

# Electrical Problem-Solvers

When it comes to wiring, these tools and products can save you time and money

by Patrick McCombe

Although some municipalities prohibit general contractors from doing electrical work, in other locations it's perfectly legal for remodelers and handyman types to wire a kitchen, run a new circuit, or swap a fixture. And while some contractors are just fine leaving those jobs to an electrician, others can handle basic wiring with confidence and skill. If you count yourself among the latter group, check out this collection of tools and products designed to make electrical work easier. Even if you aren't likely to use the devices yourself, it doesn't hurt to know what to suggest when your electrician's in the dark.

## Cool Switch

Swapping a standard overhead light for a ceiling fan with a light kit is a pretty common upgrade. However, unless there's a three-conductor cable running to the ceiling box, your customer will have to use the fixture's pull chains to control the light and the fan separately. You can remedy that inconvenience with a *Maestro* switch from Lutron. This combination light-and-fan control operates the light and the fan individually — even with only two conductors. Its secret? A canopy-mounted relay (4½ inches by 2 inches by ¾ inch) that interprets the signal sent from the switch. The *Maestro* features seven fan speeds and seven light levels; both light and fan can be turned on or off without any adjustments to the preset level. The single-pole version — switch, canopy module, and wall plate — costs \$74.

● **Lutron**, 888/588-7661, [www.lutron.com](http://www.lutron.com)



## Quick Connection

Pass and Seymour's *PlugTail* has to be one of the best electrical ideas since the wire nut. Instead of individually connected pigtailed, the commercial-grade receptacle has a single plug-in connector with attached leads that can be connected at either the rough-in or trim-out phase. When it's time to install the device, you simply connect the *PlugTail* to the receptacle and run in the screws. Since all the electrical connections are shielded, there's no need to wrap tape around the device. The most popular *PlugTail* duplex receptacles cost about \$3 each.

● **Pass and Seymour/Legrand**, 800/223-4185, [www.passandseymour.com](http://www.passandseymour.com)

## Cable-Ready

It's impossible to know exactly what tomorrow's cutting-edge home technology will entail, but if the past is any indication, it's likely to involve new low-voltage cable. Make sure your clients' homes are ready for future upgrades with *WireTracks*. These 1/2-inch-thick plastic channels — which you install in a recess cut into the drywall — have snap-on plastic covers that attach to the back of the baseboard. When it's time to add wires or move electronic equipment, the homeowners simply pull off the baseboard. Similar products are available for crown molding. WireTracks come in 8- and 5-foot sections, for \$20 and \$14, respectively.



● **WireTracks**, 888/886-9473, [www.wiretracks.com](http://www.wiretracks.com)

## Rise Above

The *Electrician's Jobstation* is the most feature-packed stepladder I've ever seen. Available in heights from 4 feet to 12 feet, the Type IAA (375-pound capacity) ladder sports a molded top, with slots for hand tools, bungee tool-holders for larger tools, and a pipe groove for conduit. Built-in loops accommodate 3/4-inch tubing, so you can hang spools of cable or wire for easy dispensing. Ladders measuring 6 feet and taller include two spring-loaded hooks that allow you to cut and hold conduit at a comfortable working height. Prices range from \$99 to \$269.

● **Werner Ladder**, 888/523-3370, [www.wernerladder.com](http://www.wernerladder.com)



## Conduit Repair Kit

It's a lot easier to repair a broken conduit emerging from a slab than it used to be, thanks to Carlon's *PVC Conduit Repair System*. First you cut the conduit flush with the slab, and then you ream it with a size-specific tool chucked into a drill. Last, you glue a repair coupling or male adapter into the prepared conduit. According to the maker, the whole process takes about two minutes. The reamers — which come in 1/2- to 2-inch sizes — are sold individually and as a kit. List prices for individual reamers start at \$46; kits list at \$458.

● **Carlon**, 800/322-7566, [www.carlon.com](http://www.carlon.com)



## Smart Thinking

Looking for out-of-the-ordinary electrical boxes and fittings? Arlington Industries offers dozens of great products. Here are three of my favorites (from left, above): The *DBVS1C In Box* one-piece recessed electrical box (\$15) eliminates the clunky-looking bubble-shaped cover common to other outdoor boxes and has an integral J-channel

to simplify installation. The *CP3540* box cover (\$1.60) helps conceal unused boxes on both smooth and textured ceilings. And *BE1* box extenders (\$1.45 apiece) are just the ticket when you're installing wainscot or frame-and-panel wall treatments.

● **Arlington Industries**, 800/233-4717, [www.aifittings.com](http://www.aifittings.com)

## Max Headroom

If you're trying to gain a little extra headroom in a space with a drop ceiling, you can scratch light fixtures off your list of potential problems. Columbia Lighting's *Zero Plenum Troffer* is only 1½ inches tall and has a unique telescoping housing. The product comes from the factory with the housing in the compressed position for easier installation. Once the fixture is in the grid, the housing expands without tools. Prices start at \$175.

● **Columbia Lighting**, 864/599-6000, [www.columbia-lighting.com](http://www.columbia-lighting.com)



## Underground Splice Kit

Since underground cables that feed landscape lighting, water wells, and septic pumps aren't marked as part of a "Dig Safe" call, it's not unusual for a worker to hit a UF cable with a spade or a backhoe — and then what do you do? Use an underground splice kit. Available from several manufacturers, these handy sets include a repair connector and a length of appropriately sized heat-shrink tubing. 3M's *Splice Kit UF*, for instance, can accommodate up to four conductors from 14- to 8-gauge. It comes in Standard and Stretcher versions; the Stretcher Kit has an 11½-inch-long (rather than the more common 1¾-inch-long) terminal connector for patching extensive cable damage. Prices start around \$15 per kit.

● **3M Electrical Products**, 888/364-3577, [www.3m.com/elpd](http://www.3m.com/elpd)



## Multi-Tool

The most useful wire strippers pack a lot of features, among them strippers for conductors, strippers for outer insulation, holes for bending conductors, wire cutters, pliers, and bolt-cutters. GB's new *Circuit Alert* boasts all of the above plus a noncontact voltage-detector in the handle. Cool, huh? The product could be a life-saver when you have two different circuits sharing a junction box — an alarmingly common scenario in older homes. It costs \$25.

● **Gardner Bender**, 800/822-9220, [www.gardnerbender.com](http://www.gardnerbender.com)



## Locknut Loosener

For years, you've probably been tightening and loosening electrical locknuts with whatever tool's at hand, whether it works well for that purpose or not. Now there's a tool made specifically for the job: Channellock's #960 *Locknut Pliers*. Designed with a slim head for working in tight spots, the pliers have spring-loaded, cushioned handles for easy handling and enhanced comfort. They sell for about \$15.

● **Channellock**, 800/724-3018, [www.channellock.com](http://www.channellock.com)



## All-in-One

Instead of lugging around some half-dozen different workboxes for various applications, why not carry just one? Unlike most electrical boxes, *Smart Boxes* are suitable for both new and old work and can be used with steel or wood studs. Angled screws turned from inside the box attach to a stud or framing member; the connection is very rigid, but the box position can be adjusted to accommodate wall coverings. Smart Boxes come in ceiling and wall styles in one- to four-gang sizes and sell for \$1 to \$5.

● **Smart Box**, 631/589-3151, [www.smartboxinc.com](http://www.smartboxinc.com)



## Generation X

X10 technology can make life easier for homeowners, and it's been around for 30 years — yet almost nobody knows about it. In a nutshell, X10 devices generate radio frequency bursts and send them throughout a building's entire electrical system via the home's existing wiring. (To make this possible, both 120-volt hot legs must be tied together with a coupler at the service panel.) When the RF signal reaches the device "addressed" to that signal, it operates the device: turns it off, dims it — whatever it's programmed to do.

Most people use this technology for home-automation tasks like turning on or off lights or lawn sprinklers at specified times and controlling lights from a second location. You can also rig up three-way and single-pole switches, create lighting scenes, and turn on several lights from a sin-

gle location during an emergency. And unlike other lighting control systems, X10 is suitable for retrofit applications.

Almost all of the major electrical-device manufacturers make X10 products. Leviton's line is called *Decora Home Controls*, or *DHC*. It includes switches, relays, and receptacles, all of which can be controlled by DHC timers and scene controllers. Since all X10 devices — regardless of manufacturer — share a common code, they can be used together, but Leviton claims its products are more reliable than the competition.

A few products from the line are shown here. They are (from left, above) the *HCM10-1DW 1,000-watt Dimmer* (\$65), the *6312-W Wall-Mounted Timer* (\$85), and the *HCA02-10E Coupler/Repeater* (\$90).

● **Leviton**, 800/323-8920, [www.leviton.com/dhc](http://www.leviton.com/dhc)



## Positive ID

"Is it this one?" "What about this one?" "No, it's this one!" With Greenlee's *CS-2072K Breaker Finder Kit*, you can skip the trial-and-error phase and find the correct breaker quickly. The process is simple: You connect the transmitter to the circuit you're trying to identify, and then you scan the breakers at the panel until the receiver indicates you've found the right one. In addition to the transmitter and receiver, the kit includes insulated clips, a light-socket adapter, a plug adapter, and a carrying case. It costs \$126.

● **Greenlee**, 800/435-0786, [www.greenlee.com](http://www.greenlee.com)