

Work Processes Schedule

ELECTRONICS TECHNICIAN (PROFESSIONAL & KINDRED)

RAPIDS: 0169N

O*NET/SOC: 17-3023.01

REVISION DATE: 12/2014

Maintain, troubleshoot and repair electronic equipment and components. Remove and replace cable/wiring and components utilizing schematics and diagrams. Analyze circuits. Repair computers and peripheral devices. Repair circuit boards. Maintain applicable maintenance and repair documentation.

Applicable Ratings/MOS

USMC MOS 2822, 2823, 2831, 2832, 2833, 2834, 2848, 2862, 2881, 2887, 2891, 5939

USCG ET

USN ET, ETN, ETR, ETV, FC

Related Instruction

Any trade related schools/courses totaling 576 hours

Additional Requirement

None

Total Hours: **8000**

Skill	Description	Hours
A	<p>GENERAL SHOP PRACTICES</p> <p>Wiring chassis from blueprints. Construction of coils; selection of proper size of wire, wire gauges. Construction of cabin; wiring cables from cable prints. Lacing cables. Remove cables from board. Apply terminals by soldering or clamping. Rating of insulation; by voltage breakdown, dielectric strength, coaxial cable. Making models; wiring chassis from blueprints, coil winding. Maintenance of electrical and electronic instruments; removal and replacement of coil, electro-dynamometer and moving van type indicating meters. Use electrical laboratory equipment, such as; oscilloscopes, precision bridges (inductance, resistance, capacitance), frequency generators, voltmeters, ammeters and frequency standards (inductance, resistance and capacitance). perform wiring of circuits such as; series, parallel, series-parallel and electro-magneto.</p>	500
B	<p>BASIC ELECTRONICS</p> <p>Place components in circuits such as; resistors, condensers, inductances, dry disc rectifiers crystals and gas hard type tubes, regulating power supplies.</p>	500
C	<p>CIRCUIT ANALYSIS</p> <p>Select component parts for electrical values. Identify rating of component parts. Identify timing safety factors in electrical and electronic circuits. Operate megacycle timing equipment, oscilloscopes and frequency generators.</p>	1000
D	<p>ELECTRICAL/ELECTRONIC MAINTENANCE</p> <p>Perform preventive maintenance on digital data equipment. Troubleshoot and diagnose digital data devices. Troubleshoot and repair micro-, mini-, and mainframe computer hardware. Troubleshoot and repair computer controlled digital equipment and computer peripheral equipment. Repair electrical/electronic/fiber optic cables. Repair digital data</p>	4000

	<p>devices. Perform proper handling of ESDS. Install field changes and engineering change proposals. Perform preventive maintenance on digital data subsystems. Analyze digital equipment failure trends. Troubleshoot and diagnose digital data systems. Repair digital data systems.</p>	
E	<p>ELECTRONIC/MECHANICAL MAINTENANCE</p> <p>Monitor operations of electronic cooling systems. Perform preventive maintenance on electronic cooling systems. Perform corrective maintenance on electronic cooling systems.</p>	500
F	<p>PRINTED CIRCUIT BOARD ASSEMBLY, REPAIR, AND TESTING</p> <p>Identify and procure necessary components or other materials to build or repair electronic components and printed circuit boards (PCBs) according to specifications. Repair defective PCB assemblies using soldering and desoldering equipment. Remove and replace damaged or missing components. Modify PCBs following shop instructions using hand tools and solder equipment. Test soldered connections on PCBs to detect open circuits or shorts using continuity tester such as; octopus, multimeter, oscilloscope. Test electronic components for compliance to company standards, using chemicals and soldering equipment.</p>	700
G	<p>ELECTRONIC CASUALTY CONTROL</p> <p>Perform electronic casualty control equipment inspections. Perform electronic casualty control repairs to digital data equipment.</p>	200
H	<p>SAFETY</p> <p>Follow approved safety procedures as directed by instruction.</p>	100
I	<p>SECURITY</p> <p>Perform ADP security procedures as directed by instruction.</p>	100
J	<p>LOGISTICS</p> <p>Package, process, and document repairables for turn-in. Maintain inventory of on-site repair parts. Verify COSAL. Post changes to ships configuration and logistics support information systems (SCLISIS) program.</p>	200
K	<p>TECHNICAL ADMINISTRATION</p> <p>Maintain technical manuals. Maintain equipment service notes and specialized maintenance instructions. Maintain technical libraries. Maintain operational program documentation.</p>	200

