

SPARK PLUGS

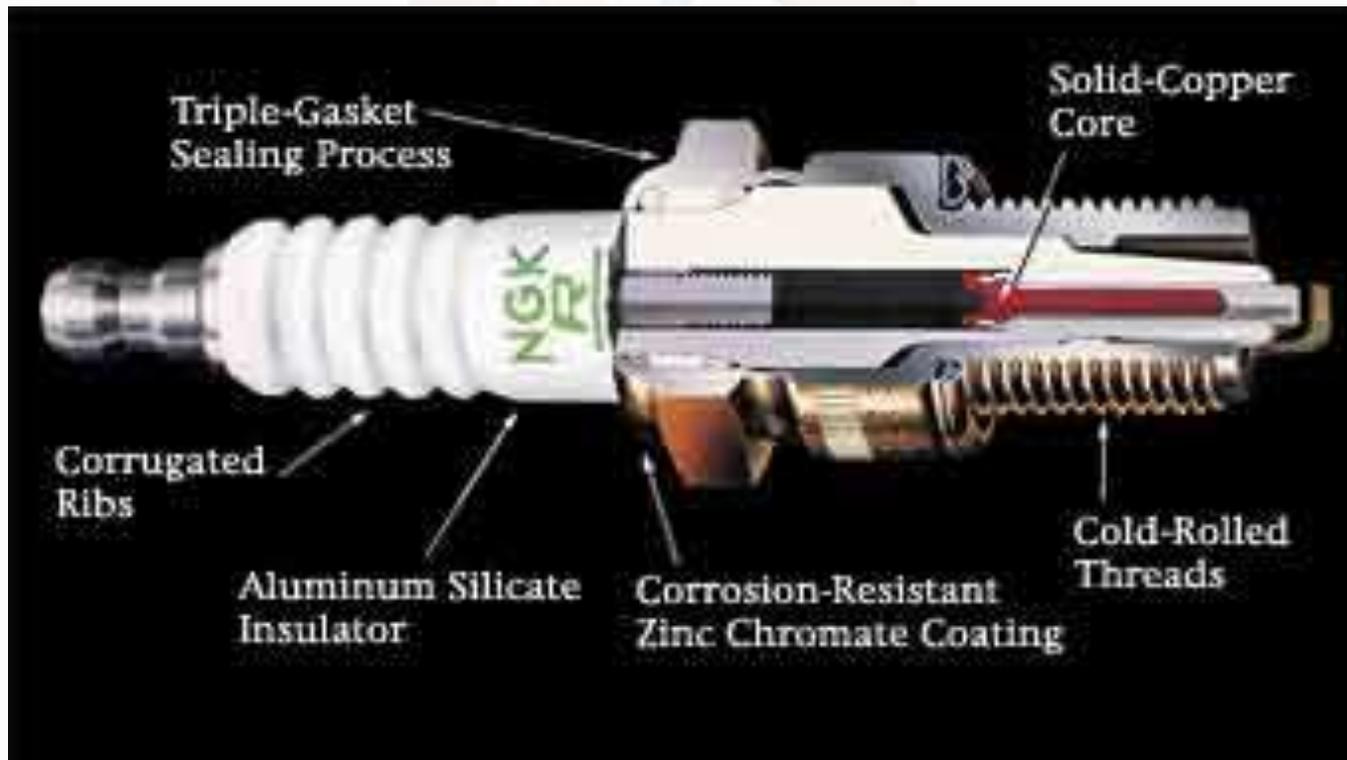
GALGOTIAS
UNIVERSITY

The logo of Galgotias University, featuring a stylized 'G' composed of three curved, overlapping bands in shades of yellow, blue, and red, set against a light pink circular background.

SPARK PLUGS

GALGOTIAS
UNIVERSITY

SPARK PLUGS

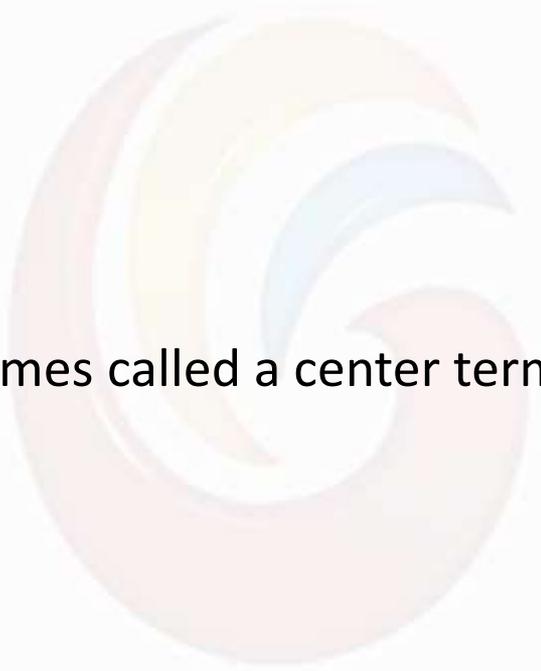


SPARK PLUGS

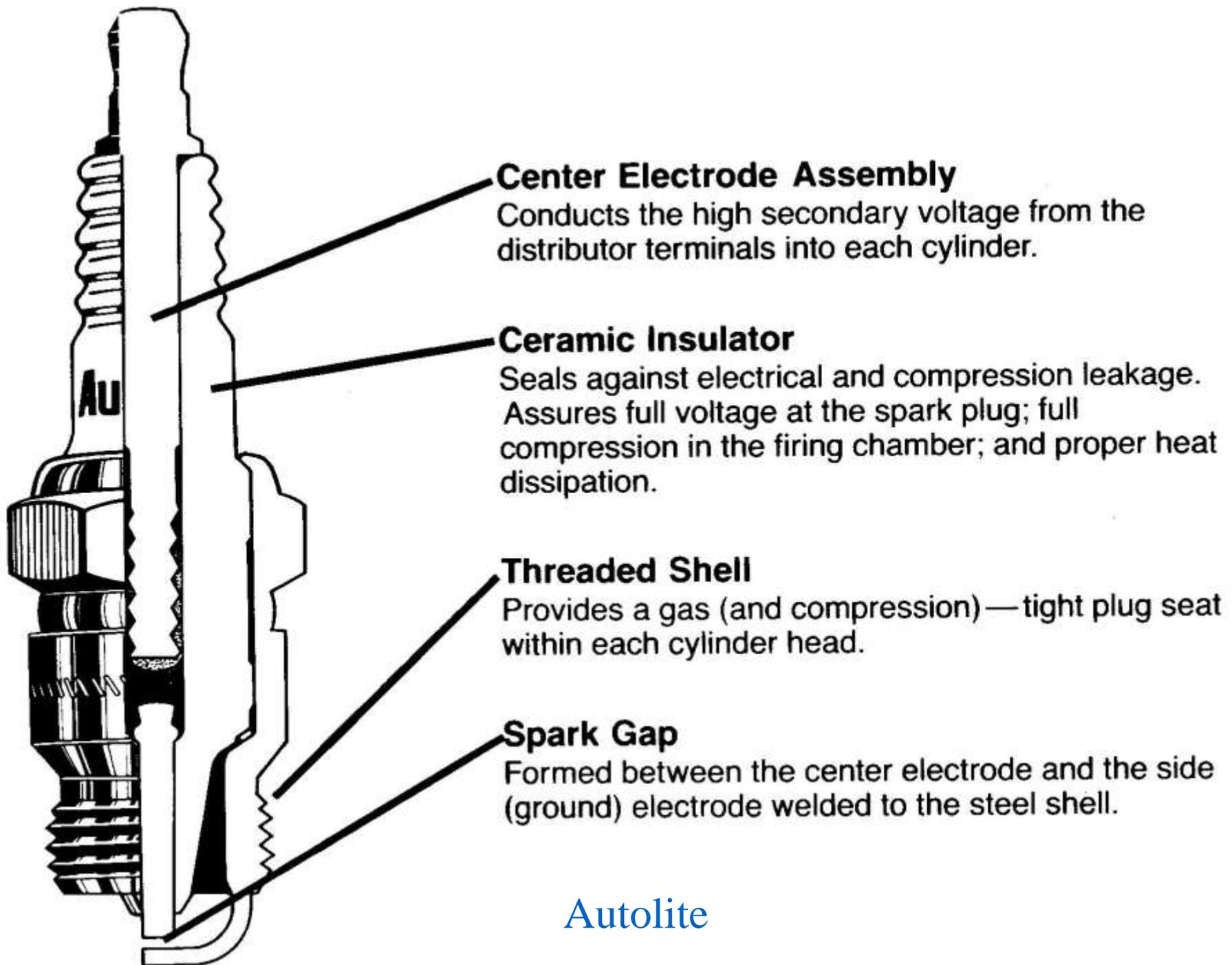
- Uses the coils high voltage to create a spark in the engine.
- Can have a resistor built in.
- Can be a non-resistor plug
- Can have different heat ranges.
- There are different lengths (Reach)

BASIC PARTS OF A SPARK PLUG

- Steel shell
- Ceramic insulator
- Side electrode
- A center electrode sometimes called a center terminal

The logo of Galgotias University is a circular emblem with a stylized 'G' in the center. The 'G' is composed of several curved, overlapping bands in shades of yellow, orange, and blue. The background of the emblem is a light, warm tone.

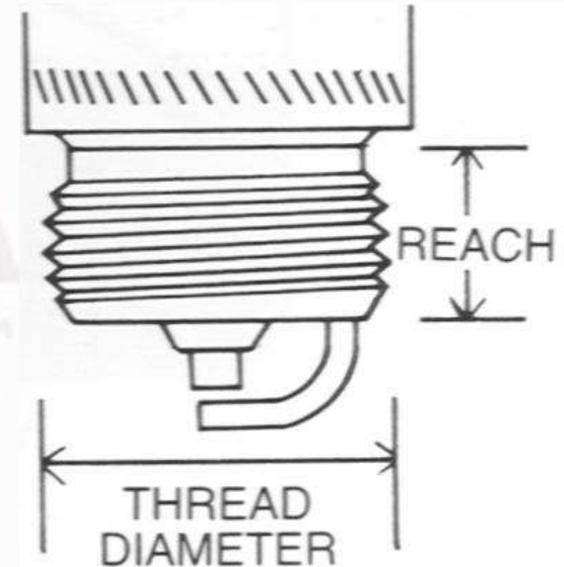
GALGOTIAS
UNIVERSITY



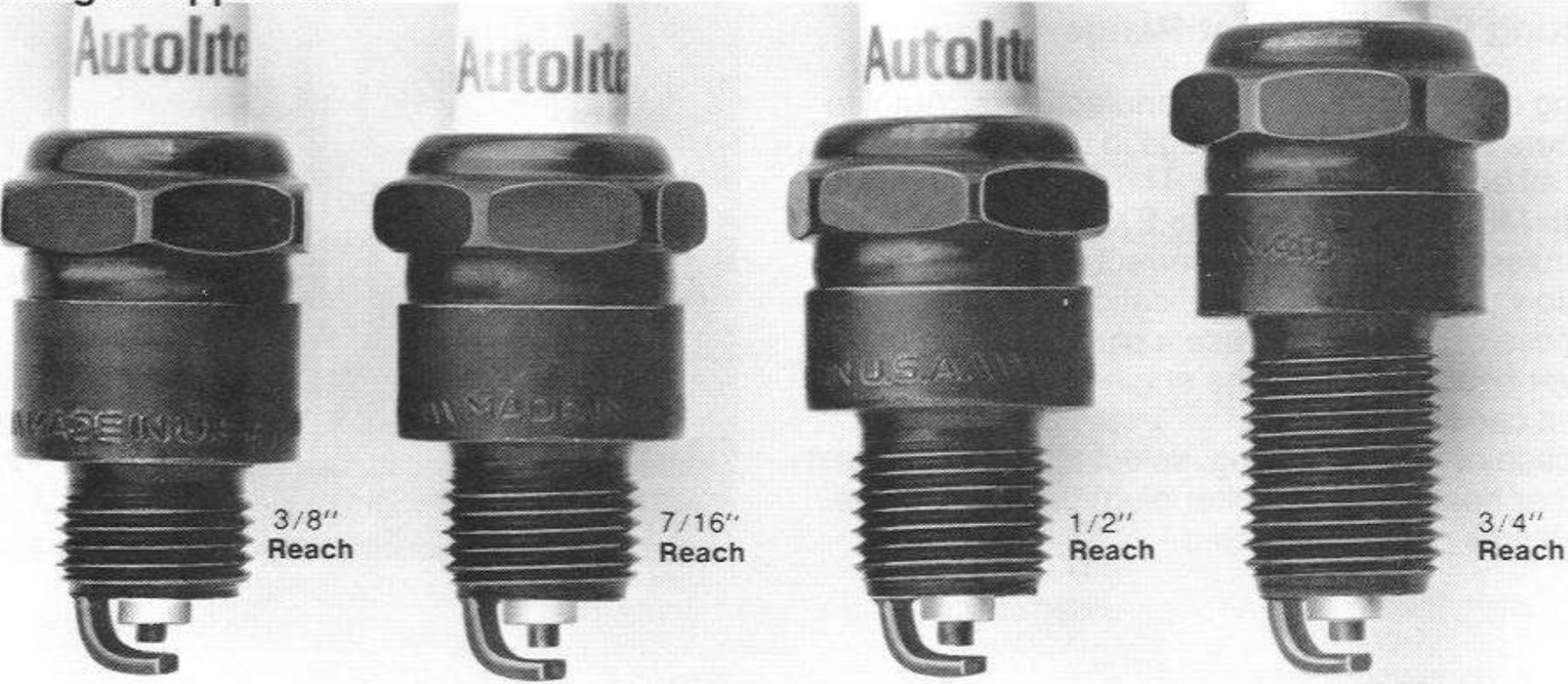
Autolite

SPARK PLUG REACH

- The distance from the end of the threads to the tapered seat or sealing surface.
- This is critical because it determines the position of the spark inside of the combustion chamber.

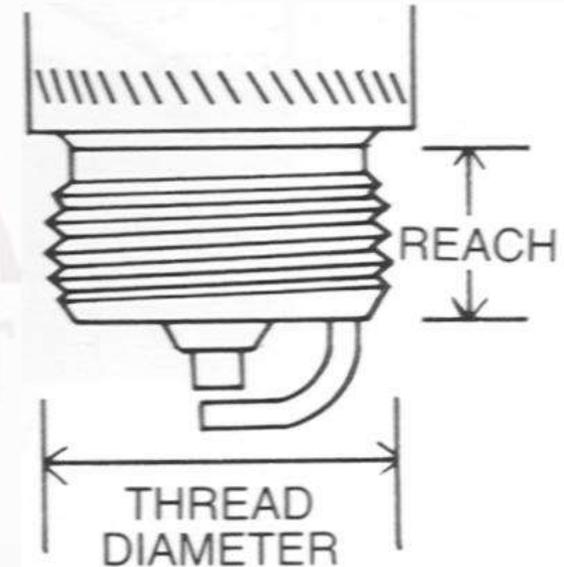


SPARK PLUG REACH



SPARK PLUGS SIZE

- Spark plugs also vary in the size of the thread diameter. 10, 12, 14, and 18mm plugs are being made.
- 14mm are the most common being used in today's cars, 18mm were used on older cars the other sizes being used on small engines.



READING THE PLUGS

- One of the most important things to do when you replace spark plugs during a tune-up is to take a close look at them.
- This is called reading the plugs.



GALGO
UNIVER

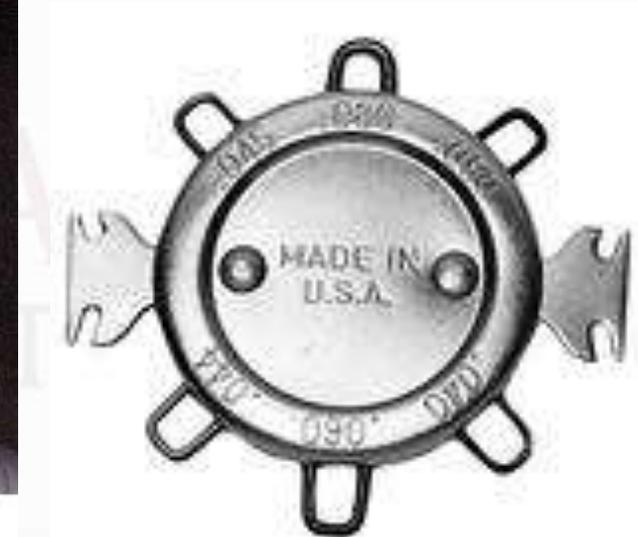
PLUG GAP

- Spark plug gap needs to be checked.
- Older cars will have a gap of .030-.035 with point systems, but newer cars can have gaps of over .060 please check the manual.
- The wider the gap the more voltage needed to fire the plug. The bigger the gap the bigger the match.



PLUG GAP

- Some newer cars use spark plugs with a very thin center electrode be very careful.
- It is best just to replace the plugs when they reach the end of their service life



Spark plug removal

- Remove the spark plug boot by twisting it to break it loose
- Clean around the spark plug (If needed loosen plug one turn and blow out with air gun.)
- Use a steady pressure when removing plug
- Clean threads with a thread chaser if needed
- Do not allow dirt to get into plug hole

Installation of plugs

- Make sure you have the right spark plug
- Make sure the gap is correct
- Use a anti-seize on the threads
- Use a rubber hose or plug boot to help install the spark plug.
- Torque to Specs

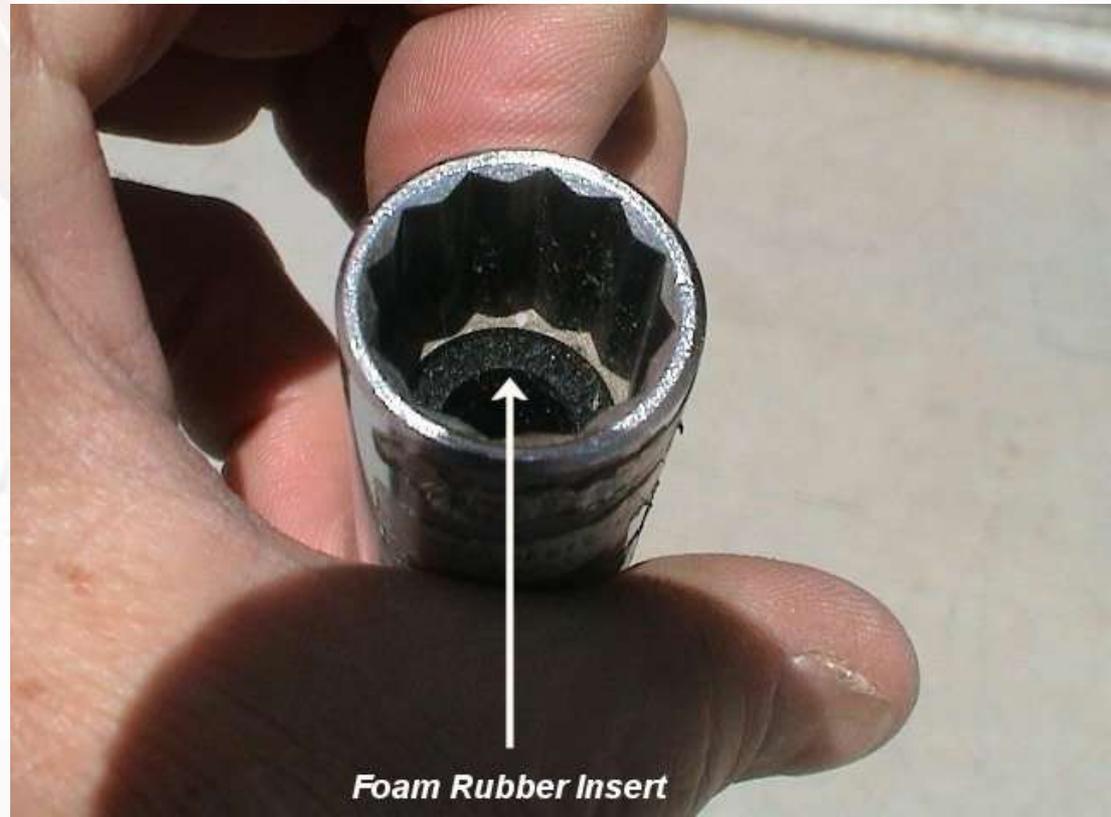


Installation of plugs

- Make sure you use a Spark Plug socket – it has a rubber insert to protect it from breaking.

Picture thanks to

<http://www.4x4wire.com/>



Installation of plugs

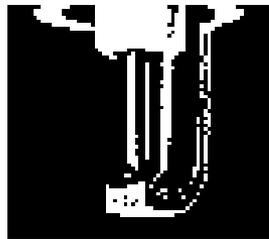
- Sockets come in a variety of sizes the most common are the 5/8 & 13/16



Search the internet or tool catalogs and find out what the other sizes are.

Firing ends (NGK)

FIRING ENDS





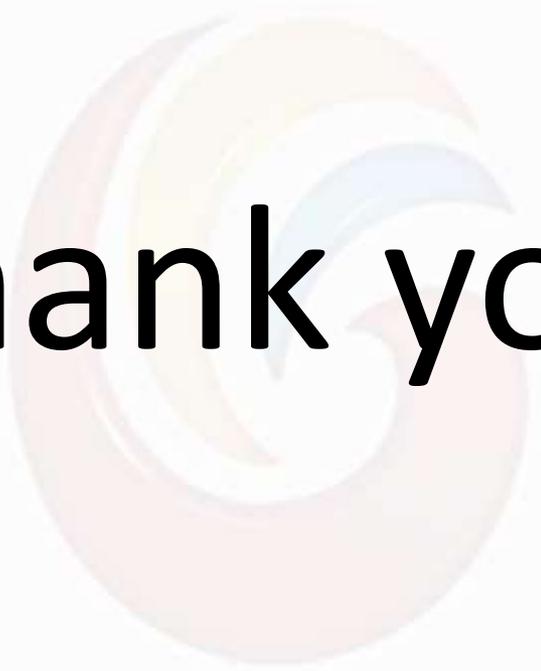
D





References

1. Kirpal Singh (2011), Automobile Engineering, 12th edition, Standard Publications, ISBN: 978-8-180-14177-5.
2. <https://nptel.ac.in/courses/107/106/107106088/>
3. <https://www.coursera.org/specializations/self-driving-cars>
4. William.H.Crouse (2006), Automotive Mechanics, 10th Edition, McGraw-Hill, ISBN: 978-0-07-063435-0.
5. Joseph Heitner (1999), Automotive Mechanics: Principles and Practices, 2nd edition, Affiliated East West Pvt. Ltd, ISBN: 978-8-176-71015-2.
6. Bosch Automotive Hand Book (2007), 8th Edition, SAE Publications, ISBN: 978- 0-7680-4851-3.
7. K. Newton and W. Steeds (2001), The motor vehicle, 13th Edition, Butterworth-Heinemann Publishing Ltd, ISBN: 978-0-080-53701-6

A large, faded logo of Galgotias University is centered in the background. It features a circular emblem with a stylized 'G' shape inside, composed of overlapping curved segments in shades of yellow, orange, and blue.

Thank you

GALGOTIAS
UNIVERSITY