

Access All Areas

By **Kev Elliott**

With all the major components installed in the Purple Pig Project '49 Chevy, the time had come to hook 'em all up—wire and fire time. What I needed was a wiring harness, coincidentally around the same time that Ron Francis Wiring released its new Access 24/7 system. The 18th generation of the company's user-friendly wiring systems, this harness kit even allows the user to consolidate additional aftermarket products' relays into the system.

The 24 refers to the fuse capacity, while the 7 refers to the number of relays it can hold. Access refers to the unique way that, thanks to the fuse panel's magnetic mounting system, it can be removed and pulled from under the dash into plain view to check fuses and relays. No more crawling around on your back under the dash! It's also capable of accepting additional wires in specially labeled connectors.

Harnesses from Ron Francis Wiring are available to fit your



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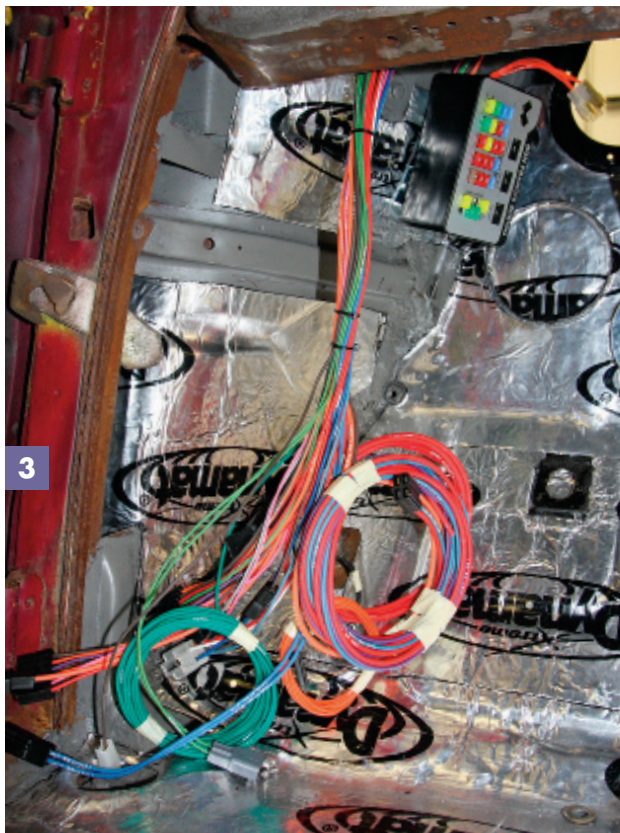
When you open the Access 24/7 box this is what you'll find, though I also ordered a couple lengths of 1/2- and 1/4-inch braided sleeve, plus headlight and ignition switches. With each of the sections of the harness grouped in separate bags, it was easy to wire one section, such as the lights or engine, before moving onto the next. In fact, this is how the instruction manual is laid out, making the installation almost foolproof.

Installing Ron Francis' New Access 24/7 Wiring Harness



2

The first step was to install the magnets that hold the fuse panel in place. The picture's not upside down, you're looking up under the dash, where I elected to install the fuse panel. Check clearance behind the panel before drilling.



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The fuse panel simply attaches to the magnets, making removal for fuse inspection easy. Here's the panel in position with the wiring that is pre-attached to it.

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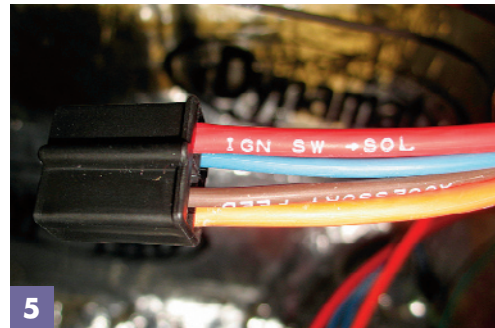
specific application, whether you run a Ford, Chevy, Mopar, or any other make of engine, and accept the ignition system of your choice, be it a points system, HEI, PerTronix, MSD, etc. They're also supplied with a minimum standard eight-gauge wire for the alternator, though four or six gauge are available at no extra charge; just tell them what

alternator you're using. Likewise they can build your harness with whichever steering column connector you need to suit your column. With an electric fuel pump and horn relay included on the fuse panel, along with the flasher relay, the whole system seemed perfect for the '49, which has way more electrical components than I ever planned for, and the added bonus of the harnesses' four Select-a-Circuit connections (offering the option



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I chose not to use what the instructions referred to as the target (a split metal plate with a large hole, supplied in the kit), but recognizing the need for something similar, I used this large P-clip to route all the wiring through.



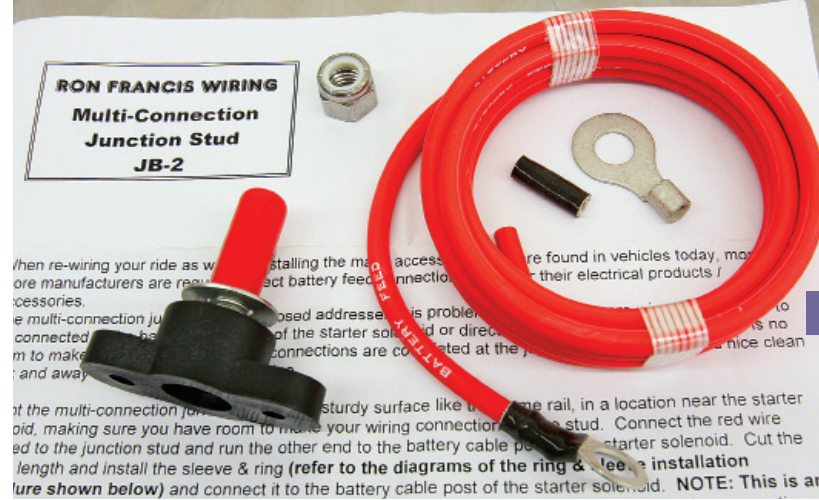
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With each wire labeled for its exact use, plus many of the connections pre-assembled, such as this plug for the ignition switch, the chore of wiring is greatly reduced. In fact one of the hardest parts of the job is deciding where to route all the wires!



6

While I would not connect it immediately, I installed the battery and ran the battery cables at this point. I chose an Optima D34/78 and fitted it using an application-specific mount from Eddie Motorsports behind the right side rear wheelhousing, in the trunk. The Yellow Top series of Optima batteries is ideal for powering vehicles with heavy electrical loads, and adding up all the electrical systems the Chevy now has, that's what I need!



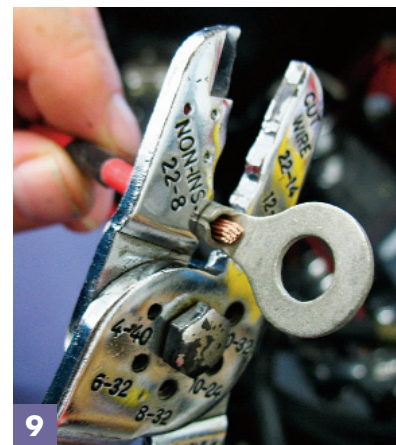
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Here's a neat idea. With so many manufacturers recommending their parts are wired directly to the battery rather than another power source (such as the ignition switch), the positive stud on the starter motor can get rather crowded. So, Ron Francis developed this Multi-Connection Junction Stud, which is mounted near the starter. The supplied power cable connects to the positive starter stud, and all the accessories are wired to the Junction Stud. As it's mounted near the starter, care should be taken to install it where it won't get wet or struck by road debris.



8

While the terminals at the battery ends of the positive and negative cables were attached using regular terminals with set screws to connect the cables, the other ends required terminals that would bolt to the starter motor (+) and the chassis (-). This tool correctly crimps the terminals to the stripped cable with a single hammer blow. Heat shrink will cover the crimped section.



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While many of the connections and plugs come ready-wired with the kit, where every wire terminates will still need to be crimped to connectors. Regular connectors and crimpers can be used for many. This is the live feed from the starter motor.

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The starter is a Mastertorque 180 lb-ft gear reduction item from Powermaster. The aluminum adapter plate is available with what Powermaster calls InfiClock, meaning the starter body can be clocked at any position on the adapter for situations with clearance issues.

of ignition or battery live feeds by moving the fuse in its slot) means I can add even more in the future!

Of course to power all this I needed a battery, opting for one of Optima's Yellow Top products. With three times the rechargeability and superior cranking power over a regular battery, it's perfect for powering a car with a number of electrical systems. I mounted the battery behind the righthand rear wheel in the trunk, using an Eddie Motorsports battery tray, designed specifically for the Optima battery.

Installing the Access 24/7 harness was simple, as every wire is labeled and the instructions are easy to follow, tackling one section of the job at a time, then moving to the next. Breaking the job down this way ensured I didn't get confused with hundreds of wires running every which way, making the process a methodical one. As I write this, the Chevy's just about ready to fire, only needing to finish the exhaust system, and I'm excited, to say the least. It's been a long time coming! **R&E**

Sources

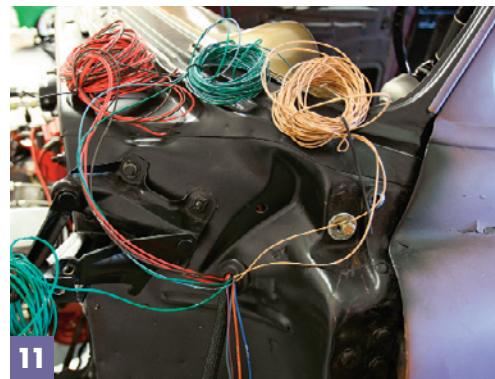
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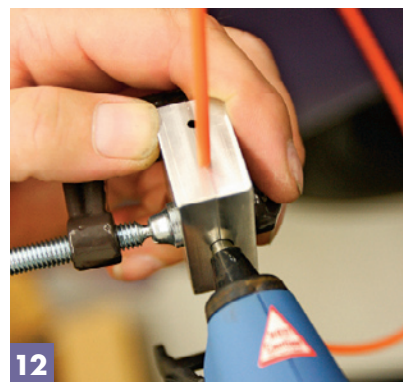
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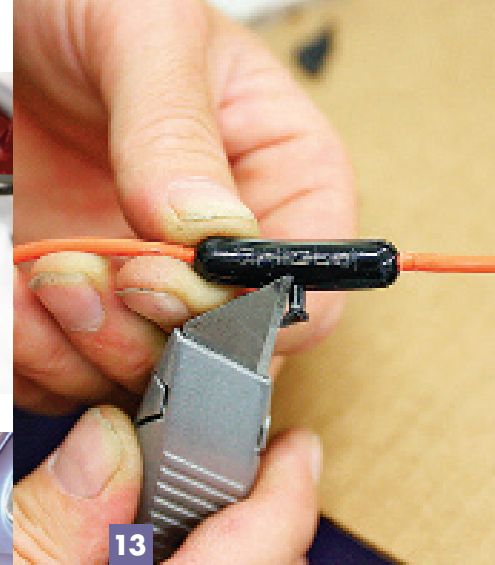
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Once the fuse panel was mounted I started to run the wires for each "section". Rather than run them straight through the firewall, even though I retained the stock grommet and hole, I drilled a new hole near the fuse panel that lets the wiring exit behind the inner fender panel. The engine wiring (coil, alternator, starter, electric choke, gauge senders) was tackled first and are the wires that can be seen wrapped in the black braided sleeve. Those running downward are for the ignition inhibitor switch on the shifter, the electric brakes, and mufflers, which have internal cutouts, while the coiled wires will run hidden behind the inner fender to the headlights, horn, and electric fan.



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Probably owing to my choice of wiring route, the coil wire was too short to reach the HEI distributor, and hence required lengthening. As the joint would be under the car I used this neat little kit from SpliSeal to make a watertight connection. The wires were spliced together and the joint placed in the aluminum block/mold provided. The two halves clamped together and then a heated injection gun was used to fill the block with molten polymer.



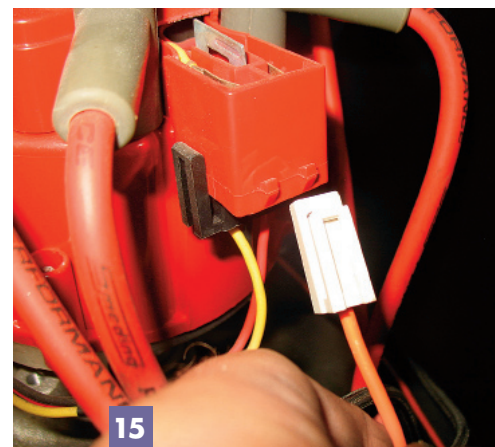
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Removed from the mold and the spur cut off, a permanent weather-proof joint is the result.



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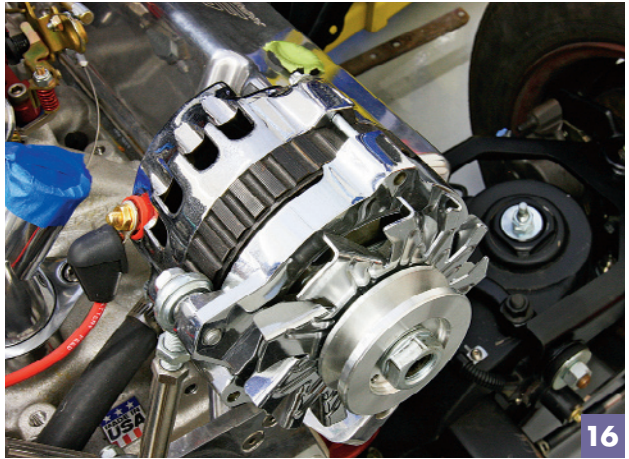
Ron Francis supplies the F-clip connectors needed to complete the install, which look like regular spade connectors, but require a special Delphi Packard crimper tool, crimping the wire separately from the insulation.



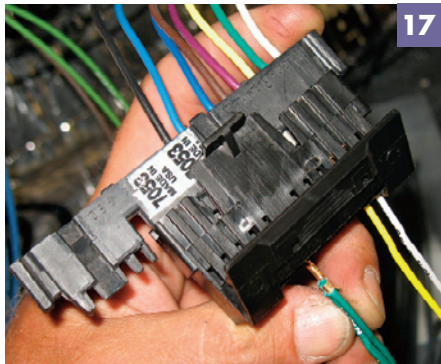
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Once the connector was crimped in place it was snap fit in the plastic terminal housing. The terminal could then be installed; in this case the coil wire in the HEI distributor.

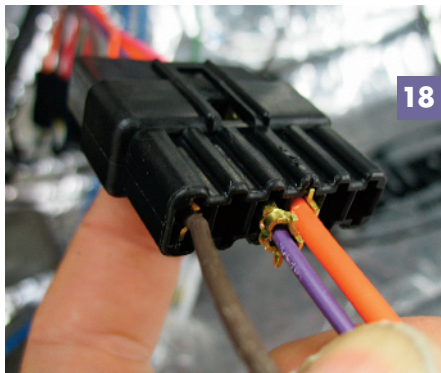
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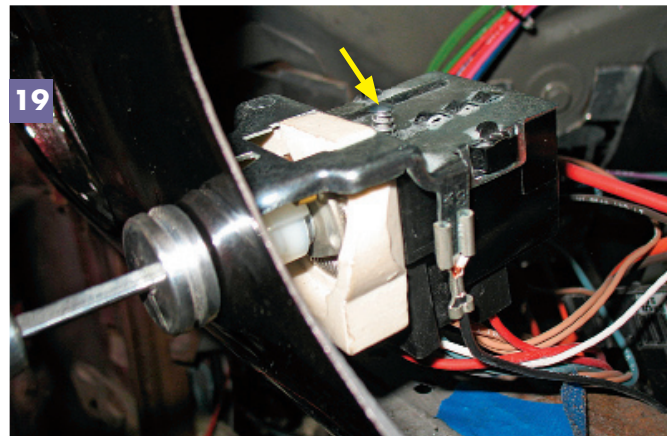
Powermaster supplied the alternator, a CS130-style 140A one-wire version. Depending on the current draw requirement of your car, you'll have to decide on the output of the alternator required, by adding up the draw each component is rated at. There's a useful chart on the Powermaster website to help determine this.



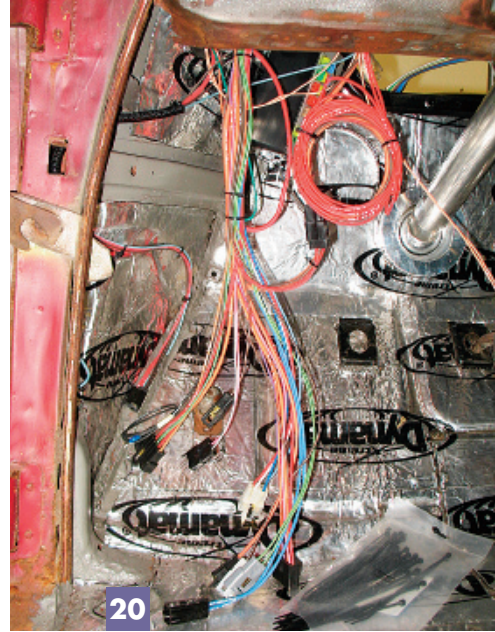
With the engine section of the harness complete, I moved inside the Chevy. When you order a harness from Ron Francis, they'll want to know all the major components used in your build. I have a Flaming River steering column, which uses a GM-style connector for the turn signals, horn, etc. Ron Francis supplies the necessary terminal block to plug directly into the Flaming River block; all you have to do is push the correct wire terminal into its corresponding hole, which is all described clearly in the instructions.



It's a similar situation with other plugs that connect to pre-wired circuits in the harness. One part of the connector for each was already attached to the wires coming from the fuse panel, while the wires (as seen in the plastic bags in the picture of the complete kit) are supplied with the necessary terminals. Follow the instructions and push them into the correct terminal blocks.



With the exception of the ground wire, the light switch supplied by Ron Francis was connected using a terminal block. The knob and shaft has to be removed to fit the switch assembly, which is achieved by pressing the button (arrow) and removing the shaft.



Here you can see the wires for each section or circuit, hanging from the fuse panel (via the line clamp), each with a plastic terminal block. One by one each section is wired. Wires that weren't to be used immediately but may well be wanted in the future (such as a stereo in my case) are coiled and cable tied neatly.



Difficult to see I know, but this is the top of the A-pillar. I ran the interior light wire up this pillar and along the top of the door aperture, to the dome light. A simple trick to assist pulling the wire through a pillar is to feed a length of welding rod down the pillar, then tape the wire to it and pull it back through.

The braided sleeve overlaps itself to retain the wires inside. I used the sleeving to run groups of wires from the fusebox to the rear of the car, and also for the engine components section of the harness.

