Technical Bulletin



SERVICE BULLETIN		
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HEADLAMP FOGGING

This bulletin has been amended. The APPLIED VEHICLES section has been revised, and a brief description of headlamp assembly bulb types has been added. No other changes have been made. Please discard previous versions of this bulletin.

APPLIED VEHICLES: 2011-2017 Nissan – All models

SERVICE INFORMATION

Occasionally customers may notice water vapor or fog in the headlamps.

The following information, illustrations, and flow chart are provided to help you in determining if an incident for water/condensation in the headlamps is normal or not.

Nissan's New Vehicle Limited Warranty does not cover physically damaged (cracked or broken) headlamps.

All current headlamp assemblies are vented to the atmosphere (not sealed).

- This is necessary to allow for expansion and contraction of air from temperature "variations" (warmer or colder) without damage to the headlamp.
- Moisture in the air sometimes "travels" into and out of the headlamp assembly through these vents.
- Certain environmental conditions may cause moisture to condense.
- The fogging/cloudiness should disappear over time when the headlamp is in a dry environment.

Nissan Bulletins are intended for use by qualified technicians, not 'do-it-yourselfers'. Qualified technicians are properly trained individuals who have the equipment, tools, safety instruction, and know-how to do a job properly and safely. **NOTE:** If you believe that a described condition may apply to a particular vehicle, DO NOT assume that it does. See your Nissan dealer to determine if this applies to your vehicle.

Fog may temporarily form inside the lens of the headlamp assemblies based on environmental conditions or sudden temperature changes (such as in a car wash, or parked on a cold, sunny day). This is normal. See Figure 1.

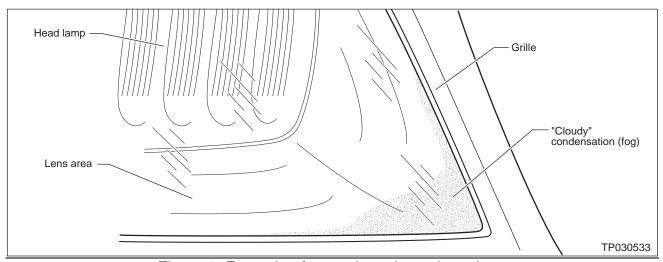


Figure 1: Example of normal condensation, ok

NOTE: This condensation can appear anywhere on the outer lens, typically at its coldest location.

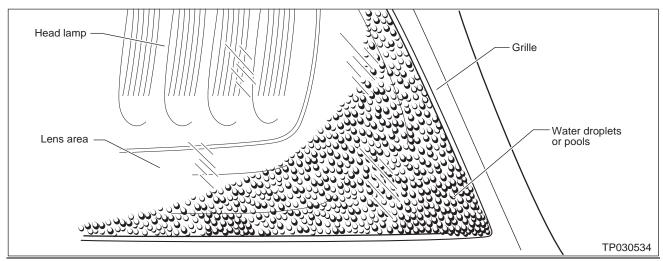


Figure 2: Condition may not be normal

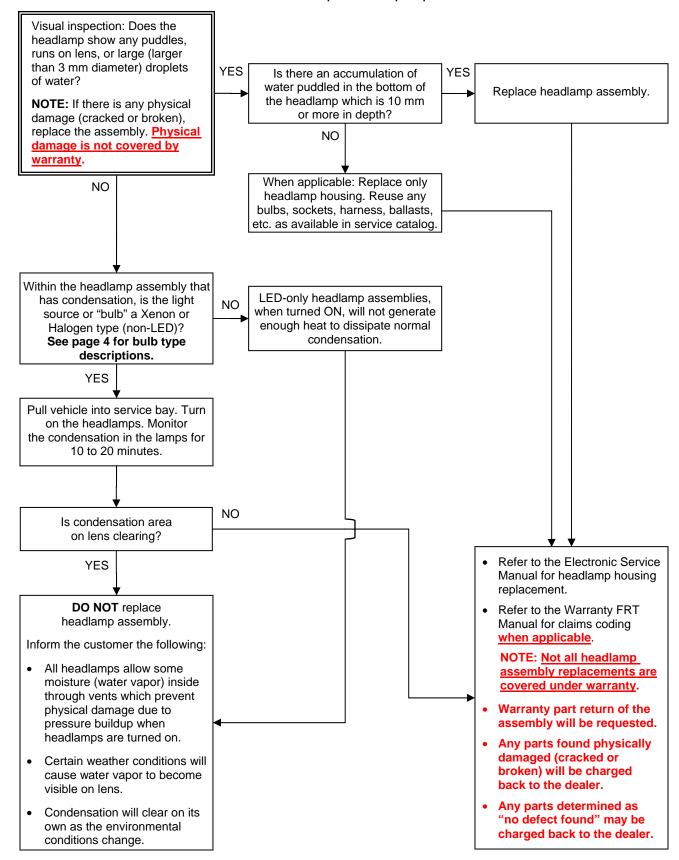
If the moisture trickles, drips, or pools, it may not be considered normal and the headlamp assembly may have a water leak path. See Figure 2 for an example.

If large drops of water collect inside the lens, refer to the flow chart on page 3 to find the next step.

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SERVICE PROCEDURE

Should a customer note water in a headlamp assembly, please use the following flow chart to determine if the condition is normal or requires lamp replacement.



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Headlamp Assembly Bulb Types and Identification

NOTE: Headlamp assemblies can be a combination of the bulbs described below.

Halogen bulb

Halogen bulbs use a conventional filiment that produces light when electricity is passed through it.

This type of bulb can be identified as follows:

- Has an internal filiment inside the bulb.
- When turned OFF the filiment may briefly glow as it cools off.
- No external Control Module or HID Control Unit is needed to operate them.

Xenon bulb

Xenon bulbs do not use a filament. Instead, they produce light when a high voltage current is passed between two tungsten electrodes through a mixture of Xenon (an inert gas) and certain other metal halides.

This type of bulb can be identified as follows:

- Has no filiment, but instead has two opposed electrodes that are housed in a capsule the size of a pea, and then is enclosed inside a secondary glass bulb.
- When turned ON, will illuminate immediately and then over the period of several seconds continue to brighten until it has reached its maximum rated output.
- When turned OFF, no afterglow will be present.
- Has an HID Control Unit; usually attached to the headlamp assembly.

LED (Light Emiting Diode) bulb

LED bulbs are semiconductor devices, which illuminate when forward bias electric voltage is applied.

This type of bulb can be identified as follows:

- Has no filiment or electrodes as described for Halogen or Xenon bulbs.
- When turned ON, the bulb reaches maximum rated output immediately.
- When turned OFF, light output immediately stops; no afterglow present.
- Has a Control Module; usually attached to the headlamp assembly.

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