

Installing and Testing a 8598-DIN (Contains GFCI Receptacle)



Please read this leaflet completely before getting started.

DI-000-08598-00A

⚠ CAUTION

- To prevent severe shock or electrocution always turn the power OFF at the service panel before working with wiring.
- Use this GFCI with copper or copper-clad wire. Do not use it with aluminum wire.
- Do not install this GFCI receptacle on a circuit that powers life support equipment because if the GFCI trips it will shut down the equipment.
- For installation in wet locations, protect the GFCI receptacle with a weatherproof cover that will keep both the receptacle and any plugs dry.
- Must be installed in accordance with national and local electrical codes.

1. What is a GFCI?

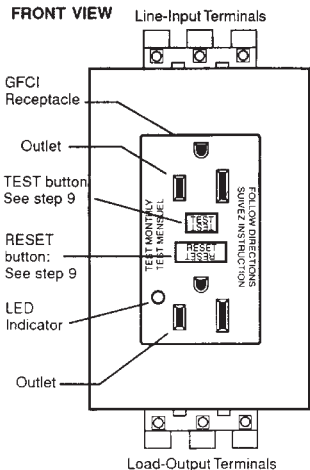
A GFCI receptacle is different from conventional receptacles. In the event of a ground fault, a GFCI will trip and quickly stop the flow of electricity to prevent serious injury.

Definition of a ground fault:

Instead of following its normal safe path, electricity passes through a person's body to reach the ground. For example, a defective appliance can cause a ground fault.

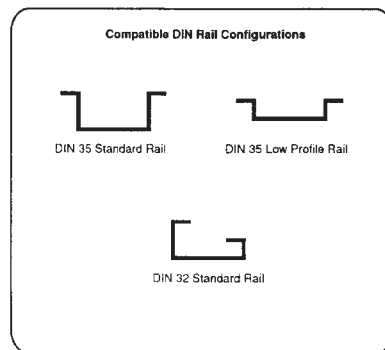
A GFCI receptacle does **NOT** protect against circuit overloads, short circuits, or shocks. For example, you can still be shocked if you touch bare wires while standing on a non-conducting surface, such as a wood floor.

2. 8598-DIN, with GFCI, features:



3. Compatible DIN Rail Configurations

The 8598-DIN mounts using two DIN clips attached to its back. It will properly mount using any of the following DIN rail configurations:



4. Should you install it?

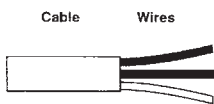
Installing a 8598-DIN, with GFCI receptacle, can be more complicated than installing a conventional receptacle.

Make sure that you:

- Understand basic wiring principles and techniques
- Can interpret wiring diagrams
- Have circuit wiring experience
- Are prepared to take a few minutes to test your work, making sure that you have wired the 8598-DIN correctly.

5. LINE vs. LOAD

A cable consists of 2 or 3 wires.



LINE cable:

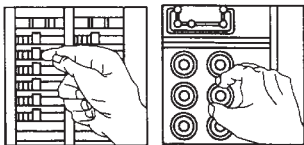
Delivers power from the service panel (breaker panel or fuse box) to the 8598-DIN GFCI. If there is only one cable entering the electrical box, it is the LINE cable. This cable should be connected to the 8598-DIN's LINE-INPUT terminals only.

LOAD cable:

Delivers power from the 8598-DIN GFCI to another receptacle in the circuit. This cable should be connected to the 8598-DIN's LOAD-OUTPUT terminals only.

6. Turn the power OFF

Plug an electrical device, such as a lamp or radio, into the receptacle on which you are working. Turn the lamp or radio ON. Then, go to the service panel. Find the breaker or fuse that protects that receptacle. Place the breaker in the OFF position or completely remove the fuse. The lamp or radio should turn OFF.

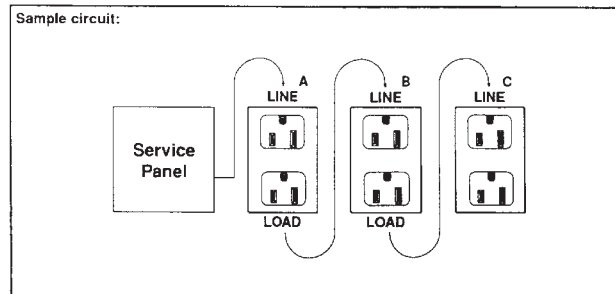


Next, plug in and turn ON the lamp or radio at the receptacle's other outlet to make sure the power is OFF at both outlets. If the power is not OFF, stop work and call an electrician to complete the installation.

7. Placement in circuit

The GFCI's place in the circuit determines if it protects other receptacles in the circuit.

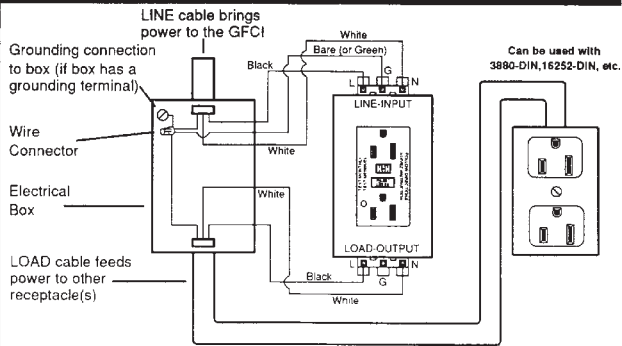
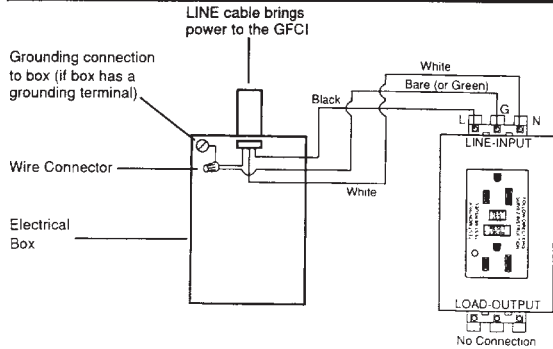
Placing the GFCI in position A will also provide protection to "load side" receptacles B and C. On the other hand, placing the GFCI in position C will not provide protection to receptacles A or B.



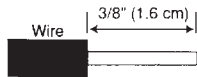
8. Connect the wires (choose A or B)... only after reading other side completely:

A: Non-Feed-thru Installation

OR B: Feed-thru Installation (provides downstream protection)



About Wire Connections To 8598-DIN:



Connect the LINE cable wires to the 8598-DIN LINE-INPUT terminals:

- The white wire connects to the Neutral (N) terminal.
- The black wire connects to the Line (L), or Hot, terminal.

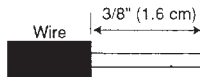
Connect the grounding wire (only if there is a grounding wire):

- For installations with no grounding terminal (diagram not shown): Connect the LINE cable's bare copper (or GREEN) wire directly to the grounding terminal on the 8598-DIN.
- For installations with a grounding terminal (diagram shown above): Connect a bare copper (or GREEN) 12 or 14 AWG wire to the grounding terminal on the 8598-DIN. Also connect a similar wire to the grounding terminal on the box. Connect the ends of these wires to the LINE cable's bare copper (or GREEN) wire using a wire connector. If these wires are already in place, check the connections.

Complete the Installation:

- Test your work. Go to step 9.

About Wire Connections To 8598-DIN:



Connect the LINE cable wires to the 8598-DIN LINE-INPUT terminals:

- The white wire connects to the Neutral (N) terminal.
- The black wire connects to the Line (L), or Hot, terminal.

Connect the LOAD cable wires to the 8598-DIN LOAD-OUTPUT terminals:

- The white wire connects to the Neutral (N) terminal.
- The black wire connects to the Line (L), or Hot, terminal.

Connect the grounding wires (only if there is a grounding wire):

- Connect a bare copper (or GREEN) 12 or 14 AWG wire to the grounding terminal on the 8598-DIN. If the box has a grounding terminal, also connect a similar wire to the grounding terminal on the box. Connect the ends of these wires to the LINE or LOAD cable's bare copper (or GREEN) wire using a wire connector. If these wires are already in place, check the connections.

Complete the installation:

- Test your work. Go to step 9.

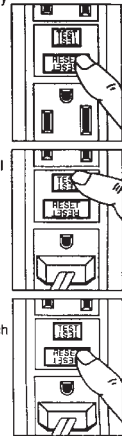
9. Test your work

Why perform this test?

- If you miswired the 8598-DIN, with GFCI, it may not prevent personal injury or death due to a ground fault (electrical shock).
- If you mistakenly connect the LINE wires to the LOAD terminals, the GFCI will still operate like an ordinary receptacle, but it will not interrupt a ground fault.

Procedure:

- This 8598-DIN is shipped from the factory with its GFCI in the tripped condition and cannot be reset until it is wired correctly and power is supplied to the device. Plug a lamp or radio into the GFCI (and leave it plugged in). Turn the power ON at the service panel. Ensure that the GFCI is still in the tripped condition by pressing the TEST button. If the lamp or radio is ON and the Indicator Light is ON, go to the Troubleshooting section because LINE and LOAD wiring connections have been reversed.
- Press the RESET button fully. If the lamp or radio turns ON and the indicator Light turns ON, the 8598-DIN has been installed correctly. If the GFCI can not be reset, go to the Troubleshooting section.
- If you installed your 8598-DIN (with GFCI) using step 8B, press the TEST button, then plug a lamp or radio into surrounding receptacles to see which one(s), in addition to the GFCI, lost power when you pressed the TEST button. DO NOT plug life saving devices into any of the receptacles that lost power. Place a "GFCI Protected" sticker on every receptacle that lost power, then press the RESET button to reset the GFCI.
- Press the TEST button (then RESET button) every month to assure proper operation. If the GFCI can not be reset, then it must be replaced.



TROUBLESHOOTING

Turn the power OFF and check the wire connections against the appropriate wiring diagram in step 8A or 8B. Make sure that there are no loose wires or loose connections. Start the test from the beginning of step 9 if you rewired any connections to the 8598-DIN with GFCI.

General Information

GFCI rating:
15A-125V AC - Cat No. 8598 Lighted Receptacle

This device is rated 20A feed-through.

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