What's the Risk?

Ground Fault Circuit Interrupter (GFCI)

THE ISSUE

A ground fault circuit interrupter (GFCI) is an electrical safety device that provides protection against electrical shocks caused by ground faults from defective circuits or equipment. A GFCI can be installed at any point in the circuit to provide protection. They are more sensitive to ground faults and act faster than a circuit breaker or fuse to disconnect the flow of electricity.

GFCIs compare the amount of current going into electrical equipment with the amount of current returning from the equipment through the conductors. If the difference is greater than 5 milliamps, the device automatically shuts off the power. On sensing a ground fault, a GFCI interrupts the flow of electricity within as little as 1/40th of a second to prevent serious injury or death.

WHAT'S THE RISK?

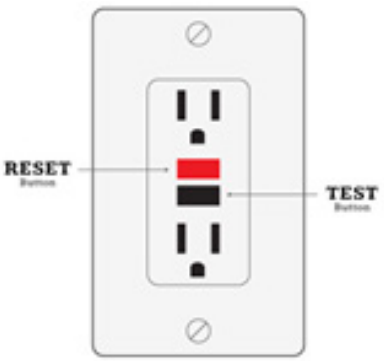
A ground fault occurs when electricity travels outside its intended path and goes to ground. If you contact electricity while you are grounded (touching something on the ground e.g. a ladder, touching water), your body becomes part of the path.

The risk of serious electrical shock or electrocution increases when people contact electricity while damp or in a wet environment. In these conditions, the body's resistance to current flow is decreased and any electrical shock could be fatal. The severity of an electrical shock depends on the amount of current and length of time the body remains as part of the circuit.

WHAT CAN BE DONE?

To prevent shocks and/or possible electrocution, GFCIs are required by the Canadian Electrical Code (CEC) to be used in potentially wet or damp locations. Examples include receptacles 1) within 1.5 meters from a sink, 2) located outdoors, 3)in bathrooms, as well as wiring associated with swimming pools and hot tubs.

An electrician should be consulted to repair, replace, or upgrade any electrical equipment or device where a GFCI should be installed.



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