

YARIS CLUB UK KNOWLEDGE BASE



Spark Plug Replacement

N.B This is intended as a guide only, if unsure please seek professional assistance. Yaris Club uk accepts no liability, all work is carried out at the owners own risk. This how-to was constructed while working on an echo, as a result there is the possibility of differences in some of the photos

Replacement of spark plugs is fairly simple, but the mistakes you can make may cost you. So BE CAREFUL!!

You'll need

Spark plugs (Desno IK16 is what I used. Stock is Denso K16R-U or NGK-bkr5eya), -10mm socket + wrench, -16mm Spark plug wrench, -Plug gap tool (if gapping is required. Not required for iridium), - Anti-seize compound, -12" piece of tubing (optional, but very helpful especially for beginners), -torque wrench (also optional, but highly recommended)

For best results do this when the engine is cool. First thing in the morning is a good idea.

Pop the hood and disconnect the negative battery terminal, and remove the engine cover (10mm bolts)



You should do one plug at a time until you're familiar with what goes where.

Under the engine cover use a brush and towel to clean away dirt and debris so it wouldn't be falling down the spark plug wells. Then use the 10mm socket to remove the 4 bolts holding the coil packs/boots down.



Once all the bolts are out do one replacement at a time. Remove the first boot from the plug by giving

it a twist and pulling it off the plug. (if there isn't enough slack in the wire to pull it out, you can disconnect the clip)



Now you can see the top of the plug



You can insert the spark plug wrench and unscrew the plug counter clockwise



-or-

if it's stuck you can use a wrench (torque wrench in pic) and the 16mm socket on an extension to break it loose.



Once you get it out try not to let anything fall into the cylinder. Once it's unscrewed the plug will stay in the plug wrench (if equipped with rubber grommet) and you can lift it right out. If you aren't using a plug wrench you can use a small section of hose to push down on the end of the plug or some other imaginative device.



Inspect the old spark plug. Here are some examples of what to look for.

Here's a side-by-side of the old and new plug. Notice the rounded electrode on the old plug and the slightly larger gap.

NGK



Denso



Check the gap on the NEW plugs. (old plug shown)
(iridium is pre-gapped)



it should be 0.032 in. on the NGK and 0.044 on
Denso. If it is bigger you can tap the plug on the

electrode to close in the gap



-or-

if the gap is too small you can CAREFULLY pry it open some.



Coat the threads of the plug with a thin coat of anti-seize. This will help on your next change and keep the plugs from getting seized up in the engine. don't go lower then the threads and keep it off the electrodes



Now you can put the new plug in. Lower it down into the hole. Start by turning the wrench counter-clockwise till you feel the threads "pop" a little (that's the starting point of the threads fitting correctly) then turn the wrench clockwise to screw the plug in. If you feel much resistance, unscrew the plug and start over. This is to keep you from "cross-threading" the plug (very bad) and forcing it in where it will almost definitely get seized in the engine (very pricey to fix).



-OR-

Place the tube on the connector end and use the tube to get a proper seating. If the threads are not aligned the tube will slip and not force the plug into damaging cross-threading.

Once the plug is screwed in you can use the torque wrench to tighten it to 13 ft lbs (184 kgf cm)

-or-

Place the tube on the connector end and use the tube to get a proper seating. If the threads are not aligned the tube will slip and not force the plug into damaging cross-threading.



Once the plug is screwed in you can use the torque wrench to tighten it to 13 ft lbs (184 kgf cm)

-or-

after it's hand-tight tighten it 1/2 a turn more.

Snap the boot back on top snug. Bolt down the igniter. Re-connect the harness.



Repeat for each plug then re-connect the battery