

Classification:

DA21-002

Reference:

ITB21-012

Date:

May 24, 2021

INCORRECT FRONT/REAR SONAR SENSOR OPERATION

APPLIED VEHICLES: All Infiniti vehicles with front and/or rear sonar

SERVICE INFORMATION

Sonar sensors use ultrasonic sound waves to detect objects, and determine short range distance to those objects. If a sonar sensor's visible surface has been damaged or is partially, or totally, obstructed by mud/dirt, road debris, bugs, snow or ice, the sound waves that are being transmitted can be muted, redirected, absorbed, and not received.

Possible causes of incorrect sensor (sonar sensor) operation:

- Object not within the detection range of the sensors.
- Sensor range sensitivity setting is set too sensitive, or not sensitive enough.
- Objects that cannot be detected by the sensors.
- Foreign material (mud/dirt, road debris, bugs, snow or ice, etc.) attached to any of the sensors, or their surroundings.
- Damage to one or more of the sensors, or the area around the sensors.
- Items installed around one or more sensor (e.g. Accessories or bumper protectors, etc.).
- The vehicle ride height has been altered.

Infiniti 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 Infiniti retailer to determine if this applies to your vehicle.

If the sonar sensor **is not** detecting objects, even though there are objects present, first confirm:

Is there foreign material attached to any of the sensors, or their surroundings?

- Make sure all sensors are clean, and that built up debris is not present surrounding the sensors prior to testing.

Is the object within the detection range of the sensor?

- Each sensor has a specific detection area and a maximum range. If the object is outside of the following detection ranges, the sensor **will not** be able to detect it.
 - Front or rear corner sensor – 60 cm (2 feet)
 - Front center sensor – 1 m (3.3 feet)
 - Rear center sensor – 1.5 m (5 feet)

Does the vehicle have an adjustable sensor range setting?

- Access the vehicle options menu, check if the vehicle has an adjustable range setting and set it to the maximum distance to ensure the sensors are picking up objects.

Is it an object that can be detected by the sensor?

- Because the sensors detect the position of obstacles by emitting and then receiving ultrasonic sound waves, the sensors cannot detect obstacles that absorb, or do not reflect, these waves.

EXAMPLES:

- Non-solid objects like chain link fences, or snow banks.
- Sensors also may not be able to detect lower height objects, such as curbs or flower beds.

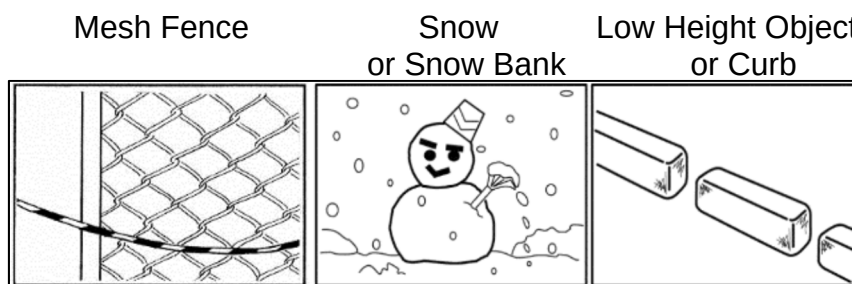


Figure 1

If the sonar sensor is detecting objects, even though there are no objects present, and/or triggering a warning or malfunction light.

Is there any foreign material (mud/dirt, road debris, bugs, snow or ice, etc.) attached to any of the sensors, or their surroundings?

- Make sure all sensors are clean prior to testing. The sensors may react to foreign material and cause a false detection alert.

Is there any damage to one or more of the sensors, or the area around the sensors?

- Scratches, or dents, on the surface of the sensor may cause it to not operate, or falsely detect objects.
- Damage to the bumper cover surrounding the sensor may affect the alignment of one or more sensors.

Mud/Dirt/ on Sensor

Pitting / Chips / Damage

Snow / Ice Blocking Sensor



Figure 2

Is there anything installed around one or more sensor? (e.g. Accessories or bumper protectors, etc.)

- Test sensors with these objects removed or repositioned.

Has the vehicle ride height been altered?

- If the vehicle ride height is below the published specifications (see ESM), due to wheel and/or suspension changes, or because of low tire pressure, the sensor may detect the road surface or objects that are not normally detected.

AMENDMENT HISTORY

PUBLISHED DATE	REFERENCE	DESCRIPTION
May 24, 2021	ITB21-012	Original bulletin published