

COUNTY OF SOLANO

COMMUNICATIONS TECHNICIAN I/II

Rev. 04/01

DEFINITION

To assemble, install, maintain, and repair a variety of communications, telephony, and/or telecommunications equipment including, depending on assigned specialty(s), radio, microwave, data telemetry transmission and receiving equipment, telephony systems, voice mail systems, data terminals, switching and control systems, and/or audio/video equipment; and to assist other Communications Technician crews in the completion of special projects and the more routine tasks.

DISTINGUISHING CHARACTERISTICS

Communications Technician I: This is the entry-level classification in the Communications Technician job series. This class is distinguished from the journey level Communications Technician II classification by the performance of the more routine tasks and duties assigned to positions within this series. Incumbents in this job class must possess some knowledge/training in **either** radio/microwave transmitting and receiving **or** telephony and data communications systems. Incumbents in this job class learn to assemble, install, maintain, and repair assigned specialty equipment. Incumbents in this job class may work independently on the less complex tasks such as running cable or other "set up" tasks. Employees in this job class may have only limited or no directly related work experience and must work under immediate supervision while learning assigned job tasks.

Communications Technician II: This is the journey level classification in the Communications Technician job series. Incumbents in this class are assigned the full range of duties. Employees in this job class receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies within the work unit. Incumbents in this job class must possess journey level knowledge and skills in **either** radio/microwave transmitting and receiving **or** telephony and data communications systems. Incumbents in this job class are expected to have a basic familiarity with **all** types of communications equipment and systems utilized within the County's operations and supported by the assigned work unit.

EXAMPLES OF DUTIES

Duties may include, but are not limited to, the following:

Installs, tests, modifies, and adjusts VHF/UHF and microwave radio transceivers, antennas, portable radios and paging receivers, remote control devices, inter-communications, sound systems, and closed circuit television both in the field and in the shop.

Installs, maintains, modifies, and repairs various types of telephony/data communications voice/data transmission, signaling and digital and analog switching equipment, cabling and fiber optics both in the field and in the shop.

Adjusts transmitters and receivers for maximum efficiency; measures frequencies, modulation and power output of radio, microwave and digital circuitry; operates and monitors radio telephone equipment.

EXAMPLES OF DUTIES, Continued

Responds to service/repair calls or maintenance alarms; troubleshoots, investigates, analyzes and diagnoses the operation and performance of assigned electronic, radio/microwave transmission devices, and/or telecommunications systems/equipment and initiates appropriate action to resolve problem and optimize system/equipment effectiveness.

Constructs and assembles custom design communications equipment; fabricates special brackets and hardware for equipment installation; installs and maintains antenna systems on towers; “lays” and “pulls” cable for telephone and data communications systems.

Monitors the installation and/or servicing of assigned communications systems/equipment by contractors/vendors; provides coordination between County’s customer department and the vendor/service provider for activation/restoration of affected system/equipment.

Assists in providing on the job training for other staff members and/or overseeing the work of others on assigned work crews.

Participates on a variety of special projects and/or combined work crews; learns basics of installing and maintaining a variety of communications systems/equipment, and with training, beyond assigned specialty area of expertise.

Completes reports on work performed.

Builds and maintains positive working relationships with co-workers, other County employees, contractors, vendors, and the general public utilizing principles of good customer service.

Performs related duties as required.

QUALIFICATION GUIDELINES

Education and/or Experience

Communications Technician I:

Successful completion of the twelfth grade supplemented with at least thirty (30) semester credits in electronics, electrical engineering, communications technology or a related telecommunications field.

QUALIFICATION GUIDELINES, Continued

Communications Technician II:

At least three (3) years of progressively responsible work experience including radio/microwave transmission/receiving or telephone/data communication systems, equivalent to the work performed by the Communications Technician I with the County of Solano.

Knowledge and Abilities

Communications Technician I

Working knowledge of:

- Basic electronics theory and practices.
- Standard work safety principles and practices.

When assigned to radio/microwave functions:

- Basic radio communications theory and practices.
- Basic microwave theory.
- Basic radio frequency modulation and direction.
- Standard tools and test equipment utilized in the repair and servicing of radio communications equipment.
- Basic radio communications transceiving equipment.

When assigned to telephony/data communications functions:

- Basic principles and practices of installing, maintaining, and repairing digital and analog telecommunications equipment and systems.
- Standard tools and test equipment utilized in the repair and servicing of telephony and data communications equipment.
- Basic telephony/data communications equipment and systems.

Ability to:

- Learn the operations and administrative procedures of the County's organization and the assigned work unit.
- Understand and carry out both written and oral instructions.
- On a continuous basis, know and understand operations and observe safety rules. Intermittently analyze problem equipment; identify and locate equipment; interpret work orders; remember equipment operation and location; and explain jobs to others.

QUALIFICATION GUIDELINES, Continued

- Intermittently, sit at a desk or while driving; stand and walk while performing installation and maintenance activities; bend, kneel, squat and twist to adjust equipment; climb ladders or towers; or climb up on to heavy equipment to inspect and conduct installation, maintenance and repair operations; perform simple and power grasping, pushing, pulling and fine manipulation; and lift heavy weight.
- Accurately differentiate various colors of wires and diagrams.
- Accurately read and apply a variety of electrical and electronic schematic and wiring diagrams and services manuals.
- Collect and analyze data and test information to identify operating problems/situations and take appropriate and effective corrective actions.
- Communicate effectively and tactfully in both oral and written forms, maintaining confidentiality at all times.
- Utilize a variety of hand and power tools and equipment in a safe and effective manner.
- Perform routine arithmetical calculations accurately.
- Maintain accurate records and document activities.
- Recognize and respect appropriate limits of authority and responsibility.
- Meet the physical requirements necessary to perform required duties in a safe and effective manner for self and others.
- Establish and maintain effective work relationships with those contacted in the performance of assigned duties.

LICENSES, CERTIFICATES, AND REGISTRATIONS

Possession of, or ability to obtain, a valid and appropriate California driver's license.

Possession of, or ability to obtain, a valid FCC General Radio Operator's License or equivalent may be required.

SUPPLEMENTAL REQUIREMENTS/INFORMATION

Must be able to perform manual labor associated with repair of radio, microwave, telephony, and/or data communications devices, systems, and/or equipment which may include lifting objects weighing between 50 to 100 pounds and utilize the full range of body movements involving reaching, bending, grasping, and climbing.

May be required to work outside normal business hours.

Must be able to perform assigned duties outdoors in all types of weather conditions and may be required to work on towers at heights in excess of two hundred (200) feet.

Candidates and incumbents may be required to pass a background investigation in accordance with applicable policy statements.

SUPPLEMENTAL REQUIREMENTS/INFORMATION, Continued

Communications Technician II: In addition to the qualifications for a Communications Technician I:

Considerable knowledge of:

- Standard electronics theory and practices.
- Standard work safety principles and practices.

When assigned to radio/microwave functions:

- Standard and accepted radio communications theory and practices.
- Standard and accepted microwave theory.
- Standard and accepted radio frequency modulation and direction.
- Standard tools and test equipment utilized in the repair and servicing of radio communications equipment.
- Standard and accepted radio communications transceiving equipment.

When assigned to telephony/data communications functions:

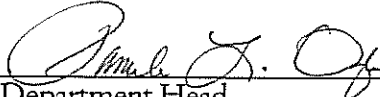
- Standard and accepted principles and practices of installing, maintaining, and repairing digital and analog telecommunications equipment and systems.
- Standard tools and test equipment utilized in the repair and servicing of telephony and data communications equipment.
- Standard and accepted telephony/data communications equipment and systems.

Working knowledge of:

- Operations and administrative procedures of the County's organization and the assigned work unit.

Ability to:

- Understand and carry out both written and oral instructions in an independent manner.
- Understand, interpret and apply laws, regulations, and policies governing designated communications/telecommunications operations.
- Comply with laws, regulations, and professional practices governing designated communications/telecommunications operations.
- Collect and analyze data and electronic test information and circuitry to repair communications equipment.
- Utilize and read precision test instruments accurately and effectively.


 Department Head _____ Date 4/3/01

