

Running wires over and inside walls

Last Updated: Thursday, September 20th, 2012, Created: Tuesday, February 10th, 2004

When you want to put a lighting sconce on a wall, there is always the question of how to get the electrical wires to that location. Often it is possible to carry wires up from an electrical outlet, or down from the attic -- now how to hide them. If you are working on the surface, as you are obliged to do if it is a concrete wall, you must cover the wire not only for decorative reasons but for security. The electrical code does not allow exposed 120 volt wires because they can be damaged so easily. There exist a number of channel systems for surface wiring. The one in the first photo is made of plastic, has self adhesive tape on the wall side and a snap on cover. It can be painted. If you are working with a hollow wall that has no insulation in it, you can 'fish' the wire through the wall. Electricians have special flat wires with hooks on the end that are very efficient at fishing through walls and you can often rent them if you feel you need to. The advantage of the electrician's tool is that you can run it horizontally and even up-hill, often using two of them to catch each other somewhere in the middle of a wall. The home made alternative is to make a hole where you want to install the light fixture. Drop a weight on the end of a sturdy string from the hole down inside the hollow wall. Very likely it will hit some structural blocking. Note how long the string is, bring it to the outside of the wall and drop it down the front of the wall to mark the location of the blocking. Cut a hole in the wall above the blocking. Now you need to drill a hole through the blocking. You may be tempted to just run the wire over the blocking and hide it with plaster. This is both illegal and dangerous because someone could easily put a nail through the wire when installing trim or hanging a photo. Wires must either be run 1-1/2 inches back from the face of the wall so that small nails will not reach them, or be covered with a solid metal plate. That is why you see all new wiring running through the centre of 2x4 studs. The easiest is to simply drill a hole as in photo above. Use a cheap spade bit because it is very likely that you will hit a nail, as you can see my piece of nail in the photo. Now continue with the string and weight down to the electrical outlet. In all provinces running new wires requires a permit and in some provinces this can only be done by licensed electricians. Some handy DIY'ers will make the pathway and patch the hole but hire an electrician to actually install the wire. You will usually get a neater job that way and electricians cost less when they are not doing carpentry and plaster work. Click here for information on the LEGALITY OF DIY ELECTRICAL WORK.

Keywords:

Lighting, Wire, Wiring, Walls, Tip, Techniques, Electrical