

COMPONENT

U5 MODEL

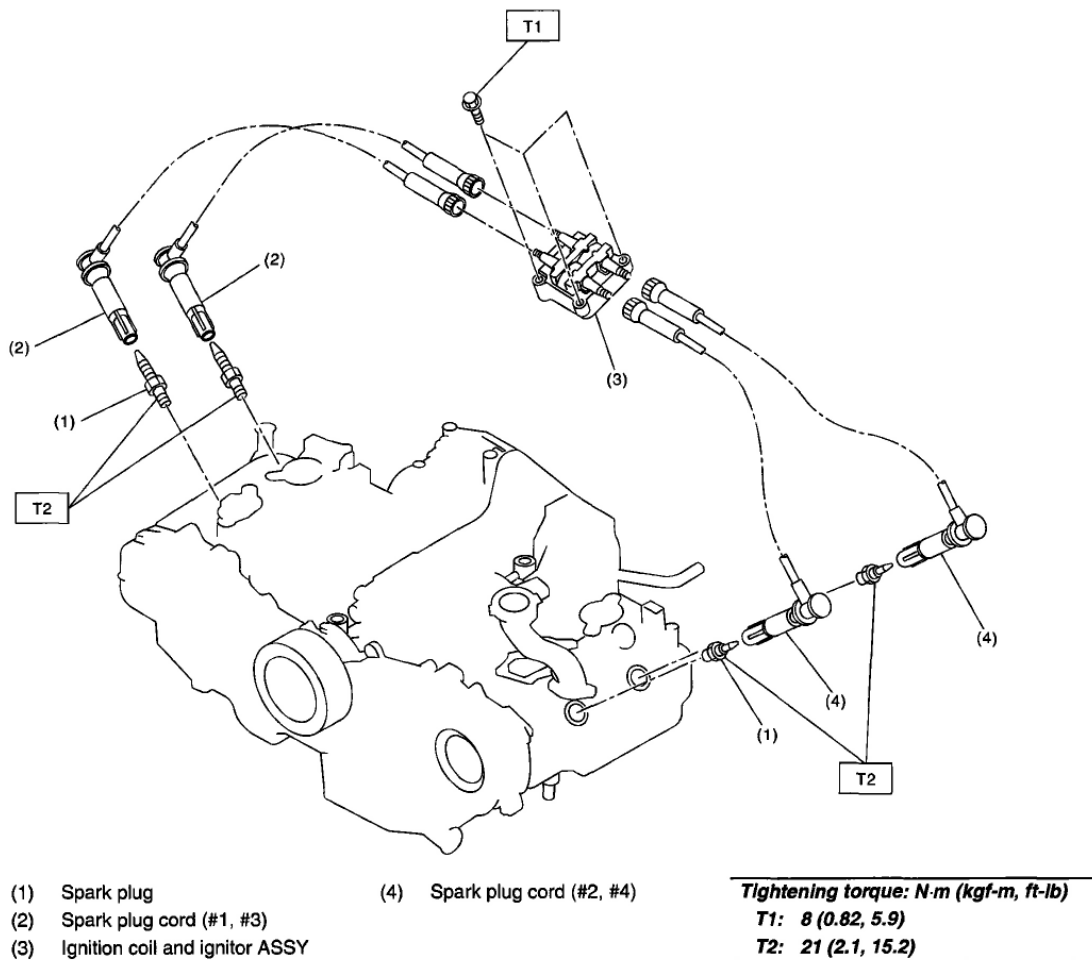
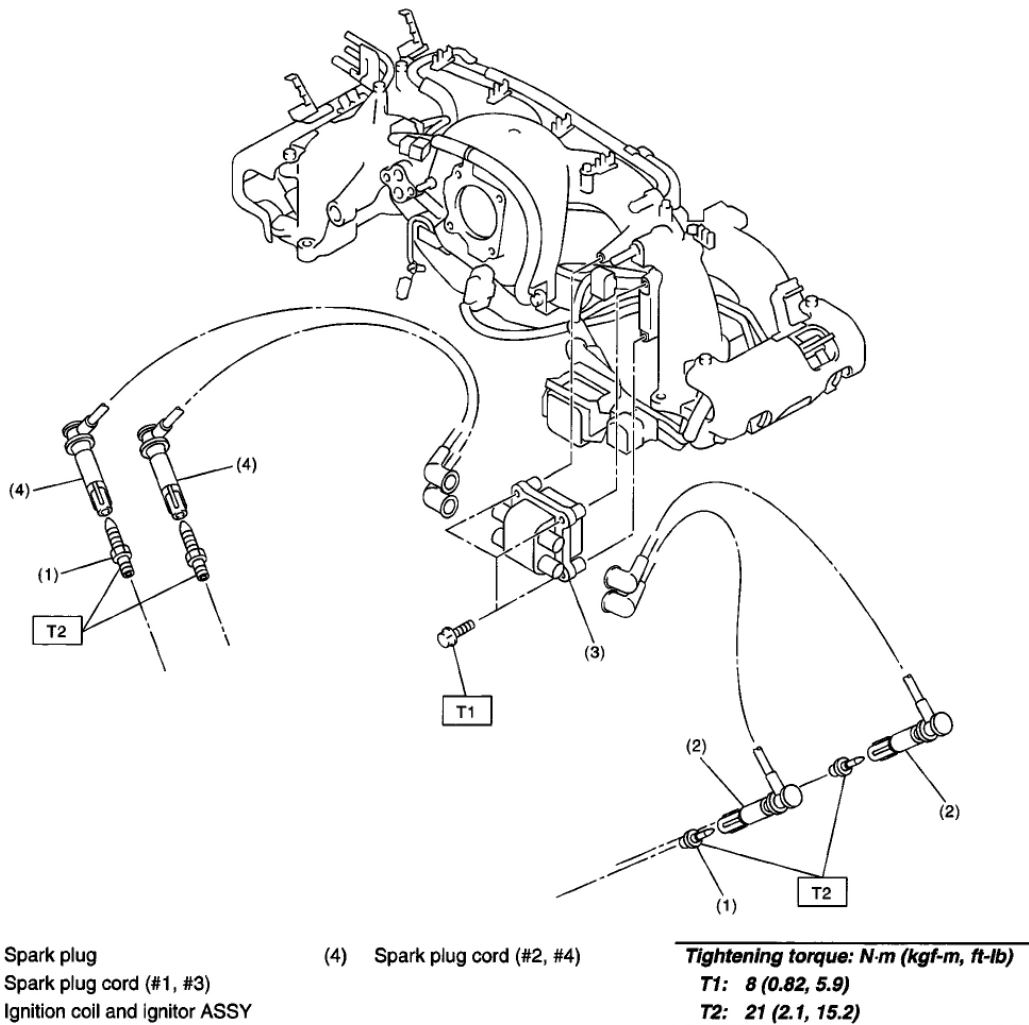


Fig. 1: Identifying Ignition (H4SO) Component (U5 Model)

Courtesy of SUBARU OF AMERICA, INC.

EXCEPT FOR U5 MODEL



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Fig. 2: Identifying Ignition (H4SO) Component (Except For U5 Model)
 Courtesy of SUBARU OF AMERICA, INC.

CAUTION

- Wear work clothing, including a cap, protective goggles and protective shoes during operation.
- Remove contamination including dirt and corrosion before removal, installation or disassembly.
- Keep the disassembled parts in order and protect them from dust and dirt.
- Before removal, installation or disassembly, be sure to clarify the failure. Avoid unnecessary removal, installation, disassembly and replacement.
- Be careful not to burn yourself, because each part on the vehicle is hot after running.
- Be sure to tighten fasteners including bolts and nuts to the specified torque.
- Place shop jacks or rigid racks at the specified points.
- Before disconnecting electrical connectors of sensors or units, be sure to disconnect the ground cable

from battery.

SPARK PLUG

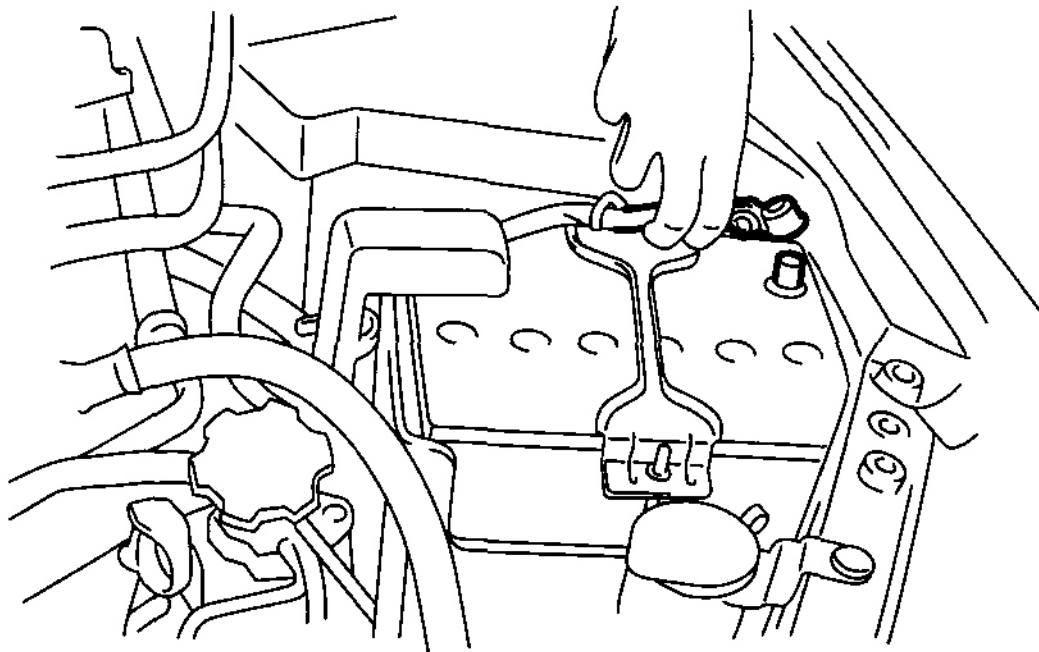
REMOVAL

Spark plug:

< Ref. to , [SPECIFICATION](#), General Description.>

RH SIDE

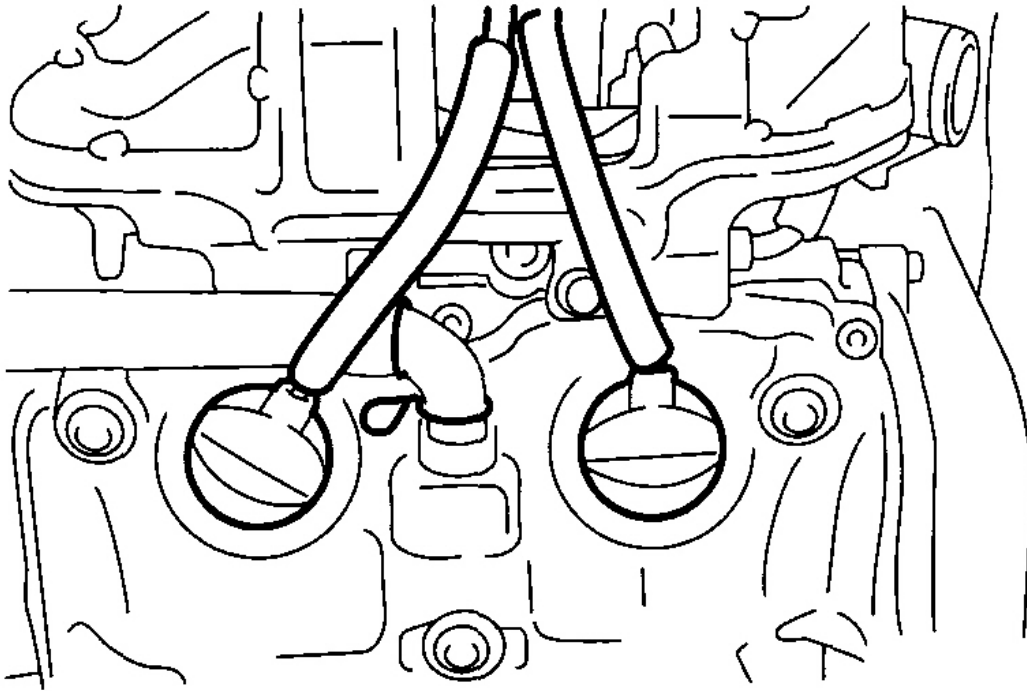
1. Disconnect the ground cable from battery.



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[Fig. 3: Disconnecting Ground Cable From Battery](#)
Courtesy of SUBARU OF AMERICA, INC.

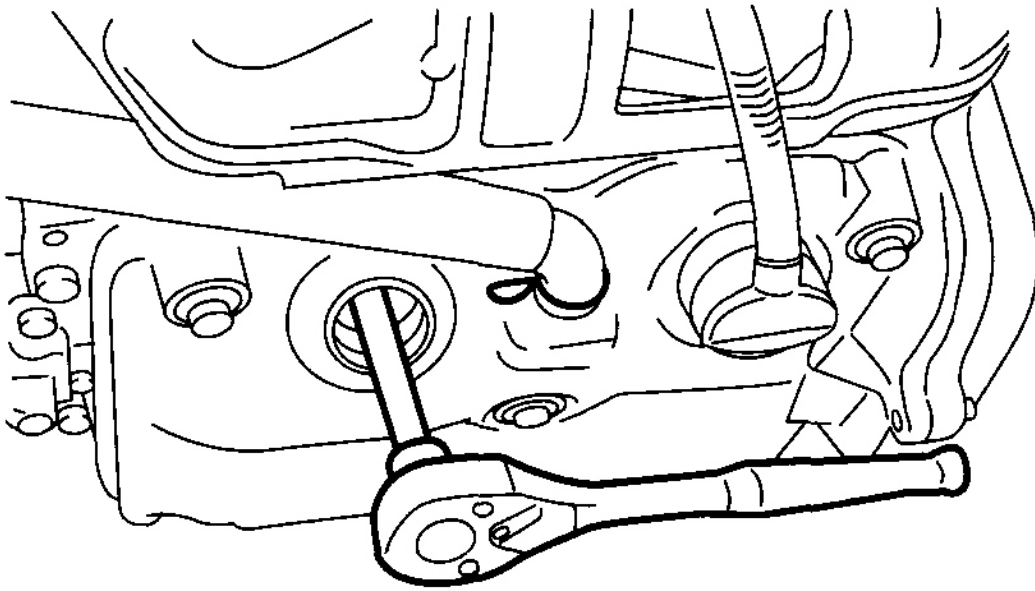
2. Remove the air cleaner case. < Ref. to [REMOVAL](#) , Air Cleaner Case. >
3. Remove the spark plug cords by pulling the boot. (Do not pull the cord itself.)



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Fig. 4: Removing Spark Plug Cords By Pulling Boot
Courtesy of SUBARU OF AMERICA, INC.

4. Remove the spark plug with a spark plug socket.

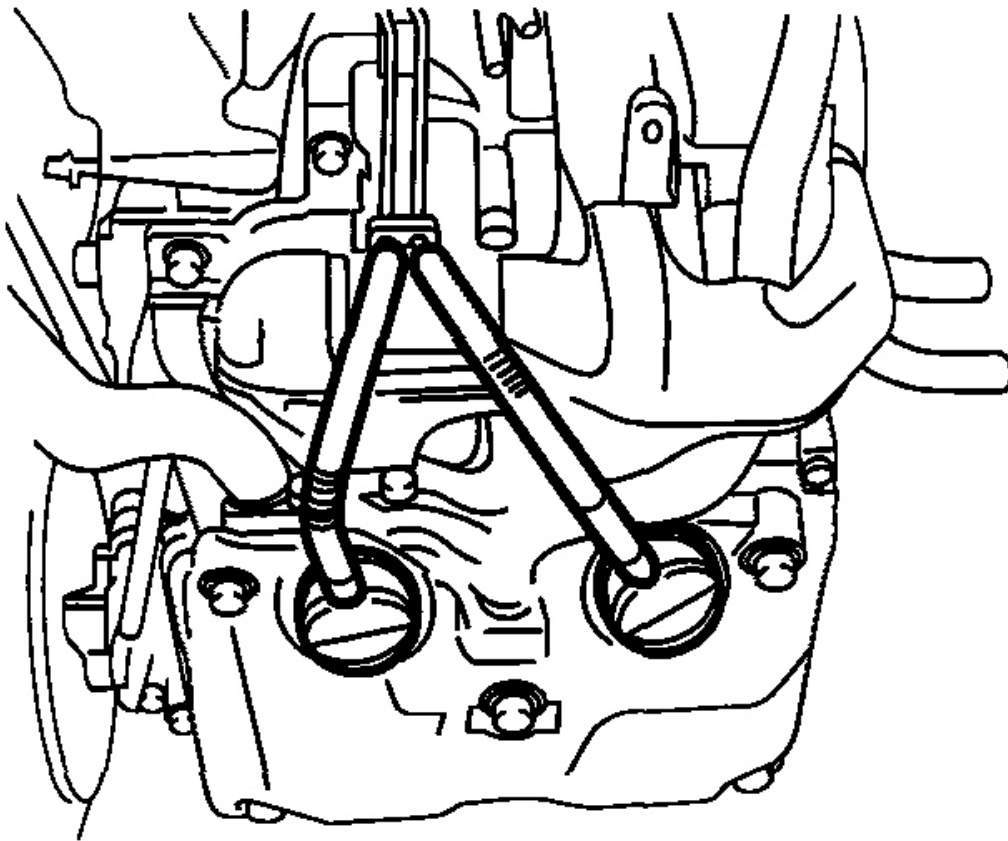


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Fig. 5: Removing Spark Plug With Spark Plug Socket
Courtesy of SUBARU OF AMERICA, INC.

LH SIDE

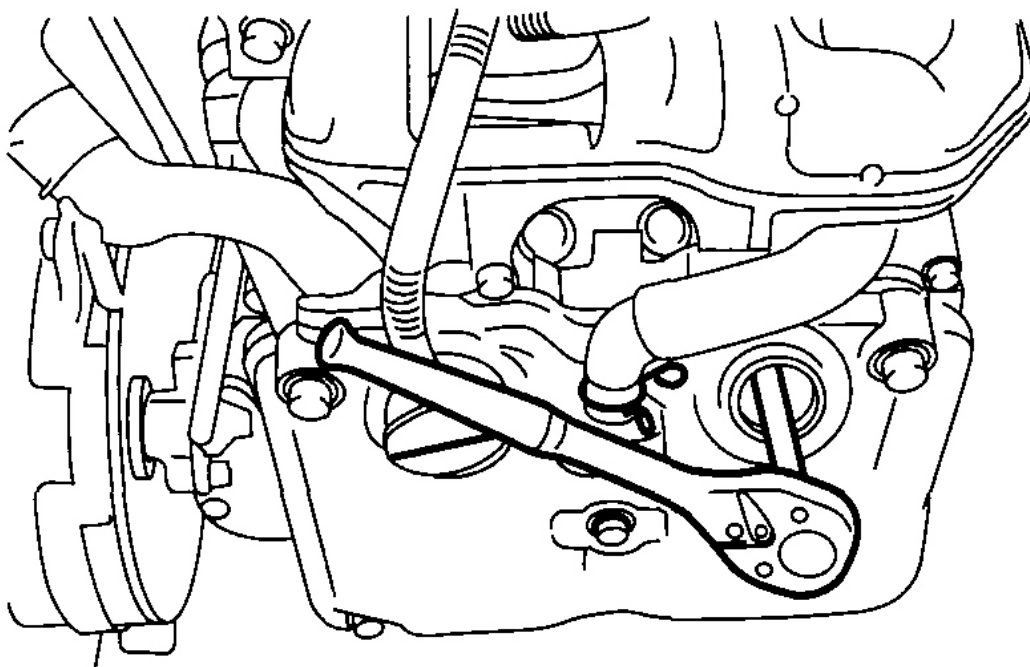
1. Remove the battery. < Ref. to **REMOVAL** , Battery. >
2. Remove the spark plug cords by pulling the boot. (Do not pull the cord itself.)



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Fig. 6: Removing Spark Plug Cords By Pulling Boot
Courtesy of SUBARU OF AMERICA, INC.

3. Remove the spark plug with a spark plug socket.



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Fig. 7: Removing Spark Plug With Spark Plug Socket
Courtesy of SUBARU OF AMERICA, INC.

INSTALLATION

RH SIDE

Install in the reverse order of removal.

Tightening torque:

21 N.m (2.1 kgf-m, 15.2 ft-lb)

NOTE: The above torque should be only applied to new spark plugs without oil on their threads.

In case their threads are lubricated, the torque should be reduced by approx. 1/3 of the specified torque in order to avoid over-stressing.

LH SIDE

Install in the reverse order of removal.

Tightening torque:

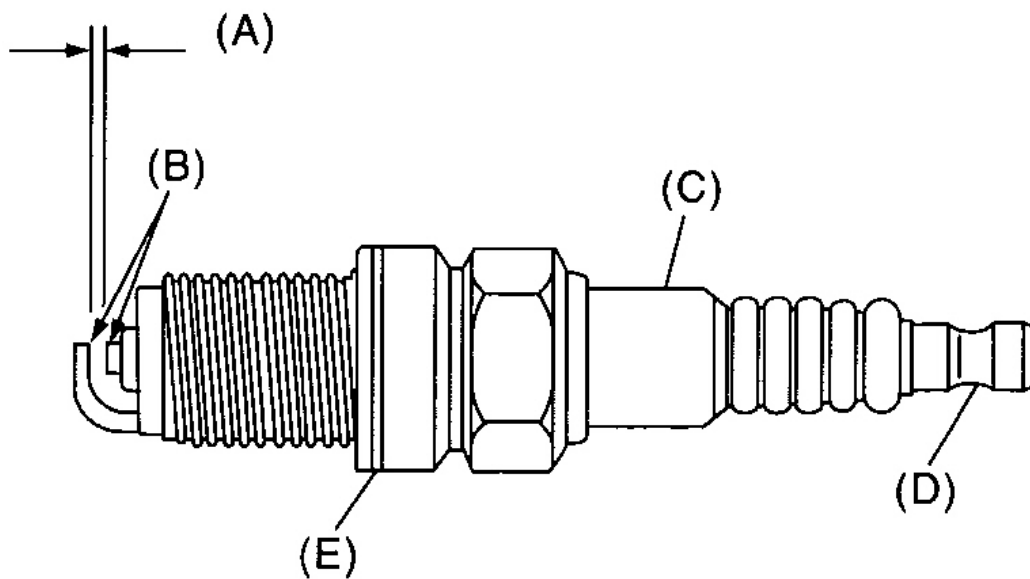
21 N.m (2.1 kgf-m, 15.2 ft-lb)

NOTE: **The above torque should be only applied to new spark plugs without oil on their threads.**

In case their threads are lubricated, the torque should be reduced by approx. 1/3 of the specified torque in order to avoid over-stressing.

INSPECTION

Check the electrodes and inner and outer ceramic insulator of plugs, noting the type of deposits and the degree of electrode erosion.



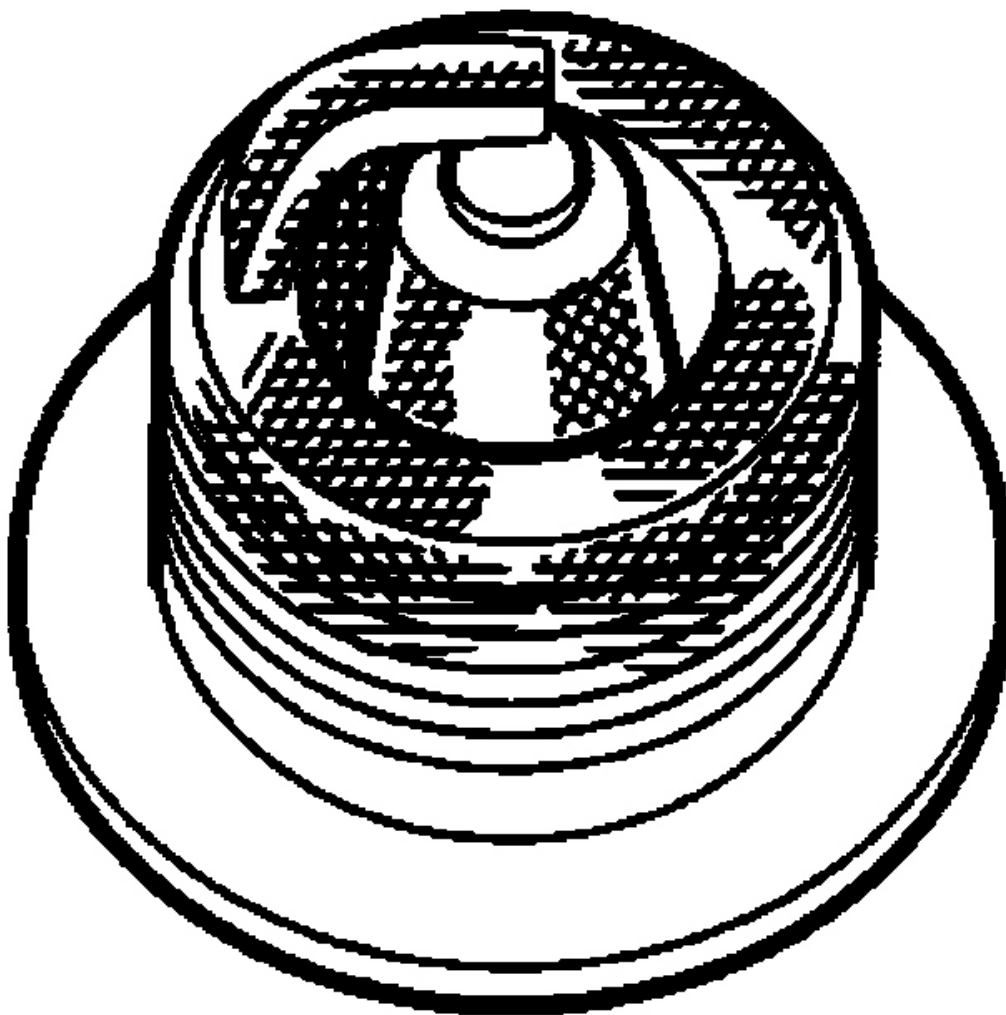
- (A) Spark plug gap
- (B) Carbon accumulation or wear
- (C) Crack
- (D) Damage
- (E) Damaged gasket

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Fig. 8: Identifying Spark Plug Electrodes Gap
Courtesy of SUBARU OF AMERICA, INC.

1. Normal:

Brown to grayish-tan deposits and slight electrode wear indicate correct spark plug heat range.

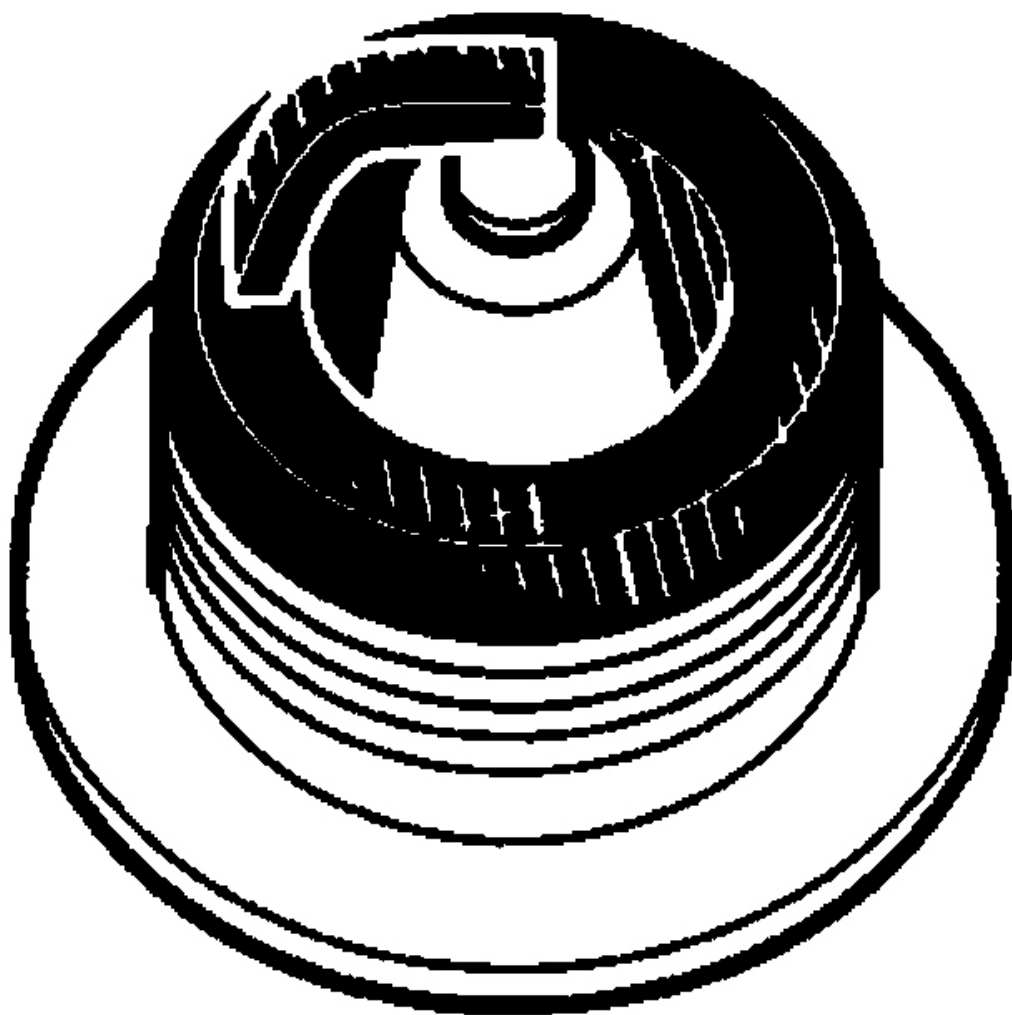


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Fig. 9: Identifying Spark Plug - Normal
Courtesy of SUBARU OF AMERICA, INC.

2. Carbon fouled:

Dry fluffy carbon deposits on insulator and electrode are mostly caused by slow speed driving in the city, weak ignition, too rich fuel mixture and dirty air cleaner.

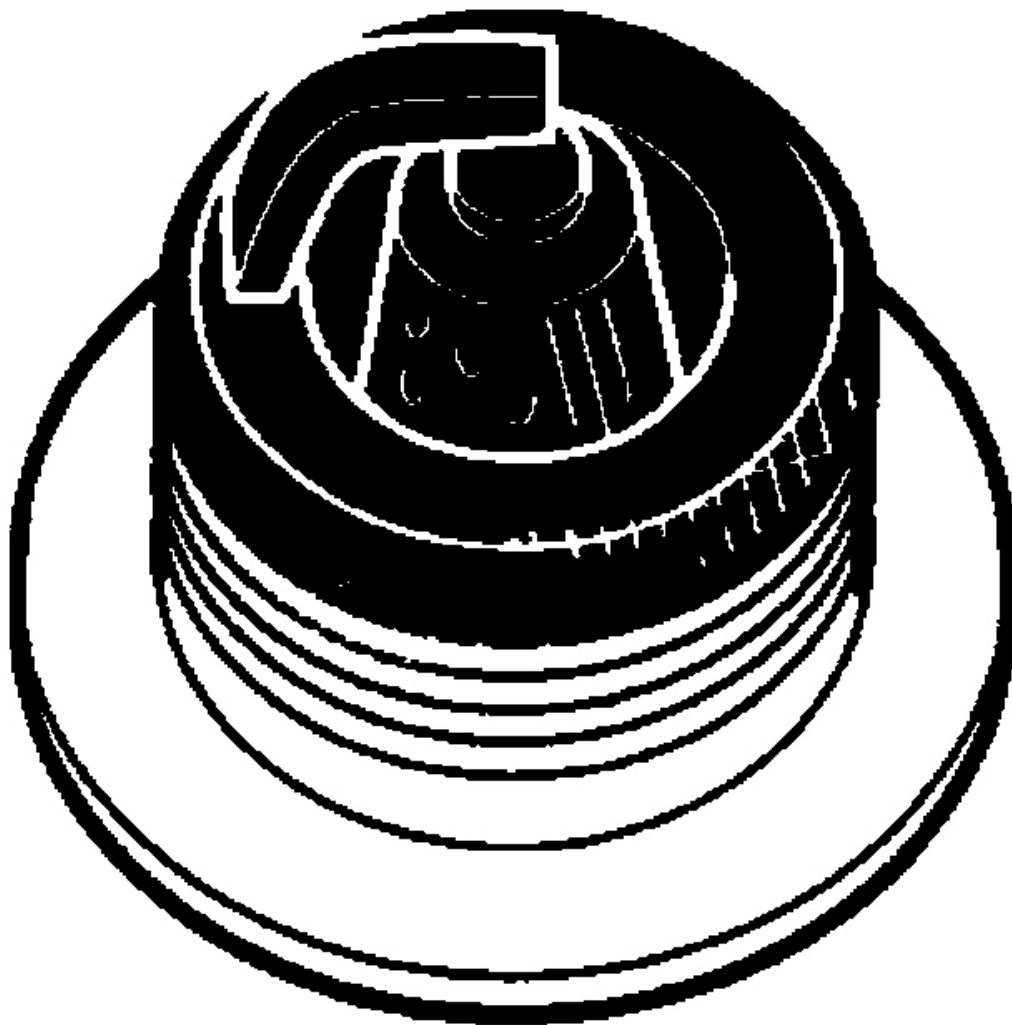


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Fig. 10: Identifying Spark Plug - Carbon Fouled
Courtesy of SUBARU OF AMERICA, INC.

3. Oil fouled:

Wet black deposits show oil entrance into the combustion chamber through worn rings and pistons or excessive clearance between valve guides and stems.

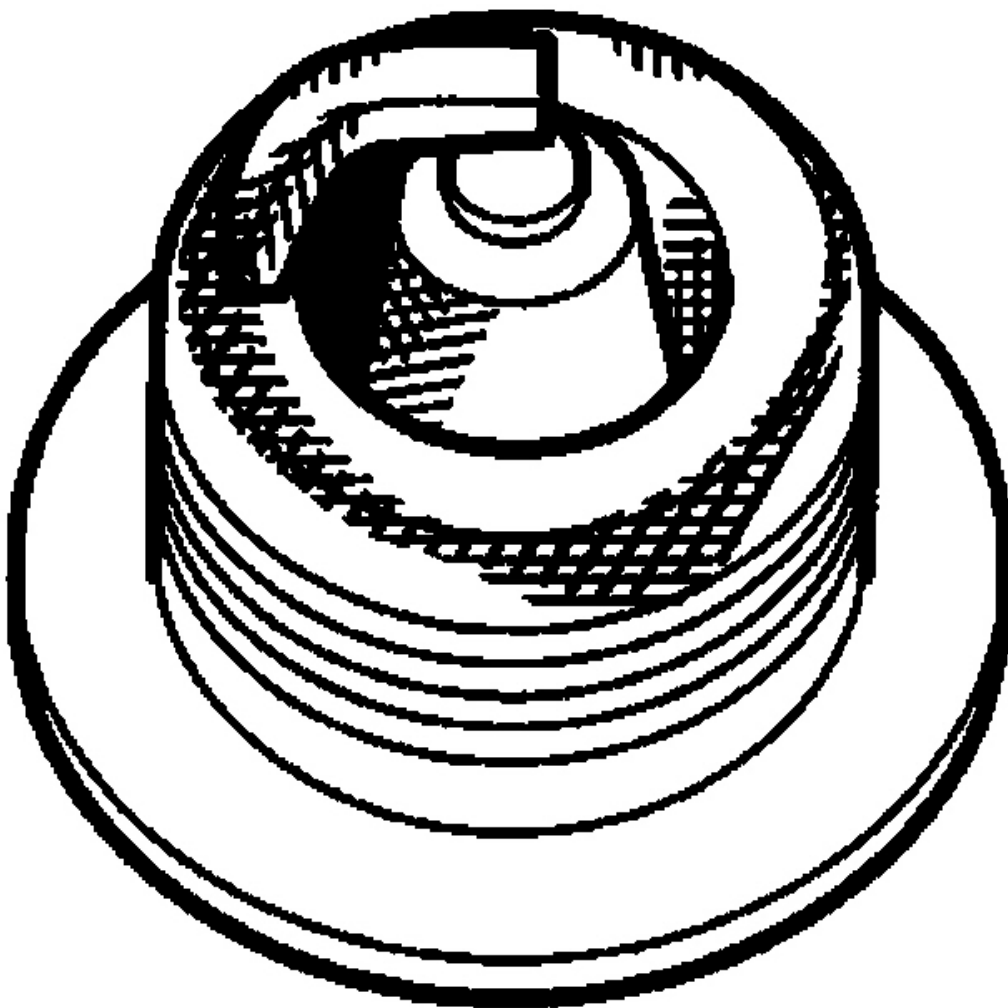


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Fig. 11: Identifying Spark Plug - Oil Fouled
Courtesy of SUBARU OF AMERICA, INC.

4. Overheating:

White or light gray insulator with black or brown spots and bluish burnt electrodes indicate engine overheating. Moreover, the appearance results from incorrect ignition timing, loose spark plugs, wrong selection of fuel.



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Fig. 12: Identifying Spark Plug - Overheating
Courtesy of SUBARU OF AMERICA, INC.

ADJUSTMENT

Clean the spark plugs using a wire brush.

Clean and remove the carbon or oxide deposits.

But do not wear away ceramic insulator.

If deposits are too stubborn, replace the plugs.

After cleaning the spark plugs, correct the spark plug gap using a gap gauge.

NOTE: Do not use a plug cleaner because the spark plugs are applied with platinum tip.

Spark plug gap L:

1.0 - 1.1 mm (0.039 - 0.043 in)

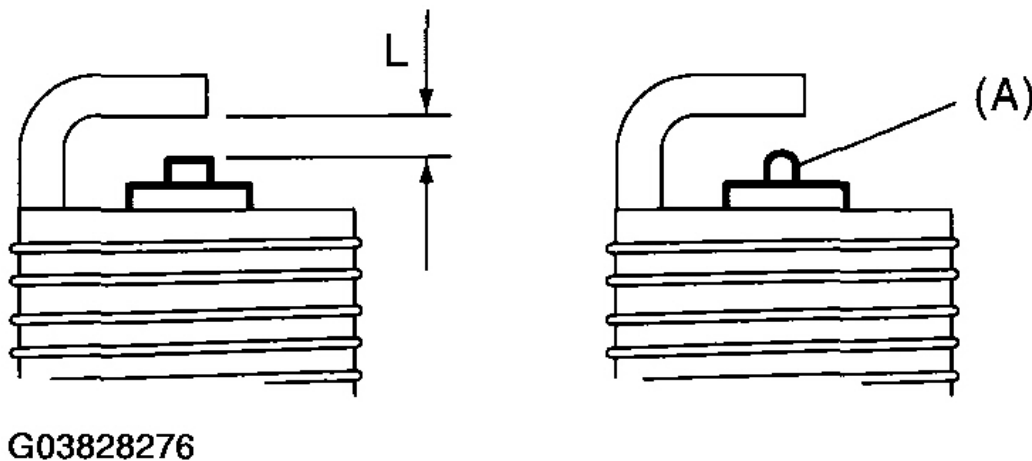


Fig. 13: Identifying Spark Plug Gap L
Courtesy of SUBARU OF AMERICA, INC.

NOTE: Replace with a new spark plug if the area (A) is worn to "ball" shape.