

How To Install a Second Phone Line

By Sandy Cook

With faxes, dial-up modems and the convenience of additional phones throughout your home, installing an additional phone line has become a regular task for many homeowners. In fact, almost all residences (especially those built or rewired over the last few decades) are set up with wiring to handle at least two phones, so the interior wiring may already be there. At that rate, anyone with the right equipment, clear instructions, and sufficient derring-do can handle this – and that last ingredient may be the least important of the bunch.

The reasons for a second phone line are pretty obvious, I guess. When you consider that, like many of us, phone lines are required to multitask (making and receiving calls, making Internet connections, sending faxes and all kinds of elaborate data), having a second separate line may even be essential. Whether you have children, or you're just one person who works from home, you may well know this already. And, considering what the phone company may charge you for that second line – not only for installation, but also for the monthly fee – well, you just may want to read on.

What will I need?

Here are the basics:

- Hammer
- Needle-nose pliers
- Combination tool, including a drill
- Screwdriver
- Bell wire
- Phone jack plates ("single wall" style for a flush-with-the-wall fit, or a "surface mounted" jack for a room with a finished wall; this one will be fitted to the baseboard)
- Cable staples

You'll also need to know where your "telephone junction box" (aka: Network Interface Device, or NID) is. It's a small plastic box, padlocked, usually gray, and generally situated in the basement, if you have one, or at the back of the outside of the house or apartment building. This would also be an excellent time to brush up on your high school science. Remember the basics of electrical safety? You know: don't tinker with wiring while standing, unshod, in water. Also, it's smart to turn off your phone at the NID so as to avoid the possibility of being shocked by an incoming call, which generates an unpleasant jolt, actually dangerous to anyone with a pacemaker.

If You Rent Your Home

First, read your lease or renter's agreement. Then, regardless of what you find there, talk to your landlord or manager, who will no doubt have ideas about how to handle all this, as well as *who* should handle it: specifically, she/he may want a professional to deal with the wiring that runs from the NID to your apartment (this wiring isn't the phone company's concern), even if allowing you to work with the interior wiring yourself. By the way, any agreement you arrive at with the landlord or rental manager should be put into writing, so there'll be no confusion about who's responsible for, as well as who pays for, what.

A few more points:

- Normally, you'll find two pairs of wiring (two wires needed per phone line), but there could be as many as 6, 8, 10 or -- at most -- 25 pairs. Not to worry: they're all color-coded.
- Run a complete check of all the wiring, looking for splices or junction boxes. Replacing these stretches with fresh wire could help to avoid problems down the road.
- If you're not comfortable working with your interior wiring, then turn to either the phone company or an experienced electrician.

Still no Dial Tone

If the phone you're testing runs on batteries, replace them and try again. Next, check your phone jacks; maybe someone accidentally pulled the cable out. If neither of these is the case, then open up that little gray box again where you'll find the built-in phone jacks. Unplug the one to the phone that *isn't* working (which will also stop all incoming calls, be warned), and plug a working phone into that jack. If you get a dial tone, then you know the problem is with the interior (i.e., your) wiring, and not the exterior (i.e., phone company's). If you fail to get a dial tone, though, then it's the exterior wires that are at fault, and it's time to get hold of your phone service provider, who can be expected to make good the necessary repairs at no cost to you.

Now, if the problem does lie in the internal wiring, maybe you misconnected a pair of wires, or one of the newly installed phone jacks is faulty. If this doesn't clear up the problem, then recheck the wiring throughout for junction boxes, splices, or any other signs of damage. The point is if you can find the problem, you won't need to call in a professional. (Oh, and if you do get a dial tone, but hear static on the line, that's most likely a sign of a hole in the wiring. If you hadn't noticed it before, then it almost has to be an interior problem. Go searching.)

For more detailed instructions:

Start at your local hardware or electronics store, where you'll be buying your supplies. If you just

can't seem to get everything to work properly, call a local telephone service company. You may find a reliable company in this paper or check the yellow pages under the category of Telephone Equipment and Systems.

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