

# Technical Service Bulletin (TSB)

PARTS & SERVICES

# **Headlamp Condensation Clearing Procedure**

REFERENCE:	<b>TSB</b> : 23-029-23 <b>GROUP</b> 23 - Body	Date:	February 25, 2023	<b>REVISION</b> :	23-024-22
VEHICLES AFFECTED:	2021 - **2023** (WL) Jeep Grand Cherokee 2021 - 2022 (WK) Jeep Grand Cherokee 2022- **2023** (WS) Grand Wagoneer/Wagoneer 2021 - **2023** (KL) Jeep Cherokee 2021 - **2023** (DT) RAM 1500 Pickup 2021 - **2023** (WD) Dodge Durango 2021 - **2023** (WD) Jeep Compass **2021 - 2023 (MV) Jeep Compass** 2021 - **2023** (JT) Jeep Gladiator 2021 - **2023** (JT) Jeep Gladiator 2021 - **2023** (JL) Jeep Wrangler **2019 - 2023 (BV) Jeep Renegade**			MARKET AF	PLICABILITY: ⊠MEA ⊠IAP ⊠CH
CUSTOMER SYMPTOM:	Some customers may report that on occasion, vehicle exterior head lamp assemblies are fogged with a light layer of condensation on the inside of the lenses (Fig. 1).				
CAUSE:	Head lamp condensation.				

This bulletin supersedes Technical Service Bulletin (TSB) 23-024-22, date of issue June 22, 2022, which should be removed from your files. All revisions are highlighted with \*\*asterisks\*\* and include additional model years, vehicles and regions.

# **REPAIR SUMMARY:**

This bulletin is to communicate the procedure for head lamp condensation clearing.

# **STANDARD PROCEDURE - LAMP LENS DEFOGGING:**

#### NOTE: Figures are not specific to vehicle and only used for showing the lamps either good or bad per the bulletin.

Some customers may report that on occasion, vehicle exterior headlamp assemblies are fogged with a light layer of condensation on the inside of the lenses (Fig. 1). This may be reported after the lamps have been turned on and brought up to operating temperature, turned off, and then rapidly cooled by cold water (such as rain, or the water from a vehicle wash). Lens fogging can also occur under certain atmospheric conditions after a vehicle has been parked outside overnight (i.e., a warm humid day followed by clear cool night). This will usually clear as atmospheric conditions change to allow the condensation to change back into a vapor. Turning the head lamp on will usually accelerate this process.



#### Fig. 1 **Fogged Head lamps**

A lamp that exhibits condensation/fogging should be evaluated in a service bay environment according to the following steps:

- 1. Dry all water from the outside surface of the lens.
- 2. Operating the lamps for 20 minutes by:
  - Starting the vehicle engine.
  - Turning on the vehicle lights and turn on the hazard lights.

# **EVALUATION CRITERIA:**

If the condensation/fogging has begun to clear (Fig. 2) from the lamp lens after 20 minutes with the lamps operating, this indicates the lamp sealing has not been breached, and the lamp does not need to be replaced.



Fig. 2 Condensation/Fogging Begun To Clear

If the condensation/fogging has not begun to clear after 20 minutes with the lamps operating, or the lamp has large amounts of water droplets visible on most internal surfaces, this indicates a problem with the lamp sealing that has allowed water to enter the lamp. In this instance, the customer is also likely to report that moisture in the lamp is always present and never disappears (Fig. 3). A lamp that exhibits internal moisture permanently should be replaced.



Fig. 3 Condensation/Fogging Not Begun To Clear

# MOST COMMON CAUSES FOR HEAVY NON-NORMAL CONDENSATION/FOGGING ON HEADLAMPS:

• **Damage:** Breakage on the head lamp housing will allow moisture/water to enter to the head lamp (damage, cracks, holes, etc.) (Fig. 4). If this is noticed the failure code must be recorded accordingly: **11/BROKEN OR CRACKED** 



Fig. 4 Cracked or Broken Head lamps

- Missing Sealing Components: Missing vent caps, access caps or bulb sockets will allow moisture/ water to enter to the head lamp (Fig. 5). If this is noticed the failure code must be recorded accordingly: 1C / CONNECTOR LOOSE NOT ATTACHED
- Misplaced Sealing Components: Misplaced vent caps, access caps or bulb sockets will allow moisture/water to enter to the head lamp (Fig. 6). If this is noticed the failure code must be recorded accordingly: 1C / CONNECTOR LOOSE NOT ATTACHED



Fig. 5 Missing Sealing Components



Fig. 6 Misplaced Sealing Components

If no obvious causes are observed, proceed using the failure code for leaks (65) and replace the head lamp. Refer to the detailed service procedures available in DealerCONNECT/Service Library under: Service Info>08 - Electrical / 8L - Lamps and Lighting / Lamps/Lighting - Exterior / Unit, Front Lamp / Removal and Installation.

**POLICY:** Information Only.