CUPERTINO

Traffic Signal Technician Apprentice
Traffic Signal Technician

Definition

Under general direction, the Journey level position performs electrical tasks in the maintenance and repair of traffic signal equipment, inspects and troubleshoots traffic signal systems, and does related work as required. Under the leadership of the Journey level position, the Apprentice level position learns the duties and develops the skills required for the traffic signal operation and maintenance and performs related duties as required.

Typical Job Functions

Management reserves the right to add, modify, change, or rescind the work assignments of different positions and to make reasonable accommodations so that qualified employees can perform the essential functions of the job.

Apprentice level

Under the guidance and direction of the journey person learns to:

Inspect, remove, and repair signal control and auxiliary equipment such as traffic signal controllers and cabinets, vehicle and pedestrian head assemblies, lights and circuitry.

Diagnose malfunctions.

Adjust, repair, replace, or modify electric, electronic and mechanical components, controllers, relays, switches, fuses, timers and other parts.

Investigate complaints and reports of traffic signal malfunctions.

Adjusts, repairs, or removes defective equipment.

Make field repairs of damaged equipment.

Identify and repair wire circuits.

Assist in the design of electrical circuits and systems for traffic signals.

Monitor and programs traffic signal controllers and makes necessary adjustments.

Relamps signalized intersections.

Paint traffic components and signal standards.

Inspect, remove and install batteries and battery backup equipment.

Adjust and implement traffic signal timing parameters.

Keep accurate work records.

Order supplies, parts, and materials.

Set up traffic control.

Perform other related duties as required.

On-call duty required.

Journey level

Inspects, removes, and repairs signal control and auxiliary equipment such as traffic signal controllers, cabinets, vehicle and pedestrian head assemblies, lights and circuitry.

Diagnoses malfunctions.

Adjusts, repairs, replaces, or modifies electric, electronic and mechanical components, controllers, relays, switches, fuses, timers and other parts.

Assists in design and construction of special test equipment for shop testing of electronic components.

Investigates complaints and reports of traffic signal malfunctions.

Adjusts, repairs, or removes defective equipment.

Makes field repairs of damaged equipment.

Identifies and repairs wire circuits.

Assists in the design of electrical circuits and systems for traffic signals.

Inspects the work of contractors during the course of construction and upon completion.

Monitors and programs traffic signal controllers and makes necessary adjustments.

Relamps signalized intersections.

Assists in preparing plans and specifications for signal projects.

Paints traffic components and signal standards.

Inspects, removes and installs batteries and battery backup equipment.

Adjusts and implements traffic signal timing parameters.

Keeps accurate work records.

Orders supplies, parts, and materials.

Sets up traffic control.

Provides guidance and direction to apprentice level staff.

Performs other related duties as required. On-call duty required.

Qualifications

Apprentice Level

Knowledge of:

Fundamentals of the principles of electricity.

Ability to:
Acquire the necessary skills to:

Perform tasks in the installation, maintenance, calibration and repair of traffic signal systems.

Use and care for tools and equipment used in the repair and maintenance of traffic signal systems.

Perform duties while elevated above traffic in basket of a boom truck. Intermittently, sit while driving or completing forms and work papers.

Walk, stand, bend, squat, climb, kneel, twist and reach while inspecting or repairing equipment and using various tools in the work. Perform simple and power grasping, pushing, pulling, and fine manipulation.

Distinguish colors used in electrical cable coding.

See gages and lights on color panels.

Lift or carry weight of 50 pounds or less.

Climb ladders of heights ranging from approximately 10 feet to 20 feet.

Communicate clearly and concisely, both orally and in writing.

Establish and maintain effective working relationships with those contacted in the course of work.

Journey Level

Knowledge of:

Practices, methods, tools, materials, and equipment used in traffic signal maintenance and repair.

Theory and principles of electrical and electronic equipment and circuits.

Occupational hazards of electrical work and standard safety precautions.

Ability to:

Perform skilled tasks in the installation, maintenance, calibration and repair of traffic signal systems.

Locate and correct malfunctions and defects in electrical and electronic equipment related to the traffic signal system.

Use and care for tools and equipment used in the repair and maintenance of traffic signal systems.

Perform duties while elevated above traffic in basket of a boom truck.

Read and interpret schematics, diagrams, and specifications.

Make estimates of labor and materials.

Intermittently, sit while driving or completing forms and work papers.

Walk, stand, bend, squat, climb, kneel, twist and reach while inspecting or repairing equipment and using various tools in the work.

Perform simple and power grasping, pushing, pulling, and fine manipulation.

Distinguish colors used in electrical cable coding. See gages and lights on color panels.

Lift or carry weight of 50 pounds or less.

Act quickly and calmly in emergency situations.

Analyze situations quickly and objectively and to determine the proper course of action.

Climb ladders of heights ranging from approximately 10 feet to 20 feet.

Communicate clearly and concisely, both orally and in writing.

Establish and maintain effective working relationships with those contacted in the course of work.

Provide guidance and direction to apprentice level staff.

Education and Experience

Both levels require the equivalent to graduation from high school.

In addition to graduation from high school: one year experience in some combination of general servicing and/or maintenance work involving mechanical or electrical equipment is required for the Apprentice level; two years of experience in the maintenance and repair of electronic devices and equipment, or in electrical installation, maintenance and repair work is required for the Journey level.

Licenses and Certifications

Both levels require possession of, or ability to obtain, a valid California driver's license; possession of an Associate Traffic Signal Technician Level I license is required at time of appointment. In addition, the Journey Level requires possession of, or ability to obtain within 1 year of appointment, an Associate Traffic Signal Technician Level II license.

FLSA: Non-exempt
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