

Aftersales TSO – Diagnostic Sheet



MAS002455

(BOL 21-02)

From: Aftersales -TSO
To: Maserati Network
Auburn Hills, MI | January 5, 2021

Diagnosis of parking sensors system

Issue: Message of “Parking Sensor System not available” on cluster or false activation of parking sensors (without obstacles).

Models: All Sedan and SUV models from MY17 and later vehicles

Description of the defect: Customer complains about Parking Sensor System not available on cluster or false activation of parking sensors (without obstacles).



Conditions: no specific conditions.

Troubleshooting:

Section A: Analysis of potential external causes

Check:

- if the vehicle has an additional license plate holder and/or spacer (see Figure 1, Figure 2 and Figure 3);
- if the front bumper has an aftermarket film (see Figure 4);
- if the bumper shows signs of impact or not
- if the front parking sensors are dirty on the front surface;
- if there are signs of impact on the sensors as shown in Figure 5
- If the front license plate is correctly centered on the bumper;

Note: if the outcome of the checks is positive, the complaint may NOT be related to the front parking sensors but to external causes



Figure 1: additional license plate holder.



Figure 2: additional license plate holder and spacer.

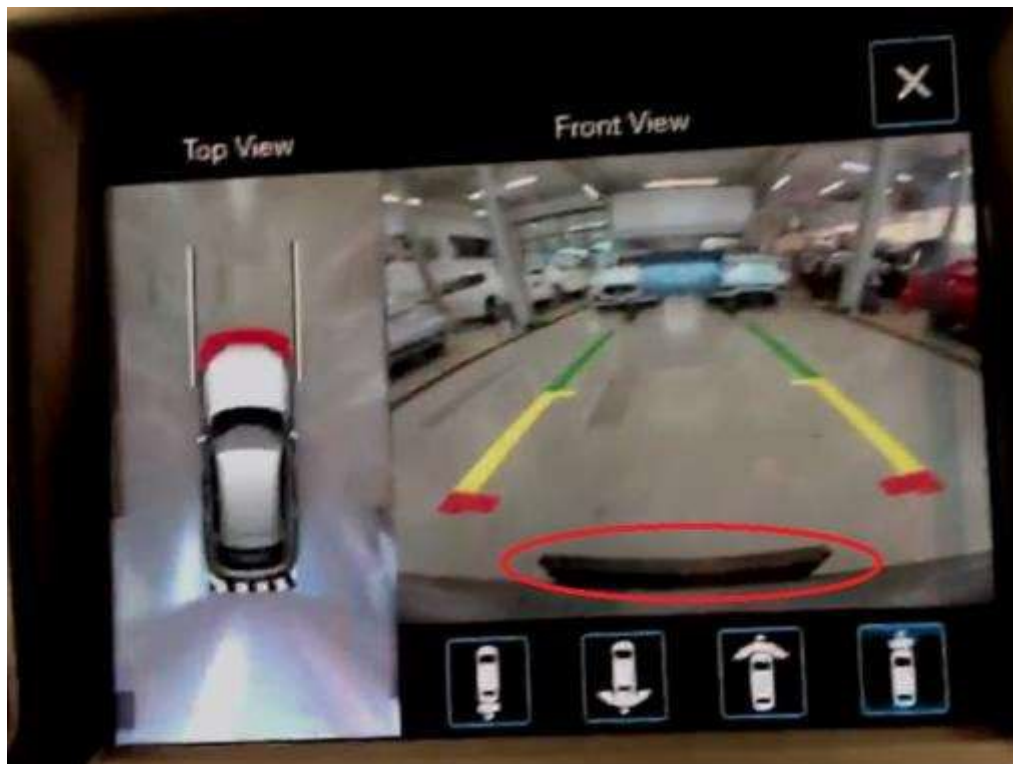


Figure 3: additional license plate holder.



Figure 4: aftermarket film



Figure 5: signs of impact on the parking sensor.

If the vehicle has an additional license plate holder and/or spacer, remove the license plate, license plate holder and spacer to rule out if these components create interference with the front parking sensors.

If the complaint is still present and it is not caused by the causes listed in point 1, proceed with section B.

Section B:

- 1) Is the customer complaint confirmed and reproducible?
- 2) Attach to the BOL the DTC and parameters report in pdf format.
- 3) If one or more of DTCs regarding the Parking sensors is present, as an example the following DTCs on sensor n° 4:
 - B129112 (PTS Sensor 4 - Circuit Short to Battery)
 - B129125 (PTS Sensor 4 - Signal Shape / Waveform Failure)
 - B129111 (PTS Sensor 4 - Circuit Short to Ground)

Start the diagnosis on the sensor/s with the DTCs and the bumper area where it is located..

- 4) Check if the sensors are correctly installed inside the bumper or lower grill, through a visual check of the area
- Check if, for example, if there is an out of center situation like the following pictures:



If the sensors are correctly installed, proceed with point 7, otherwise continue with point 5

- 5) Before proceeding with any other activities (such as a sensor replacement), please adjust the position of the sensor to ensure it is correctly installed by following the instructions in the workshop manual. Make sure it is centered and not slanted and that the silicon ring is not pinched. The following pictures show a correct installation:



- 6) After the correct installation of the parking sensors, check if the complaint and DTC is still present. If no the activity is completed, otherwise proceed with point 7.
- 7) Check the integrity of the sensor in term of cleanliness, impacts, reference lines as per the figures below:
- Dirt and sensor damage:

Dirt on the sensor body is not to be considered an anomaly



Dirt close to the membrane is to be considered an anomaly

Damage to the sensor



- reference lines are aligned:



- 8) If the previous points are all ok, perform an integrity check of the electrical circuit (continuity, no short to ground or battery, no loose pins) on the front parking sensors. If the electrical check is all ok and the complaint persists, continue with point 9.
- 9) Swap the front parking sensor (related to the stored DTC) and see if the issue follows the sensor.

Considerations: Any complaints related to external causes illustrated in section A or to dirt / damage reported in point 7 of section B is not a warranty matter.

If, on the other hand, an anomaly is identified in one of the sensors, open a BOL as factory Information, reporting the outcome of the performed checks.