

## CENTRAL OFFICE REPAIRER

RAPIDS: 0077D

O\*NET/SOC: 49-2022.00

REVISION DATE: 09/2019

**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' 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:** 0612, 2347, 2823

**USCG:** EM, ET

**USN:** CE, EM, ET, IC

**USA MOS:** 25N, 25Q, 25W, 25X

### Related Instruction:

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

### Additional Requirement:

None.

Total Hours: **4000**

Skill	Description	Hours
A	IDENTIFY WIRING/CABLING AND CONNECTIONS AND RELATED ISSUES	350

	<ul style="list-style-type: none"> <li>-- Note differences in wire and cable colors so that work can be performed correctly.</li> <li>-- Designate cables available for use.</li> <li>-- Address special issues or situations, such as illegal or unauthorized use of equipment, or cases of electrical or acoustic shock.</li> <li>-- Examine telephone transmission facilities to determine requirements for new or additional telephone services.</li> <li>-- Determine viability of sites through observation, and discuss site locations and construction requirements with customers.</li> </ul>	
<b>B</b>	<p><b>TEST AND ANALYZE COMPONENTS AND CONNECTIONS AND INSTALL UPDATED SOFTWARE</b></p> <ul style="list-style-type: none"> <li>-- Test circuits and components of malfunctioning telecommunications equipment to isolate sources of malfunctions, using test meters, circuit diagrams, polarity probes, and other hand tools.</li> <li>-- Test repaired, newly installed, or updated equipment to ensure that it functions properly and conforms to specifications, using test equipment and observation.</li> <li>-- Analyze test readings, computer printouts, and trouble reports to determine equipment repair needs and required repair methods.</li> <li>-- Test connections to ensure that power supplies are adequate and that communications links function.</li> <li>-- Program computerized switches and switchboards to provide requested features.</li> <li>-- Diagnose and correct problems from remote locations, using special switchboards to find sources of problems.</li> <li>-- Install updated software, and programs that maintain existing software or provide requested features such as time-correlated call routing.</li> <li>-- Enter codes needed to correct electronic switching system programming.</li> <li>-- Perform database verifications, using computers.</li> </ul>	<b>750</b>
<b>C</b>	<p><b>TRANSPORT</b></p> <ul style="list-style-type: none"> <li>-- Drive crew trucks to and from work areas.</li> </ul>	<b>250</b>
<b>D</b>	<p><b>INSPECT AND MAINTAIN TOOLS, EQUIPMENT AND MOTOR VEHICLES</b></p> <ul style="list-style-type: none"> <li>-- Inspect equipment on a regular basis to ensure proper functioning.</li> <li>-- Clean and maintain tools, test equipment, and motor vehicles.</li> </ul>	<b>350</b>

	<ul style="list-style-type: none"> <li>-- Perform routine maintenance on equipment, including adjusting and lubricating components, and painting worn or exposed areas.</li> <li>-- Clean switches and replace contact points, using vacuum hoses, solvents, and hand tools.</li> </ul>	
<b>E</b>	<p><b>ASSEMBLE, INSTALL, REPAIR, ADJUST, MODIFY OR REPLACE EQUIPMENT</b></p> <ul style="list-style-type: none"> <li>-- Repair or replace faulty equipment such as defective and damaged telephones, wires, switching system components, associated equipment.</li> <li>-- Adjust or modify equipment to enhance equipment performance or to respond to customers' requests.</li> <li>-- Request support from technical service centers when on-site procedures fail to solve installation or maintenance problems.</li> <li>-- Remove loose wires and other debris after work is completed.</li> <li>-- Assemble and install communication equipment such as data and telephone communication lines, wiring, switching equipment, wiring frames, power apparatus, computer systems, and networks.</li> <li>-- Collaborate with other workers to locate and correct malfunctions.</li> <li>-- Review manufacturer's instructions, manuals, technical specifications, building permits, and ordinances to determine communication equipment requirements and procedures.</li> <li>-- Climb poles and ladders, use truck-mounted booms, and enter areas such as manholes and cable vaults to install, maintain, or inspect equipment.</li> <li>-- Run wires between components and to outside cable systems, connecting them to wires from telephone poles or underground cable accesses.</li> <li>-- Remove and replace plug-in circuit equipment.</li> <li>-- 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.</li> <li>-- Measure distances from landmarks to identify exact installation sites for equipment.</li> <li>-- Dig holes or trenches as necessary for equipment installation and access.</li> <li>-- Install telephone station equipment, such as intercommunication systems, transmitters, receivers, relays, and ringers, and related apparatus, such as switching-key equipment.</li> <li>-- Provide input into the design and manufacturing of new equipment.</li> <li>-- Place intercept circuits on terminals to handle vacant lines in central office installations.</li> </ul>	<b>1250</b>
<b>F</b>	<b>FOLLOW DIAGRAMS AND WORK ORDERS AND MAINTAIN RECORDS</b>	<b>350</b>

	<ul style="list-style-type: none"> <li>-- Remove and remake connections to change circuit layouts, following work orders or diagrams.</li> <li>-- Refer to manufacturer's manuals to obtain maintenance instructions pertaining to specific malfunctions.</li> <li>-- Maintain computer and manual records pertaining to facilities and equipment.</li> </ul>	
<b>G</b>	<b>DEMONSTRATE AND EXPLAIN EQUIPMENT USE</b> <ul style="list-style-type: none"> <li>-- Demonstrate equipment to customers/leadership and explain how it is to be used, and respond to any inquiries or complaints.</li> </ul>	<b>350</b>
<b>H</b>	<b>COMMUNICATE TECHNICAL INSTRUCTIONS</b> <ul style="list-style-type: none"> <li>-- Communicate with bases, using telephones or two-way radios to receive instructions or technical advice, or to report equipment status.</li> </ul>	<b>350</b>