



1997–2003 Lexus RX Lamp Failure Sensor Repair

This guide will show you how to successfully repair a Lexus RX 300 Lamp Failure Sensor.

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INTRODUCTION

If your Lexus RX 300 experiences a failure of all brake lights at once, then you are more than likely experiencing an electrical issue with a component called the “Lamp Failure Sensor.” This guide will show you how to successfully repair the issue with items most people already have laying around the house.

TOOLS:

- [11mm Wrench \(1\)](#)
- [Work Gloves \(1\)](#)
- [Large Needle Nose Pliers \(1\)](#)
- [Flathead Screwdriver \(1\)](#)
- [Solder \(1\)](#)
- [Portable Soldering Iron \(1\)](#)
- [Ventilated Workspace \(1\)](#)

Step 1 — Required Tools



- The following tools are required for this repair. (Listed from left to right)
- Work Gloves, 11 mm Wrench, Needle Nose Pliers, Flathead Screwdriver, Soldering Iron with Solder
- Make sure the car is turned off before beginning this repair to help prevent getting shocked or electrocuted.
- You may also undo the battery terminals if you wish to be extra cautious, but turning the car off and removing the key should keep any electrical charges from entering the section of the car you will be working on.

Step 2 — Remove Plastic Cover of Tire Well



- Starting in the car's trunk space, remove the plastic cover keeping the upholstery attached to the rear wheel well cover on the driver's side.

Step 3 — Remove Latch Covering



- Pop off the covering located near the latch on the driver's side of the trunk.
- Underneath you will find 2 small black plugs keeping the upholstery attached to the car's frame. Remove them using the screwdriver to pry them out carefully so as not to damage the plugs.

Step 4 — Remove Floor Panel and Power Cover



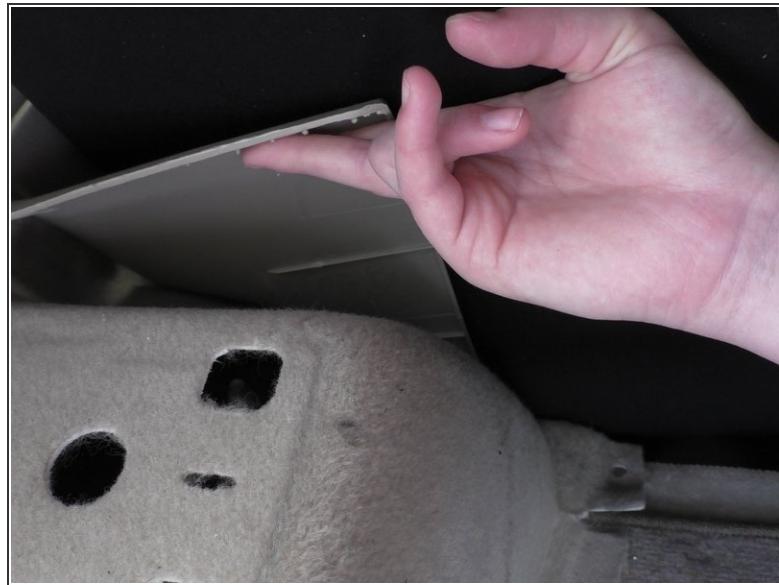
- Lift up and remove the covering keeping the electronics covered using the small fabric pull tab located near the center of the side closest to the car power outlet above it.
- (Your car will more than likely have a small plastic covering surrounding the outlet that will keep you from removing the upholstery later. My car was missing several pieces when I bought it second hand so it is not pictured here. It can be removed relatively easy using the same screwdriver and prying technique used in the previous step.)

Step 5 — Remove Lower Bolts



- Next, lift up the panel covering the spare tire compartment using the small handle located beneath the carpet directly behind the door's latch. This will reveal 2 to 3 bolts holding down the upholstery to the car's metal frame.
- (The number may vary due to model year or alterations) My vehicle only has 2 but still has a hole for a bolt that I have placed in it to demonstrate.
- Use the 11 mm wrench to undo the bolts and release the bottom of the part. Make sure to keep all of the bolts and plugs somewhere they will not be lost before reassembly. I recommend a Tupperware container or a bowl.

Step 6 — Remove the Last Anchor to the Car Frame



- Temporarily closing the spare tire compartment, move back towards the area where we removed the plastic covering in step 2.
- Using a bit of force, the plastic that is covering the back of this area can now be detached from the upholstery.

Step 7 — Removing the Upholstery Covering



- Keeping the back plastic covering lifted away from the part, shift and pull the part free from the vehicle. (It may require a bit of shimmying.) Don't pull hard enough to risk damaging the part. It may still be attached if you have missed a plug or bolt. Double check that you have gotten them all before trying again.
- The part should now be free of the car, exposing the rest of the electronics located in the car's rear. Set the upholstered part aside for reassembly later.

Step 8 — Locate and Reveal the Lamp Failure Sensor



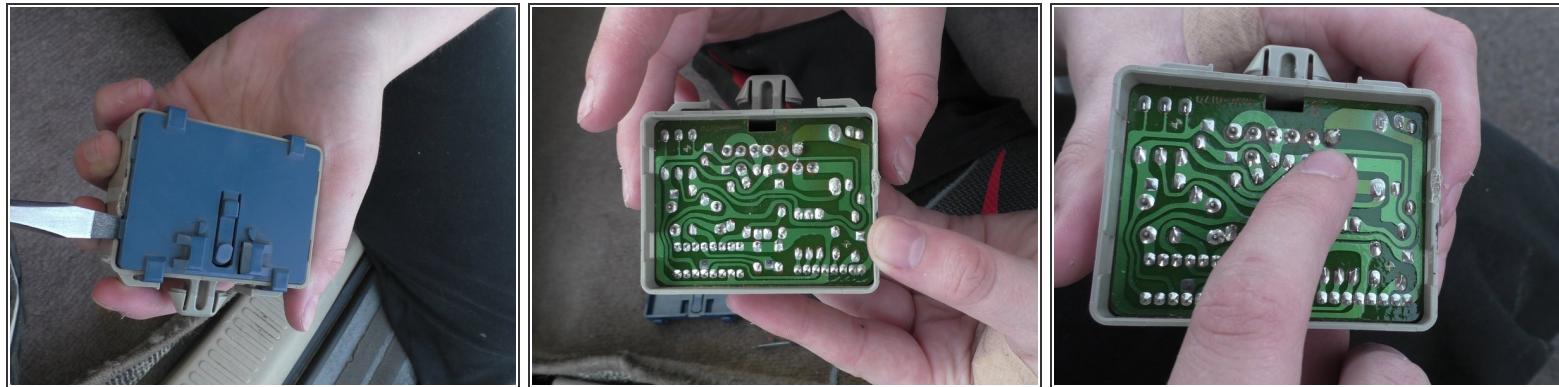
- Reach up under the remaining hood of plastic in the space between the power outlet and the tire well cover. There will be a plastic square box clipped into the side of the car. This is the Lamp Failure Sensor.
- Pull the part free from where it is clipped to the inside of the car and carefully pull it down and out into the open where you can handle it. There is a cord attached to the back, so be careful not to damage or snag it during removal.

Step 9 — Detach the Cords



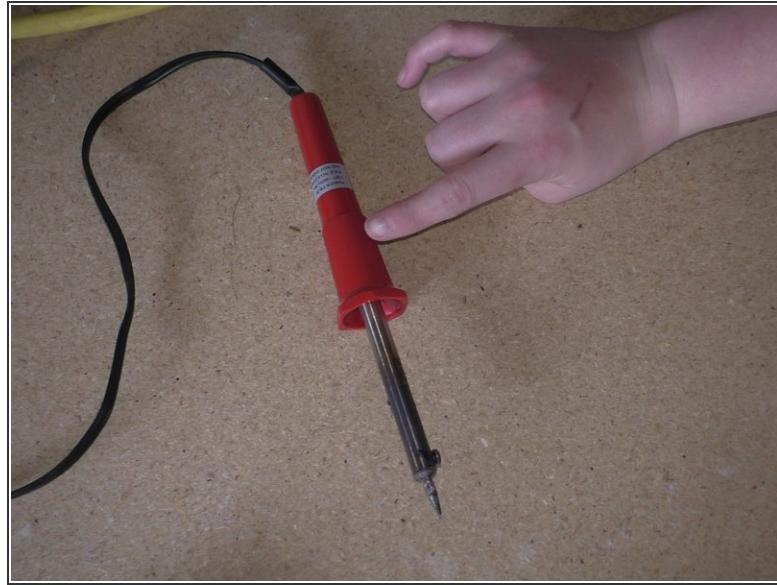
- The cord is attached in the back of the box with a plastic clip. Depress the tab on the side of the clip and remove it from the port. This may take some effort if the part is still factory tight in its socket. Take your time and be careful not to pull the wires out of the white clip.

Step 10 — Remove the Cover and Assess the Damage



- Flip the sensor over to the side with the blue cover and remove it using the Flathead screwdriver to pop the cover up and off. Do Not do this in an area with excessive moisture or dust to minimize the risk to the sensitive components inside.
- This will reveal the circuit board. This picture shows where the pin in question will be located for this model. It is already fixed here because it is illegal to drive without brake lights and the car needed to be used as soon as possible.
- It will be very obvious if this is the issue as the pin shown here will have a dark, burnt looking ring around it where the solder has melted away and the pin is no longer touching the board.
- (Think of it like the board game *Operation*. The metal pin, like the tweezers, needs make contact with the metal sides in order to close the circuit and turn on the light. The same is true for the brake lights. The lack of solder is causing a break in the circuit, preventing the brake lights from turning on.)

Step 11 — Heat the Iron



- Make sure you have a dry, well-ventilated area to work for the next step. You can use a mask if you are especially sensitive to the solder fumes. DO NOT directly breath in the solder fumes. They are toxic in large quantities.
- Plug the soldering iron into an outlet and set it in an area where it will not risk melting or igniting its surroundings. Allow to heat fully before using.
- Only touch the iron in the designated spaces. The metal can cause severe burns if it makes contact with your skin.

Step 12 — Solder the Pin



- Put the glove on your non-dominant hand. You can hold the solder with the gloves or with a set of needle nose pliers.
- Touch the solder lightly to the tip of the iron to prime it.
- Touch the iron to the pin to heat it, then touch the solder to the pin. (DO NOT touch the iron directly to the solder)

Step 13 — Place the Sensor Back in the Car



- Replace the cover on the sensor and reattach the cord to its port.
- Start the car and depress the brakes while someone else watches to see if they light up. If they do, then the repair is complete, and you can follow this disassembly guide backwards to replace all the parts in the vehicle.
- If they do not light up, there may be an issue with the bond or another problem with the lights entirely. Try to solder the connection again. If multiple attempts fail, there is another issue with the brake lights that has presented at the same time. Additional help may be required from a professional source.

To reassemble your device, follow these instructions in reverse order.