

What You Need to Know About the Ground Fault Circuit Interrupt (GFCI) Outlet.

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Outlets in an RV are wired in series – just like Christmas tree lights. Any Outlet within four feet of a water source (e.g., sink, shower, or toilet) must be on a GFCI circuit by RV code. Usually, only one (typically the first Outlet in a circuit originating at the Breaker Panel or inverter [both a.k.a. the source] is the "Master of the circuit" and has the "Test" and "Reset" buttons.) (**Comment:** It's a good idea to locate your Master GFCI Outlet, as well as find out what Outlets are downline from it in the circuit – p.s. you may have more than one Master GFCI Outlet in your RV.)

A GFCI Outlet monitors the amount of current flowing from Hot to Neutral. If there is any imbalance (Current Flow "out" is less than Current Flow "in"), it trips the whole circuit. The trip setting is typically five mA (.005A or five-thousandths of an Amp), and it can react as quickly as one-thirtieth (1/30th) of a second. Thus, a GFCI interrupts power fast enough to prevent a deadly amount of Amperage from passing through you. You may receive a painful Voltage shock, but you should not be electrocuted or receive a severe shock injury.

Important: All GFCI Outlets should be tested **once a month** (this message is actually engraved on the front of the outlet – have you seen it?) This test ensures the outlet is working correctly and will protect you from a fatal shock. To test a GFCI Outlet, first, plug a night light with an On/Off switch into one of its sockets. Make sure the light is ON, and then press the "Test" button on the GFCI. The GFCI's "Reset" button should "pop" out, and the light should go OFF. If the "Reset" button "pops" out, and the light does not go OFF, the GFCI has been improperly wired. (Have a certified RV tech or a certified electrician correct the wiring error.) If the "Reset" button does not "pop" out when the "Test" button is pressed, the GFCI is defective and should be replaced. If the GFCI is functioning correctly, the lamp goes OFF. Press the "Reset" button to restore power to the Outlet (as well as to the rest of the down-line circuit).

Contrary to popular belief, if a GFCI has unexpectedly "tripped" and it will not reset the GFCI Outlet is probably not faulty and should not be blindly replaced. It usually will not reset because a piece of equipment plugged in somewhere in its circuit has a minor Short to Ground, and the GFCI is sensing it. Unplug the equipment/devices connected to the circuit – one piece at a time, starting at the GFCI – and try to reset the GFCI after each piece is unplugged. Once the guilty piece of equipment has been removed, the GFCI will reset.

WARNING: The GFCI Outlet must be installed in a specific way. If it is installed "backward," it will not work. (Remember: GFCIs do not like Reverse Polarity!)