

How To Build Custom Plug Wires With MSD's Universal Plug Wire Kit

By **Bobby Kimbrough**, posted on Jan 10, 2011 in **Features**

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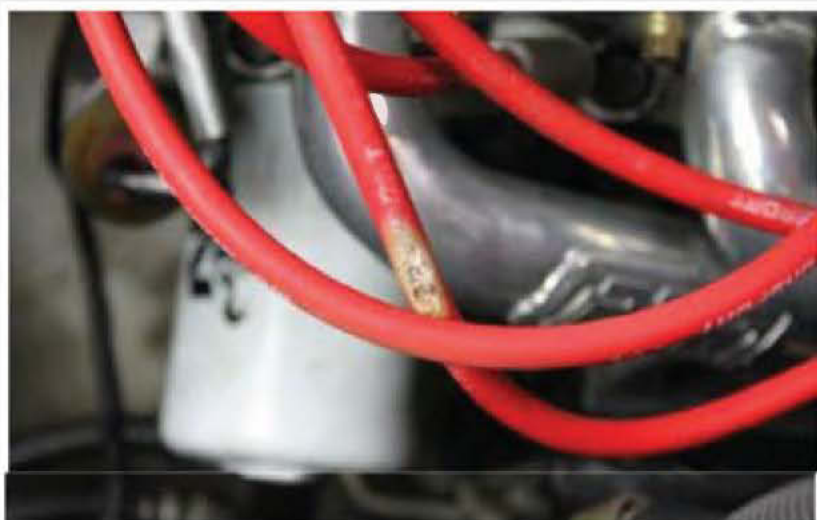


Custom spark plug wires can highlight an otherwise bland engine bay, making an ordinary engine look extraordinary, even in stock vehicles. However, many enthusiasts often overlook the importance of their plug wires. Plug wires may not make horsepower but they can certainly kill horsepower if they are worn out or burnt. Custom plug wires not only add to the appearance of a car, but they can help achieve power more efficiently than stock plug wires or if you have show cars/race cars with unique combinations, custom wires could be the answer. If spending a grip of cash for plug wires seems unreasonable, then consider building your own custom set of plug wires. Then you can save some bucks and get the look and efficiency of a custom set of wires by doing it yourself – and we're going to show you how with MSD's Universal Plug Wire Kit.

Watch the "how-to" video on building custom MSD plug wires here:

No one can argue that spark plug wires play a critical role in the performance of your engine, and if you are like us, you probably prefer to custom make your own spark plug wires. There are some simple steps that you can take while building your plug wires that will ensure that you end up with a professional looking set of wires that help

1. Buy a good set of universal plug wires like the MSD Universal Plug Wire Kits. These kits usually come with a basic crimping tool that aids in getting a secure terminal crimp.



Custom built plug wires solve the problem of long plug wires getting burned on headers.

2. Work with one wire at a time. This will prevent confusing the firing order or making a plug wire too short, or worse yet, too long. Extra long plug wires can cause a variety of problems like plug wires getting burnt on headers or plug wires getting caught in pulleys.



MSD's universal wire kit comes with everything you need to do the job and get professional results.

3. Consider buying a crimping tool like the MSD Multi Purpose Heavy Duty Crimping tool (Part #35051). Not only does the tool make precise crimps on the terminal ends, but it cuts the silicone outer covering and strips the wire to the conductor core at the perfect length. If you build more than one set of wires per year, this tool is the way to go. You'll get spoiled by the ease of getting professional terminal crimps.

4. Use a dielectric grease to reduce the chance of voltage leaks. Dielectric grease like

MSD's Spark Guard (Part # 8804) also helps with the plug boot installation and removal and prevention of moisture build up inside the plug boot.

5. Take your time. Building plug wires is not a race. Plan to build your custom set of plug wires when you have plenty of time to "measure twice – cut once." Rushing through the process will almost certainly end up with a less than professional result.



Work with one wire at a time, starting with the longest wire.

Measuring the Wires

It's best to work with one wire at a time, starting with the longest plug wire on the vehicle. Starting with the longest wire is a safeguard in case you make a mistake and cut the new wire too short. If this happens, you can probably use the short wire on another cylinder. Begin by taking the longest stock wire and comparing it to the new MSD plug wire. If you plan on changing the routing of the plug wire, measure the new wire on the vehicle and mark where the plug wire needs to be cut.

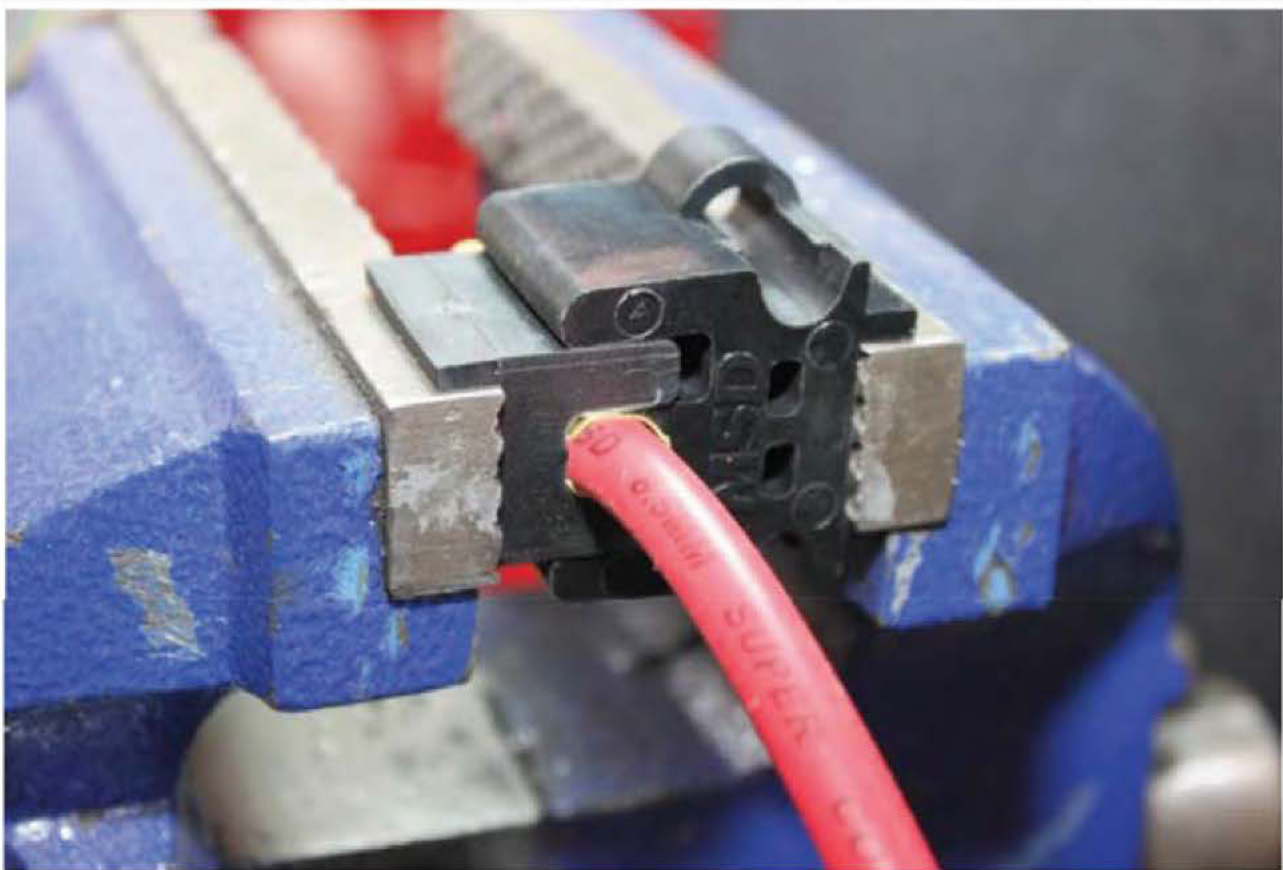
Using The Mini Stripping & Crimping Tool

MSD's Universal Plug wire kits come with a mini stripping & crimping tool. Insert the new MSD plug wire into the stripping guide on the side of the tool. The tool has a stripping guide for 8mm wires on one side and 8.5mm wires on the opposite side. The guides act as a guide to trim the silicone covering to expose the precise length of wire for crimping the terminal. There are two marks on the stripper guide. Position the wire end flush with the end of the tool for standard terminals or at the crimp mark for dual crimp terminals. With the wire positioned at the correct mark for the terminal that you are working with, set a razor blade flush with the edge of the strip guide and rotate the wire 360 degrees. Twist the cut end of the plug wire until the silicone sleeve pulls off.



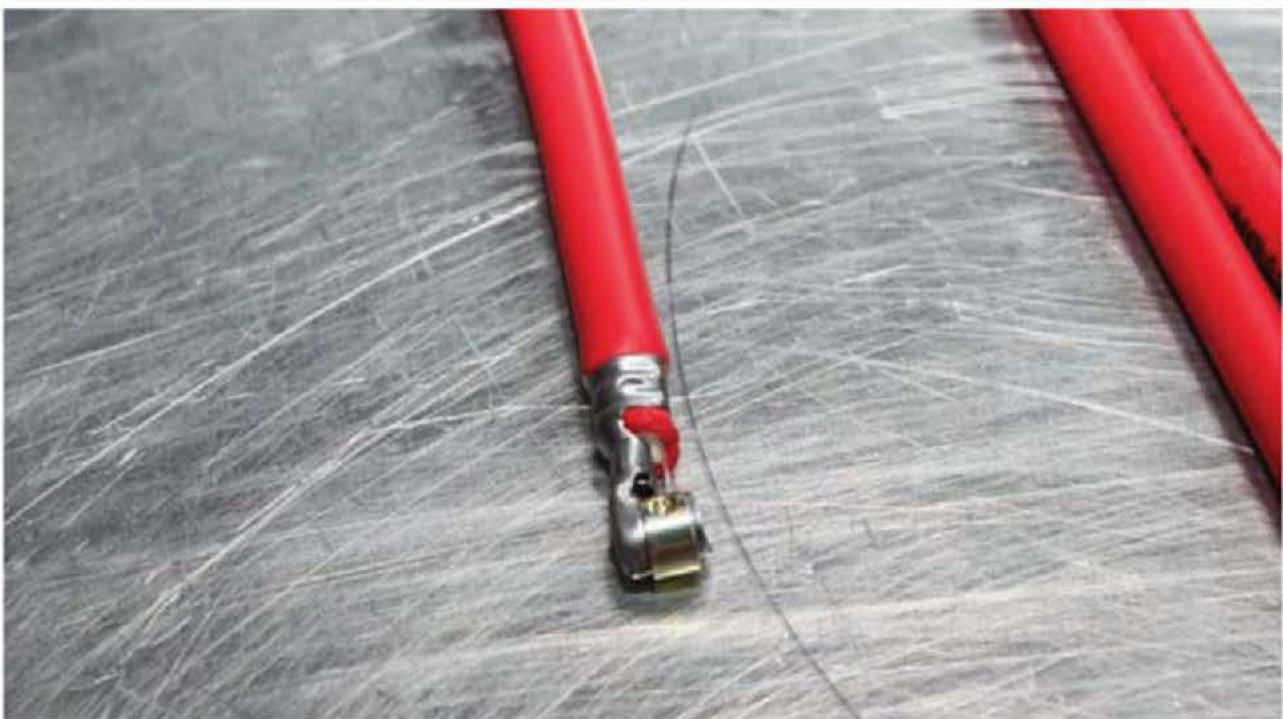
Insert the plug wire into the mini stripper till it's flush with the end, then use a razor knife and cut the plug wire at the mark on the tool.

Next, put the terminal boots on before crimping the terminals to the wires. A small dab of MSD spark guard will ease the installation of the boot. Slide the boot 6-inches down the wire. For the crimper tool to work properly, and achieve the strongest crimp possible, bend the crimp tabs on the terminal 90 degrees at the end of the tabs.



With the plug wire inserted into the terminal, and the assembly in the mini crimper, tighten the vice until the mini crimper stops moving.

For standard terminals, fold the spiral core back against the wire insulation and slide the terminal over the wire. Position the plug wire until the wire insulation protrudes past the crimp tabs about the width of a nickel. Assemble the crimper over the terminal end and position the tool in a vice with the end of the crimper flush against the jaws of the vice.



Remove the plug wire from the mini crimper tool and you will have a solidly crimped terminal on the end of the wire.

The next step is to tighten the vice which causes the crimper tool to crimp the terminal over the wire, creating a secure terminal end. For dual crimp terminals, the procedure is the same except you have an upper set of crimp tabs that secure the conductor wire to the terminal. Using the Multi Purpose Heavy Duty Crimping Tool is even easier. Simply place the wire into the jaws of the tool and squeeze the handles together and the work is done.



If you've worked with one plug wire at a time, installing the wires is simple. It never hurts to double check the firing order before attempting to start the engine though.

Installing The Plug Wires

Now that the wire is completed, you can slide the boot over the terminal and install the plug wires in the vehicle. Start by installing the plug wire on the spark plug side of the wire then move to the distributor side of the wire. When all the spark plug wires are installed you can fire the motor up and enjoy your new custom built plug wires. For the last step in your plug wire build, we highly recommend that you take a cruise through the local area looking for one of the numerous car shows that are held every weekend. We bet that you won't be afraid to raise the hood on our ride and show off your latest custom build.

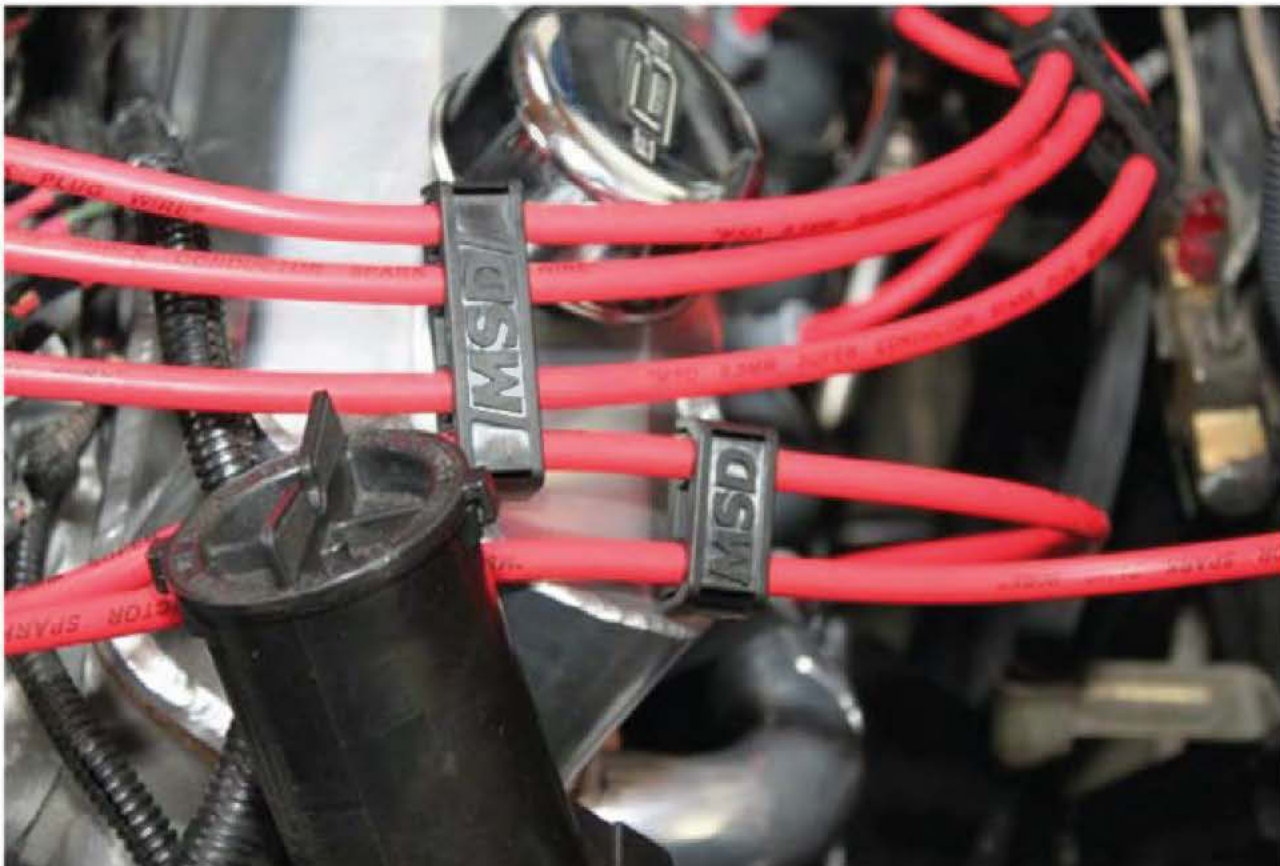
SOURCES

[MSD Ignition](#)

Phone: 915-857-5200



In addition to the performance, MSD custom built wires help keep your engine bay looking clean and uncluttered.



MSD plug wire separators can add an additional level of organization and appearance.