



GROUND-FAULT CIRCUIT INTERRUPTION

Toolbox Talks for Municipal Utilities

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Ground-fault circuit interrupters are an important part of electrical safety, both at work and at home. It protects us against severe or fatal electrical shocks.

A GFCI can detect how much current is flowing to the receptacle on the "hot," or black wire, and then looks for the exact same amount flowing back on the "neutral," or white wire. If there is any imbalance, it trips the circuit because it "thinks" that the current is flowing through you. It is able to sense a mismatch as small as 4 or 5 milliamps, and it can react as quickly as one-thirtieth of a second.

GFCI protection is required by OSHA any time you are plugging a power tool into an extension cord, whether in a construction or shop setting. The protection is also required in wet or damp locations, outside, on rooftops or within 6 feet of running water.

Protection can also be provided by GFCI receptacles, GFCI circuit breakers or portable GFCIs. GFCIs should be tested using manufacturer's directions after installation and at least once per month. Any electrical installation must be done by a qualified electrician.



- A portable GFCI should be used out-of-doors with various electrical power tools (i.e., drills, mowers, trimmers) and should be tested before each use. Never use a GFCI that has any obvious damage.

Inspect, maintain and care for plug-in GFCIs as you would any other flexible cord.