HOMEOWNER REPAIR GUIDE

IF YOUR DOORBELL DOESN'T RING...

It’s annoying when a doorbell doesn't work! But you can do more than hang up a “Doorbell out of order” sign. In most cases, broken doorbells are pretty easy to diagnose and cure. Check the parts of the system in this order:

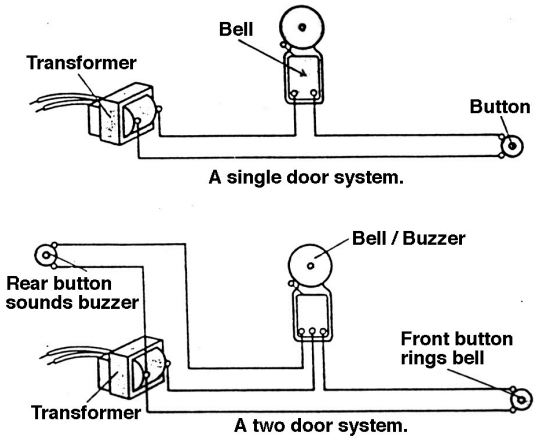
1. THE SWITCH

Most often the problem is in the doorbell **switch**. To check this possibility, you simply unscrew the doorbell button to get to the two wires that are fastened to the back. Touch those two wires together; if the switch is broken, the contact between the wires will make the bell ring. The current that flows through the wires is very low (10 or 16 volts AC), so you don't need to worry about getting an electrical shock.

2. THE TRANSFORMER

If the switch isn't the problem, the next place to check is the **transformer**. The transformer supplies the power to the system. It is usually a small black box attached to a beam or an outlet box in the basement. This unit reduces the 120-volt current feeding the house to the 10 or 16 volts needed to run the doorbell.

Unless you have access to a low-volt circuit tester or a multimeter, the only way to tell if the transformer is the problem is to replace it. To replace the transformer, shut off the electricity to it by removing the fuse or shutting off the breaker for that circuit. If you don't have a circuit tester to make certain the current to that line is off, shut off all the power in the house to be sure. Remove the old transformer and connect the new one the same way the old one was wired.



Single-door and two-door doorbell systems

3. THE BELL

If your bell doesn't ring even after you've installed a new transformer, the next thing to check is the doorbell itself. You can buy a cheap **bell** and connect it in place of your present doorbell. While the bell unit isn't the cause of most doorbell problems, it can fail on occasion – especially if it is hung over the stove, where grease can clog it up. Dust, smoke, and grease can collect on chimes and obstruct the hammer mechanism.

4. THE WIRES

If you replace the bell but it still doesn't work, the only other place to look is in the **wires** that make up the doorbell circuit. Because these wires are very thin, they can break. But, if this is indeed the problem, it will take some

tracking to find where the wire is broken. The wires are a little larger than fishing line, and you should be able to see them in your basement ceiling. However, breaks are usually found behind one of the door trim pieces. Once you've found the location of the break, you don't have to replace the whole length of wire – just the part that is broken. Twist the new portion together with the unbroken length and tape with electrical tape.

A JOB FOR ANY SEASON

If you keep in mind that you are working with low voltage (except near the transformer), that you will pay a fairly low cost for any replacement parts, and that 95% of the work is inside the house, then making your doorbell work again is a job that can be done in any season. Of course, there's another option that some people prefer – a "wireless" doorbell. Whichever solution you choose, you'll no longer need that "Doorbell out of order" sign on your door!

Home Repair Resource center

Home Repair Resource Center empowers homeowners to maintain their homes for sustainable and diverse communities.

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