Component Procedures: Ignition Cable

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Component Procedures: Ignition Cable

Parts and Labor (itype_189)

Parts

Qualifier	Part #	Name	Price	Note
Cable Set	56041850AA	Cable Set	41.20	

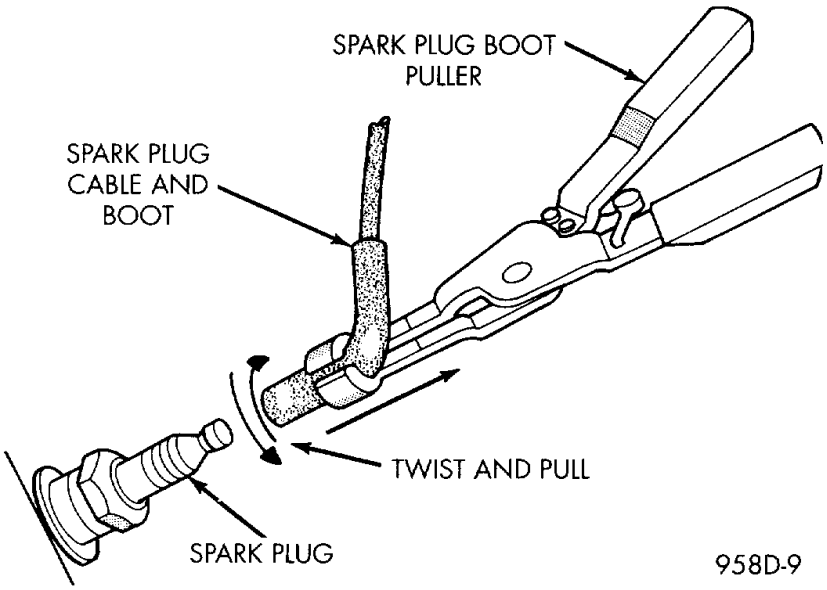
Labor

Operation	Qualifier Path	Skill	Std Hrs	Wty Hrs
Replace	Cable Set, R&R	B	0.3	0.2

Components (itype_392)

SYSTEM OPERATION
Spark plug cable
s are sometimes referred to as secondary
ignition wire
s. These cables transfer electrical current from the
ignition coil
(s) and/or
distributor
, to individual
spark plugs
at each cylinder. The resistive
spark plug
cables are of nonmetallic construction. The cables provide suppression of radio frequency emissions from the
ignition system
.

Procedures (itype_376)



Electrical (itype_27)

Minimum Maximum
Resistance Per Inch 250 ohms 1,000 ohms
Resistance Per Foot 3,000 ohms 12,000 ohms

Component Tests and General Diagnostics (itype_383)

Check the
spark plug cable
connections for good contact at the coil(s),
distributor cap
towers, and
spark plugs
. Terminals should be fully seated. The insulators should be in good condition and should fit tightly on the
coil,
distributor
and
spark plug
s. Spark plug cables with insulators that are cracked or torn must be replaced.
Clean high voltage
ignition cable
s with a cloth moistened with a non-flammable solvent. Wipe the cables dry. Check for brittle or cracked insulation.
Testing
When testing secondary cables for damage with an oscilloscope, follow the instructions of the equipment manufacturer.
If an oscilloscope is not available, spark plug cables may be tested as follows:
CAUTION
: Do not leave any one spark plug cable disconnected for longer than necessary during testing. This may cause possible heat damage to the
catalytic converter
. Total test time must not exceed
ten minutes
.
With the engine running, remove spark plug cable from spark plug (one at a time) and hold next to a good engine ground. If the cable and spark plug are in good condition, the engine rpm should drop and the engine will run poorly. If engine rpm does not drop, the cable and/or spark plug may not be operating properly and should be replaced. Also check engine cylinder compression.
With the engine not running, connect one end of a test probe to a good ground. Start the engine and run the other end of the test probe along the entire length of all spark plug cables. If cables are cracked or punctured, there will be a noticeable spark jump from the damaged area to the test probe. The cable running from the
ignition coil
to the distributor cap
can
be checked in the same manner. Cracked, damaged or faulty cables should be replaced with resistance type cable. This can be identified by the words ELECTRONIC SUPPRESSION printed on the cable jacket.
Use an ohmmeter to test for open circuits, excessive resistance or loose terminals. Remove the distributor cap from the distributor. Do not remove cables from cap. Remove cable from spark plug. Connect ohmmeter to spark plug terminal end of cable and to corresponding electrode in distributor cap. Resistance should be
250 to 1000 Ohms per inch
of cable. If not, remove cable from distributor cap tower and connect ohmmeter to the terminal ends of cable. If resistance is not within specifications as found in the SPARK PLUG CABLE RESISTANCE chart, replace the cable. Test all spark plug cables in this manner.
SPARK PLUG CABLE RESISTANCE
Minimum = Maximum
250 Ohms Per Inch = 1000 Ohms Per Inch
3000 Ohms Per Foot = 12,000 Ohms Per Foot