



SERVICE BULLETIN

Classification: BT09-052	Reference: NTB09-081	Date: August 25, 2009
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WINDSHIELD CRACKING

APPLIED VEHICLES: All Models

SERVICE INFORMATION

The Purpose of this bulletin is to give Nissan dealers guidelines to help determine if windshield breakage is covered under warranty or is the customer's responsibility. **Nissan North America (NNA) is not responsible for damage to glass that is a result of objects striking or scratching the glass.** However, NNA is responsible for manufacturing issues such as distorted glass and cracks that are due to improper installation or damage to the glass during vehicle assembly. NNA typically does not find any type of cracks in the windshield due to stress in vehicles with over 5000 miles.

Glass damage can be categorized in 3 general areas:

1. Cracks due to objects striking the glass (page 2).
2. Cracks due to scratch in glass surface (page 5).
3. Distortion or cracks due to manufacturing issues (page 7).

CLAIMS INFORMATION

For manufacturing issue claims only.

Submit a Primary Failed Part (PP) line claim using the following claims coding:

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
RPL Windshield	(1)	UG10AA	FD	03	(2)

(1) Reference the FAST Parts Catalog and use the applicable Windshield P/N as the PFP.

(2) Reference the current Nissan Warranty Flat Rate Manual and use the indicated FRT.

Part Return Process Reminder

Refer to WB/07-010: Nissan is announcing a new requirement in the process for parts return to assist engineers in analyzing part issues. Dealers are now required to mark glass and other components returned that have "visible issues" using a grease pencil or similar instrument to highlight the area damaged.

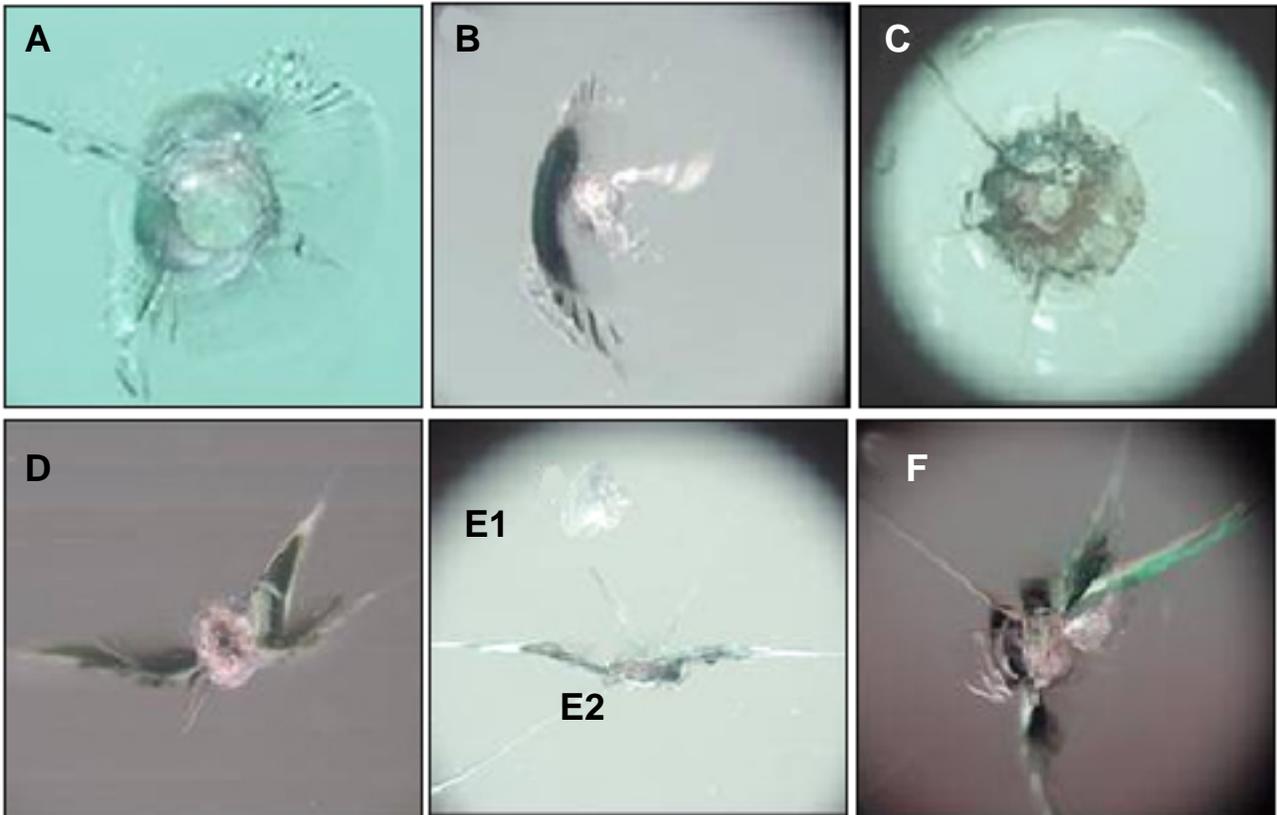
Nissan Bulletins are intended for use by qualified technicians, not 'do-it-yourselfers'. Qualified technicians are properly trained individuals who have the equipment, tools, safety instruction, and know-how to do a job properly and safely. NOTE: If you believe that a described condition may apply to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

1) How to determine if glass damage is due to objects striking the glass.

Cracks from objects striking the glass

Most windshield damage that occurs due to impact is easily identified as shown below:

- Cone shaped break (A, B, C)
- Crush mark (D, E1, F)
- Star shape crack (C, D, E2, F).



Cracks can spread and become larger from the original strike point or crush mark due to:

- Thermal stresses caused by temperature fluctuation
- External physical stresses, such as hand touch, wind force, or vehicle vibration during driving (pot holes)

A lead, or crack from one of the star cracked impact points can run to the edge of the glass and **appear** to be a low stress crack starting from the glass outside edge.

Single crack beginning or ending at the edge of the glass

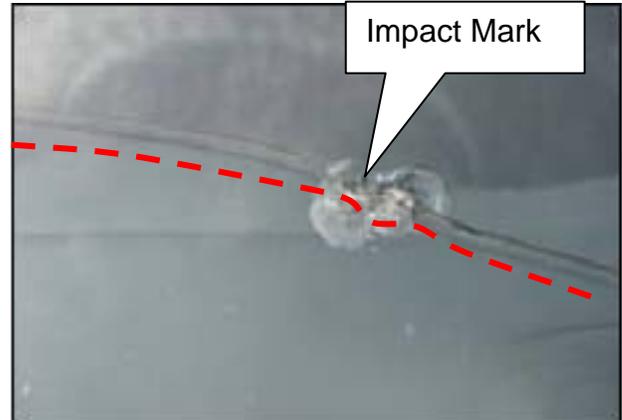
Single cracks must be inspected along the entire crack for impact marks.

- If any impact mark is found anywhere along the crack, it indicates the damage occurred from an object striking the windshield. This is not covered under warranty.
- A magnifying glass (10X magnification) must be used to identify impact marks that may be less than 1 mm in diameter.

NOTE: A lead, or crack from an impact point can run to the edge of the glass and **appear** to be a low stress crack starting from the glass outside edge.



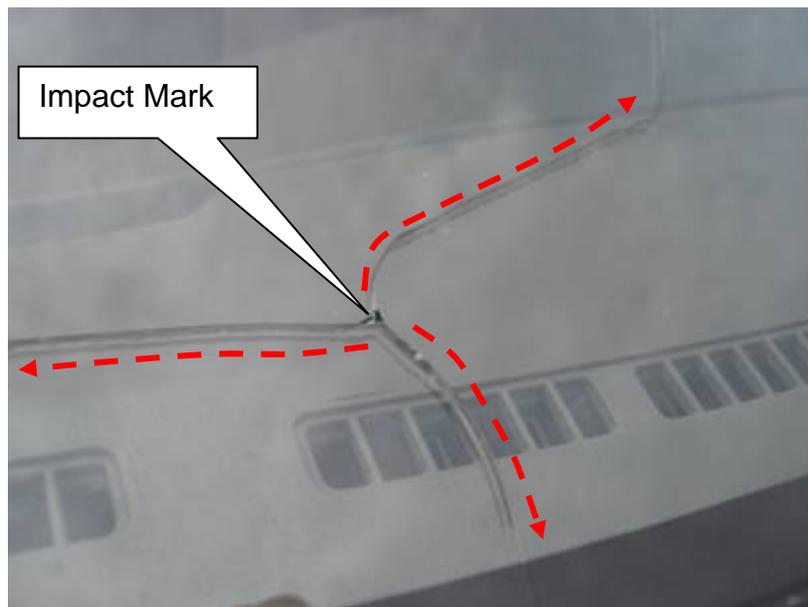
Single crack with **no** impact mark:
Warranty



Single crack with impact mark:
Not Warranty

Compound crack beginning or ending at the edge of the glass

This type of crack is always caused by impact to the glass. The point of impact is located where the crack “branches out”.

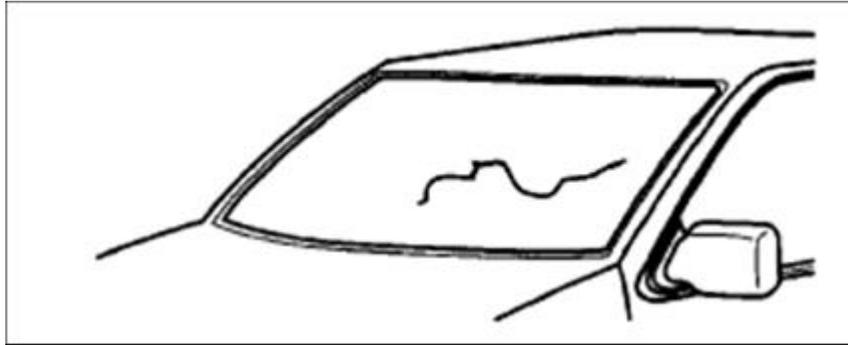


Compound crack: **Not Warranty**

Cracks that are only in the middle of the glass

This type of crack does not begin or end at the edge of the glass.

- These cracks are always caused by an impact to the glass and are not covered under warranty.



Cracks not reaching the edge: **Not Warranty**

2) How to determine if glass damage is due to a scratch in the glass surface.

Cracks from a scratch in the glass surface

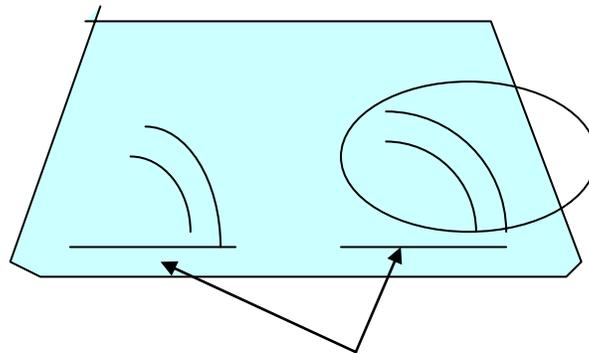
Glass is produced by fusing together various raw materials such as silica, soda ash, and limestone, and has a hardness of 5 to 6 on the Mohs scale (for reference, a diamond has a hardness of 10 on the same scale).

Since earth and sand can contain substances harder than that of glass, glass can be easily scratched by:

- Fine sand particles
- Hard metal
- Rubbing action of contaminated wiper rubbers, or sand particles caught between the wiper and the glass, especially when operating the wipers in a dry condition.

A magnifying glass (10X magnification) must be used to identify wiper scratches as a start point of cracks in the glass.

- Inspect the wiper paths (may be a single scratch of a group of scratches)
- Small scratches can cause a small rupture in the outer glass surface, which can lead to a crack from thermal conditions, vehicle vibration during driving, or wind pressure.

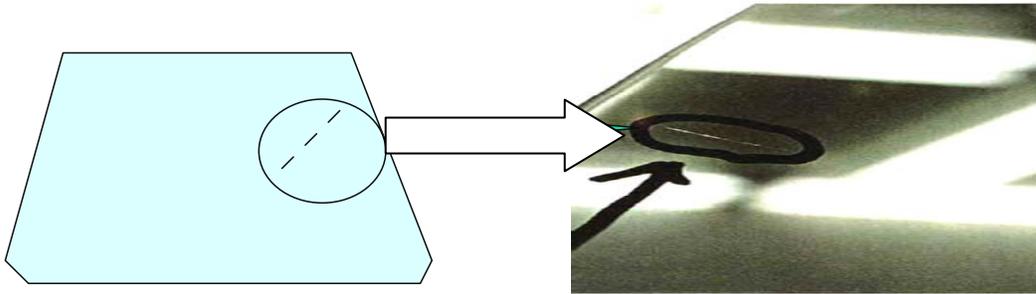


Wiper position

Scratch from sand/stone:
Not Warranty

A magnifying glass (10X magnification) must be used to identify metal object scratches as a start point of cracks in the glass.

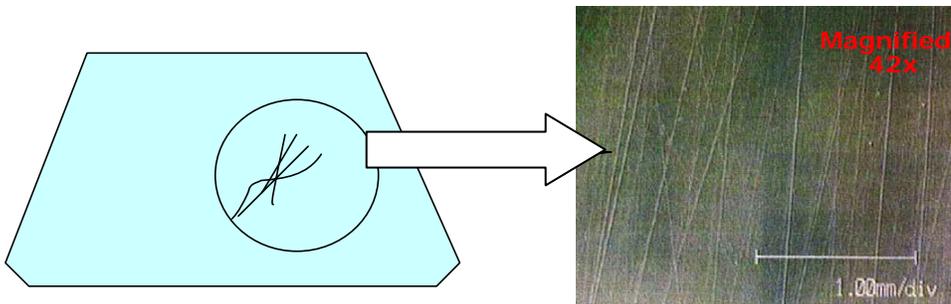
- Scratches can occur from metal objects such as keys and metal buttons. These scratches are typically sharp and can be found anywhere on the glass surface.
- Thoroughly examine the entire length of the crack to identify any scratch as a start point.
- Small scratches can cause a small rupture in the outer glass surface, which can lead to a crack from thermal conditions, vehicle vibration during driving, or wind pressure.



Scratch from metal objects: **Not Warranty**

A magnifying glass (10X magnification) must be used to identify scratches caused by a contaminated towel as a start point of cracks in the glass.

- Scratches can occur from wiping the glass with a towel that has sand particles or dirt on it.
- These scratches are typically long and have several scratches concentrated together.
- These scratches can be found anywhere on the glass surface.
- Thoroughly examine the entire length of the crack to identify any scratch as a start point.



Scratch from dirty towel/cloth: **Not Warranty**

3) How to determine if glass has distortion or cracks due to manufacturing Issue.

Distortion or cracks due to manufacturing Issue



Open bubble – **Warranty**



Surface blister - **Warranty**



Adhesion chip – **Warranty**
(Can occur from a manufacturing issue such as adhesion of molding to the glass surface along the glass edge.)



Surface blister – **Warranty**

