

PERSONAL SERVICE LAB

MASTERS OF CARE

# CVPAM Surround View System Diagnosis B228600

DATE: OCTOBER 11, 2025

This bulletin provides updated information and instructions for diagnosing and correcting Surround View System faults caused by incorrect camera positioning or calibration failure.

**MODELS INVOLVED:** M182 Grecale, M189 GranTurismo and M190 GranCabrio (All MY).

## CVPAM DTCs:

- **(\$A28600) B2286-00 Calibration Not Learned-Lost Calibration**

**Customer Concern:** Surround View System not working, hourglass present on the sides of the vehicle in the central display (ICS), no video shown by the four cameras.

## Technical Cause:

One or more cameras may not be seated correctly in their housing, causing calibration failure.

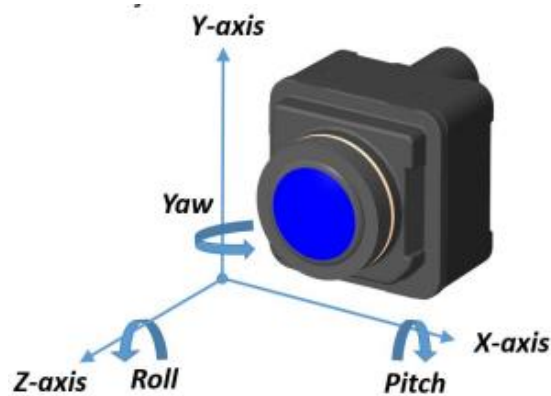
## Service Procedure

1. **Run Full Diagnostic Scan**
  - Use the EVO to perform a complete scan.
  - Include DTC codes and CVPAM parameters in the report.
2. **Check Camera Angle Parameters**
  - Read these CVPAM parameters:
    - F300 – Rear Camera extrinsic parameter
    - F301 – Left Camera extrinsic parameter
    - F302 – Front Camera extrinsic parameter
    - F303 – Right Camera extrinsic parameter
  - **Compare values with the tables at the end of this bulletin (different tables for Grecale and GranTurismo/GranCabrio).**
  - Ensure values are within the allowed minimum and maximum tolerances.
3. **Inspect Camera Mounting**
  - If any angle is out of tolerance:
    - Check camera housing for looseness or excessive clearance.
    - Inspect side flaps (front and rear cameras) for damage.
    - Verify all retaining elements are intact and cameras are firmly seated.
  - **Correct the camera position** to bring it within tolerance.
4. **If Problem Persists**
  - If all cameras are correctly positioned but the fault remains, open a BOL for technical assistance.

## Important Notes

- Correct positioning usually resolves the issue.
- Do not hesitate to contact Technical Service Operations for assistance.

# Tolerance Tables



| Grecale               | Nominal      | Minimum                         | Maximum                              |  | GranTurismo & GranCabrio | Nominal      | Minimum                         | Maximum                              |
|-----------------------|--------------|---------------------------------|--------------------------------------|--|--------------------------|--------------|---------------------------------|--------------------------------------|
| Front Roll Angle [°]  | 0            | -5                              | 5                                    |  | Front Roll Angle [°]     | 0            | -5                              | 5                                    |
| Front Pitch Angle [°] | 16.31        | 11.31                           | 21.31                                |  | Front Pitch Angle [°]    | 26.43        | 21.43                           | 31.43                                |
| Front Yaw Angle [°]   | 0            | -5                              | 5                                    |  | Front Yaw Angle [°]      | 0            | -5                              | 5                                    |
| Left Roll Angle [°]   | -171.59      | -176.59                         | -166.59                              |  | Left Roll Angle [°]      | 0            | -5                              | 5                                    |
| Left Pitch Angle [°]  | 48.2         | 43.2                            | 53.2                                 |  | Left Pitch Angle [°]     | 50           | 45                              | 55                                   |
| Left Yaw Angle [°]    | 91.2         | 86.2                            | 96.2                                 |  | Left Yaw Angle [°]       | 90           | 85                              | 95                                   |
| Right Roll Angle [°]  | 171.02       | 166.02                          | 176.02                               |  | Right Roll Angle [°]     | 0            | -5                              | 5                                    |
| Right Pitch Angle [°] | 48.2         | 43.2                            | 53.2                                 |  | Right Pitch Angle [°]    | 50           | 45                              | 55                                   |
| Right Yaw Angle [°]   | -102.54      | -107.54                         | -97.54                               |  | Right Yaw Angle [°]      | -90          | -95                             | -85                                  |
| Rear Roll Angle [°]   | 0.02         | -4.98                           | 5.02                                 |  | Rear Roll Angle [°]      | 0            | -5                              | 5                                    |
| Rear Pitch Angle [°]  | 39.18        | 34.18                           | 44.18                                |  | Rear Pitch Angle [°]     | 44           | 39                              | 49                                   |
| Rear Yaw Angle [°]    | +180<br>-180 | 179<br>178<br>177<br>176<br>175 | -179<br>-178<br>-177<br>-176<br>-175 |  | Rear Yaw Angle [°]       | +180<br>-180 | 179<br>178<br>177<br>176<br>175 | -179<br>-178<br>-177<br>-176<br>-175 |