

TELECOMMUNICATIONS EQUIPMENT TECHNICIAN II

This is skilled work in the installation, maintenance, and repair of a variety of telecommunications systems equipment on a medium sized multi-media network.

Employees, working within a telecommunications or computer center, diagnose system problems utilizing system control hardware and software problem determination tools and a wide variety of test equipment such as signal generators, RS-232 break out boxes, multimeters, signal level meters, oscilloscopes, and bit error testers. Employees perform a wide variety of tasks to include installing and repairing digital packet switches, controllers, protocol converters, multiplexers, RF and digital modems, signal processors, data terminals, network interface and bridging equipment, Ethernet and fiber optic systems, microcomputers, LANs, and other telecommunications equipment. Employees perform other duties as required.

I. DIFFICULTY OF WORK:

Complexity - Employees analyze system and network conditions to prevent or quickly resolve problems. Employees use network or systems control program software tools and a working knowledge of communications software to accomplish this. Employees assemble, calibrate, install, perform preventive maintenance, trouble-shoot, and repair a wide variety of electronic devices used for communications between a number of different computerized communications devices. Employees may also design and construct specialized cables to interface equipment. The majority of the work is systems oriented requiring the use of a wide variety of electronic test equipment and network and systems monitoring/trouble-shooting software to pinpoint equipment failures and effect repairs.

Guidelines - Industry standards, device specific guides and schematics, diagnostic software, and manufacturer's manuals are used, however, judgement must be exercised frequently in the execution of normal tasks and during unusual and emergency situations.

II. RESPONSIBILITY:

Accountability - Employees are responsible to the end users for the timely installation, maintenance and repair of the network and associated equipment. Employees are expected to complete all tasks in a timely manner with minimal interference with the user's work process.

Consequence of Action - Actions could result in the inability to communicate important information or data in and out of the organization, with the potential also for work stoppage.

Review - Duties are performed independently with review only upon completion of a project. The more critical assignments are reviewed during the process and upon completion of the project.

III. INTERPERSONAL COMMUNICATIONS:

Subject Matter - Explanation of initial operation and care of equipment is required for the end users during the installation of the network equipment. Primary communications occur between employees and supervisors to discuss work procedures.

Purpose - Employees communicate with clients to clarify needs, to talk through trouble reports, to instruct and to explain actions. Internal communications are to clarify assignments, discuss possible problem resolutions, and to explain special requirements.

IV. OTHER WORK DEMANDS

Nature of Working Conditions - The majority of the work is accomplished within a maintenance shop, in general office areas, crawl spaces in ceilings, or in basements. Work may be confined to small wiring closets, mechanical rooms, or in manholes. Employees may be exposed to dirt, asbestos, insulation fibers, exposed water or steam pipes, and other electrical/electronic devices in these environments.

Nature and Potential of Personal Hazards - Employees are exposed to low and high voltage electrical cables and wiring while working with a variety of electronic equipment.

V. RECRUITMENT STANDARDS:

Knowledges, Skills, and Abilities - Considerable knowledge of digital and analog electronics theory; fundamentals of physics and mathematics as applied to electronics. Considerable knowledge of the installation, maintenance and repair of computers, printers, switching equipment, modems, cables, and other related communications equipment. Considerable knowledge of data scopes, digital switching equipment, multiplexers, patch panels, modems, concentrators, amplifiers, splitters, a variety of electronic test equipment, terminals/PCs, and working knowledge of network and systems control and applications programs. Ability to trouble-shoot and make repairs on a variety of telecommunications devices. Ability to use a wide variety of digital and electronic testing devices and software. Ability to read technical reference manuals.

Minimum Training and Experience Requirements - Graduation from a two-year technical school, trade school, or industrial school in electronics and three years of experience in the installation, maintenance and repair of telecommunications equipment including experience in communications and networking environments or an equivalent combination of training and experience.

Special Note - This is a generalized representation of positions in this class and is not intended to identify essential functions per ADA. Examples of work are primarily essential functions of the majority of positions in this class, but may not be applicable to all positions.