



Installation Instructions

Universal Spark Plug Wire Set: #90021, 90022, 90023

PLEASE read these instructions carefully before beginning the building and installation of these FiTech Ceramic Spark Plug Wires. Most installations can be accomplished with common tools and procedures. However, you should be familiar with and comfortable working on your vehicle. If you do not feel comfortable performing this installation, it is recommended to have the installation completed by a qualified mechanic. If you have any questions, please call.

Contents:

Qty 8	Ceramic spark plug wires with pre-installed spark plug ends (45° plug ends for 90021 and 90023 kits OR 90° plug ends for 90022 kits)
Qty 2	Extra Ceramic spark plug wires with pre-installed spark plug ends (90° plug ends for 90021 and 90023 kits OR 45° plug ends for 90022 kits)
Qty 1	Extra bare spark plug wire (for coil if needed)
Qty 1	Wire Crimper Tool
Qty 1	Wire separator set
Qty 1	Wire label clip set
Qty 10	HEI Boots/Terminals
Qty 10	LS/LT Coil Boots/Terminals
Qty 10	Female Socket Distributor Boots/Terminals
Qty 1	Dielectric Grease Pack

Caution:

- Before beginning the installation, disconnect the negative battery cable and use wheel chocks to block the vehicle's wheels if needed.
- **Never** pull spark plug wire directly when trying to remove ceramic boot from spark plugs as you can pull wire out of ceramic casing. Always remove by gripping ceramic boot to ensure no damage is performed.

Notes:

- It is very important to take care to ensure you do not cut into the conductor. Cutting into the conductor will affect the voltage carrying capabilities of the wire and extra caution should be taken.
- As you cut the outer sleeve of the wire it is not necessary to cut completely through the insulator to the center conductor. You only need to cut approximately halfway into the insulator then twist and pull the cut end of the insulator off.
- Please ensure when handling new ignition cables that ends are free of grease, oils, and any other contaminations that may affect overall performance and life of the cables.

Tools required:

Safety Blade, Wire Cutter, Vise (4" Minimum), Needle Nose Pliers

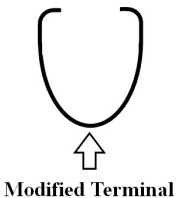
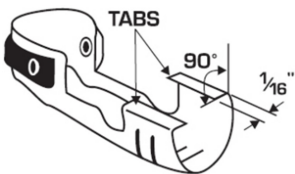
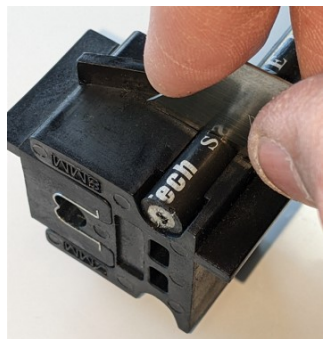
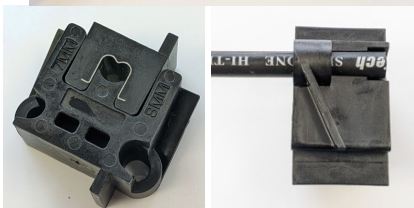
Before beginning, select the wires, terminals and boots that will be used for your applications. Set aside all other components as they may be needed later.



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1. Determine the required length of the spark plug wire being replaced by removing the old wire off the engine. If not replacing wires i.e. starting with no previous wires, install the ceramic end of the new spark plug wire to the spark plug, making sure the terminal snaps firmly into place.
2. Route the bare end of the cable up to the appropriate terminal on distributor cap or in case of coil near plug applications, to the appropriate ignition coil.
3. Mark the cable where it reaches the terminal.
4. Ensuring the determined cut location is correct, cut the wire entirely through. Be sure not to cut too short.
5. After cutting the wire to length, install the appropriate boot to match the distributor cap or ignition coil terminal. Be sure to install the boot in the correct orientation. **TIP:** To ease the installation on the boot, it is best to use silicone grease, silicone spray or other appropriate lube on the wire and the inside of the boot.
6. Slide the boot onto the wire a few inches and with enough sticking out to allow you to terminate the end.
7. Using the included wire crimper, insert the wire into the hole marked 8mm. If inserted in the correct orientation, butt the end of the wire flush with the opposite end of the crimper as shown.
8. Use a sharp utility knife, place up flush against the wall as shown.
9. CAREFULLY cut through the insulation cover by holding knife and twisting/spinning the wire around to cut 360 degrees around the wire. **CAUTION: DO NOT** cut the insulation deep enough to damage the conductor in the center of the cable! Using the cutting portion of the included crimper tool ensures this will not happen.
10. Remove the wire from the cutting end of the crimper tool and bend the insulation back and forth a few times to finish breaking the insulation free from the center conductor wire then twist and pull the end off the conductor wire, discarding the pulled off piece.
11. This should leave a center conductor sticking out of the insulation of the wire you are working with.
12. Fold the conductor over against the outside of the insulation as shown.
13. Select the correct terminal to match the distributor cap or ignition coil terminal you are connecting to,
14. For best crimp results, it is recommended to pre-bend the tips of the terminal slightly as shown.

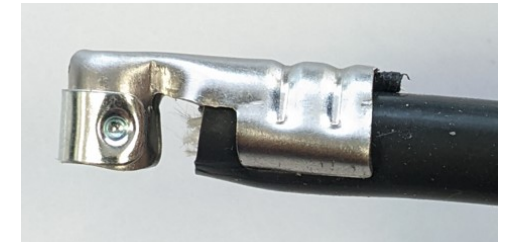




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15. Slip the appropriate terminal over the wire lead. With the conductor on the bottom, captured in between the insulation and the back of the terminal. Position the terminal so that a minimum of 1/16" (maximum of about 1/8") of the insulation is protruding beyond the edge of the tabs on the terminal.
16. At this point, the terminal will be loose on the cable, and the tabs will likely be too wide to fit into the grooves in a crimping tool. Use a pair of pliers to squeeze the coil terminal tabs together enough to keep the coil terminal from falling off the cable, and so that the tabs will fit into the grooves on the crimping tool.
17. Install terminal and wire into wire crimper.
18. Crimp the terminal onto the cable by squeezing the crimping tool. **TIP:** You can use large channel lock pliers or it is recommended to use a vise to crimp the crimper tool together to crimp the terminal/wire.
19. Once the terminal is crimped, remove wire from the crimping tool.
20. Apply a small amount of silicon lubricant to the cable to make the boot slide more easily.
21. Carefully slide the boot back down the cable and maneuver it over the terminal into position. Pull the boot over the terminal and make sure that the terminal is properly seated and aligned in the boot. It may be necessary to lubricate the wire for this step using the included dielectric grease.
22. Check the wire's continuity with an ohm meter. Place each of the meter probes in each of the wires ends ensuring the probe end is contacting the internal metal terminal.
23. While holding each meter probe at each end of the wire, move/wiggle the wire around ensuring the wire does have a loose or bad terminal connection. If the ohm meter has a sound tone, the tone should not be lost at any time during the moving/wiggling of the wire.
24. Install the finished Spark Plug Wire onto the engine and onto the spark plug (if you removed previously for testing).
25. Repeat the above procedure for shortening, assembling, and installing the rest of the Spark Plug Wires





Installation Instructions

Universal Spark Plug Wire Set: #90021, 90022, 90023

3-Year Limited Warranty on FiTech EFI Systems

WARRANTY ON THIS EFI SYSTEM IS SOLELY HANDLED BY FITECH FUEL INJECTION. DO NOT CONTACT THE SELLER.

FiTech extends the following limited warranty to the original purchaser of a FiTech EFI system purchased after November 1, 2022. FiTech warrants its products against defects in materials and workmanship, under normal use and service for 3 years from the date of original purchase. Please note, however, that it does not extend to issues that arise as a result of normal wear and tear. This means that typical degradation from regular use, which can occur over time, is not covered under our warranty terms. This applies only to the original purchaser and the parts must remain installed on the original vehicle for which they were purchased. This warranty is void if the product was improperly installed, was installed on a vehicle for which it was not designed, if it was modified in any manner, or was removed from the original vehicle and reinstalled on another vehicle. Coolant temperature sensors, oxygen sensors, distributor caps, and distributor rotors are not covered under this warranty.

This warranty shall not apply to any product installed improperly, or contrary to FiTech's instructions, altered, misused, repaired or damaged from an accident, collision, or willful or negligent act. To make a claim under the terms of this Warranty, the original purchaser must contact FiTech tech support. If FiTech tech support deems the product in need of warranty service, proof of original purchase will be required. Purchaser must **call FiTech Technical Support (951-340-2624) option 2 or email: Techmail@fitechefi.com**, to obtain a Returned Material Authorization (RMA). Proof of purchase must clearly show the place of purchase, purchase price, product purchased, and date of purchase. Purchaser needs to register their product here: <https://fitechefi.com/warranty-registration> or using the mail-in registration form found in the product box.

FiTech's 3-Year Limited Warranty does not cover factory refurbished parts, this warranty is only valid for new purchases from an authorized dealer.

FiTech's liability is expressly limited to replacing or repairing the defective part or parts (refunds are not covered under FiTech's 3-year Limited Warranty). FiTech will have no liability for the cost of installation or removal of the defective product or for the cost of labor or any additional parts required to complete the installation of the replacement product. FiTech is not responsible for any shipping charges accrued during the warranty process/claim.

In no event will FiTech be liable for any indirect, special, incidental, or consequential losses or damages (including but not limited to interruption of business or loss of business or profit) resulting from the use or inability to use the product, any breach of warranty, or any defect in the product, even if FiTech shall have been advised of the possibility of such potential damages or losses. Some states do not allow the exclusion or limitations of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

If the product is in the FiTech facility for repair, the amount of time the product is in repair will be added to the existing warranty period.

In the event that your EFI System that is under warranty is in for repair and FiTech has authorized a replacement, and if that EFI System has been discontinued, FiTech will replace it with a similar product for the same application. The replacement EFI System will maintain the existing warranty period of the original EFI System.

What is not covered under FiTech's 3-Year Limited Warranty:

- Offboard Sensors (oxygen sensors, and temperature sensors, are subjected to a 1-year limited warranty).
- Fuel pumps (Fuel pumps are subjected to a 1-year limited warranty. The customer must send photos of filters used in application. If the filter is completely clogged or contaminated, the fuel pump will not be covered under any FiTech warranty).
- Ignition Cap and Rotor on Go Spark Distributors.
- Normal wear and tear over time
- Fire Damage.
- Cracked footings or flanges on the base of EFI units due to over-tightening or improper installation.
- Removal or replacement costs.
- Shipping costs.
- Damage to related components.
- Costs incurred due to downtime of a vehicle.
- Vehicle transport or storage costs.
- Any product used in marine applications unless specifically stated for marine usage.
- Any product purchased from an unauthorized third party (for example: Amazon, eBay, Craigslist, etc.)