



**Disability Services**  
**Safety and Claims Management**  
Department of Executive Services  
Human Resources Management Division  
P.O. Box 80283  
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(206) 205-8575  
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Employee :

Claim # :

## JOB ANALYSIS

Job Title:	Electronic Communication Technician		
Department:	Transportation	Division:	Transit
DOT Title:	Electrician, Automotive	DOT #:	825.281-022
SVP:	7	Requestor:	Rob McCall
Worksite Address:	2255 4 <sup>th</sup> Ave. S. Seattle, WA 98134	Office Contact Name/ Phone/ Email:	Matt Canady 206-263-7208 matt.canady@kingcounty.gov
Original Analyst:	Kyle Pletz, VRC, CDMS		Analysis Date: 10/4/17
Update Analyst:			Update Date:

☒ On-Site    ☐ Interview    ☐ Representative

### JOB DUTIES:

#### ESSENTIAL FUNCTIONS ACCORDING TO THE EMPLOYER:

All King County jobs require ability/essential function to:

- Demonstrate predictable, reliable, and timely attendance.
- Follow written and verbal directions to complete assigned tasks on schedule.
- Read, write, and communicate in English & understand basic math.
- Learn from directions, observations, and mistakes and apply procedures using good judgment.
- Work independently or as part of a team and interact appropriately with others.

#### Job Specific Requirements:

This position installs communication equipment in various vehicles including buses, vans, trucks, sedans, etc. for King County Metro Transit. The position also tests and installs a variety of other electronic equipment in mobile and fixed systems. This equipment includes Motorola radio, INIT mobile computer systems and related subsystems. Common tasks involve connecting and/or terminating cabling, running a variety of tests, filling out forms/checklists, and minor fabrication or repair of accessories like handsets, microphones, etc.

In addition, this position troubleshoots and determines initial equipment failure; as well as installs and removes closed-circuit television (CCTV), security/surveillance equipment and miscellaneous electronic, communication and allied equipment. This position provides varied support and performing a variety of duties, as assigned, including in adverse weather events or other emergencies.

- Install and remove all types of mobile radio and electronic communications equipment
- Assist with the installation and removal of fixed radio site equipment
- Perform preventative maintenance to the initial equipment "box" level
- Troubleshoot mobile radio equipment installations
- Collaborate with coworkers on assignments
- Determine failure to either the radio equipment itself or the installation
- Provide mechanical or assembly level board swaps as appropriate
- Provide needed equipment documentation including install/removal. history



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- Maintain records related to each installation including work orders, checklists and installation procedures and practices
- Provide initial point of technical contact for communications equipment users
- Interpret schematics, wiring diagrams, and technical manuals
- Upload software files unto radio equipment
- Perform other duties as required

### EXPERIENCE, QUALIFICATIONS, KNOWLEDGE, SKILLS:

#### MINIMUM QUALIFICATIONS:

- Knowledge of basic electronics, communications and auxiliary equipment.
- Knowledge of the methods and techniques used in the installation of electronic equipment. Knowledge of electronic equipment troubleshooting and repair methods and techniques.
- Knowledge of the rules and regulations of the Federal Communications Commission.
- Knowledge of safe moving and lifting practices, occupational hazards and safety requirements.
- Strong verbal and written communication skills.
- Ability to use basic electronic test equipment such as Digital Volt Meters (DVMs), watt meters and common hand tools (screwdrivers, wrenches, battery operated drills etc.) to determine failure location.
- Ability to use Microsoft Word and update an Excel sheet.
- Ability to work effectively in a team and make positive contributions.
- Skill in working with a variety of individuals from diverse backgrounds.
- Ability to demonstrate good problem-solving skills.
- Basic computer skills including the ability to enter and extract information from automated systems and related software applications.
- Ability to meet and maintain the attendance requirements of the position.
- Ability to improvise and adapt to changing technology/customer priorities.

#### Desired Qualifications

- Associate's Degree in electronics or closely related field.
- Two-years' experience installing, maintaining and troubleshooting electronic communications or other electronic equipment or instruments.
- Knowledge of basic radio software programming procedures.
- Knowledge of mobile radio installation and basic radio maintenance practices.

#### Necessary. Special Qualifications

- Valid Washington State Driver's License by date of hire.
- Ability to report for duty during adverse weather events and other emergencies.
- Ability to work different shifts on weekdays, nights, weekends and holidays.

### Machines, Tools, Special Equipment, Personal Protective Equipment Used:

Crimpers, hand tools, drills, various communications components, wires, headlamp, voltmeter, various electric testers, telephone, radios, speakers and computer.



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### PHYSICAL REQUIREMENTS

Frequency Scale	Strength	Work Pattern
<b>N</b> = Never	<input type="checkbox"/> Sedentary	<input checked="" type="checkbox"/> Full-time
<b>S</b> = Seldom (1-10 %, up to 48 min)	<input type="checkbox"/> Light	<input type="checkbox"/> Part-time
<b>O</b> = Occasional (11-33%, 49 min. – 2 hr 40 min)	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Seasonal
<b>F</b> = Frequent (34-66%, 2 hr 41 min – 5 hr 20 min)	<input type="checkbox"/> Heavy	8 Hours Per Day
<b>C</b> = Constant (67-100%, more than 5 hr 20 min)	<input type="checkbox"/> Very Heavy	5 Days Per Week
		FLSA Exempt <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Work Pattern (continued)

Job Demand	Frequency and Weight (lbs)					Activity Description
	N	S	O	F	C	
<b>Lifting</b> floor – waist		40	1-5			Tool packs (10-20 lbs. each, 40 lbs. combined). Radios, hand tools components 1-5 lbs.
<b>Lifting</b> waist–shoulder		40	1-5			Tool packs (10-20 lbs. each, 40 lbs. combined). Radios, hand tools components 1-5 lbs.
<b>Lifting</b> above shoulder			1-5			Radios, hand tools, wires, testing equipment components 1-5 lbs.
<b>Carry</b> (Distance/Surface)		40	1-5			Tool packs (10-20 lbs. each, 40 lbs. combined). Radios, hand tools components 1-5 lbs.
<b>Pushing/Pulling</b> (Distance/Surface)		50	1-20			Up to 50 lbs. of pressure when pulling wires, 1-20 lbs. when manipulating tool packs, radios, hand tools and equipment.

Physical Demands	Frequency					Activity Description
	N	S	O	F	C	
Sitting				X		On office chair or automobile seat up to 1 hr./time, 3 hrs. total while performing technical bench work, administrative tasks and driving.
Standing				X		On flat cement surfaces (or bus) up to 15 min./time, 4 hrs. total while performing installations (radio and communication equipment) and inventory control.
Walking			X			Up to 100 yards./time on flat cement, 1 hr. total while traversing in/out of coaches, within facility.
Perform Work on Ladders		X				3-6' ladders 1-5 min./time, 15 min. total while installing/maintaining antennas and speakers, accessing wires, etc.
Climbing		X				3-6' ladders, 24 stairs 1-5 min./time, 15 min. total while climbing on ladders, coach seats and stairs.



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Physical Demands	Frequency					Activity Description
	N	S	O	F	C	
Balancing		X				Up to 5 min./time, 15 min. total while using ladders, working around maintenance pits, working on top of coaches.
Stooping / Bending				X		Up to 5 min./time, 3-4 hrs. total while performing installations, pulling wires, inspecting components, terminating components and connecting equipment. Can alt. with squat/kneel on some occasions
Twisting at Neck		X				Up to 10 sec./time, 5 min. total when performing visual inspections, installing equipment, terminating components and pulling wires.
Twisting at Waist				X		Up to 5 min./time, 3-4 hrs. total while performing installations, pulling wires, inspecting components, terminating components and connecting equipment.
Squatting / Kneeling				X		Up to 15 min./time, 3 hrs. total when working on non-revenue vehicles (under dashboard, in trunk etc.). Can alt. with bend/stoop on some occasions.
Crawling	X					
Reach waist to shoulder				X		Up to 15 min./time, 4 hrs. total while performing installations, pulling wires, inspecting components, terminating components and connecting equipment.
Reach above shoulder		X				Up to 2 min./time, 10 min. total while troubleshooting/installing speakers, pulling wires, removing equipment and manipulating overhead doors.
Reach below waist				X		Up to 5 min./time, 4 hrs. total accessing tools, working on non-revenue vehicles, reaching in engine compartments, reaching under a dashboard, accessing components in low areas.
Keyboarding		X				Up to 5 min./time, 30 min. total while performing administrative tasks such as time cards and email.
Wrist Flexion/Extension		X				Up to 1 min./time, 15 min. total while using hand tools such as screwdrivers, manipulating cables and installing components.
Handle/Grasp				X		Up to 1-2 min./time, 4 hrs. total with hand tools, manipulating wires and mounting/terminating components.
Forceful Grasp				X		Up to 1-2 min./time, 4 hrs. total with hand tools, manipulating wires and mounting/terminating components.
Fine Finger Manipulation				X		Up to 1-2 min./time, 4 hrs. total while terminating wires as well as manipulating wires, small screwdrivers, small bolts/screws, zip ties, antenna cables, low voltage cables, voltmeters and testers.
Hand Controls			X			Up to 30 min./time, 2 hrs. total while driving as well as operating drills and other various power tools.
Foot Controls			X			Up to 30 min./time, 1 hr. total while driving and operating an emergency foot button.
Repetitive Motion	X					Body Part: _____ Cycles/hr: _____
Vibratory Tasks – High	X					
Vibratory Tasks – Low						Up to 30 sec./time, 5 min. total with drills, hammer and wrenches.



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Physical Demands	Frequency					Activity Description
	N	S	O	F	C	
Talking						Up to 5 min./time, 1 hr. total while conversing with leads, coworkers and vendors.
Hearing					X	Continuously
Visual – Near Acuity					X	Continuously
Visual – Far Acuity			X			Driving
Visual – Depth Perception			X			Driving
Visual – Color Discrimination			X			Wires
Visual – Accommodation	X					
Visual – Field of Vision					X	Moving machinery, obstacles in working environment
Exposure to Weather			X			
Extreme Cold	X					
Extreme Hot		X				
Wet and / or Humidity	X					
Proximity to Moving Mechanical Parts					X	Moving machinery, obstacles in working environment
Exposure to Explosives	X					
Atmospheric Conditions		X				
Exposed Heights			X			
Exposure to Electricity					X	Wires and electric components
Exposure to Toxic / Caustic Chemicals		X				
Exposure to Radiation	X					
Noise Intensity	<input type="checkbox"/> Very Quiet <input type="checkbox"/> Quiet <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Loud <input type="checkbox"/> Very Loud					
Other:						

**Analyst's Comments:**



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### Possible Employer Modifications:

### Update Comments (*if applicable*):

**Note:** The information for this job analysis was gathered by either on-site observation, interview and / or is representative of the labor market as indicated on page one. Additional data may have been obtained from standardized industry resources such as the DOT, GOE, COJ, OOH, WOIS and O-NET. On occasion, practicality and feasibility prevent the direct observation and/or gathering of objective, quantifiable data. For this reason, a “best estimate” may have been used.

### Analyst:

### Update (if applicable):

Vocational Consultant

10/25/17  
Date

Vocational Consultant

Date

### Employer Verification:

### Employee Verification: (optional)

Name

Date

Name

Date



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### MEDICAL PROVIDER:

- ☐ I agree that the employee can perform the physical activities described in this job analysis and can return to work. Date employee is released to return to work if different from today's date: \_\_\_\_\_
- ☐ I agree the employee can perform the described job but only with modifications (describe in comments section). Modifications are needed on a ☐ permanent basis or ☐ temporary basis.
- ☐ The employee **temporarily** cannot perform this job based on the following physical limitations:

Anticipated release date: \_\_\_\_\_

Treatment plan: \_\_\_\_\_

- ☐ The employee is **permanently** restricted from performing the physical activities described in this job analysis based on the following physical limitations (state objective medical findings):

### Comments:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

- ☐ Attending Physician    ☐ Consulting Physician    ☐ Pain Program Physician
- ☐ IME Physican    ☐ PCE Therapist    ☐ OT / PT Therapist    ☐ PEP Physician