

Code: 2442

Title: TRAFFIC CONTROL ELECTRONICS TECHNICIAN

SUMMARY: Installs, maintains and repairs traffic signal control and detection electronic equipment the electronic shop and at field locations. It is distinguished from the Traffic Control Electrical Inspector/Electrician, which inspects the construction of electrical traffic control installations.

DUTIES/RESPONSIBILITIES: (Work assignments may vary depending on the department's needs and will be communicated to the applicant or incumbent by the supervisor.)

Installs, maintains and repairs microprocessor-based solid state digital and analog traffic signal control and detection equipment including loop detector amplifiers, conflict monitors, traffic counters, microcomputers, traffic signal controllers and load switching devices;
Operates test equipment to identify and isolate electronic malfunctions in the electronic shop and at field locations;
Assembles and/or modifies traffic signal controllers, tests and diagnoses electronic equipment;
Prepares electronic and wiring schematics;
Performs emergency diagnosis and repairs on a rotating, on-call basis, which may require the repair of electrical traffic control equipment using an aerial lift truck working at heights of 50 feet and may require working in extreme weather conditions;
Installs, maintains and repairs miscellaneous electrical and electronics equipment;
Maintains temporary traffic control devices while working within active roadways to insure compliance with traffic safety regulations.

KNOWLEDGE & SKILLS:

Knowledge of:

- principles of electronics theory and maintenance;
- operation of digital logic, microprocessor and memory devices;
- procedures, equipment and tools needed for the repair and installation of electrical and electronic equipment;
- principles of electrical theory and maintenance;
- occupational hazards and safety precautions of electronics work, using both high and low voltage;
- National Electric Code.

Skill in:

- adjusting and calibrating electronic equipment;
- testing equipment against specifications;
- detecting electronic systems operational defects;
- translating functional plans to electrical and circuit diagrams;
- constructing and installing traffic control and monitoring systems and related devices;
- preparing and interpreting electrical circuit diagrams;
- estimating material needs.

MINIMUM QUALIFICATIONS:

An Associate's degree in electronics from an accredited college or technical school and three years of experience in the maintenance and repair of electronic equipment.

(Additional relevant experience and/or education from an accredited university, college or trade school may be substituted.)

OTHER REQUIREMENTS:

Licenses and Certificates: A valid Arizona class A or B Commercial driver's license (CDL) is required within 6 months of appointment. Failure to maintain the required license shall be grounds for termination.

Physical/Sensory Requirements: Some positions may require any or all of the following: work independently in the field; be able to see and hear traffic; manually work on field equipment; carry and install electrical and electronic equipment; operate bucket and boom trucks and working at heights of 50 feet; safely operating assigned vehicles and other powered equipment; working in extremes of heat, humidity, dust, or cold; wearing required safety clothing and equipment; differentiating between colors.

This classification specification is intended to indicate the basic nature of positions allocated to the classification and examples of typical duties that may be assigned. It does not imply that all positions within the classification perform all of the duties listed, nor does it necessarily list all possible duties that may be assigned.

Pima County

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