

MAINTENANCE MECHANIC, TELEPHONE

RAPIDS: 0309D

O*NET/SOC: 49-2022.00

REVISION DATE: 10/2019

TRADE DESCRIPTION: Install, set-up, rearrange, or remove switching, distribution, routing, and dialing equipment used in central offices or head ends. Service or repair telephone, cable television, internet, and other communications equipment on customers'/command property. May install communications equipment or communications wiring in buildings.

TASK PERFORMANCE: Demonstrate knowledge and skills for qualifying as Journeyman. Applicable Job Qualification Requirements will be used as a guide in performing tasks and demonstrating knowledge in the following skill areas. Actual work time must be recorded in the Work Experience Log; each skill area must be completed.

Applicable Ratings/MOS/NEC

USMC MOS: 2841, 2847, 2862, 2891

USCG: IT

USN: 747A, CE, IC

USA MOS: 948B, 948E, 94D, 94E, 94F, 94R, 94W, 94Z

Related Instruction:

Trade related On-The-Job-Training (OJT) or Any trade related schools/courses totaling 288 or more hours.

Additional Requirement:

CE rating Must have NEC 5642 OR 747A

Total Hours: **4000**

Skill	Description	Hours
A	GENERAL ADMINISTRATION	125

	<ul style="list-style-type: none"> -- Maintain computer and manual records pertaining to facilities and equipment. -- Review manufacturer's instructions, manuals, technical specifications, building permits, and ordinances to determine communication equipment requirements and procedures. -- Demonstrate equipment to customers and explain how it is to be used, and respond to any inquiries or complaints. -- Provide input into the design and manufacturing of new equipment. 	
B	<p>INSTALLATION AND TESTING</p> <ul style="list-style-type: none"> -- Test circuits and components of malfunctioning telecommunications equipment to isolate sources of malfunctions, using test meters, circuit diagrams, polarity probes, and other hand tools. -- Test repaired, newly installed, or updated equipment to ensure that it functions properly and conforms to specifications, using test equipment and observation. -- test connections to ensure that power supplies are adequate and that communications links function. -- Assemble and install communication equipment such as data and telephone communication lines, wiring, switching equipment, wiring frames, power apparatus, computer systems, and networks. -- Install updated software, and programs that maintain existing software or provide requested features such as time-correlated call routing. -- Install telephone station equipment, such as intercommunication systems, transmitters, receivers, relays, and ringers, and related apparatus such as coin collectors, telephone booths, and switching-key equipment. -- Measure distances from landmarks to identify exact installation sites for equipment. -- Dig holes or trenches as necessary for equipment installation and access. -- Enter codes needed to correct electronic switching system programming. 	750
C	<p>MECHANICAL MAINTENANCE</p> <ul style="list-style-type: none"> -- Refer to manufacturers' manuals to obtain maintenance instructions pertaining to specific malfunctions. -- Adjust or modify equipment to enhance equipment performance or to respond to customer requests. -- Communicate with bases, using telephones or two-way radios to receive instructions or technical advice, or to report equipment status. -- Collaborate with other workers to locate and correct malfunctions. 	250

D	LOGISTICS -- Drive crew trucks to and from work areas. -- Clean and maintain tools, test equipment, and motor vehicles. -- Designate cables available for use.	250
E	OPERATIONS -- Remove and remake connections to change circuit layouts, following work orders or diagrams. -- Route and connect cables and lines to switches, switchboard equipment, and distributing frames, using wire-wrap guns or soldering irons to connect wires to terminals. -- Program computerized switches and switchboards to provide requested features. -- Perform database verifications, using computers.	500
F	ROUTINE MAINTENANCE -- Inspect equipment on a regular basis to ensure proper functioning. -- Perform routine maintenance on equipment, including adjusting and lubricating components, and painting worn or exposed areas. -- Climb poles and ladders, use truck-mounted booms, and enter areas such as manholes and cable vaults to install, maintain, or inspect equipment -- Remove and replace plug-in circuit equipment. -- Clean switches and replace contact points, using vacuum hoses, solvents, and hand tools.	1000
G	ELECTRICAL SYSTEMS REPAIR -- Repair or replace faulty equipment such as defective and damaged telephones, wires, switching system components, and associated equipment. -- Analyze test readings, computer printouts, and trouble reports to determine equipment repair needs and required repair methods. -- Remove loose wires and other debris after work is completed. -- Run wires between components and to outside cable systems, connecting them to wires from telephone poles or underground cable accesses. -- Diagnose and correct problems from remote locations, using special switchboards to find the sources of problems. -- Examine telephone transmission facilities to determine requirements for new or additional telephone services.	1000

H	SAFETY -- Note differences in wire and cable colors so that work can be performed correctly. -- Request support from technical service centers when on-site procedures fail to solve installation or maintenance problems. -- Address special issues or situations, such as illegal or unauthorized use of equipment, or cases of electrical or acoustic shock. -- Determine viability of sites through observation, and discuss site locations and construction requirements with customers.	125
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