

# Technical Service Bulletin

Mazda North American Operations  
Irvine, CA 92618-2922



<b>Subject:</b> <b>CONDENSATION / FOG IN FRONT AND REAR COMBINATION LAMPS          (HEADLAMP AND TAILLAMP ASSEMBLIES)</b>	<b>Bulletin No.:</b> 09-003/19
	<b>Last Issued:</b> 03/15/2019

## BULLETIN NOTES

This bulletin supersedes the previously issued bulletin(s) listed below. The changes are noted below in Red beside the change bars.

Previously Issued TSBs:	Date(s) Issued	Previously Issued TSBs:	Date(s) Issued
09-003/19	01/03/2019	09-003/2013	03/04/2013
09-011/18	03/22/2018	09-046/12	12/21/2012
09-001/17	08/09/2017 and 01/13/2017	09-005/11	02/07/2011
09-013/16	01/26/2016	09-057/10	12/23/2010
09-003/16	01/25/2016	09-016/09	11/19/2009, 03/20/2009 and 03/26/2009
09-049/14	11/24/2014	09-007/08	02/11/2008
09-007/14	01/24/2014		

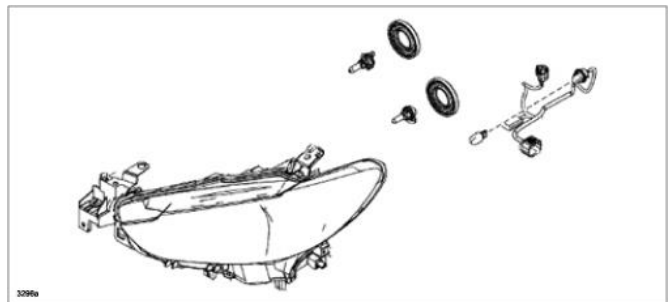
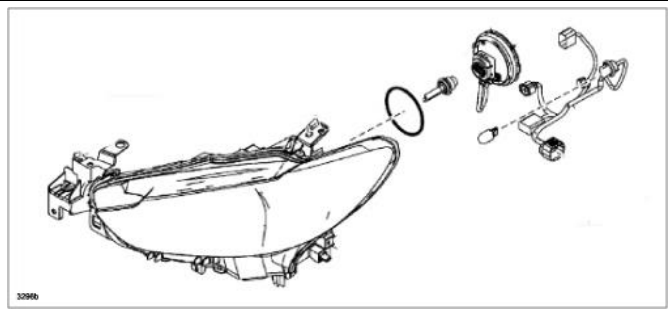
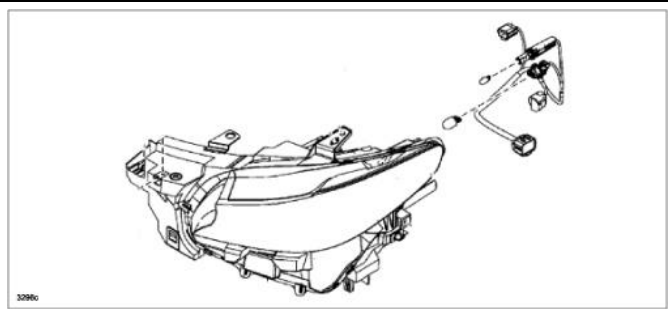
## APPLICABLE MODEL(S)/VINS

2011-2014 Mazda2	2003-2019 Mazda6	2007-2012 CX-7	2016-2019 CX-3
2004-2019 Mazda3	2006-2019 MX-5	2007-2019 CX-9	
2006-2015 Mazda5	2013-2019 CX-5*	2004-2011 RX-8	

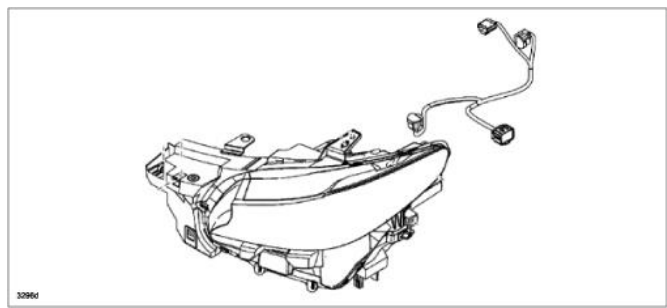
\* For additional repair information regarding rear combination light fogging on 2017-2018 CX-5 vehicles with VINs lower than JM3KF\*\*\*\*\*356208 (produced before Feb. 6, 2018), refer to TSB 09-014/19 - REAR COMBINATION LIGHT(S) ARE FOGGY. Ensure that the appropriate repairs found in TSB 09-014/19 are completed before returning the vehicle to the customer.

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Replacement headlamp assembly applicable to this bulletin

<p>Halogen Headlamp + Bulb Type Turn Signal lamp</p>	
<p>Discharge Headlamp + Bulb Type Turn Signal lamp</p>	
<p>LED Headlamp + Bulb Type Turn Signal lamp</p>	

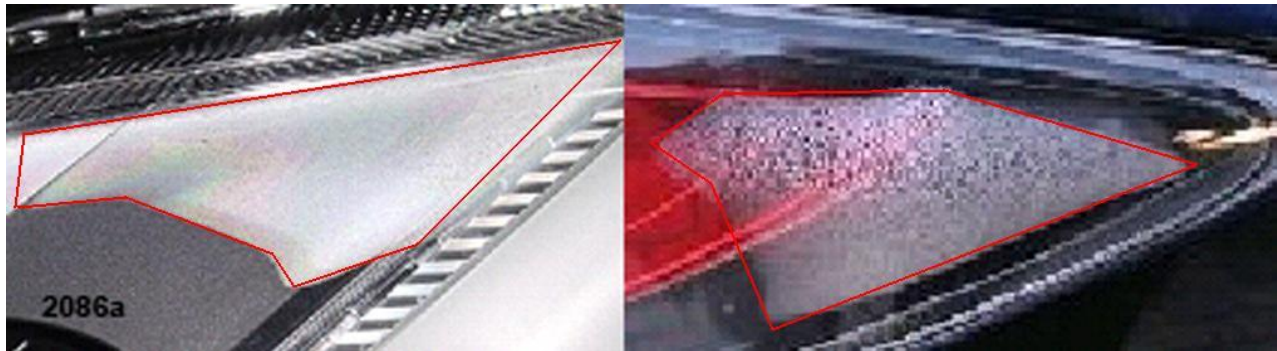
Replacement headlamp assembly not applicable to this bulletin

<p>LED Headlamp + LED Turn Signal lamp</p>	
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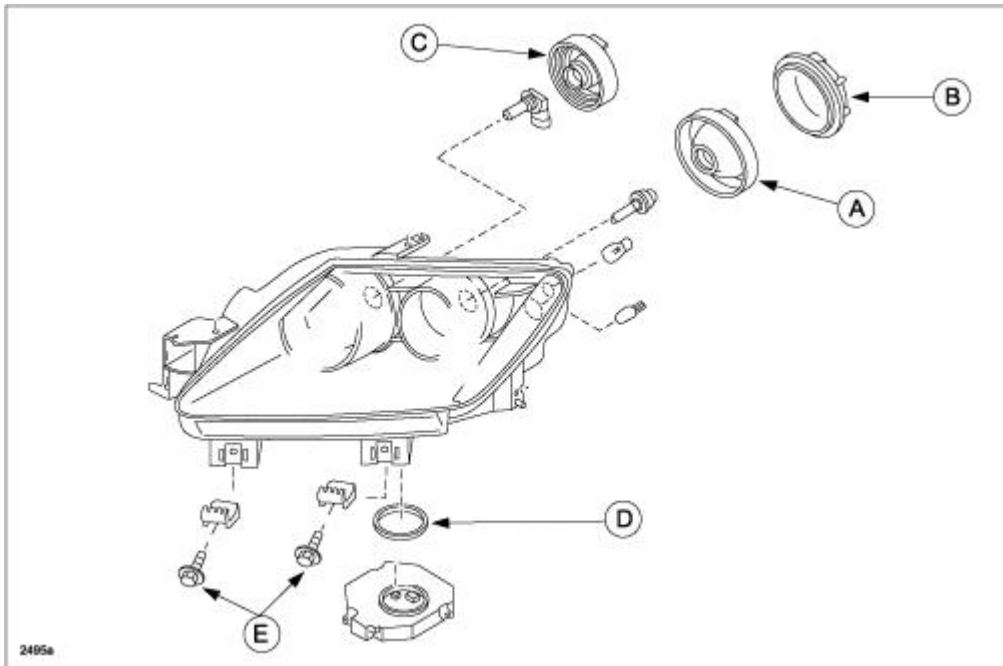
## DESCRIPTION

Some customers may complain of condensation/fog inside the front (headlamp/headlight) or rear (taillamp/taillight) combination lights. The recent new models have been fitted with a clear lens which can cause the symptom to be more noticeable, however, it does not affect the performance of the light. This condensation/fog is a natural phenomenon that occurs when there is a fairly large temperature difference between the inside and the outside of the light housing. It is normal for very small water drops to appear in certain locations on the light units where the air is stagnant (condensation), making the lens look whitish (fog). This happens mostly in the corners and narrow spaces, and will typically clear during warmer ambient temperatures, or when the lights have been on for some time.



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When dealing with customer complaints of excessive condensation and/or water within the headlamp unit, first determine if all the bulb sockets (including O-ring), seals and covers are present and correctly installed. In most cases you will find that the Bulb Seal No. 1 (A) or HID Bulb Seal No. 1 (B) and Bulb Seal No. 2 (C) socket covers have not been correctly installed or are missing due to improper prior repairs (i.e., customer replacing the headlamp bulbs or body shop not transferring them when replacing the headlamp unit(s) due to a collision). Any damage caused by missing socket covers, HID module seal (D), or missing bumper brackets (E) is not covered by warranty policy. If none of these issues exists, explain to the customer that this is a natural phenomenon and not a quality defect. DO NOT attempt repairs as this is considered normal, and is NOT covered under Warranty. Replacing the light unit will not correct this symptom.



**NOTE:** LED headlamp assembly with LED turn signal lamp replacement part include seals. Seal transfer is not required.

## DETERMINATION / TESTING

### NOTE:

- The location where the bulbs are fitted has a high air volume with good air circulation, therefore, if a large or heavy amount of condensation appears here, the light unit should be replaced. A small amount of condensation here is considered normal and should clear after the lights have been on for some time and the light unit should not be replaced. Refer to the following pictures for examples.
- If the outside conditions are unfavorable (cold and damp), even fog (dew concentration) as shown in the following pictures will take some time to clear up. Therefore, be careful in making a decision. A picture will be required with every claim for Warranty. If a light unit is found with no problem, and no picture is sent in, the claim may be later debited. You can also perform the following test to determine if the light unit should be replaced.

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- In certain situations, it is normal for a light on one side to have condensation/fog and the other side not to. This would be due to differences in conditions (temperature, humidity, etc.) between the left and right sides. For example, one side may be exposed to direct sunlight and the other side may be in the shade.

1. In sunny weather or inside a warm garage, remove a bulb/socket and add cold/cool (not hot) air with a hair dryer for approximately 5-10 minutes.

- If the condensation/fog clears, it is normal, and the light unit should not be replaced.
- If the condensation/fog does not clear, it is abnormal (water entry is suspected), and the light unit should be replaced.
- Water entry is where rain water comes into the inner light and stays as waterdrops on the inside of the lens. The possible causes of "water entry" because of a part issue are:
  - Poor sealing joint between the lens and housing.
  - Missing or poor sealing of gasket. (NOTE: If the light unit was previously repaired and any seals are missing, this is not covered under Warranty. Contact your DSM in this situation before replacing the light.)
  - Cracked lens and/or housing.
  - Poor installation of respiration tube at ventilation hole.

**NOTE:** Causes of water entry from owner/operator treatment of vehicle (that should be avoided and are not covered under Warranty) are:

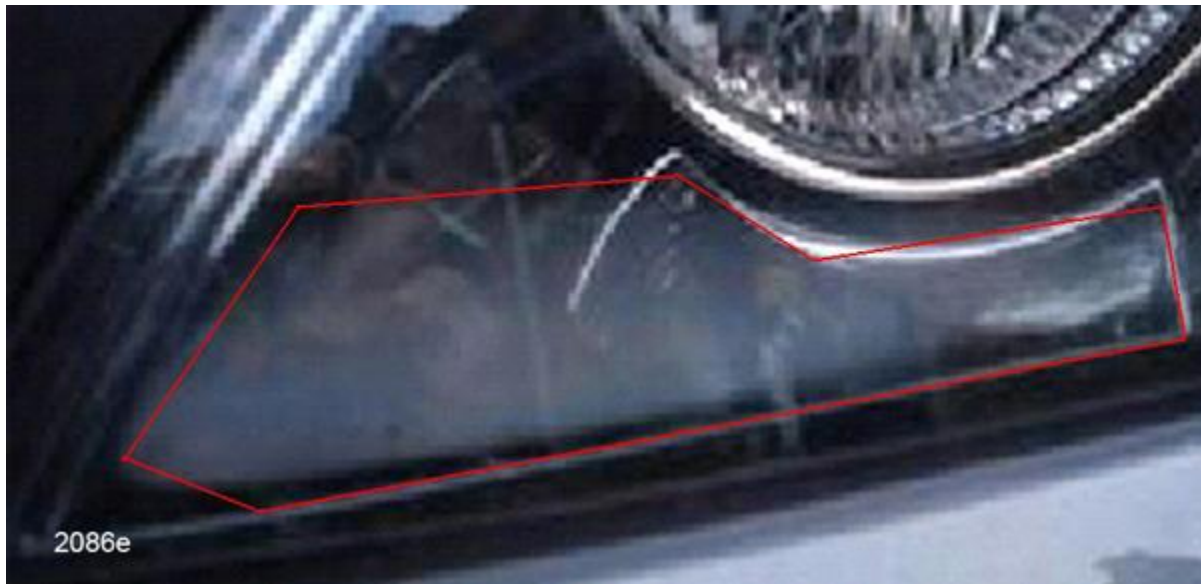
- The light and the surrounding area receive too much water in high-pressure washing.
- The lens cracks from using a special cleaning agent with solvent.

#### **Examples of Light Units With Condensation/Fog That Should NOT Be Replaced:**

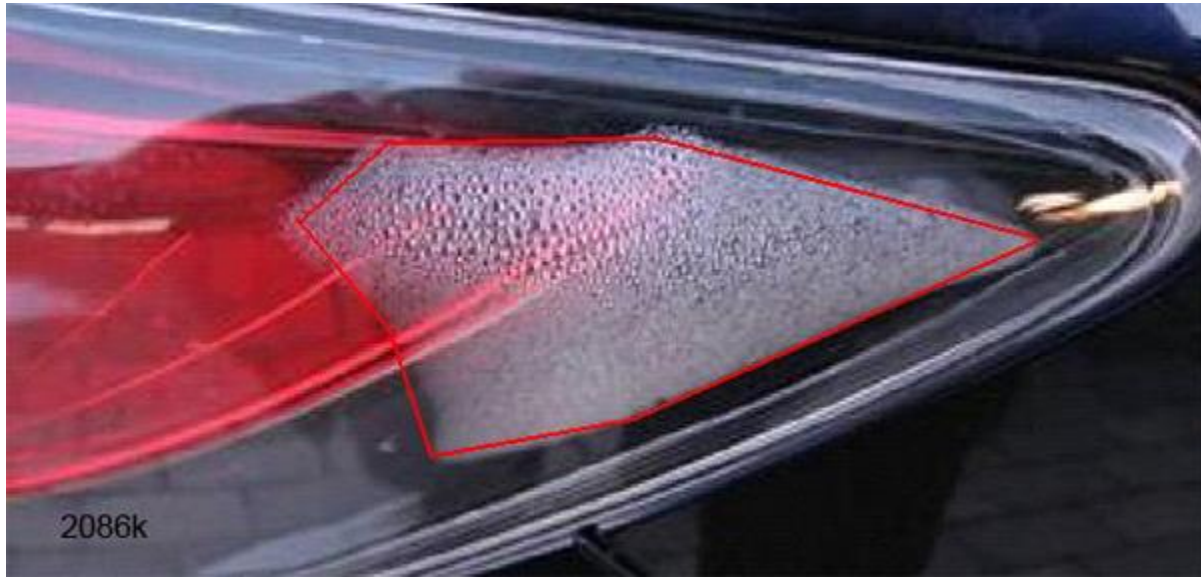
Condensation/fogging along the edges and in the corners is considered normal.



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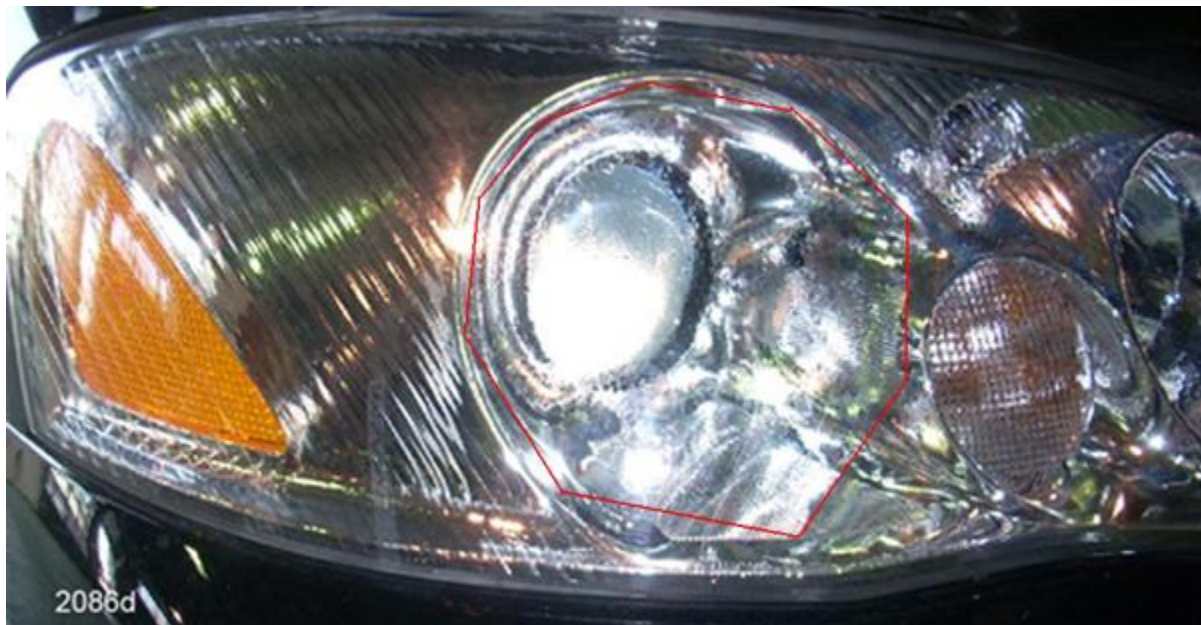
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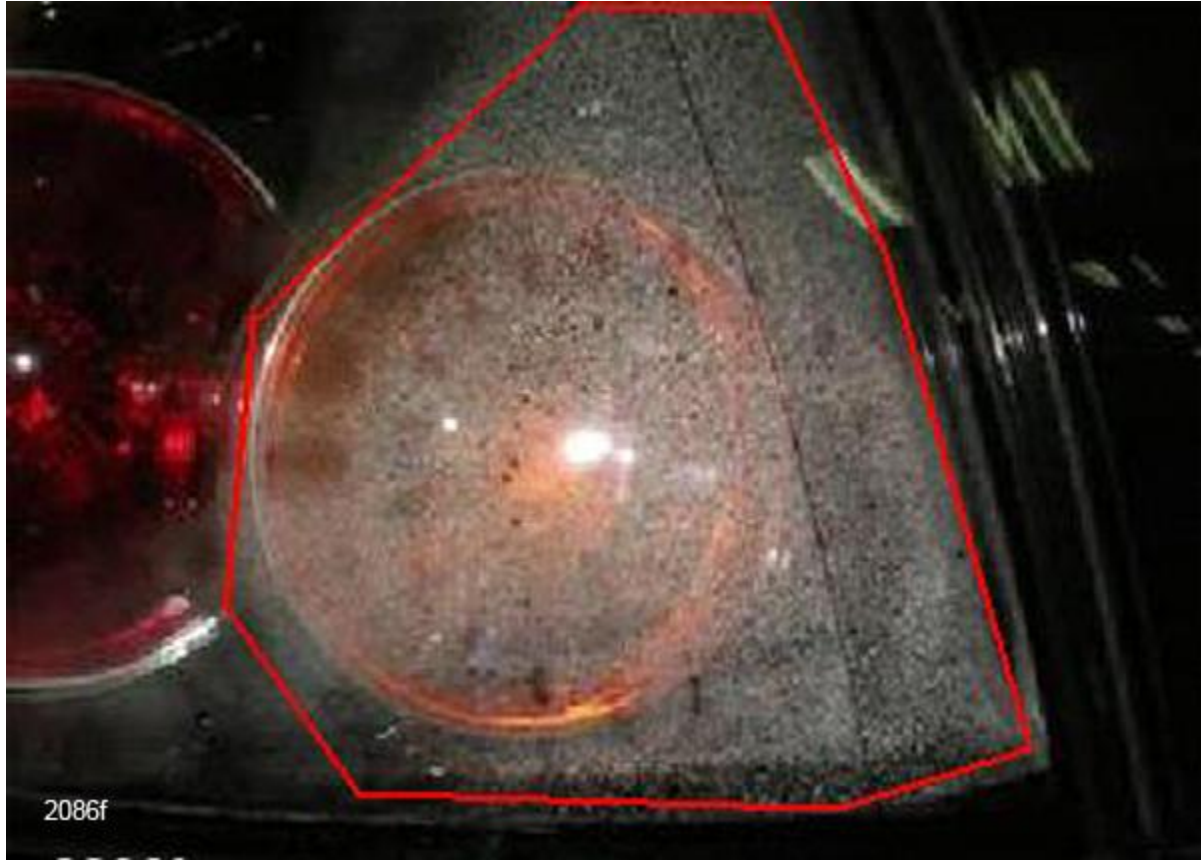


Some condensation/fogging on the lens is considered normal.

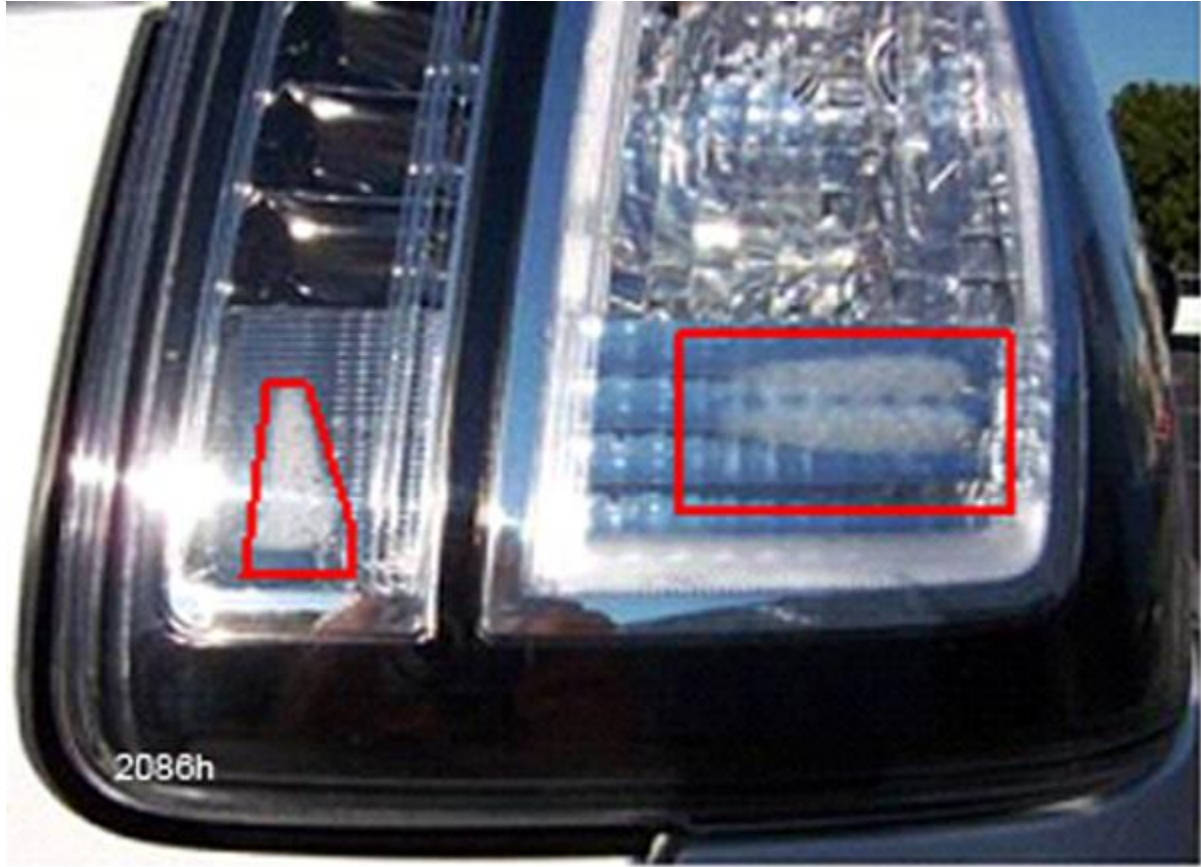


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**Examples of Light Units With Condensation/Fog That Should Be Replaced:**

Heavy/large amount of condensation on the lens is not normal.



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