

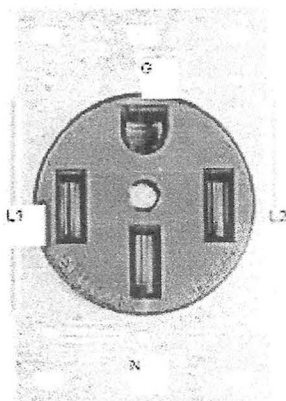
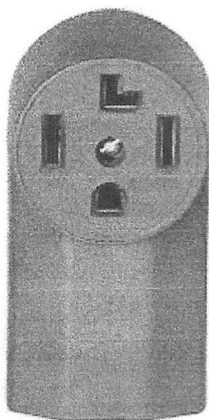
## Wiring Diagram for a Stove Plug

Please keep in mind, this is for a 4 wire cord and the outlet for a stove / oven.

This is very easy to do but yes it can seem very intimidating. You just came home with the new stove your wife has been looking forward to. You go and pull the old stove out and to your surprise, you find the stove was hard wired. First thing you need to do.

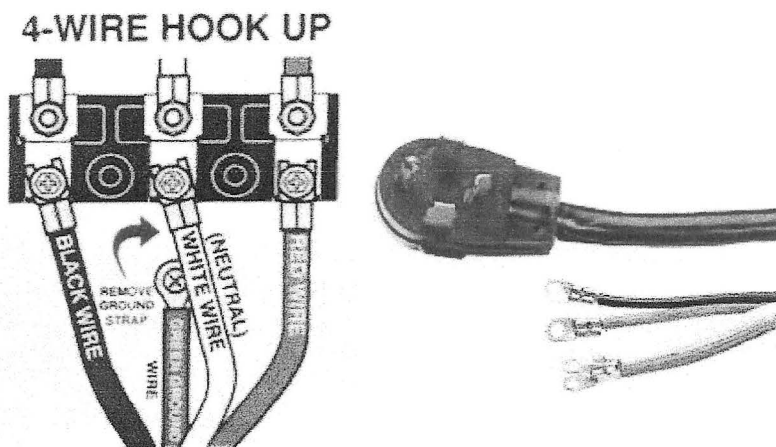
- 1) Don't move the stove anymore. Old wires can break while the power is still on.
- 2) Now turn the power off at the breaker panel if you didn't do so yet. Test and make sure you really did turn the right breaker off.
- 3) Now that the power is off, remove the wire from the stove / oven.
- 4) OK, so now you want to start mounting your new 50 amp outlet to the wall. Make sure you will be mounting it low enough so that the stove / oven can be pushed up to the wall.

You will want to cut back the wire so you don't have a ton of wire hanging out. Now it's either you will be using a surface mount or a recessed box with an outlet. See the below pictures.



A quick little guide. The red line (110 volts) and the black is also line (110 volts) White is Neutral and green is ground. G Ground. L1 line. L2 line. White N

OK, now that you got the outlet on its way you'll need to install the power cord on that new stove. This picture by itself should tell you everything.



Remember the green wire, **GROUND** is the most important wire. Why because it protects your life.

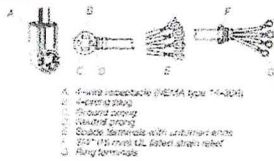
## Installing a new range

When you purchase a range, they will also sell you the attachment plug. If you opt to install the stove yourself, they will ask you if you need 3 or 4 wire. This is because if you already have a 3 wire receptacle that was installed before the code change then you are not required to update the house wiring when installing the range.

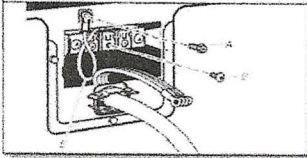
When you're ready to install the range in the house, you'll follow the manufacturers installation instruction for a 3 wire attachment plug. Once the cord is attached to the device, simply plug it in and you're done.

### 4-wire Power Supply Cord Connection

**IMPORTANT:** A 4-wire connection is required for mobile homes and where local codes do not permit the use of 3-wire connections.

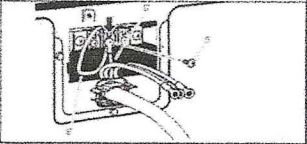


### 3. Prepare to connect neutral ground wire and neutral wire.



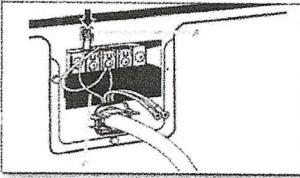
Remove center terminal block screw (B). Remove neutral ground wire (E) from external ground conductor screw (A).

### 4. Connect neutral ground wire and neutral wire



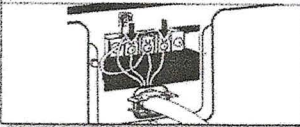
Connect neutral ground wire (E) and neutral wire (white or center) (D) of power supply cord under center terminal block screw (B). Tighten screw.

### 5. Connect ground wire



Connect ground wire (F) (green or bare) of power supply cord to external ground conductor screw (A). Tighten screw.

### 6. Connect remaining wires



Connect remaining wires to outer terminal block screws. Tighten screws. Finally, reinsert rim of terminal block cover into slot of dryer rear panel. Secure cover with mounting screw. Now, go to Venting Requirements.

## Update:

After doing some research, and looking at dryer wiring diagrams. It turns out that the green/yellow wire is not a ground wire, it is a neutral to case bonding wire. When this wire is not in use (in a 4-wire installation for example), it is simply connected to the neutral terminal and is unused.

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edited Aug 16 '13 at 15:16

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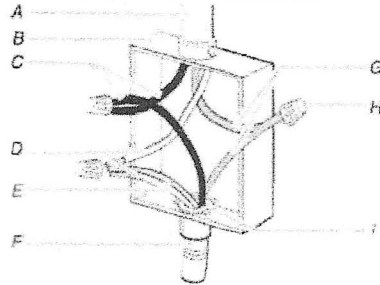
Well, in his second image he's connecting the ground-wire to the neutral-wire, not the dryer to the neutral. So (*unless there's a loose wire that would actually require the safety ground*) that will likely just trip the GFCI when he tries to turn the dryer on. – [BlueRaja Pflughoft](#) Aug 9 '13 at 17:12

[@BlueRaja-DannyPflughoft](#) Maybe. I'm assuming the green/yellow wire in the image is connected to some internal components of the dryer. So by connecting it to the grounded conductor, you're providing an alternative path to ground through anybody that touches (or whatever internal parts are bonded to this green/yellow wire. This assumption may be [Tester101](#) ♦ Aug 9 '13 at 19:48

It turns out we were both wrong, and your update is correct - the green-yellow wire is not

### 3-Wire Cable from Home Power Supply – U.S. Only

**IMPORTANT:** Use the 3-wire cable from home power supply where local codes permit a 3-wire connection.

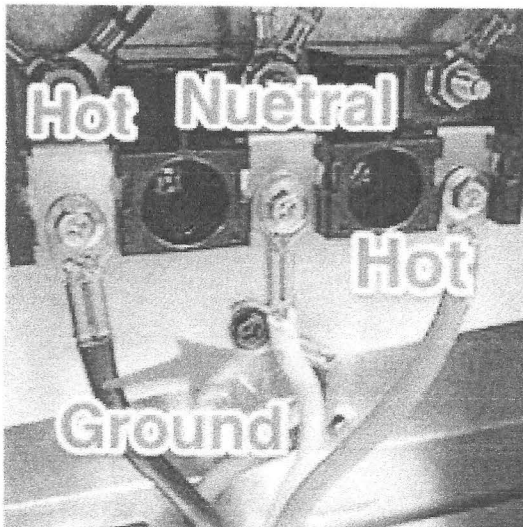


- |  |  |
|--|--|
| A. Cable from home power supply            | F. 4-wire flexible cable from oven             |
| B. Junction box                            | G. Red wires                                   |
| C. Black wires                             | H. UL-listed wire connectors                   |
| D. White wires                             | I. UL-listed or CSA-approved conduit connector |
| E. Green (or bare) ground wire (from oven) |  |

1. Connect the 2 black wires (C) together using a UL-listed wire connector.
2. Connect the 2 white wires (D) and the green (or bare) ground wire (of the oven cable) using a UL-listed wire connector.
3. Connect the 2 red wires (G) together using a UL-listed wire connector.
4. Install junction box cover.

Most newer stoves with ovens require a 50 amp service. So you will really need to make sure if your stove with oven requires 50 amp or not. And make you have a 50 amp wire and a 50 amp breaker. Now I'm not saying it won't work if you don't but once you're cooking that Thanksgiving turkey and all the good stuff on the stovetop with all your guest coming over in an hour or so that's when the problems begin.

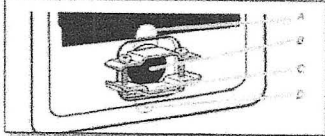
## Oven Wires



## Power Supply Cord Connection

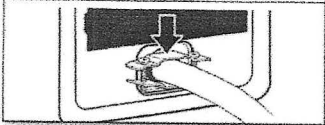
Power supply cord strain relief

### 1. Attach power supply cord strain relief



Remove the screws from a 3/4" (19 mm) UL listed strain relief (UL markings on strain relief). Put the tabs of the two clamp sections (C) into the hole (B) below the terminal block opening so that one tab is pointing up and the other is pointing down (D), and held in place. Tighten strain relief screws just enough to hold the two clamp sections (C) together.

### 2. Attach power supply cord to strain relief



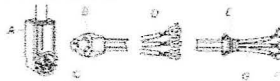
Put power supply cord through the strain relief. Be sure that the wire insulation on the power supply cord is inside the strain relief. The strain relief should have a tight fit with the dryer cabinet and be in a horizontal position. Do not further tighten strain relief screws at this point.

For 3-wire Power Supply Cord Connection, see page 9.

For 4 wire Power Supply Cord Connection, continue to step 3.

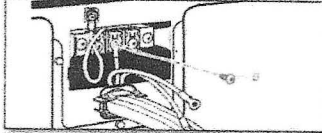
## 3-wire Power Supply Cord Connection

Use where local codes permit connecting cabinet-ground conductor to neutral wire.



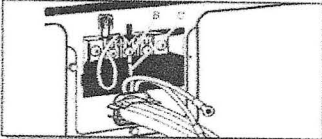
- A. 3-wire receptacle (NEMA type T0-30P)
- B. Screw plus
- C. Terminal block
- D. Strain relief with ungrounded end
- E. 3/4" x 1/8" min. UL listed strain relief
- F. Neutral terminal
- G. Neutral pin into center slot

### 3. Remove center screw



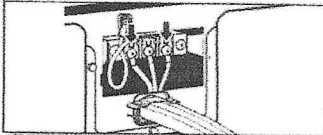
Remove center terminal block screw (B).

### 4. Connect neutral wire



Connect neutral wire (white or center) (C) of power supply cord to center terminal block screw (B). Tighten screw.

### 5. Connect remaining wires



Connect remaining wires to other terminal block screws, tighten screws. Finally, insert tab of terminal block cover into slot of dryer rear panel. Secure cover with hold-down screw. Now, go to Venting Requirements.

## 4 Wire Cord

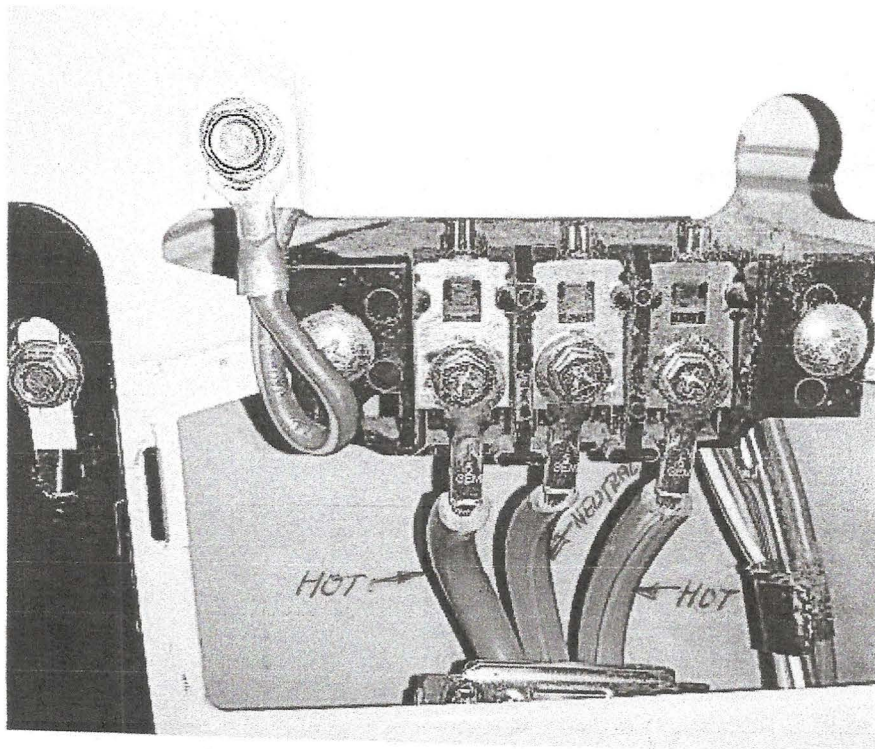
## Where does the ground wire go in a 3-prong dryer cord configuration?

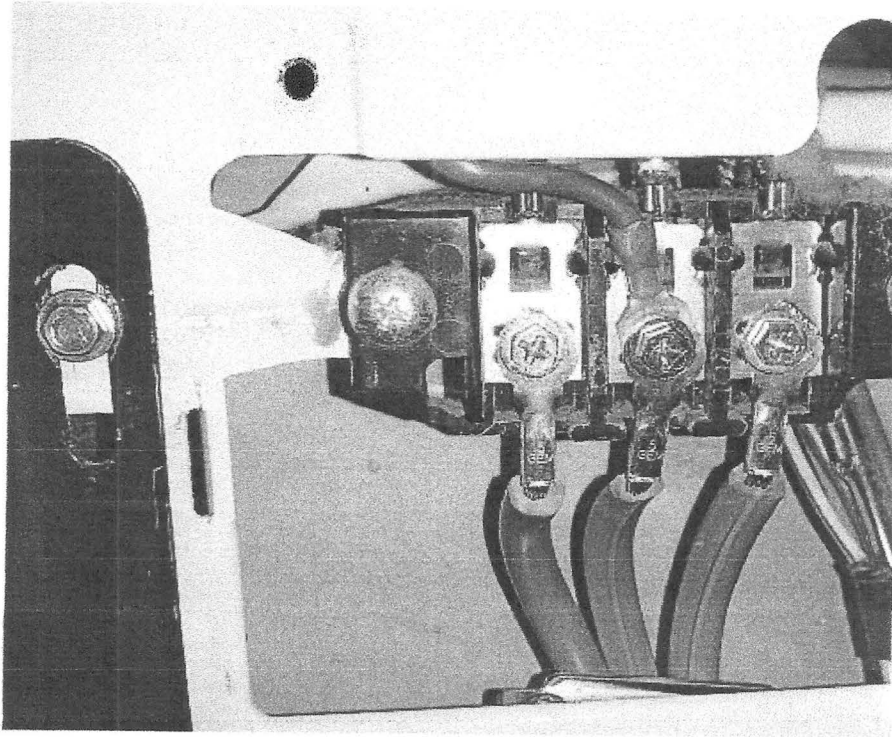
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We moved to a new place where the dryer connection is 3-prong instead of 4-prong. The dryer was originally 4-prong, so we bought a 3-prong cord and installed it. It works fine, except I am not entirely sure if I installed the ground wire correctly.

Originally, there was a green wire on the cord itself, and that was connected to the screw on the top of the first picture. This is, I assume, used to ground the case and prevent shocks when touching the exterior of the dryer.

Now with the 3-pronged plug, there is no ground wire on the cord. So where does the existing green wire in the case go? Do I leave it where it originally was like in the first picture or do I connect it to the central terminal like in the second picture?





There's no bonding strap running from the case to any terminal. I can't tell where the green wire is connected to.

[electrical wiring](#) [appliances](#) [dryer](#) [grounding](#)

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edited Aug 9 '13 at 12:27

asked



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Duplicate: [diy.stackexchange.com/questions/25510/...](#) – [Kaz](#) Aug 10 '13 at 3:18

Related: [diy.stackexchange.com/questions/14511](#) – [BlueRaja - Danny Pflughoeft](#) Sep 1

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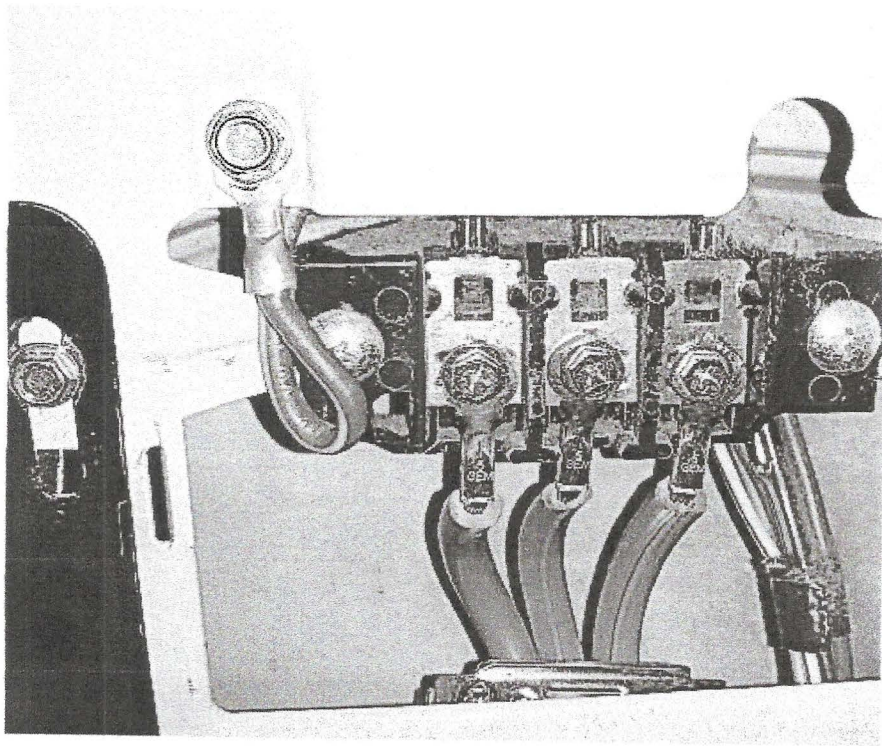
3 Answers

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**DO NOT** connect the ground wire to the grounded (neutral) conductor, as this could lead to current flowing through the body of the dryer (and potentially through you).

The installation guide for the dryer will have wiring instructions for both 3- and 4-wire configurations. Check the manufacturer's documentation for proper wiring, but I would say the first image is likely correct.



Instructions from random [Maytag Installation Instructions \(PDF\)](#)  
**3 Wire Cord**