

# HDR Remodeling

## Information Sheet

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### Ground Fault Current Interrupters

Electricity can be deadly in very small doses and can fatally disrupt the rhythm of your heart. To eliminate this danger it is recommended that you install and use GFCI protected outlets.

Since the mid '70s, electrical codes have required safety devices called Ground Fault Current Interrupters (GFCI's) in locations around the house where you may cause a ground fault.

The potential for danger arises when electricity leaks from a hot wire inside an electrical box or within an appliance or tool to a cover plate or casing. The accidentally energized elements may well pass unnoticed unless you happen to touch one of them while working outdoors in bare feet or otherwise connected to ground. Under these circumstances, your body can become a minuscule, but potentially deadly current. Such a shift from the current's usual path through the house wiring is called a ground fault.

The GFCI compares the amperage in a circuit's hot wire with that in the neutral wire. When there is a slight difference (a ground fault occurs) the device will interrupt the circuit within 1/40th of a second. In some applications a GFCI may not be applicable such as with freezers and other appliances where a large draw is necessary to start the unit and this may trip the GFCI.

#### **GFCI protection is required for new receptacles in the following locations:**

- Bathrooms
- Kitchens: within 6 feet of a kitchen sink or wet bar. Outlets are required every 24" of counter space.
- Garages, crawlspaces and unfinished basements
- Outdoors; when the outlet is positioned less than 6 feet, 6 inches above ground level and within 20 feet of a swimming pool or similar installation including underwater lighting.