

7242 Industrial Electricians

Industrial electricians install, maintain, test, troubleshoot and repair industrial electrical equipment and associated electrical and electronic controls. They are employed by electrical contractors and maintenance departments of factories, plants, mines, shipyards and other industrial establishments.

Example Titles

- apprentice industrial electrician
- apprentice marine electrician
- diesel electrician – railway
- electric signal repairer – railway
- electrical repairer, crane maintenance
- electrical repairer, industrial
- electrical repairer, machine shop
- electrical technician – military
- electrician – rail transport
- electrician, industrial
- electrician, plant maintenance
- electrician, shipyard
- industrial electrician
- industrial electrician apprentice
- industrial electrician lead hand
- journeyman/woman industrial electrician
- maintenance electrician – industrial
- marine electrician
- marine electrician – military
- marine equipment electrician
- marine wireman/woman
- mill electrician
- mine electrician
- plant electrician
- plant maintenance electrician
- railway signal installer
- railway signal maintainer
- rig electrician
- ship's electrician
- ship's electrician – shipbuilding and repair
- ship's electrician – water transport
- shipyard electrician
- signal maintainer, railway

Main duties

Industrial electricians perform some or all of the following duties:

- Read and interpret drawings, blueprints, schematics and electrical code specifications to determine layout of industrial electrical equipment installations
- Install, examine, replace or repair electrical wiring, receptacles, switch boxes, conduits, feeders, fibre-optic and coaxial cable assemblies, lighting fixtures and other electrical components
- Test electrical and electronic equipment and components for continuity, current, voltage and resistance
- Maintain, repair, install and test switchgear, transformers, switchboard meters, regulators and reactors
- Maintain, repair, test and install electrical motors, generators, alternators, industrial storage batteries and hydraulic and pneumatic electrical control systems
- Troubleshoot, maintain and repair industrial, electrical and electronic control systems and other related devices
- Conduct preventive maintenance programs and keep maintenance records
- May install, maintain and calibrate industrial instrumentation and related devices.

Employment requirements

- Completion of secondary school is usually required.
- Completion of a four- or five-year industrial electrician apprenticeship program *or* A combination of over five years of work experience in the trade and some high school, college or industry courses in industrial electrical equipment is usually required to be eligible for trade certification.
- Trade certification for industrial electricians is compulsory in Prince Edward Island, Quebec and the Yukon, and available, but voluntary, in Newfoundland and Labrador, Nova Scotia, New Brunswick, Ontario and Manitoba.
- Interprovincial trade certification (Red Seal) is also available to qualified industrial electricians.
- Trade certification for marine electricians is available, but voluntary, in New Brunswick.
- Trade certification for mine electricians is available, but voluntary, in Nova Scotia.

Additional information

- Progression to supervisory positions is possible with experience.
- Red Seal trade certification allows for interprovincial mobility.

Classified elsewhere

- Construction electricians (in [7241](#) *Electricians (Except Industrial and Power System)*)
- *Power System Electricians* ([7243](#))
- Supervisors of industrial electricians (in [7212](#) *Contractors and Supervisors, Electrical Trades and Telecommunications Occupations*)