

WIRING TIPS FOR THE DO-IT-YOURSELFER

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EVERYTHING TO ELECTRICITY



After installing 6,000 feet of new electrical wiring in our 1875 Italianate home and carriage house, I might have been awarded a doctorate from the School of Hard Knocks. I learned many things nobody writes about, and I'd like to share them with other restoration enthusiasts.

Read everything you can on the subject. You're just as intelligent as the electrician but lack his specific knowledge and experience. I read three books. Reading those parts of the National Electrical Code book which apply to residential wiring is a must. (Your library should have a copy; a good electrical supply house can sell you one.) I spent an afternoon reading the library reference copy. Later, I broke down and bought my own as I had to refer to it so often. I caught our inspector projecting his biases without code hacking. When I quoted the code book, he backed down. Read the code book to put yourself on an equal footing with your inspector.

After your crash course, go to City Hall, buy a permit, and talk to the electrical inspector concerning your city's possible variances from the National Code. View the inspector as a valuable consultant provided by your town not as someone out to restrict your rights. His help and final inspection could prevent a major disaster. If ever you have doubts on how to proceed, call your inspector before going forward, to avoid having to redo your work later. Do not have a negative confrontation with him. Know what you're talking about, but keep him on your side.

the newly-educated do-it-yourselfer

completes the perfect splice.

het bids from licensed contractors. Bids of 55,000 forced us to do the job ourselves, but while the electrician was here, I learned a lot about how he would proceed. Before signing a contract, ask for names and addresses of previous clients whose houses are similar to yours. Call these references and ask them about the contractor's workmanship and reliability. Get permission to actually inspect the work.

At this point, you'll either hire the contractor or, if it's allowed and you're up for it, you'll do the job yourself. A middle ground, helpful to both the electrical contractor and your budget, is to have the electrician do the technical work while you do the rest: ripening walls, cleaning up, etc.

rent the correct tools and supplies. I'll mention only those not covered in a typical wiring manual:

- First, You must have knee pads. You don't know your knees are sore until it's too late. In my case, it was worse. I knelt on a sharp piece of plaster while crawling above our cistern. For 5100, a doctor told me that I had pre-patella bursitis. Two weeks of my valuable vacation (i.e., wiring) time were lost as I lay on my back or in a splint. Its surprising how much the loss of a working knee can limit what you can do around an old house,

- The second most important tool is a *variable-speed* reciprocating saw. Milwaukee makes one with a blade for every purpose. A reciprocating saw can, for example, cut the tongue off tongue-and-groove flooring to facilitate lifting the first board. With a hacksaw blade, your saw cuts old gas pipes or rigid conduit like butter. At a slow speed with a plaster-cutting blade, it makes short work of cutting holes for new outlets. (The slow speed is crucial. It avoids shaking the lath loose and spreading dust.) While I cut holes in finished rooms, my wife stood by like a dental assistant, sucking away the dust with a shop vac — yet another important tool. Don't use the reciprocating saw to notch floor joists.

Notching a joist or beam compromises its load-bearing capacity. If you must cross a joist, drill a hole at least P/2 inches below its top surface.

- Another invaluable tool is a variable-speed reversing drill. (It's nice if it's cordless.) Attach all of your boxes and conduit fasteners with self-starting hex-head sheetmetal screws. A magnetic bit on the drill holds the screw for you. The drill screw is held with one hand and the box or fastener with the other. It's quick and easy. (With a hammer and nail, it takes three hands.) The real beauty of the screws is that it won't misplace a box. You can take it down in seconds by reversing the drill — instead of beating on it with hammer and pry bar. Buy self-feeding bits to drill through joists or studs. Without them, energy and time expended is multiplied by ten. Buy an inexpensive spade bit to drill through plaster; plaster dulls steel in a hurry. If it gets hard to drill, sharpen the bit with a grinder. I kept a small, hand-held grinder close by and sharpened it frequently,

- Don't buy a standard ribbon fish line for fishing, through conduit or flexible conduit. Sparks aviation fish line will cut work and frustration in half. There are places where a standard fish line won't go. The Sparks is expensive about \$1 per foot — but it'll go anywhere. The money is well worth the time and aggravation saved,

- I found a huge tool belt invaluable. Without it, I spent too much time looking for tools. Get in the habit of putting each tool back in its place,

- Buy several rolls of colored electrical tape. It's very handy to label different circuits for your use now, and for the benefit of future owners. I taped each splice with the color of the circuit it belonged to for further clarification,

- Buy two or more rolls of each color of wire so that multiple circuits can be pulled through conduit at the same time. Many electricians feel that #14 wire is marginal for tomorrow's electric use. It might be preferable to use #12 wire throughout; ask your local

inspector what he recommends,

- walkie-talkies are great. Borrow or buy a set. (MA wife and co-fisher) couldn't yell loud enough for me to hear her in the attic.

- Last tip on supplies; Buy them in quantity from large supply houses. Prices will be better than at the local hardware store and the salespeople's savvy will be useful. Don't be afraid to ask for a contractor's discount. You're the contractor, and you're buying in contractor quantities. While waiting for your parts, look around. You're probably surrounded by electricians. Casually pick their brains while waiting. I've been known to take a list of questions with me. If the salesman couldn't answer, the electricians always piped in to show off their knowledge. I learned as much at the counter as I did from the books I read.

- If you take up floorboards in the attic, number them and their accompanying joist on masking tape. When replacing the boards, don't nail them down. They'll jiggle a little but stay loose, they'll afford easy access for you and future owners. If the boards must be secured, attach them using screws. (Try to plan your attic work for nights or winter. I lost 15 pounds in three weeks spent in the attic in July.)

I highly recommend that you try doing your wiring yourself. So much of it is tedious grunt-work — drilling holes and fishing wire. Why pay someone \$40 an hour (or more) for grunt work? If you feel you can't do it, at least look for a contractor who will let you do some of the tedious work. I saved \$5,000 on the installation of our forced-air system by cutting the holes and removing the old steam system ... even last night, my contractor left me a note listing things I could do to help.

Try it yourself Experience the exhilaration of a major accomplishment and money savings.

