

**City of Dallas**  
**Classification Specification**

<b>Title:</b>	<b>Water Instrument Technician</b>	<b>Class Code:</b>	<b>54021</b>
<b>Application:</b>	<b>Career Series</b>	<b>Pay Grade:</b>	<b>F</b>
<b>Supplemental/Code:</b>	<b>Technical/8</b>	<b>FLSA Status:</b>	<b>Non - exempt</b>
<b>Safety Sensitive:</b>	<b>LA/DR</b>	<b>Established:</b>	<b>10/01/94</b>
<b>CDL:</b>	<b>Yes</b>	<b>Revised:</b>	<b>10/01/2016</b>

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**Position Purpose:**

As a journeyman level electronic technician, with knowledge and experience in electronics, performs new installation, repair, maintenance, programming and calibration of instrumentation for water equipment and programmable logic controllers (PLC) to ensure consistent and accurate monitoring and controlling of water flow, water pressure, and water levels at pumping stations, pressure points, meter vaults, chemical analyzing pumps and motors at various water and wastewater treatment plants.

**Essential Functions:**

1. Evaluates performance and reliability of electronic equipment by applying electronic theory, principles of electronic circuitry, testing and troubleshooting procedures, and related knowledge to install, build, test, troubleshoot, repair, program, calibrate and modify electronic equipment.
2. Repairs, replaces, and performs maintenance programming techniques for defective PLC devices: such as processors, main board, communications cards, analog/digital inputs and outputs, and Human Machine Interface (HMI) displays.
3. Troubleshoots, diagnose problems, repairs, and replaces electrical, electronic, pneumatic and hydraulic instrumentation and electronics to ensure operating accurately.
4. Provides regularly scheduled preventive maintenance of instruments such as inspecting, cleaning, lubricating, calibrating, and testing to ensure established standards are maintained.
5. Troubleshoots, repairs, and calibrates chemical analyzing devices to ensure accuracy of total and free chlorine residuals and ammonia readings, or contaminants in water delivery system.
6. Completes paperwork, maintains records and files of equipment and repairs in computerized maintenance Management System (CMMS).
7. May train one to two apprentices by making daily work assignments, outlining procedures to follow, and inspecting completed work.
8. Communicates with pumping operators, water instrument maintenance supervisor, and other skilled trade people to coordinate taking equipment out of service for repairs and maintenance.
9. Wires equipment monitors and controllers into in-house metal cabinets for installation in field.
10. Regular, reliable and punctual attendance is an essential function of the job.

**Knowledge, Skills and Abilities Required to Perform Work:**

Thorough knowledge of electronic theory and practice involved in the installation, repair, replace, testing, troubleshooting, and programming of complex electronic circuitry.

Thorough knowledge of electricity, digital electronics, and repair of water instrumentation.

Basic knowledge of plumbing.

Working understanding of chemical analyzing equipment: Company name that sale chemical analyzing equipment (HACH), Online Water Quality System (OWQM) stations.

Ability to diagnose and repair programmable logic controllers (PLC).

Ability to identify and differentiate color code for electrical and electronic components.

Ability to read schematics, wiring diagrams, drawings or blueprints, and specifications related to electronic equipment.

Ability to use mathematical formulas to calculate information.

Ability to work in a permit required confined space.

Ability to use hand and power tools, multi-meters, testers, pressure indicators, and tachometers.

Ability to establish and maintain an effective working relationship with all levels of management, city officials, vendors, other government agencies, other employees and the general public.

Requires a valid Texas class "C" driver's license.

May require training in the use of a self-contained breathing apparatus.

**Working Conditions and Hazards:**

Works both indoors and outside with exposure to all weather conditions and traffic hazards.

Requires climbing ladders, bending, kneeling, twisting, and working in underground vaults and on top of tall structures.

Possible exposure to hazardous chemicals such as chlorine and sulfur dioxide.

May require extensive driving.

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The above statements are intended to describe the general nature and level of work performed by personnel assigned to this classification is not necessarily and exhaustive list of all responsibilities, duties and skills required.