Diagnostic Sheet
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TO: Maserati Network

Maserati
PERSONAL SERVICE LAB
MASTERS OF CARE

Air Suspension System - Fuse F41 blown

ATTENTION! This bulletin supersedes MAS004274 BOL 24-26 released on Sept 6, 2024. This bulletin has been updated with new diagnostic info. Please discard/remove all copies of the previous bulletin.

DATE: January 14, 2025

This Diagnostic Sheet serves as a guide and provides additional diagnostic info for Air Suspension system anomalies on Maserati Levante vehicles.

MODELS: M161 Levante (All MY).

Issue: Difficulty changing the ride height of the vehicle with warning on the Instrument Panel: "SERVICE AIR SUSPENSION or CHECK AIR SUSPENSION SYSTEM". The vehicle may have a misalignment (front suspension lower than the rear suspension) and/or the compressor fuse (F41 in RDU, Rear Distribution Unit, rear fuse box) is blown.

Faults: possible DTCs stored in ASCM:

C15A1-00 (55A100) - Unable to Obtain Desired Ride Height
C15D9-00 (55D900) - Low Air Mass
C1562-98 - Ride Height Air Pump Control-Component or System Over Temperature
C2212-00 (621200) ECU - in plant mode

CHECKS: If the customer's concern matches this type of anomaly, open a BOL and attach all the requested information.

It's necessary to fill in the attachments: Attachment A: checklist and Attachment C: summary table of vehicle height and angle measurements printed and scanned or in electronic format, as a PDF when attaching to the BOL.

Depending on the information in the Notes section, the checklist may need to be partially or filled out.

NOTE: Maserati has already introduced a product improvement on the compressor in the past to mitigate the concern. Vehicles equipped with this improvement are identified as Post-Clean Point. Vehicles not equipped with this factory improvement are identified as Pre-Clean Point.

Pre-Clean Point and **Post-Clean Point** Vehicles:

Lower than: VIN 349849 – Assembly Number 6077076 = **Pre-Clean Point**

Higher than: VIN 349849 – Assembly Number 6077076 = **Post-Clean Point**

A SW update for the ASCM control unit is available which reduces air compressor operations with the engine off minimizing high electrical current draw from the fuse:

- SW PN MY17-20: 673014079

- SW PN MY21-24: 670295734

Pre-Clean Point vehicles:

• If available, perform an ASCM SW update and fill out **ATTACHMENT A**, replace only the compressor (Component #4 in table 06.24-2), and continue with the checklist from steps 2 to 5 to verify that the vehicle does not have any further anomalies present. Open a BOL as **Factory Info**.

• If no SW update is available for the ASCM: fill out **ATTACHMENT A**, replace only the compressor (Component #4 in table 06.24-2), and continue with the checklist from points 2 to 5 to verify that the vehicle does not have further anomalies. Open a BOL as **Factory Info**

Post-Clean Point vehicles:

• If available, perform the SW update of the ASCM control unit, and carry out the checklist from points 1 to 5 to check that the car does not present any further anomalies. Open a BOL as **Factory Info**.

• If no SW update of the ASCM control unit is available, carry out the complete checklist from point 1 to point 9. Open a BOL as **Support request** to share the diagnosis and define the cause of the anomaly.

Labor Times:

For all vehicles:

- For step 4 of the checklist refer to procedure 06.24.001 - COMPLETE COMPRESSOR UNIT FOR AIR SUSPENSION SYSTEM Air system leak test = 0.30 h.

- For step 5, if necessary, carry out procedure 00.20.034 – 35 - CAR HEIGHT CALIBRATION Recording and checking with the diagnostic tool, = 0.35 h.

- To carry out the SW update of the ASCM control unit: 6.90.001.9 = 0.30 h

- For the execution of the remaining steps of the checklist from points 1 to 5, 0.25 hours of extra time will be authorized in BOL using a specific code.

CONSIDERATIONS: Open a BOL of the type requested based on the case history, attaching;

1) Scan the completed diagnosis checklist or completed PDF document

2) Completed height table (Attachment B: Summary table of the Vehicle Heights of each Vehicle corner).

Attachment A: Checklist

Preliminary questions: under what conditions did the anomaly occur?

a. Loading conditions: number of passengers and cargo in the trunk. Answer:

_____

b. Vehicle speed. Answer:

_____

c. Any additional notes on specific maneuvers or conditions that may have triggered the symptoms (i.e. change in vehicle height). Answer

_____

d. Was the suspension stiffness calibration set to rigid (hard) or soft (soft) mode via the button on the central tunnel?

HARD ☐ SOFT ☐

e. Was the Easy Entry/Exit feature active?

YES ☐ NO ☐

NOTE: After carrying out the Active Diagnoses reported in this diagnosis sheet, it is normal for the DTC C2212-00 (621200) ECU in In Plant Mode to be stored in the ASCM control unit. Through the diagnosis tool, select the ASCM module and carry out the active diagnosis ASCM > Active Diagnosis > Exit In-Plant Mode function

STEPS TO BE CARRIED OUT:

1. Is fuse F41 in the RDU (Rear Distribution Unit) blown?

YES ☐ NO ☐

- If the answer is YES, replace it, then proceed with the steps below
- If the answer is NO, proceed with the steps below

2. With the engine running, manually level the vehicle using the appropriate button on the central tunnel.

   If the vehicle does NOT change height even after replacing the F41 fuse, check if the DTC C2212-00 (621200) ECU in In Plant Mode is stored. If this DTC is stored, enter the ASCM module with the diagnosis tool and perform the Active Diagnosis > Exit in Plant Mode in the ASCM module.

Was it possible to change the height of the Vehicle?

YES ☐ NO ☐

Did the compressor make excessive noise during its operation?

YES ☐ NO ☐

3. With the Diagnostic tool, through Active Diagnosis > Ride Height and Component Air Pressures & Mass Readings of the ASCM module (see Figure 1), check the total air mass (Total System Air Mass) and the system pressure (Tank Pressure parameter Air). The acceptable pressure value (Air Tank Pressure) is between 5 bar and 12 bar. The acceptable value of the total air mass of the system is between 109 bar·liter and 159 bar·liter. The nominal value is 129 bar liter.

Note: It is advisable to carry out this Active Diagnosis with the engine running. It is normal for the message "Airmass Too Low" to appear as soon as the procedure is launched. In this situation, it is recommended to keep the engine running for at least a few minutes, then click on the Update button. If the Active Diagnosis continues to return the "Airmass Too Low" message with all parameters = 0 (zero), continue with the steps below.

Figure 1: air suspension system pressure reading with the Active Diagnosis of the ASCM ECU.

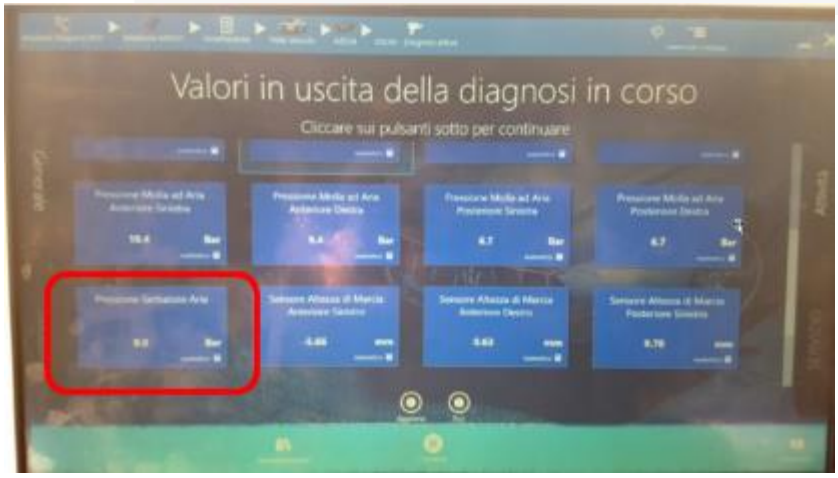

Figure 1: Results of the system pressure reading Active Diagnosis.

4. Carry out test 06.24.001 - COMPLETE AIR SUSPENSION SYSTEM COMPRESSOR UNIT - Air system air leak test to check for any air leaks in the air suspension system: have any air leaks been found in the air suspension system?

YES ☐ NO ☐

- If the answer is YES, fix this leak first.

- If the answer is NO, proceed with the steps below.

5. Measure vehicle height at each corner. Carry out this height measurement as shown in Figure 3 reporting the results in the attached table in millimeters (mm).

Figure 3: measuring method of the Vehicle Height at each corner.

- Do the corner heights of the same axle have a difference GREATER than 5 [mm] (example: left front spring height: 450 mm; right front spring height: 460 mm)?

YES ☐ NO ☐

If YES, proceed from step 5.1; otherwise go to step 6.

5.1 Carry out the procedure in the Workshop Manual 00.20.034 – 35 - CAR HEIGHT CALIBRATION - Recording and checking with a diagnostic tool.

5.2 Measure vehicle height at each corner as shown in Figure 3.

Note: fill in the column shown in Table 1 of Attachment B: Summary table of the Vehicle Heights of each Vehicle corner

Manually level the vehicle and carry out 3 complete leveling cycles from Aero 2 to Off-Road 2 and back, verify that the system is operational and no DTCs appear.

Attachment B:

Summary table of the Vehicle Heights of each Vehicle corner

Table 1: table to register the Vehicle Heights for steps 5 and 5.2 (if needed)

	Step 5 (mm)	After Step 5.2 (mm)
Front Left		
Front Right		
Rear Left		
Rear Right		

* if needed