

How To Repair A Defective Wall Outlet

If sparks fly in your house every time you stick a plug in the wall, it's time to replace that old outlet with a new one. Or maybe the outlet no longer supplies current, doesn't hold a plug securely, or is falling out of the wall. In any event, it's time for a change. This recipe is a bit complicated, but if you take the necessary precautions and follow directions carefully, you'll do a beautiful job. Ready?

Utensils

Pocketknife
Medium flat blade screwdriver
Hammer
Test light
Diagonal cutters
Wire stripper
Linemen's pliers
Long-nosed pliers

Ingredients

Grounded duplex receptacle
New faceplate to match
Two #8 wire nuts
Two 6" inch lengths of #12 insulated wire
Two #6 sheet metal screws, 1" inch long

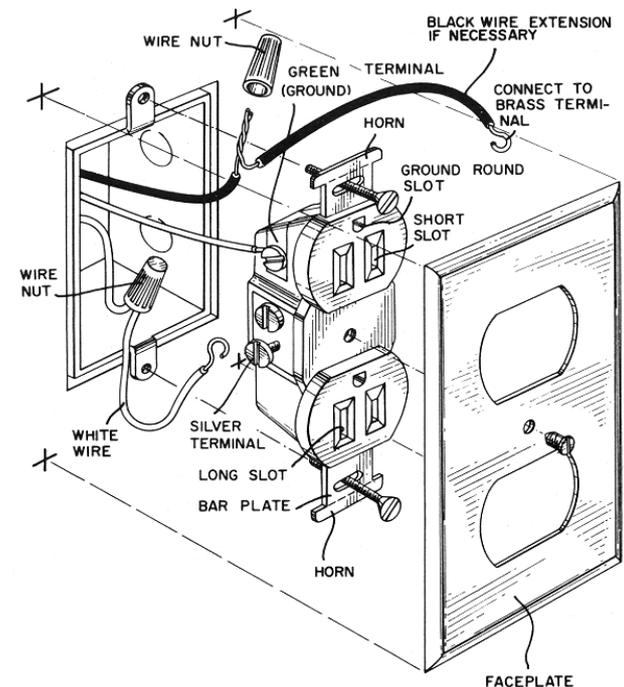
Approximate Time: 60 Minutes

1. **Cut off power** by removing fuse or tripping circuit breaker that controls junction box.
2. Making a deep score with the knife, cut the paint from around old faceplate.
3. Remove screws from faceplate. If screw slots are filled with paint, chip away with screwdriver and then remove screws.
4. Place screwdriver at edge of faceplate, tap with hammer, and faceplate will come away.
5. Remove the 2 screws from the bar plate that secures the old outlet to junction box.
6. Pull outlet from box and unscrew the 2 screws attached to it in a counterclockwise direction.
7. If junction box is dusty or dirty, clean with vacuum cleaner.
8. If wires are frayed or uninsulated, cut away defective portion with diagonal cutters and restrip insulation with wire stripper.
9. Attach wires with newly stripped ends to the old wires by twisting both together with pliers in a clockwise direction (approximately four turns).

10. Screw wire nuts onto newly spliced ends.
11. Form a hook at the end of each wire with long-nosed pliers.
12. There are 2 screws on each side of the new outlet (Fig. 62). Unscrew 1 screw on each side but do not remove.
13. Hook up wires to terminals in clockwise direction as follows: white wire to silver terminal; black wire to brass terminal; and connect green ground, if provided.
14. Tighten screws over hooks in clockwise direction.
15. At either end of bar strip, there are 2 extensions called horns. If these interfere with replacement of outlet into junction box, they can be easily broken off by twisting with pliers.
16. Push wires into junction box with screwdriver handle.
17. Line up elongated holes of bar strip with screw holes in junction box and screw into position (using sheet metal screws if original screws no longer hold). Make sure bar strip is even with wall, top and bottom.
18. Fit new faceplate over outlet and install screws into original holes. Do not over tighten.

19. Turn on power and test ground with test light as follows:

- a. Insert 1 prong of tester into long slot and 1 into short slot; tester should light up.
- b. Now repeat with prongs in short slot to ground round slot; tester should light up.
- c. Repeat with prongs in long slot and ground slot; tester should not light.
- d. If your test light does not function as we've indicated, turn off current again, go back to step 13, and reverse wires.



Note: If the fuse "blows," or a circuit breaker disconnects once the power is restored, do what all electricians do: start over.

Figure 62.
Repairing a Defective Wall Outlet