

CLASS TITLE ELECTRONIC EQUIPMENT MECHANIC

Class Code: 02319200
Pay Grade: 15G
EO Code: G

CLASS DEFINITION:

GENERAL STATEMENT OF DUTIES: To construct and/or install a variety of types of analog and/or digital electronic equipment and apparatus used for operational, research, experimental or educational purposes; to inspect and make needed repairs to testing instruments and devices; and to do related work as required.

SUPERVISION RECEIVED: Works under the general supervision of a superior from whom specific assignments are sometimes received; has wide latitude for selecting and utilizing appropriate methods for effecting construction and repairs, which are subject to review for satisfactory performance.

SUPERVISION EXERCISED: Usually none, but may occasionally supervise employees who are temporarily assigned to assist on specific projects.

ILLUSTRATIVE EXAMPLES OF WORK PERFORMED:

To construct and/or install, test, service and repair a variety of types of analog electronic equipment, such as: radio broadcasting and receiving sets, television sets, public address systems, navigational guides, high-frequency heating units, industrial x-ray equipment, electronic control and relaying apparatus, intercommunication units and master antenna systems, or other similar electronic equipment.

To hook up and operate testing devices, such as ohmmeters, voltmeters, bridges signal generators, high-frequency signal generators, cathode ray oscilloscopes or tub testers, for the purpose of locating defects and measuring current, voltage and frequency, by application of standard testing methods.

To service various types of digital electronic equipment, including digital timers and counters, digital multimeters, digital logic analyzers, digital thermometers, microcomputer modules, ramp generators, pulse generators, digital electrometers, and traffic control systems.

To utilize Boolean algebraic principles and various test equipment in order to identify malfunctioning digital or computer circuits, including the use of digital logic probes to isolate defective logic gates, digital frequency counters to check and adjust timing clocks, digital multimeters to check voltage levels, dual trace oscilloscopes to check input and output of gates, and digital logic analyzers to check complete systems operations.

To calibrate and repair a variety of digital circuits, including logic gates, decode counters, period and duration generators, storage registers, frequency dividers, time bases, scan clocks, analog to digital converters, time slot and seven segment decoders, Schmitt triggers, gate control generators, and waveshaping circuits.

To dismantle and repair faulty testing equipment.

To calibrate meters and other testing devices to coincide with established standards.

To maintain an adequate supply of materials, parts and manufacturer's manuals used for construction and repair purposes.

To maintain an inventory of testing and operating equipment.

To do related work as required.

REQUIRED QUALIFICATIONS FOR APPOINTMENT:

KNOWLEDGES, SKILLS AND CAPACITIES: A working knowledge of the principles and techniques applied in the construction, installation, testing, inspection and repair of various types of analog and digital electronic equipment and apparatus; the ability to construct and/or install electronic

apparatus and devices in accordance with prescribed plans and specifications, including circuit diagrams; the ability to work on high voltage equipment; the ability to detect, diagnose and correct defects or causes of operational failure in such electronic equipment by use of Boolean algebraic principles and/or appropriate testing equipment; and related capacities and abilities.

EDUCATION AND EXPERIENCE:

Education: Such as may have been gained through: completion of twelve school grades and completion of a certified vocational curriculum of courses in electronics, mathematics, physical science, or closely related subjects; or

Experience: Such as may have been gained through: employment equivalent to the journeyman level involving the construction, installation, testing, servicing and repairing of various types of digital and analog electronic equipment and apparatus.

Or, any combination of education and experience that shall be substantially equivalent to the above education and experience.

SPECIAL REQUIREMENT: At the time of appointment, must possess a First or Second Class radio operator's license issued by the FCC or equivalent certification as approved by the FCC when FCC regulations require licensure at a facility such as a state airport and must maintain such licensure/certification as a condition of employment.

Class Revised: December 22, 1985

Editorial Review: 3/15/03