Installation Instructions

ACCEL 10.8mm 300+ Ferro-Spiral™ Race Wire Universal Fit Wire Set

The universal fit ACCEL 10.8mm 300+ Ferro-Spiral™ Race Wire Sets feature spark plug wire leads that are factory terminated and booted on the spark plug ends. The extra-long lead lengths allow you to custom-tailor the wire set to your specific engine and route the spark plug wire leads as needed.

To make the installation easier, please note the correct cylinder numbers, the firing order of the engine, and note on the distributor cap the corresponding cylinder numbers. Starting with the longest spark plug wire lead in the kit. Install it on the spark plug furthest from the distributor. Route the spark plug wire lead as desired to the proper distributor cap tower for that cylinder. Mark the lead and remove it from the engine. Add one inch to the marked lead length (just in case you may need to re-strip or re-terminate the lead) and cut the lead to length using a sharp razor blade, X-ACTO™ knife or utility knife. Make sure you have cut all the way through the core of the wire. Do NOT try to pull the wire apart. The core is constructed of Kevlar and the conductor is a copper-nickel alloy, which is much stronger than stainless steel, and pulling on the lead will only unravel the core.

To apply the distributor terminal and boot to the spark plug wire lead, you must first determine which of the boot / terminal kits you need to fit your specific engine. The kit with the stainless steel terminals is for a HEI / UDI style or male tower distributor cap. The kit with the long bent brass terminals is for conventional points-style or female tower distributor cap. Although the procedures for applying both style terminals are similar, the procedures for applying the boots are different. So follow the procedure below that applies to your application.

You may want to practice the following noted strip and cutback procedures a couple of times with the scrap end pieces of spark plug wire leads until you become familiar with the procedure.

HEI / UDI Style or Male Tower Distributor Cap

Measure 5/8" from the end of the spark plug wire lead for the strip length. Using the sharp knife, CAREFULLY cut through the multi-layers of wire jacketing and braiding. Do NOT cut all the way through the third or inner layer of insulation. Do NOT allow the blade to touch the core, it will score the alloy conductor and cause a failure. The best method is to roll the spark plug wire lead across a flat surface while maintaining constant pressure on the blade. Bend the end of the lead back and forth before pulling the jacketing material off the end of the spark plug wire lead, ***see photo #1.***

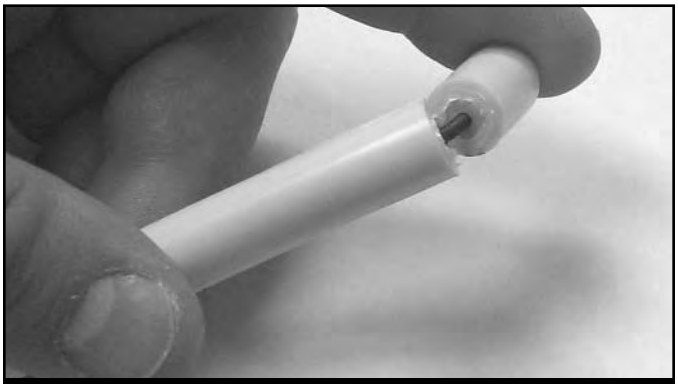

Photo 1

Measure 3/8" from the end of the jacketing material for the cutback length. Again using a sharp knife, VERY CAREFULLY cut through ONLY the outer jacket. Use VERY light pressure on the knife or you will end up cutting through the outer braiding and into the second layer of jacketing. To remove this outer layer, make a lateral cut VERY CAREFULLY through ONLY the outer jacket and then peel off the outer jacket, ***see photo #2***. Now CAREFULLY trim away the fiberglass braiding, making sure not to damage the second jacketing layer.

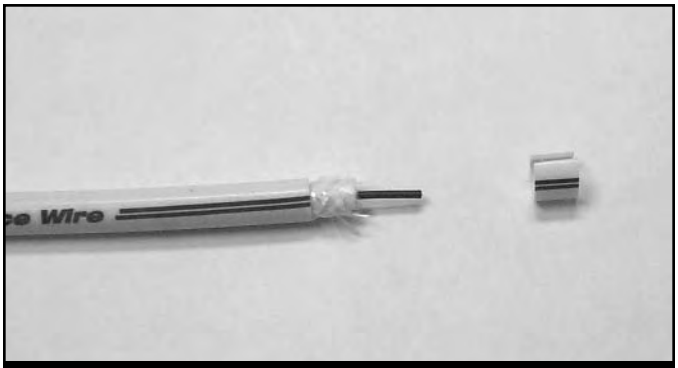

Photo 2

To apply the terminal to the cutback section of the spark plug wire lead by using the supplied steel crimper and anvil, first secure the anvil in a vice. CAREFULLY bend the core back and over against the second layer of jacketing, ***see photo #3.*** Slide a terminal over the core and make sure that the folded core is against the back of the terminal's crimp barrel, ***see photo #4***. Using a set of pliers, partially close the sides of the terminal's crimp barrel around the spark plug wire lead. Position the terminal and spark plug wire lead on the anvil, and then the crimper over the terminal's partially closed wire barrel, ***see photo #5***. Strike the top of the crimper with a hammer to fully close the terminal's wire crimp barrel. You can also use a wire crimper such as ACCEL p/n 170036 HD Professional tool, ***see photo #6*** or ACCEL p/n 170037

SuperStock tool to crimp the terminal onto the spark plug wire lead. The finished termination should look as shown in ***photo #7***. Position a piece of dual wall shrink tubing over the end of the terminated spark plug wire end as shown in ***photo #8***. Using a heat gun, CAREFULLY shrink the tubing onto the lead as shown in ***photo #9***.

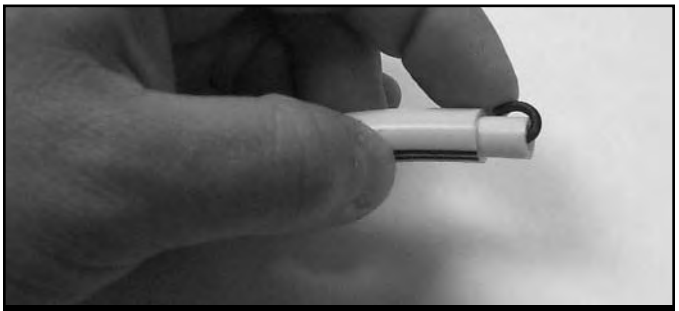

Photo 3

Photo 4

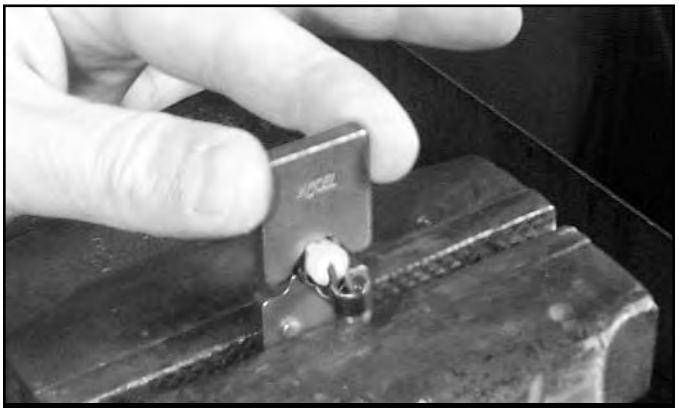

Photo 5

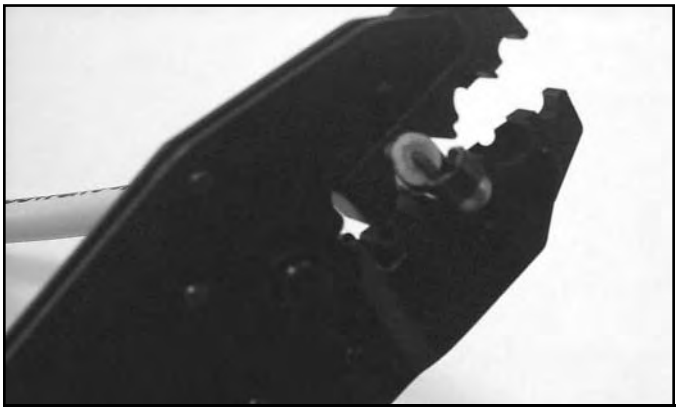

Photo 6

Photo 7

Photo 8

Photo 9

CAUTION: Do NOT use a torch or other open flame heat sources unless you are familiar with this procedure. The heat-shrink tubing will be heated to over 160°F during the process. Be careful not to burn yourself. Allow the end of the spark plug wire lead to cool down before attempting to proceed to the next assembly step.

Once the end of the lead has cooled, apply some silicone dielectric grease from the supplied packets onto the heat shrink tubing and terminal, then carefully insert the end of the spark plug wire lead into the distributor boot, ***see photo #10***.

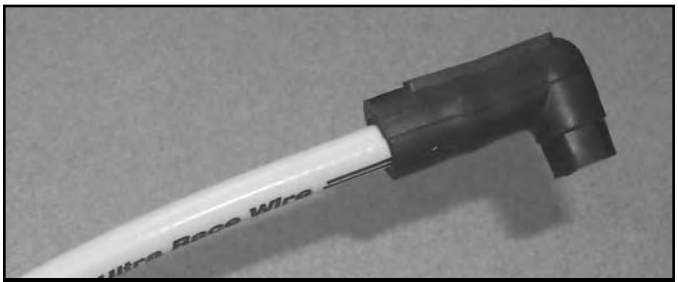

Photo 10

If you make any mistakes during the stripping, jacket cutback, termination or heat shrinking, trim off the damaged end and start over. Now you know why you added that extra inch to the length of the spark plug wire lead.

Conventional Points-Style or Female Tower Distributor Cap

Apply some silicone dielectric grease from the supplied packets onto the end of the spark plug wire lead and insert it into the distributor boot. You can also use silicone spray lubricant, do not use a petroleum oil lubricant. Slide the distributor boot up the spark plug wire lead about four inches, ***see photos #11 & 12***.

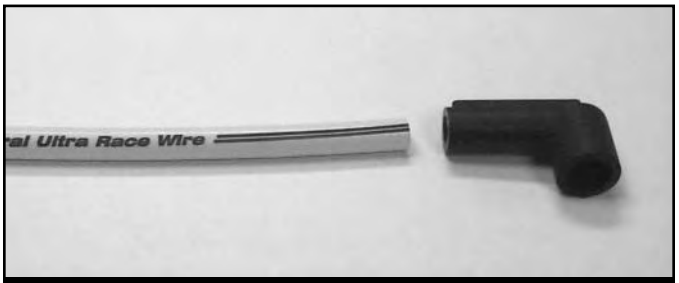

Photo 11

Photo 12

Measure 3/8" from the end of the spark plug wire lead for the strip length. Using the sharp knife, again CAREFULLY cut through the multi-layers of wire jacketing and braiding. Do NOT cut all the way through the third or inner layer of insulation. Do NOT allow the blade to touch the core, it will score the alloy conductor and cause a failure. The best method is to roll the spark plug wire lead across a flat surface while maintaining constant pressure on the blade. Bend the end of the lead back and forth before pulling the jacketing material off the end of the spark plug wire lead, ***see photo #13***.

Photo 13

Measure 3/8" back from the end of the jacketing material for the cut back length. Again using a sharp knife VERY CAREFULLY cut through ONLY the outer jacket. Use VERY light pressure on the knife or you will end up cutting through the outer braiding and into the second layer of jacketing. To remove this outer layer, make a lateral cut VERY CAREFULLY through ONLY the outer jacket and then peel off the outer jacket, ***see photo #14***. Now CAREFULLY trim away the fiberglass braiding making sure not to damage the second jacketing layer.

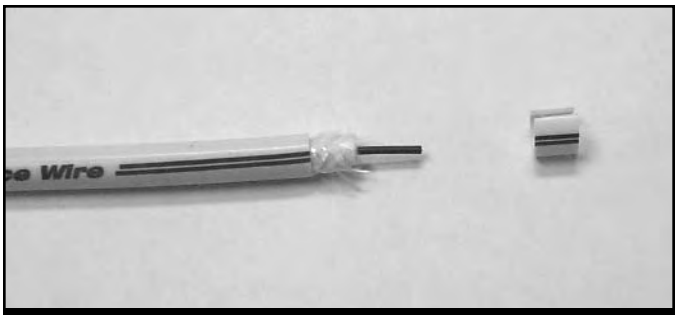

Photo 14

To apply the terminal to the cutback section of the spark plug wire lead by using the supplied steel crimper and anvil, first secure the anvil in a vice. CAREFULLY bend the core back and over against the second layer of jacketing, ***see photo #15***. Slide a terminal over the core and make sure that the folded core is against the back of the terminal's crimp barrel, ***see photo #16***. Using a set of pliers, partially close the sides of the terminal's wire barrel around the spark plug wire lead. Position the terminal and spark plug wire lead wire on the anvil and then the crimper over the terminal's partially closed wire barrel, ***see photo #17*** (HEI style terminal shown). Strike the top of the crimper with a hammer to fully close the terminal's wire crimp barrel. You can also use a wire crimper such as ACCEL p/n 170036 HD Professional tool, ***see photo #18*** or ACCEL p/n 170037 SuperStock tool to crimp the terminal onto the spark plug wire lead. The finished termination should look as shown in ***photo #19***. Position a piece of dual wall shrink tubing over the end of the terminated spark plug wire lead as shown in ***photo #20***. Using a heat gun, CAREFULLY shrink the tubing onto the lead as shown in ***photo #21***.

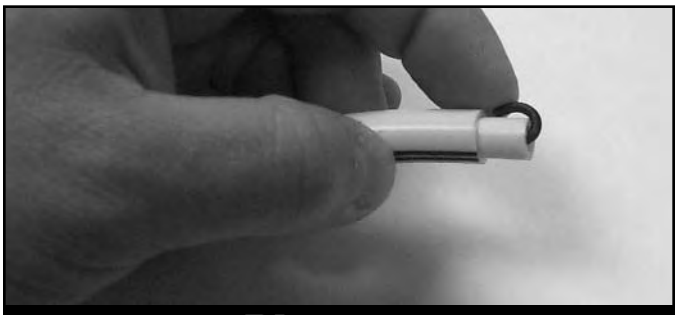

Photo 15

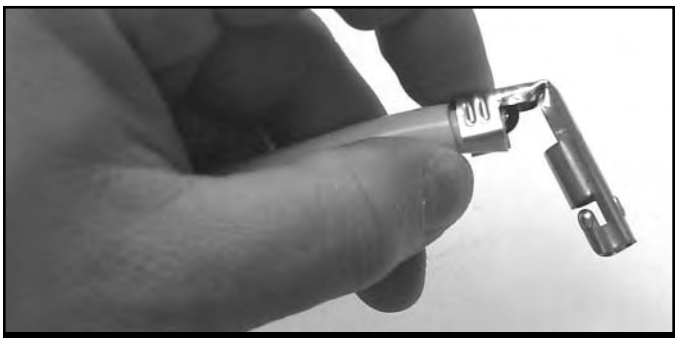

Photo 16

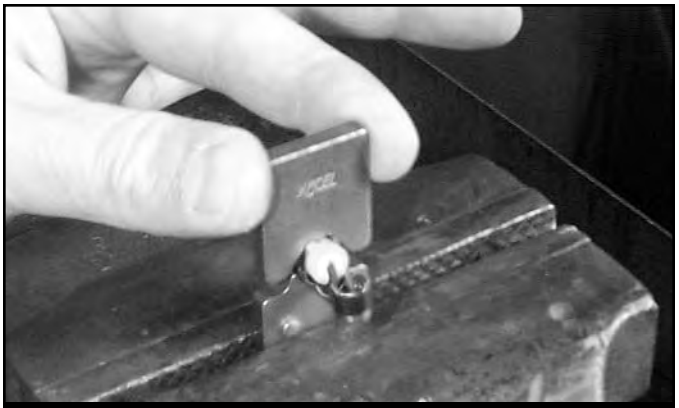

Photo 17

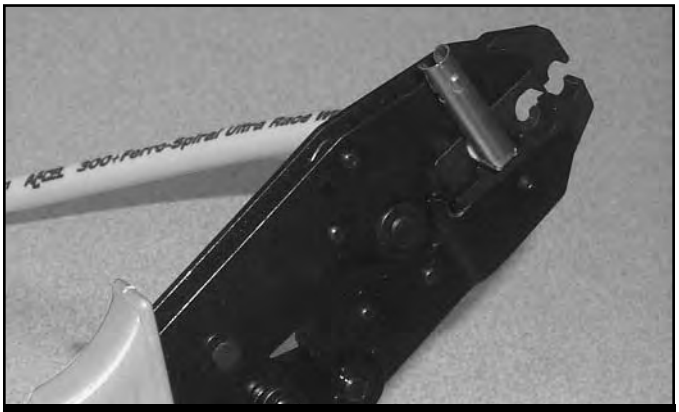

Photo 18

Photo 19

Photo 20

Photo 21

CAUTION: Do NOT use a torch or other open flame heat sources unless you are familiar with this procedure. The heat shrink tubing will be heated to over 160°F during the process. Be careful not to burn yourself. Allow the end of the spark plug wire lead to cool down before attempting to proceed to the next assembly step. Once the end of the lead has cooled, apply more silicone dielectric grease from the supplied packets onto the heat shrink tubing and terminal and carefully pull the distributor boot down the spark plug wire lead until the terminal is positioned in the distributor boot as shown in ***photo #22.***

Photo 22

If you make any mistakes with stripping, jacket cutback, termination or heat shrinking, trim off the damaged end and start over. Now you know why you add that extra inch to the length of the spark plug wire lead.

Coil Wire Lead

There is a ninth wire lead included in the kit. This is the coil lead for those applications other than GM HEI coil in-cap type distributors. This lead is not factory-terminated nor booted on either end. There are extra boots and terminals in both kits to complete the coil lead. Choose the correct boot and terminal types needed for your application and follow the above noted procedures for applying the boots and terminals.

Thanks for choosing ACCEL Performance Products, in particular ACCEL 10.8mm 300+ Ferro-Spiral™ Race Wire.

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