

J30 Headlights Acting Strange

Most of the headlight problems can be related to headlight relay. Headlights going off & on, flickering, one side comes on & the other side doesn't or the high beam indicator light on the dash staying on all the time. The relay is made up of a circuit board and contactors in a housed unit. The most common problem with the relay "going bad" is the solder joints. The relay can be repaired in most cases, by re-soldering all the joints on the circuit board. The solder joints are large & access to the circuit board is gained by carefully removing the housing.

The headlight relay (E44 in diagram below) is located under the hood where the left (driver) fender meets the firewall. The cruise control throttle actuator blocks the access to the relay. The relay is a black box about 3" square with 2 wire connections on the bottom that are not visible until the relay is un-bolted from the left fender. To remove the relay, do this:

- 1) Un-bolt the cruise control throttle actuator. Remove the (3) headlight relay 12mm nuts with a deep-well socket. They are located inside the left wheel well, above the left front tire. Look closely, 2 nuts are visible & the other one may be hid.
- 2) Remove the cruise control throttle actuator. Under the hood, grip the cruise control throttle actuator and pull up on it. Move the cruise control throttle actuator out of the way. It will still have a line connected to it.
- 3) Un-bolt the 10mm bolt holding the headlight relay. Remove the headlight relay.
- 4) Un-plug the 2 wiring harness connectors located on the bottom of the relay. The 2 wire connectors are different sizes. 1 connector has 4 connections & 1 has 6 connections. **Pay attention to the seals when un-plugging the 2 wire connectors. The seals may fall out. If they fall out, simply push them back in the connector.**
- 5) The relay is now removed from the vehicle.

One of two things can be done to address the relay problem. 1) It can be replaced with a new one. You should be able to get the relay for about \$25 shipped from www.everythingnissan.com. They didn't have the relay listed on their website, but if you call them @ 1.888.216.5328 they do have it.

- 2) Repair the relay by disassembling it, and re-soldering the circuit board joints. To repair the relay, do this:
 - A) Remove the cover that houses the wire connector prongs by pulling it off
 - B) Take a slotted screwdriver & pry slightly, around where the wire connector prongs enter the circuit board housing. Pull on wire connector prongs and the circuit board will separate from the circuit board housing. The circuit board housing could chip while trying to pry it. If this happens, silicone once the repair is made. Make sure the repaired has checked good before the silicone is applied to the chipped circuit board housing. It may take several attempts to get the solder joints correct.
 - C) Re-solder all the solder connections. They are all very large. Just re-heating each connection until they melt could be sufficient.

****Note:** After re-soldering all the circuit board joints, Re-install the relay to check the repair. Check the 2 wiring harness connectors that connect to the relay to see if they are loose. Wiggle the wiring harness connectors with the headlights on high beam & check for headlight flicker or the high beam indicator on the dash going off and on. If there is a problem with loose connections, solder can be added to each circuit board prong to take up the slack when connected to the wiring harness connectors. There is a possibility of adding too much soldering to the prongs and the prong housing will not fit. If this happens, take a small file & file until the prong housing fits properly. Another method for tightening the wiring harness connectors is to use a 90-degree "O" ring tool (also known as a scribe) to pry each connector out. Make sure the headlight switch is in the off position before trying the "O" ring tool (scribe) method.

- D) Slide the circuit board back in to it's housing.
- E) Replace the prong housing.

It is time to re-install the new/repared relay:

- 6) Plug the 2 wiring harness connectors in.
- 7) Bolt the relay back to where it was removed.
- 8) Turn on the headlight switch & check to see if it works properly, including the high beam.
- 9) If the relay checks "good", re-install the control throttle actuator & tighten the 3 nuts in the fender well.

HARNES LAYOUT

ENGINE COMPARTMENT

Engine Room Harness

