, Public Works

REVISED BY:
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Ted Carlson
Director, Public Works

COMMISSION ADOPTION: May 9, 2018

Previously: Electronics Specialist