

Service Information

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Category T	Technical	Ref. No. E011/11	Page 1 of 2
Coverage <input type="checkbox"/> Distributor only <input checked="" type="checkbox"/> Please inform your dealers		Date Issued June 8, 2011	
Please convey this information to your <input type="checkbox"/> Director <input checked="" type="checkbox"/> General Manager <input checked="" type="checkbox"/> Warranty Dept. <input checked="" type="checkbox"/> Parts Dept. <input checked="" type="checkbox"/> Training Dept. <input checked="" type="checkbox"/> Field Rep.		Date Revised	
Applicable Model All Models with Ambient Temperature Display	Applicable Countries or Specifications Worldwide		

Subject: Display shows Inaccurate Ambient Temperature

DESCRIPTION

Some customers may complain that the ambient temperature indicated in display is not accurate, or it takes long until the display shows accurate temperature.



ACTION TO BE TAKEN

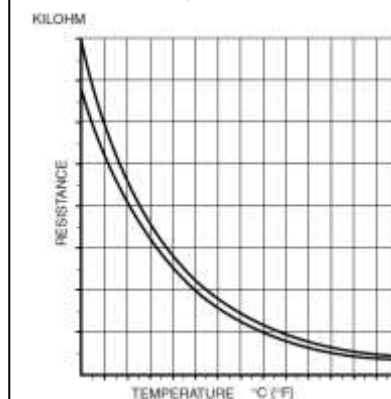
When you encounter customer complaint on this concern, first verify the condition when the customer noticed this symptom.

If the condition is similar to the following 1 or 2, explain this is a normal characteristic and not a malfunction.

If the condition does not to the following and the sensor malfunction is suspected, make sure to inspect the sensor according to Workshop Manual "AMBIENT TEMPERATURE SENSOR INSPECTION".

Replace the sensor only when it failed the inspection.

Example of temperature sensor output characteristics



1. Control logic of ambient temperature

The ambient temperature indicated in the display is NOT always equal to the reading of the temperature sensor mounted in front of the vehicle.

Under certain condition, the sensor reading is adjusted in order to avoid false high reading due to heat from engine and/or road surface.

The conditions shown below are the examples that the sensor reading is adjusted.

Due to this adjustment, the temperature on the display may temporarily differ from actual.

Example of conditions when sensor reading is adjusted

(1) Engine coolant temp when IG is on

	Low	High
Temperature in display	Raw sensor reading	The last temperature recorded when IG off
Remarks	The threshold of the engine temp differs depending on car model, but it is approx. 50-60°C	
Possible situation	Especially in summer, indicator may show false high temperature due to heat from street.	

(2) Vehicle speed

	Low	High
Temperature in display	The last temperature recorded	Raw sensor reading
Remarks	The threshold of the vehicle speed differs depending on car model, but it is approx. 5-25km/h.	

(3) Ambient temperature change

	Temperature is rising	Temperature is falling
Temperature in display	Gradually changes to raw sensor reading	Immediately changes to raw sensor reading
Possible situation	When moved from garage/indoor parking lot to outside, it may take long to show true ambient temperature.	

Note 1: When M-MDS is connected, the ambient temperature shown on M-MDS is raw value just detected by temperature sensor. However, in some cases it may differ to the temperature indicated in the display as display's value may be adjusted from the raw value as explained above. Do NOT attempt repair due to this difference.

Note 2: If temperature sensor connector is disconnected then connected, the recorded temperature is lost and the display starts to show raw sensor reading regardless of the condition. Sometimes it is misjudged that the symptom is fixed by sensor replacement, but actually it is just the display started to show raw sensor reading because of the connector disconnected. So the sensor is not the root cause.

2. Difference between the temperature indicated in the display and others

When the temperature indicated in the display and the temperature shown around the street is compared, they may not match. This is because the street temperature does not always show the temperature around the vehicle.