

# 2001 LEXUS IS300 Automatic Spark Plug Replacement Procedures

DISCLAIMER: The procedures, methods and products written up here was for my circumstances only and were performed on a 2001 Automatic. I make no promises that your results will be the same nor do I claim that this is the best way to do it. USE AT YOUR OWN RISK!

Time Required: 2 hours

## ***Parts Needed:***

Plug Part Number I used: Denso IK16-5303

Denso Part Number from JoeZ: Denso - SK16R P11

## ***Tools Needed:***

- 3/8" ratchet
- 3/8" wobble or universal joint
- 10" and 6" 3/8" extension
- 10mm std and deep socket
- 12mm std and deep socket
- 5/8" spark plug socket
- 5mm Allen wrench (hex wrench)
- (2) 14mm combination wrenches
- Light
- Grease
- Rags
- Throttle Body Cleaner

Begin with a cool car. The throttle body and the rest of the top of the engine get fairly hot and it makes it much easier if the car is fully cool.

Step 1. Remove the engine cover. There are (4) 10mm acorn nuts holding the cover on.



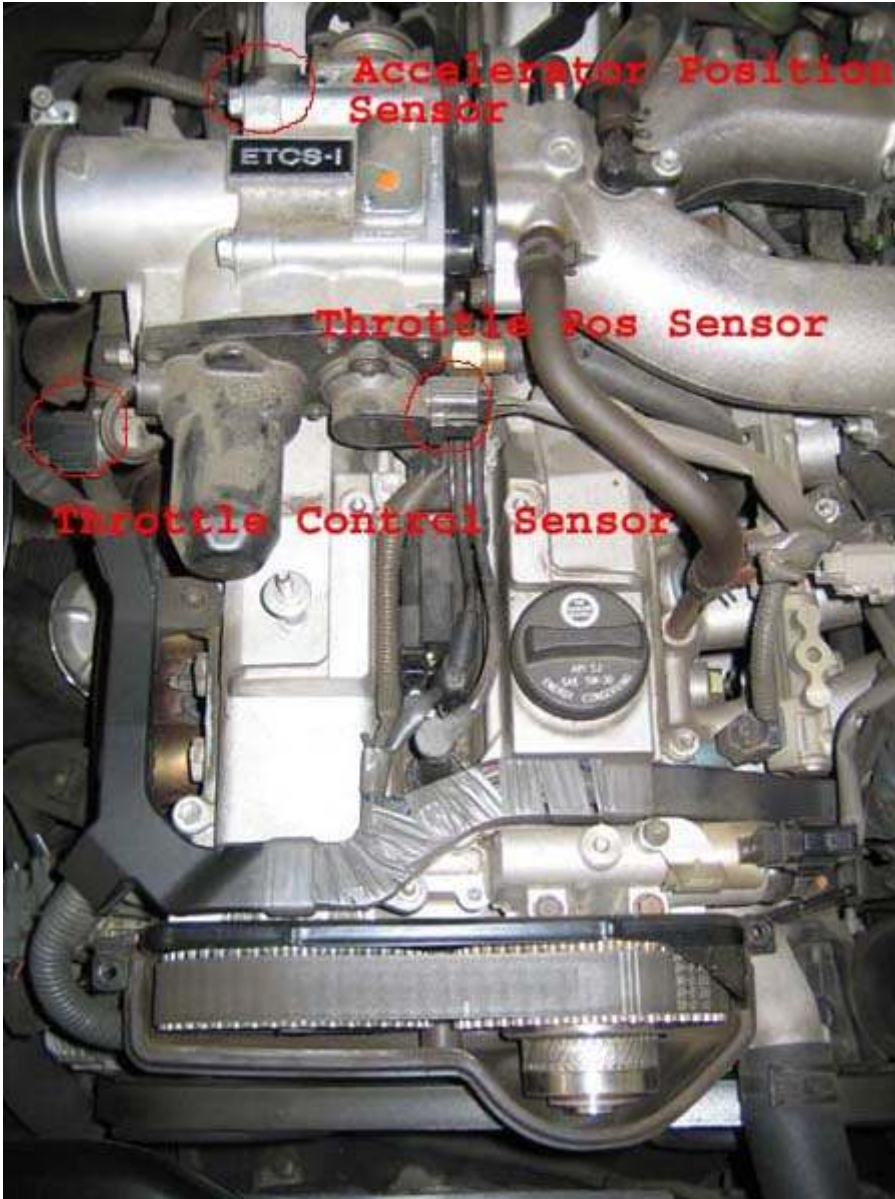
Step 2. Next remove the timing belt cover. There are (4) 5mm allen key screws holding the cover on.



Step 3. Remove the intake tube/resonator. There are two hose clamps that use a 10mm bolt. Remove the PCV hose by squeezing the hose clamp with your fingers and wiggling it back toward the back of the car. Pull the intake tube towards the front of the car and angle it up. It should come off fairly easily, however if it proves difficult, unbolt the intake filter box and it should come out much easier.



Step 4. Disconnect the three connectors attached to the throttle body. 1. Accelerator Pedal Position 2. Throttle Position Sensor 3. Throttle motor controller.



Step 5. Remove the throttle cable. Rotate the throttle cable manually so that there is a large amount of slack in the cable and remove it from the body.



Step 5a. Use two 14mm combo wrenches and remove the cable from the cable support. Loosen the driver's side as the passenger side nut has thread lock and will be very difficult to move.

Step 6. Remove the Engine wire clamp. There are (4) 12mm nuts attaching this to the throttle body and the engine block. It is better to "snap" or "jolt" these bolts rather than applying constant pressure. These are likely to be tight but once freed, they will turn easily.



Step 7. Remove the top two bolts on the Throttle Body. There are (2) 12mm bolts that pass through the throttle body that extend to Throttle body gasket.



Step 7a. Remove the bottom nut on the Throttle Body. There is a single 12mm nut directly under the intake butterfly.



Step 8. You are supposed to remove the water bypass hose from the clamp that is deep

under the intake. I could not do this. It would not come off, but I was able to complete the job anyway.

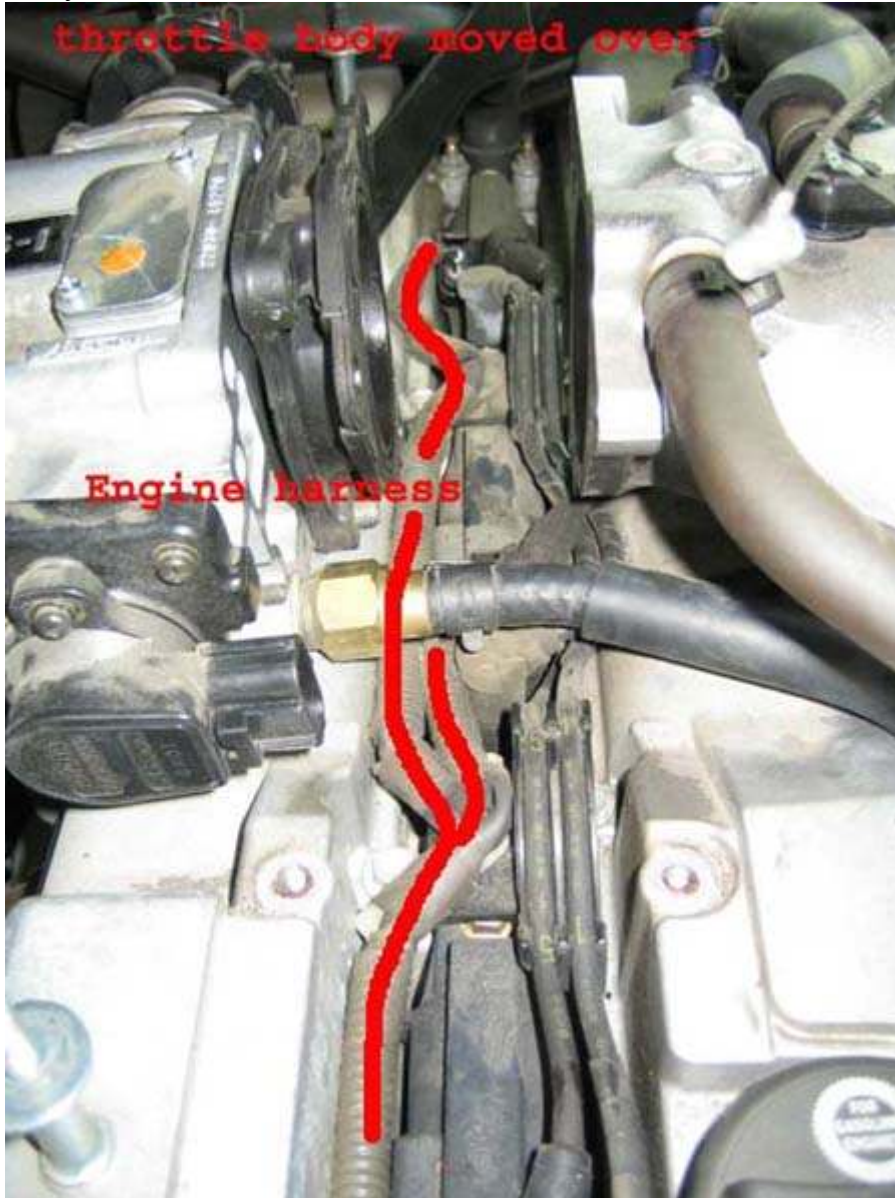
Step 9. At this point the throttle body assembly should be free from the engine. There are two coolant hoses attached to this that you want to keep attached. Do not remove unless you intend on changing coolant and bleeding the system. You should be able to slide the throttle body towards the passenger side of the car ~3".

Step 10. Remove the throttle body gasket. There are (3) 12mm bolts that hold the gasket on. The top two are easy to get to. You will need to use a standard socket. The bottom bolt is positioned about 7-o-clock on the gasket. After I loosened this bolt, I found it easier to use my bare hand to remove the bolt as there is not a lot of room for the socket. Once the gasket is free, slide it toward the passenger side of the car. You should now be able to have full access to the high tension wires, the 3 coils, and the plug wires.





Step 11. Disconnect the engine harnesses first. There are three harnesses, one attached to each coil. I bent a coat hanger to help remove the harness directly under the throttle body. Press on the release button and use the hook to pull up on the harness. It will release easily, don't force it.



Step 12. Once the harnesses are free, you will now have access to undo the (2) 10mm bolts that hold on the wire guides.

Step 13. Remove the plug wires from the coil (This is not the same as removing the plug wires from the plug. I again used the coat hanger to pull up on the plugs. There is a clip under the lower lip of the locking plug. Pull up and away from the coil. Don't apply too much pressure. These too will slide off easily.

Step 14. Remove the high tension wires and the plug wires from the wire guides and move the engine harness wire away. You can lift the throttle body and pull the engine harness and the wire guides out from the spark plug channel.

Step 15. Remove plug wires and coils. There are (3) 10mm bolts holding each of the 3 coils onto the engine. Remove each. The one closest to the firewall will need either a wobble extension, or a universal joint. When removing the high tension wires and plug wires, keep them in their relative position. You can mark them with tape, but I found this unnecessary. Just keep things in order here.





1 of 2 wire guide bolts

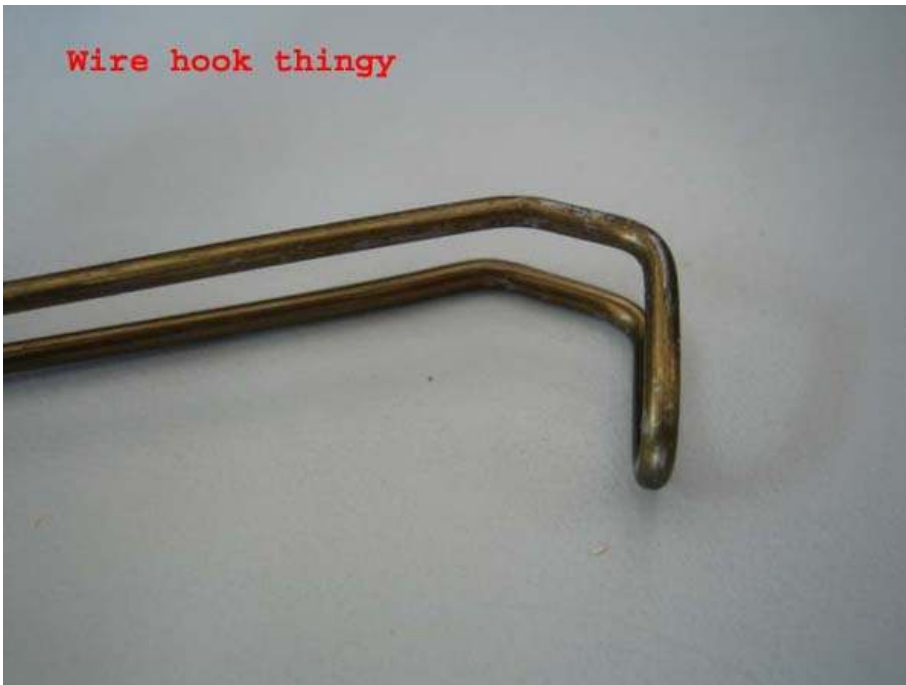
1 of 2 wire guides

Hook thingy pulling up on the high  
tension harness.



Pull up and away on this thing.

Wire hook thingy





Step 16. You should now be able to see 6 plugs. If your engine is like mine, there is a ton of road dirt and debris in the plug channel. I vacuumed mine out so things would not get into the engine. Remove each plug carefully. The plug closest to the firewall will need a wobble or universal joint to get it out.

Step 17. Install new plugs. Some say to put anti-seize on the threads. I don't and have never had a problem. If you have never installed plugs before, very carefully lower the plug (already attached to the socket) into the hole. Don't just drop it in there as you could hit the center electrode and bend it. (bad) Once seated, turn the plug by hand \*COUNTER-CLOCKWISE\*. The object here is the feel the click as the first thread of the plug drops into the first thread in the top of your engine. You will feel a distinct click. Only then, turn \*\*BY HAND\*\* clockwise. You should be able to get 8 full revolutions before you start to get to the point where you need to use a ratchet. If the plug starts to get tight before 8 revolutions, back it out as you may have cross threaded the plug. If you are doing this by hand, and you should be, it is very hard to cross thread. It should feel smooth all the way up to the 8th turn. Plugs should be tightened to 13 ft. lbs.

Step 18. The plug nearest to the firewall is the hardest. Use the 6" extension and thread it in by hand. Once tightened, you will need to use a wobble or universal joint to torque the plug.

Step 19. Clean the coil and plug wire gaskets. I use silicon grease after they have been cleaned to keep the rubber pliable. If you don't have silicon grease, just clean and reinstall.

Installation is the reverse order.

Optional tasks:

- Before you put the throttle body back on, use a clean rag and the throttle body cleaner and spray the back of the butterfly. Wipe out the grime until the butterfly and the body are both clean. Do the same on the filter side of the butterfly.

- Grease the (4) 5mm allen bolts and the (4) 10mm acorn nuts that hold on the top covers. These seem to corrode the most and this will keep them moveable until the next 60k when you do this again.