



Job Brief

Systems Technician (I&R) [CWA09]

Report ID : NMIC-RPT.STF.022

Report Date : 07/24/2025 07:57:50 AM PDT

Job Key : 61024125 Job Title : Systems Technician (I&R) [CWA09]

GENERAL INFORMATION

Job Brief Date : 04/20/2001
Revised Date : 2/20/2024

Wages : WS12
Time in Title (TNT) : 24 Months
Job Family : Technical-Outside
Business Unit(s) : California Markets
Discipline(s) : Broadcast Services
 Installation & Repair
 Microwave Radio
 Mobile Radio
 Special Services
 Special Services Center
Region : West Region

GENERAL DUTIES

- SOME OF THE TASKS AND DUTIES**
- 1) Install, repair and perform preventative maintenance functions on designed circuits, including electronic station packages for data and voice applications.
 - 2) Works with hand tools, a wide variety of electronic station packages and electronic test equipment.
 - 3) Works and coordinates with other groups (e.g., Line Assigners, Testers, Central Office Technicians, Hi-Cap Analyzers, C.O. Engineers, and technical support groups), interfaces with customers, vendors and other communication companies.
 - 4) Keeps accurate records (e.g., time reporting, repair tickets and installation logs).
 - 5) Receives and interprets WORD/CLR's, cases of trouble from repair dispatcher, complex special service orders, circuit diagrams and Bell Services Practices (9BSp's).
 - 6) Plans and installs inside wiring and cable runs, and connects color coded wire in the cable to terminals in an equipment mounting.
 - 7) Tests to verify the service was installed properly and makes notations on the service order to indicate changes and/or completion.
 - 8) Prepares forms as needed, such as trouble tickets, maintenance of service charges, labor charges and completion of order notices.
 - 9) Pre-survey jobs. Inspect and test wire and other equipment to locate source of trouble. Repair or replace faulty equipment.
 - 10) Drives a company vehicle or walks to customer's location.
 - 11) Work as required with E911, telephones, data sets, consoles, cable, inside wire and channel terminating equipment (NCTE).
 - 12) May climb stepped and/or unstepped poles.
 - 13) May work with 911 (Position/Comtrex), Centrex and TAN mechanized systems.
 - 14) Responsible for T-Carrier system turn-up and span/line repeater installation and maintenance.
 - 15) Performs cable pair loss tests and records results.
 - 16) Performs vendor observing and standard practice acceptance of newly installed T-carrier terminals, Mux bays, fiber terminals and other associated equipment.
 - 17) Coordinates plug-ins, including unpacking, ordering, tracking, shipping and storage.

BASIC QUALIFICATIONS

TESTS



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Test Name	Type	Applicability
Technical Knowledge Test - II (TKT II)	Basic	Required

[VIEW TEST GUIDES](#)

PHYSICAL REQUIREMENTS

Must be able to lift up to 60 lbs.
Ability to perceive differences in wire and cable colors.
The maximum body weight load is 325 lbs.

SPECIFICS

Hours
Mostly day shifts. Some evening shifts. Available for overtime, emergency callouts, weekends, nights and holiday work. Shifts chosen by seniority.

ADDITIONAL FACTORS

Required Skills
This job has Required Skills. See attached Skill Code List.

Skills That May Be Required
This job has skills that May Be Required (will be shown on requisition). See attached Skill Code List.

TRAININGS

Classroom and on-the-job training. Training may include trainee evaluation. May include tower truck and manhole truck familiarization.

ENVIRONMENT

- 1) Works most of the time at customer business locations or Company locations, which requires the ability to interface with business people. Required to go through security clearances when assigned to perform work on Federal Government properties.
- 2) May spend long periods of time in cramped equipment areas.
- 3) Usually works alone, seeing supervisor approximately once a day or at a location of difficult or complex jobs.
- 4) May climb ladders (maximum 28 feet) and poles (stepped and unstepped, maximum 45 feet).
- 5) May be required to climb 90 foot mobile poles or 250 foot antenna towers.
- 6) Must wear safety glasses, safety helmet, heeled boots and appropriate safety attire as necessary.
- 7) Commutes daily from job to job (may involve long distances).
- 8) Crawls, pulls cable and works in confined places.
- 9) May be required to enter CEV Huts and manholes and work in repeater apparatus cases.
- 10) May work at customer locations testing and installing Hi-Cap services in small rooms (i.e., closets).
- 11) May be required to handle items weighing 25-60 pounds (test equipment, manhole covers, etc.).

SKILLS

Skill Code	Skill Name	Applicability	Skill Description
C1020	Analysis-Technical	Desired	CORRECTLY INTERPRETS COMPUTER PRINTOUTS, SCHEMATICS AND TEST DATA IN DAILY JOB TASKS.
C1065	Cable Identification	Desired	CORRECTLY IDENTIFIES UNDERGROUND CABLES FROM RECORDS AND UNDERSTANDS THEIR RELATIONSHIP TO EACH OTHER.



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Skill Code	Skill Name	Applicability	Skill Description
C1086	Circuitry Knowledge	Desired	UNDERSTANDS THE PRINCIPLES OF TELEPHONE CIRCUITRY IN ORDER TO PROVIDE THE NECESSARY REPAIR OR MAINTENANCE FUNCTIONS. (INCLUDES CIRCUIT CONTROL KNOWLEDGE).
C1102	Common Control Orders Knowledge	Desired	UNDERSTANDS THE RELEVANT PROCESSES AND PROCEDURES ASSOCIATED WITH COMMON CONTROL ORDERS AND CAN EFFECTIVELY PERFORM THE REQUIRED TECHNICAL OPERATIONS.
C1106	Communication Skills (Speaking)	Desired	ORALLY TRANSMIT IDEAS, INSTRUCTIONS AND INFORMATION SO THEY ARE CLEARLY UNDERSTOOD BY OTHERS IN FORMAL OR INFORMAL FACE-TO-FACE SITUATIONS OR ON THE TELEPHONE.
C1117	Communication Terminal	Desired	OPERATION OF COMPUTER EQUIPMENT CONNECTED TO MAINFRAME OR MINI OR WORK STATION COMPUTERS.
C1148	Coordination	Desired	INTERFACE BETWEEN SEVERAL CONTACTS WITHIN AN ORGANIZATION, BETWEEN A VARIETY OF OTHER DEPARTMENTS AND/OR EXTERNAL ORGANIZATIONS TO TRACK AND AND ENSURE COMPLETION OF A TASK PROJECT; MAY INCLUDE COORDINATION OF WORKLOAD ASSIGNMENTS FOR OTHER EMPLOYEES.
C1162	Customer Contact	Desired	ABILITY TO HANDLE QUESTIONS AND CLEAR CUSTOMER (INTERNAL AND EXTERNAL) PROBLEMS AND ENSURE COMMITMENTS TO CUSTOMERS ARE MET BY RESOLVING PROBLEMS AND PROVIDING SERVICES.
C1167	Customer Interface	Desired	PERFORM AS A CUSTOMER CONTACT ON THE DAY-TO-DAY OPERATION OF EFFECTED APPLICATIONS. RESPONDS TO ALL CUSTOMER TROUBLE CALLS AND INQUIRIES.
C1169	Customer Negotiation	Desired	INTERFACES WITH CUSTOMER AND/OR PROJECT MANAGEMENT TEAM TO NEGOTIATE CRITICAL DATES AND ASSIST IN DECISIONS REGARDING SYSTEM FEATURE CONFIGURATION, NEW SERVICE OR CHANGES IN EXISTING SERVICE.
C1171	Customer Relations	Desired	INTERFACES WITH INTERNAL OR EXTERNAL CUSTOMERS IN A PROFESSIONAL MANNER IN PERSON, ON THE PHONE OR THROUGH WRITTEN COMMUNICATIONS.

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Skill Code	Skill Name	Applicability	Skill Description
C1176	Data Communication Knowledge	Desired	UNDERSTANDS AND PERFORMS INSTALLATION, CORRECTIVE AND PREVENTIVE MAINTENANCE FUNCTIONS ON DATA SWITCHING SYSTEMS. (E.G. PUBLIC SWITCHING.)
C1177	Data Communications	Desired	COORDINATES DATA COMMUNICATIONS INSTALLATIONS AND CHANGES. ISOLATES TROUBLES ON NETWORK AND IMPLEMENTS WORK-AROUND TO RESTORE ACCESS WITH REPRESENTATIVES FROM CORPORATE COMMUNICATIONS, FIELD SUPPORT, USERS, AND OTHER DATA PROCESSING CENTER GROUPS.
C1756	Electrical Or Electronics Background	Required	PREVIOUS TRAINING OR WORK EXPERIENCE IN THE ELECTRICAL OR ELECTRONICS FIELD OR IN COMPUTER MAINTENANCE AND REPAIR.
C1223	Electronic Information Retrieval	Desired	THE TRANSFER OF INFORMATION STORED IN ELECTRONIC OR OTHER FORMS OF MEDIA TO HARD COPY UPON REQUEST. MAY INCLUDE THE USE OF SPECIAL COMPUTER SOFTWARE.
C1225	Electronic Testing	Desired	PERFORMS A VARIETY OF ELECTRONIC AND MECHANICAL TESTING ON ELECTRONIC SYSTEMS, SUBASSEMBLIES AND PARTS, ENSURING UNIT FUNCTION TO SPECIFICATIONS AND/OR DETERMINING CAUSE OF FAILURES. UTILIZES A FULL RANGE OF ELECTRONIC TESTS.
C1226	Electronics Operation	Desired	PERFORMS OPERATIONS (ASSEMBLY, FABRICATION, INSPECTION, TESTING/ TROUBLE SHOOTING) OF ELECTRONIC SYSTEMS, SUB-ASSEMBLIES, PARTS/ COMPONENTS (RESISTORS, INDUCTORS, CAPACITORS, CRYSTALS, DIODES, SOLID STATE SEMICONDUCTORS, CONTROLS, PRINTED CIRCUITRIES)
C1741	Equipment Maintenance	Desired	APPROPRIATELY CARES FOR THE VARIOUS PIECES OF EQUIPMENT THROUGH NECESSARY LUBRICATION, CLEANING, ADJUSTING, ETC.
C1239	Equipment Testing Knowledge	Desired	UNDERSTANDS THE PROCEDURES FOR TESTING OF TELEPHONE EQUIPMENT AND CAN USE THESE PROCEDURES TO CARRY OUT THE NECESSARY CHECKS.
C1250	Facilities System Knowledge	Desired	UNDERSTANDS THE FACILITIES SYSTEM FUNCTIONS TO THE EXTENT THAT TESTING, REPAIR OR MAINTENANCE IS POSSIBLE.
C1252	Facility - Access/Special Service	Desired	ORDER AND TACK IMPLEMENTATION OF LOCAL ACCESS PORTION OF A CIRCUIT/ SERVICE FROM A LOCAL EXCHANGE CARRIER (LEC).



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C1253	Facility - Design/Implementation	Desired	KNOWLEDGE OF FACILITY DESIGN AND INSTALLATION REQUIREMENTS
C1286	Hand Tools Knowledge	Desired	UNDERSTANDS AND USES THE VARIOUS HAND TOOLS REQUIRED IN INSTALLATION AND REPAIR.
C1299	Inspection	Desired	VISUAL AND MECHANICAL CHECKING OF COMPONENTS IN PROCESS AND FINAL PRODUCT FOR CONFORMANCE TO SPECIFIED WORKMANSHIP, DIMENSIONAL, MECHANICAL AND SIMILAR REQUIREMENTS. INCLUDES INCIDENTAL ELECTRICAL CHECKS UTILIZING PROVIDED FACILITIES.
C1302	Installation - Analog	Desired	INSTALLATION, MAINTENANCE AND REPAIR OF ANALOG CIRCUITS. MAY INCLUDE CUSTOMER EQUIPMENT SUCH AS HORIZONS AND DIMENSIONS.
C1304	Installation - Cabling	Desired	PLACING OF COPPER, COAXING INSIDE WIRE AND/OR FIBER FLOOR DUCT OR CONDUIT.
C1305	Installation - Testing	Desired	TAGGING, TESTING AND IDENTIFYING WIRE PLACED.
C1306	Installation - Wiring	Desired	TERMINATION OF WIRE AND CABLE ON CONNECTING BLOCKS AND PLACING CROSS CONNECTS.
C1308	Installation And Repair - Digital	Desired	INSTALLATION, MAINTENANCE AND REPAIR OF DIGITAL MULTIPLEX EQUIPMENT, SUCH AS DDM10000, DACS 11, GRANGER, ETC.
C1310	Installation And Repair - Microwave	Desired	INSTALLATION, TESTING AND REPAIR OF ANALOG AND DIGITAL MICROWAVE RADIO SUCH AS TD2/3, ARG, DR6, COLLINS, FARION, ETC.
C1311	Installation And Repair - Underground Cable	Desired	INSTALLATION AND MAINTENANCE OF CABLE IN UNDERGROUND CONDUIT RATHER THAN BURIED CABLE; FOLLOW REQUIRED SAFETY PROCEDURES, READS VARIOUS DRAWINGS, AS-BUILTS AND PLOT PLANS.
C1312	Installation Knowledge	Desired	UNDERSTANDS THE PROCEDURES REQUIRED TO INSTALL, REARRANGE AND/OR REMOVE COMPLEX TELEPHONE EQUIPMENT.
C1313	Installation Repair - Special Services	Desired	INSTALLATION AND MAINTENANCE OF SPECIAL SERVICES; CUSTOM SERVICE WORK.
C1728	Installation Voice/Data Communications	Desired	INSTALL AND MAINTAIN ALL VOICE/ DATA COMMUNICATIONS, I.E. TELEPHONE SETS, FAX MACHINES, DIAL UP MODEMS, LANS, CONTROLLERS, ETC.
C1344	Line Testing	Desired	EFFECTIVELY EMPLOYS THE NECESSARY STEPS AND PROCEDURES TO ENSURE ADEQUATE FUNCTIONING OF TELEPHONE LINES.

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Skill Code	Skill Name	Applicability	Skill Description
C1386	Maintenance - CXR/Repeater	Desired	OPERATION AND MAINTENANCE OF VARIOUS TYPES OF CARRIER EQUIPMENT (DIGITAL).
C1388	Maintenance - Power	Desired	OPERATION AND MAINTENANCE OF CENTRAL OFFICE POWER PLANT, INCLUDING CONTROL PANEL, RECTIFIERS, BATTERY, CONVERTER/ INVERTER PLANT AND EMERGENCY AC ALTERNATOR PLANT; MAINTENANCE OF POWER LOGS. USES REQUIRED SAFETY PROCEDURES.
C1394	Manual Transmission Knowledge	Desired	ABILITY TO DRIVE A MOTOR VEHICLE WITH A MANUAL TRANSMISSION.
C1395	Map Reading	Desired	ABILITY TO READ MAPS IN GOING FROM ONE LOCATION TO ANOTHER.
C1408	Measuring Devices/Meters Knowledge	Desired	UNDERSTANDS AND CAN EFFECTIVELY USE THE VARIOUS MEASURING DEVICES AND METERS FOR INSTALLATION, MAINTENANCE OR REPAIR FUNCTIONS.
C1785	Micro-Wave Radio/VHF Radio	Desired	ABILITY TO INSTALL AND MAINTAIN ANALOG AND DIGITAL MICRO-WAVE EQUIPMENT AND BASE STATION TRANSMITTERS/RECEIVERS, MOBILE UNITS. KNOWLEDGE OF VHF RADIO INTERFACE EQUIPMENT AND ANTENNAS.
C3026	Microwave Radio Experience	May be Required	MICROWAVE RADIO AND VHF RADIO EXPERIENCE
C1448	Network Protocol	Desired	EXPERTISE IN SPECIFIC PROTOCOL FROM NETWORK TO APPLICATION LAYER INCLUDING SNA-SDCC, X.25, BSC, ASYNC, DDCMP, TEST, TROUBLESHOOT AND INSURE STANDARD IS MET. DEVISE EMULATION AND TEST PROGRAM USING SAME.
C1465	Operations - Facilities	Desired	WORKS WITH POWER, CARRIER, ANALOG/ DIGITAL RADIO, COAXIAL/FIBER CABLE AND THEIR RELATED SYSTEMS. MAY ALSO INCLUDE DACS, 4ESS, 5ESS, STP, NCP, TSP, ETC. (DMS100)
C1467	Operations - Private Line	Desired	INTERFACES WITH CUSTOMER TO PROVISION PRIVATE LINE DATA AND MAINTAINS SERVICE INTEGRITY TO SATISFACTION OF THE CUSTOMER.
C1040	PC Software - Basic	Desired	UNDERSTANDS PC OPERATIONS SUCH AS BASIC WORD PROCESSING AND COMMON SPREADSHEET SOFTWARE AND USES THIS KNOWLEDGE TO IMPROVE ONE'S ABILITY TO PERFORM JOB RESPONSIBILITIES.
C1775	Pole Climbing - Stepped	Desired	ABILITY TO CLIMB STEPPED POLES
C1776	Pole Climbing - Unstepped	Desired	ABILITY TO CLIMB UNSTEPPED POLES

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Skill Code	Skill Name	Applicability	Skill Description
C1535	Problem Resolution	Desired	ANALYZING, EVALUATING AND TRACKING SYSTEM PROBLEMS/ TROUBLES AND EQUIPMENT FAILURES UTILIZING KNOWLEDGE AND SKILLS TO AFFECT THE FINAL RESOLUTION.
C1587	Repair Referral	Desired	EFFECTIVELY RECEIVES REQUESTS FOR REPAIR SERVICES AND DISPATCHES THE APPROPRIATE INDIVIDUAL OR REPAIR FUNCTION.
C1595	Research And Investigation	Desired	THE ABILITY TO FACT FIND AND PROBLEM SOLVE BASED ON INFORMATION GATHERED FROM ONE OR MULTIPLE SOURCES.
C1602	Safety Awareness	Desired	KNOWS AND FOLLOWS COMPANY POLICY AND PROCEDURES REGARDING SAFETY. MAINTAINS APPROPRIATE LEVEL OF CAUTION WHEN WORKING, LIFTING, OR HANDLING POTENTIALLY HAZARDOUS EQUIPMENT OR MATERIALS.
C1622	Service Order Knowledge	Desired	GENERAL KNOWLEDGE OF THE SERVICE ORDER FROM A USER STANDPOINT.
C1623	Service Order Knowledge-Technical	Desired	UNDERSTAND SERVICE ORDER CODES IN RELATION TO CIRCUIT/SERVICE DESIGN, IMPLEMENTATION AND/OR INSTALLATION.
C1473	Service Order Processing	Desired	ENTERING, FILING AND/OR COMPLETING SERVICE ORDERS AND FACILITATING EXPEDIENT MOVEMENT TO NEXT STEP; INCLUDING ROUTINE ORDERS AND UPDATING CUSTOMERS AS REQUESTED. MAY INVOLVE USE OF COMPUTER TERMINAL.
C1632	Soldering Irons Knowledge	Desired	REPAIR SOLDERING IRONS AND USE THEM ON FRAME.
C1667	Telephone Equipment Knowledge	Desired	ABILITY TO WORK WITH E-9-1-1, TELEPHONES, DATA SETS, CHANNEL TERMINATING EQUIPMENT, ETC.
C1670	Test Assistance	Desired	ASSISTS OUTSIDE HI-CAP FIELD WORK GROUP, TRCC, CUSTOMERS, OR ANOTHER CENTRAL OFFICE ON TURN UP OR MAINTENANCE OF T1, T3, T3C, T3D, T3E, T4E, AND T4C SYSTEMS.
C1673	Testing	Desired	PERFORMING TESTING AND TROUBLESHOOTING OF ELECTRICAL AND ELECTRONIC CIRCUITRY.
C1680	Time Reporting	Desired	PROCESSING HOURS WORKED, EITHER MANUALLY OR ELECTRONICALLY. MAY INCLUDE COMPLETING FORMS, CODING AND/OR ENTERING.
C1695	Transmission Equipment Knowledge	Desired	UNDERSTANDS THE VARIOUS PIECES OF TRANSMISSION EQUIPMENT SUCH AS DACS, MET AND DDS AND CAN PROVIDE INSTALLATION, REPAIR OR MAINTENANCE FUNCTIONS.

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C2056	Trouble Correcting	Desired	EFFECTIVELY IDENTIFIES, ISOLATES AND CORRECTS TROUBLE IN THE SYSTEM OR EQUIPMENT THROUGH CLEANING, ADJUSTING OR RESPLICING.
C1730	Wire Cable Knowledge	Desired	ABILITY TO PERFORM WIRE CABLE TRANSFERS.
C1732	Wiring	Desired	REMOVE INSULATION AND POSITION WIRE, ASSEMBLE LUGS AND TERMINALS, WRAPPING, MECHANICAL ATTACHING, SOLDERING AND DRESSING WIRES, CABLE AND ELECTRICAL CONDUCTORS IN APPARATUS AND EQUIPMENT TO COMPLETE CIRCUITS ACCORDING TO MODELS, DRAWINGS AND DIAGRAMS.

LICENSE/CERTIFICATIONS

Skill Code	Skill Name	Applicability	Skill Description
C1257	FCC License	May be Required	POSSESS LICENSE ISSUED BY THE FEDERAL COMMUNICATIONS COMMISSION THROUGH U.S. CODE OF FEDERAL REGULATIONS; ISSUED ONLY WHERE JOB INVOLVES INTERNATIONAL FIXED SERVICES, MARINE OR AVIATION RADIO OPERATIONS, ETC. (GENERAL RADIOTELEPHONE OPERATOR'S LICENSE).
C1437	Possess valid driver's license.	Required	Possess valid driver's license.

REASONABLE ACCOMMODATIONS

Reasonable accommodations will be made for qualified candidates with disabilities. Essential job functions are identified for specific jobs on job requisition forms.