

**JOB DESCRIPTION
CITY OF SPRINGFIELD**

**HUMAN RESOURCES DEPARTMENT
EMPLOYMENT AND
COMPENSATION DIVISION**

Job Title	<u>Signal Technician</u>
Sch & Grade	<u>PAT-7</u>
Class Code	<u>CO18</u>
FLSA Status	<u>Non-exempt</u>
Bargain Unit Elig.	<u>AFSCME</u>
Occupational Group	<u>Traffic Signal Repair</u>

PRIMARY PURPOSE:

Performs progressively responsible work in the assembly, installation, maintenance and repair of solid state electronic traffic control equipment including ITS field hardware, communication system, and other related electrical traffic management and control equipment while acquiring the knowledge and experience required for appointment to the position of Senior Signal Technician. As training progresses and knowledge and abilities are developed, incumbents are assigned more difficult tasks and are required to exercise more judgment, complete more complex tasks, and function with greater independence in the performance of work.

SUPERVISION:

Under general supervision of the Supervisor of Signal Operations. Receives direction and instruction from Senior Signal Technicians. May serve as lead worker to direct and instruct assigned signal crewmembers.

DESCRIPTION OF WORK:

ESSENTIAL FUNCTIONS:

1. Receives training and instruction under a Senior Signal Technician to learn and apply advanced electronic traffic control principles and procedures involved in the assembly, installation, troubleshooting, repair, and maintenance of solid state electronic traffic control equipment and related traffic signal equipment. Work includes handling fiber optic termination, computer network communications, video transmission, dynamic message signs, video detection and other traffic detectors.
2. Assists and completes maintenance and repair work for electrical, electronic, and microprocessor based equipment and printed circuit boards to the component level.
3. Operates microprocessor development and emulator system necessary for microcomputer programming.
4. Analyzes, troubleshoots, and performs diagnosis for problems with equipment and controls.
5. Assists in determinations or makes recommendations regarding when to repair or replace equipment.
6. Directs and instructs assigned crewmembers, such as temporary employees, when appropriate.
7. Runs skilled diagnostic test equipment and interprets results.
8. Operates computers for access to information provided by the computerized signal system.
9. Utilizes software applications such as word processing, spreadsheets, and database as required.
10. Utilizes a variety of tools and equipment associated with signal maintenance and repair.
11. Reads and interprets blueprints, technical repair manuals, and schematic diagrams.
12. Drives vehicles such as pick-ups, vans, lift trucks, and flatbed trucks to a variety of work sites.
13. Prepares and maintains required records and reports.

IMPORTANT FUNCTIONS:

1. Attends workshops, seminars, and other training for professional development purposes.
2. Performs office administration tasks such as filing, copying, faxing, etc.
3. Cleans tools and maintains a neat and orderly work area.

Performs related work as required.

QUALIFICATIONS REQUIRED:

Any combination of education, training, and experience providing the following knowledge, skills, and abilities:

Knowledge

Principles, methods, and test equipment involved in the troubleshooting, maintenance and repair of solid state electronic equipment; appropriate safety principles and procedures; mathematics as it relates to electronic equipment and systems; word processing, spreadsheets, and database software applications desired but not required. Knowledge of fiber optic termination, computer network communications, video transmission; dynamic message signs; video detection and other traffic detectors is desirable.

Abilities

Learn and apply principles and procedures involved in the installation, maintenance, troubleshooting, and repair of solid state electronic traffic control equipment; follow oral and written instructions; read and interpret electrical and electronic blueprints, technical repair manuals, and schematic diagrams; operate computers and utilize software applications; operate electronic test equipment including a microsystem troubleshooter, loop checker, meggar, etc.; utilize a variety of tools associated with traffic signal maintenance and repair such as concrete saws and hand tools; communicate effectively both verbally and in writing; deal effectively and courteously with associates and the general public; effectively welcome and embrace differences among employees and citizens; perform effectively as a member of a team in carrying out the City’s stated mission and philosophy; perform the essential functions of the job without posing a direct threat to the health and safety of others. Ability to work at heights up to 40 ft above the ground including working out of a raised bucket to repair, remove, or replace signal heads or other traffic related devices.

Experience, Education, and Training

A Bachelor’s Degree from an accredited College or University in Electronics or a related field plus two years in assisting with traffic signal maintenance and repair work; or an Associate’s Degree from an accredited college or university in Electronics plus four years of appropriate experience including at least two years assisting with traffic signal maintenance and repair work; or a combination of college level education, training or experience in electronics or electrical systems equivalent to six years appropriate experience with at least three years assisting with traffic signal maintenance and repair work.

Physical Requirements

Bends, climbs, squats, twists, kneels, and reaches both to ground level and overhead; lifts and carries up to 75 pounds; pushes and pulls up to 150 pounds; must have ability to operate a computer keyboard and mouse as well as hold and grip objects; subject to periods of prolonged standing and working in awkward positions; must be able to distinguish primary colors associated with wiring for signals.

Working Environment

Both indoor and outdoor working environment with exposure to dust, pollen, and all types of weather including extreme conditions; susceptible to electrical and mechanical hazards associated with traffic signal tools and equipment as well as other safety hazards due to working in and around traffic; exposure to cramped working spaces, poor lighting, constant and possible extreme noise, and strong fumes/odors.

Licensing/Certification

Must possess a valid Missouri Motor Vehicle Operator’s License. Must obtain International Municipal Signal Association (ISMA) certification as a Traffic Signal Technician – Level I and/or Traffic Signal Electrician – Level I.

Miscellaneous Requirements

Subject to night and/or weekend work as required; subject to emergency call-in.

Last Revision:	February 17, 2012	GENERAL ORDINANCE NO. 4936
Comments:	Updated Abilities	Date: 10/11/99

I have read the foregoing job description in its entirety and understand its contents. I can perform the essential functions outlined with or without reasonable accommodation under the Americans with Disabilities Act.

Signed: _____ **Date:** _____