Class Summary

The responsibilities of this classification include performing journey-level electrical, electronic and mechanical work on light rail vehicles and associated equipment. Incumbents test and repair communications systems, surveillance equipment and other related equipment.

Distinguishing Characteristics

This is the second of a two-level Rail Electro-Mechanic classification series. This classification is primarily responsible for the maintenance and repair of light rail vehicles and their electronic equipment and systems, communication systems, surveillance equipment and other related equipment.

This classification is distinguished from the Transit Mechanic in that the Transit Mechanic is responsible for the repair and maintenance of non-rail vehicles. This classification is distinguished from the Mechanic/Auto Machinist in that the Mechanic/Auto Machinist works on a variety of non-public transportation vehicles and stationary equipment or related components excluding public transportation (revenue and non-revenue) vehicles.

Examples of Duties (May vary by position)

Diagnose, test, maintain, repair and overhaul rail vehicles' electrical, electronic and mechanical systems and equipment in accordance with schematics, drawings, wiring diagrams, operations manuals and manufacturer instructions.

Conduct safety and preventive maintenance inspections on vehicles, systems and equipment; document defects, maintenance and repairs.

Troubleshoot, repair, replace, or modify mechanical, electronic and electrical components, analog and solid state electronic systems, and defective parts for a variety of equipment and systems controls.

Operate and maintain shop equipment and tools.

Prepare time and material cost estimates and maintain records; prepare various activity and status reports; document defects and repairs on inspection forms, work orders, or designated computer programs.

Re-rail trains and recover vehicle from accidents.

Install special electronic testing systems and communication devices on cars; service and maintain microprocessor control systems; calibrate and repair test equipment.

Inspect new microprocessor and solid state systems installed by contractors.

Inspect, test, maintain, repair, service, rebuild and overhaul electrical and electronic functions on rail vehicles.

Maintain parts inventory and computer inventory records.

Operate computers for testing and diagnosing fault log management and related data input and retrieval.

May be assigned ongoing lead duties.

Performs other related duties as assigned.

Knowledge/Skills (May vary by position)

Knowledge of current principles and practices of electrical, electronic and mechanical work on light rail vehicles and associated equipment; skill in AC/DC systems, operating principles of analog and digital electronics, electronic control circuitry and associated mechanical systems, heating, lighting, air conditioning, motors, brakes and related systems

Knowledge and skill in the application of mechanical principles, repair methods, standards and practices typically found in a journey-level skilled trades position

Knowledge of current preventive maintenance requirements and skill in performing maintenance on light rail vehicles and associated equipment, machinery, tools and equipment; skill in developing and implementing preventive maintenance and safety inspection procedures

Skill in the application of testing and inspection methods including solid state circuitry diagnostic and repair techniques and procedures

Skill in the use of operating portable test equipment, bench type work stations, tools, parts and supply manuals needed in the repair, maintenance and installation of electrical, electronic and mechanical systems and equipment

Skill in reading and interpreting blue prints, maintenance manuals, technical information in repair manuals, service change bulletins, parts and supply manuals, schematics, construction drawings, and specifications

Skill in maintaining, repairing, troubleshooting, rebuilding and overhauling electrical and mechanical systems

Skill in preparing written reports, documenting defects and repairs on inspection forms, work orders, and designated computer programs; prepare accurate time and material cost estimates and keep accurate records

Skill in applying industrial safety procedures and standards including cleaning and maintaining shop area

Skill in oral and written communications

Skill in problem solving, analyzing and diagnosing equipment problems

Skill in the operation of current Windows based computer software; skill in learning new operating system languages and staying current on all new technologies introduced into transit industries as they relate to light rail vehicle maintenance

Skill in establishing and maintaining cooperative working relationships with a diverse group of individuals

Skill in working under established deadlines and timeframes

Skill in leading and training others

Licensing, Certification and Other Requirements

Washington State Class B driver's license or the ability to obtain and maintain a Class B license with passenger (P) endorsement and light rail vehicle “Yard Operator” certification is required.

Electronics Technician Certificate is desirable.

Additional licenses, certifications and other requirements determined to be necessary to meet the business needs of the employing unit may be required.

FLSA Designation	**Non-Exempt**
Levels within same series	Rail Electro-Mechanic – Trainee, Rail Electro-Mechanic
Class History	Created 6/2007
	Updated 1/2008 Changed font and format
	Updated 4/2011 Updated to reflect creation of trainee level