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Installing a New GFCI

What's a GFCI and why do you need one? Ground-fault circuit-interrupter receptacles are safety devices that protect you from electrical shock in the event of a short in an appliance, extension cord, or plug. When they detect even small current variations, they shut off power to the circuit in as little as 1/40th of a second. We'll show you how to install a "single location" GFCI at the end of a circuit. Although you also could install one in the middle of a circuit to protect additional receptacles down the line, be aware that the more receptacles any one GFCI protects, the more susceptible it is to "phantom tripping" - shutting off the power because of tiny, normal fluctuation in current flow.

WHAT YOU'LL NEED

SKILL SCALE

Easy

TIME REQUIRED

You can replace a receptacle in an hour or less.

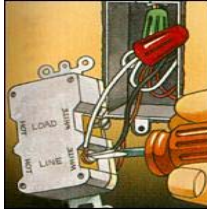
TOOLS

Neon circuit tester
Screwdrivers
Needle-nose pliers
Combination tool

MATERIALS

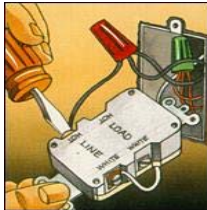
GFCI receptacle
Wire connectors

1



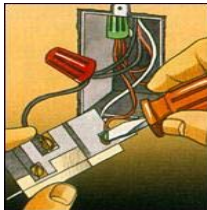
Turn off the power at the main service panel, and test the circuit to be sure it's off. Remove the old receptacle. Pigtail all the white neutral wires together, and connect the pigtail to the terminal marked WHITE LINE on the GFCI.

2



Pigtail all the black hot wires together, and connect them to the terminal marked HOT LINE on the GFCI.

3



Connect the grounding wire to the green grounding screw terminal on the GFCI. Mount the GFCI in the receptacle box, and reattach the cover plate. Restore power at the service panel, and test the GFCI according to the manufacturer's instructions.