

**THE CITY OF LOS ANGELES  
CIVIL SERVICE COMMISSION**

**CLASS SPECIFICATION**

**12/15/2022 ASSISTANT SIGNAL SYSTEMS ELECTRICIAN, 3818**

**Summary of Duties:** An Assistant Signal Systems Electrician assists a Signal Systems Electrician and may personally perform skilled technical work. Incumbents in this class install, repair, maintain, and modify electric and microprocessor based traffic signal control devices and video and computer communication systems; and perform related work.

**Class Characteristics:** Employees in this class modify, install, troubleshoot, repair, and maintain:

- Traffic signal equipment in intersections.
- Electronic and digital traffic controllers.
- Microcomputers.
- Other microprocessor based traffic signal control devices.
- Fiber optic, video, and laser pulsed traffic signal communication devices.

An Assistant Signal Systems Electrician may work in the traffic signal shop or out in the field performing heavy construction, installing and repairing traffic signals. The work may involve exposure to hazards from heavy traffic and relatively low voltage electricity.

Assistant Signal Systems Electrician is an entry level class. An Assistant Signal Systems Electrician receives on-the-job training from and works under the direction of a Signal Systems Electrician. Incumbents in this class must successfully complete at least 18 semester units or 24 quarter units in fundamentals of electronics, electronic circuits, introduction to microprocessors, and electronics technology courses at a recognized college or trade school to qualify for promotion to the Signal Systems Electrician class. As training and education progresses, an Assistant Signal Systems Electrician performs some of the duties of a journey level electrician.

Employees in this class receive assignments from a Signal Systems Supervisor in the form of verbal instructions, work orders, plans, timing charts, wiring schematics, intersection layouts, and route maintenance schedules.

**Example of Duties:** An Assistant Signal Systems Electrician:

- Works with and assists a Signal Systems Electrician by:
  - Entering numeric values into a signal controller keyboard.
  - Comparing the controller display to the engineering plan set.

- Maintaining digital coordination components such as modems, multiplexers, fiber optic transceivers, and telephone interfaces.
- Maintaining analog coordination components such as encoders, decoders, area master controllers, event timers, and programmable coordinators.
- Using AC/DC digital and fiber optic multimeters, frequency meters, oscilloscopes, digital data scopes, variable AC transformers, logic analyzers, and computer diagnostic routines to maintain and troubleshoot microprocessor based equipment.
- Using soldering guns, pliers, wire cutters and strippers, and other hand tools to install or replace electronic components.
- Using a Universal EPROM (Erasable/Programmable Read Only Memory) programmer to create, copy, or erase computer codes on an EPROM microprocessor chip.
- Installing temporary traffic signals or stop signs and placing safety cones.
- Checking signal coordination and timing to engineering plans.
- May answer emergency traffic signal and ATSAC component trouble calls.
- May be assigned to other duties for training purposes or to meet technological changes or emergencies.

**Minimum Requirements:**

1. One year of full-time paid experience as a helper in electrical or electronic work and successful completion of 18 semester or 24 quarter units in electrical or electronics from an accredited college or trade school; **or**
2. Two years of full-time paid experience as a helper in electrical or electronic work and successful completion of 9 semester units or 12 quarter units in electrical or electronics from an accredited college or trade school; **or**
3. Three years of full-time paid experience as a helper in electrical or electronic work and successful completion of 6 semester or 8 quarter units in electrical or electronics from an accredited college or trade school; **or**
4. Completion of three years in a recognized apprenticeship program as an electrician, which provides experience or training in electrical or electronic control work; **or**
5. Completion of the International Municipal Signal Association (IMSA) Traffic Signal Technician Certification Level II and three years of full-time paid experience working with Traffic Signal Systems.

**License:** Employees must travel to intersections and other worksites throughout the City of Los Angeles in order to install, repair, maintain, test, and modify traffic signal equipment. Some positions may require a valid California Class B driver's license prior to appointment. A Class B license, a Rubber-Tired Tractor B Operator's license and a Hydrocrane Operator's license may be required for some positions within the first six months of employment.

**Safety Sensitive:** Because this class has been designated as Safety Sensitive in accordance with City policy, a drug and alcohol screening test may be required prior to appointment.

Persons with disabilities may be able to perform the essential duties of this class with reasonable accommodation. Such accommodation will be evaluated on a case by case basis and depend, in part, on the specific requirements for the job, the limitations related to the disability, and the ability of the hiring department to reasonably accommodate the limitations.

As indicated in Civil Service Commission Rule 2.5 and Section 4.55 of the Administrative Code, this specification is descriptive, explanatory and not restrictive. It is not intended to declare what all of the duties and responsibilities of any position shall be.