86-95 Suzuki Denso Spark Plug Service

(SKU# SER-SPD)

Installation Instructions

CAUTION: Safety glasses should be worn at all times when working with vehicles and related tools and equipment.

Suggested Tools:

- Spark Plug Socket
- Ratchet
- Extension
- Spark Plug Gap Gauge
- Dielectric Grease
- Anti-Seize Compound
- Torque Wrench (Optional)

Parts of a Spark Plug

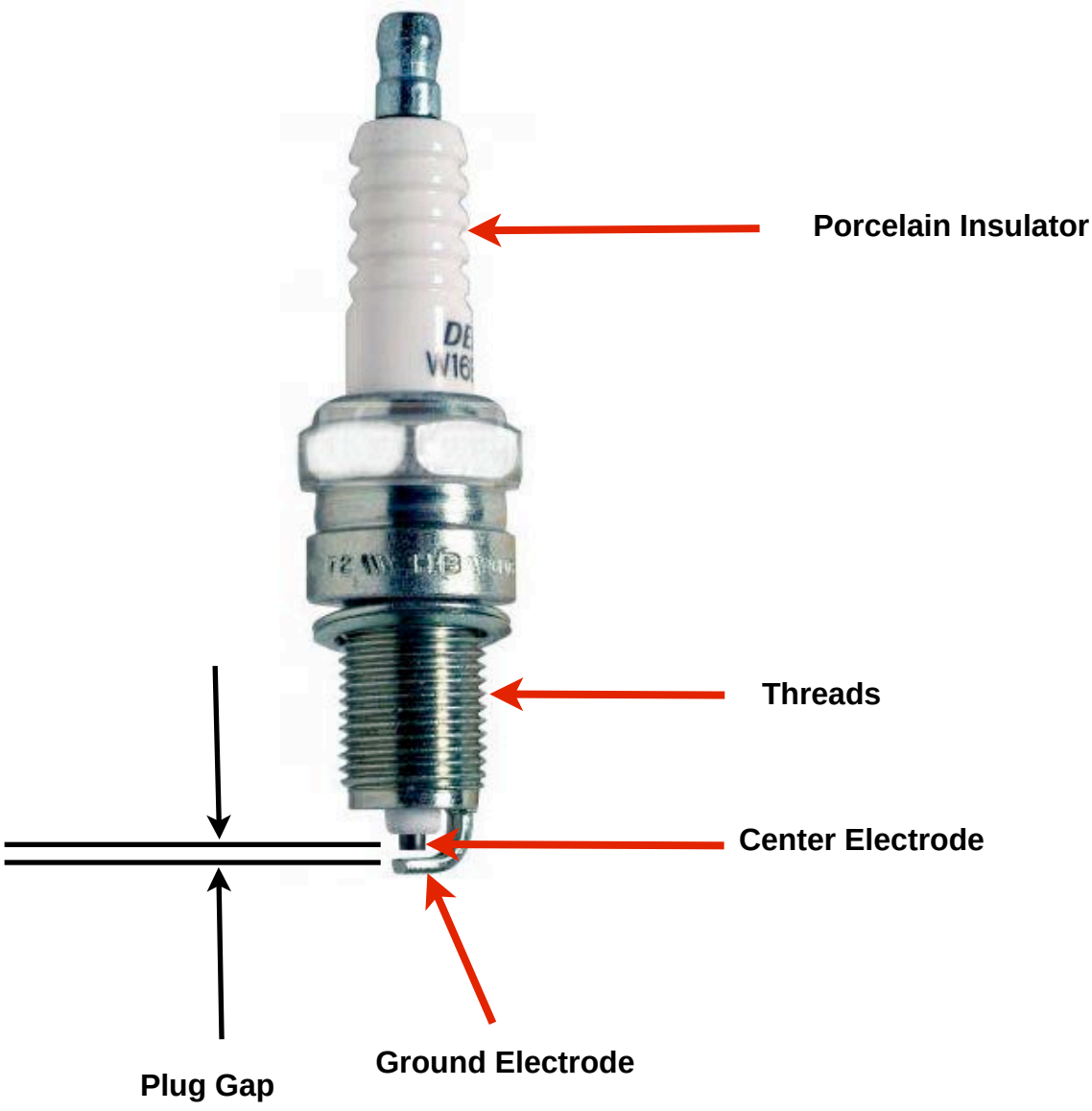
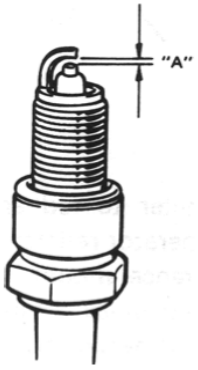


Figure A



Step 1

If the engine is hot let it cool for at least 30 minutes.

Caution: If plugs are removed from a hot engine expensive cylinder head damage could result.

Step 2

Check and set the gap (Dimension A) on all the new spark plugs.

Note: Plug Gap Specification can be found in the owners manual or a service manual.

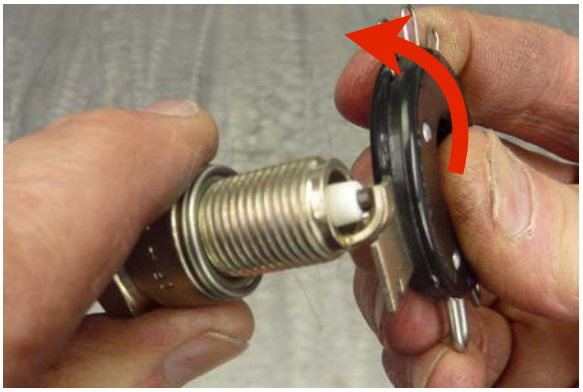
Caution:

Never drop spark plugs or handle carelessly. The porcelain insulator is easily cracked. If the porcelain becomes cracked, the spark plug will likely misfire. Never install a plug with cracked or damaged porcelain insulator.

Step 3

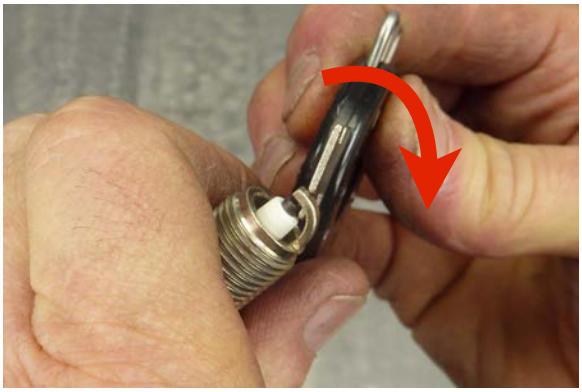
Check the plug gap on all the new spark plugs by passing the appropriate size wire gap gauge between the center and ground electrodes. (See Figure A) There should be a slight amount of friction.

Note: Spark Plug Gap is .027 - .031" on the 1987 Suzuki Samurai we used for these instructions.



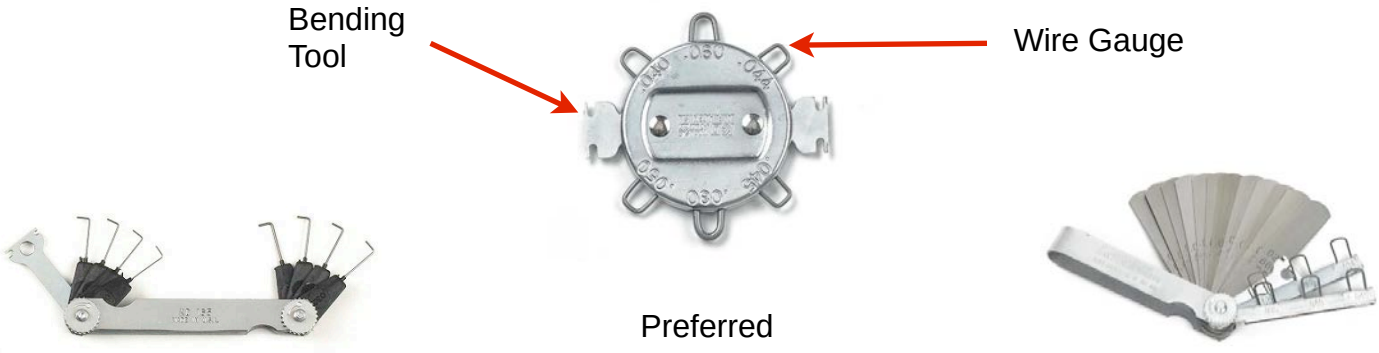
Step 3 Continued

If gap is too wide, bend the ground electrode as shown.



Step 3 Continued

If gap is too narrow, bend the ground electrode as shown.



Tech Tip

The spark plug gaper pictured above is the one we prefer, but there are many acceptable designs on the market. The most important features are the wire (as apposed to flat) gauge and the bending tool.

Normal condition – A brown, tan or grey firing end indicates that the engine is in good condition and that the plug type is correct

Ash deposits – Light brown deposits encrusted on the electrodes and insulator, leading to misfire and hesitation. Caused by excessive amounts of oil in the combustion chamber or poor quality fuel/oil

Carbon fouling – Dry, black sooty deposits leading to misfire and weak spark. Caused by an over-rich fuel/air mixture, faulty choke operation or blocked air filter

Oil fouling – Wet oily deposits leading to misfire and weak spark. Caused by oil leakage past piston rings or valve guides (4-stroke engine), or excess lubricant (2-stroke engine)

Overheating – A blistered white insulator and glazed electrodes. Caused by ignition system fault, incorrect fuel, or cooling system fault

Worn plug – Worn electrodes will cause poor starting in damp or cold weather and will also waste fuel

Tech Tip

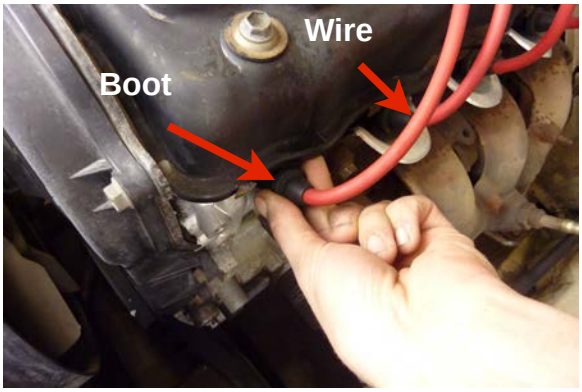
As you remove the spark plugs from the engine inspect each one and keep track of which cylinder they came from. Much can be learned by the appearance of the plugs.

Tech Tip - Caution

We recommend removing and replacing one spark plug at a time as opposed to removing all of them at once. Following this advice will reduce the risk of getting spark plug wires crossed. If the plug wires are not returned to the exact same cylinder as before, the engine will not run right.

Tech Tip

Always use a spark plug socket. A spark plug socket has a rubber grommet on the inside, six sides (or points), and often has a hex head on the top for limited access spark plugs.



Step 4

Disconnect the spark plug wire.

Caution: To reduce the risk of damaging the spark plug wire, always grip the wire by the boot. Never pull on the wire itself.

Step 5

Remove the spark plug.

Caution: When loosening or tightening spark plugs, always support the extension as you turn the ratchet. Failure to follow this practice will likely result in spark plug porcelain damage.

Step 6

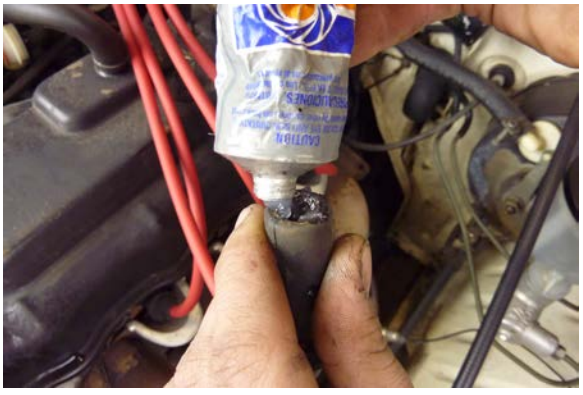
Apply anti-seize compound to the threads of the spark plug.

Note: Anti-Seize makes future spark plug removal easier and reduces the risk of cylinder head damage.

Step 7

Install a new spark plug and torque to 14.5 to 21.5 ft. lbs.

Note: If you do not have a torque wrench you can finger tighten the spark plug and then continue tightening 3/8 of a turn.



Step 8 Optional

Apply a small amount of dielectric grease in side the boot of the plug wire. This helps to waterproof the connection and helps with future plug wire removal.

Step 9

Install the plug wire.

Note: Push the wire on the plug until you feel it snap into place.

Step 10

Repeat the above procedure on the remaining 3 spark plugs.

Step 11

Start the engine and check for smooth operation.

Congratulations! You have successfully replaced the spark plugs. We hope these instructions were helpful.

As always, If you experience any difficulty during the installation of this product please contact Low Range Off-Road Technical Support at 801-805-6644 M-F 8am-5pm MST. Thank you for purchasing from Low Range Off-Road.

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