#### MAS003392 BOL 23-01

### **Diagnostic Sheet**

FROM: Maserati TSO TO: Maserati Network



PERSONAL SERVICE LAB

MASTERS OF CARE

# Difficulty opening doors

DATE: DECEMBER 8 2023

## **Contents:**

CASE 1: (Page 1) Levente (M161) from MY21 onwards equipped with "Soft Door Close" (Opt. 228+)

<u>CASE 2</u>: (Page 4) QP (M156) and Ghibli (M157) (from MY18 to MY22) and Levente (M161) from MY18 to MY20 (included) equipped with "Soft Door Close" (Opt. 228+).

NOTE: This Diagnostic Sheet requires a BOL to be opened

# CASE 1

Models: M161 from MY21 onwards equipped with "Soft Door Close" (Opt. 228+)

Complaint: Difficult or not possible to open the doors.

The operational performance of the door locks may be impacted by environmental conditions characterized by high humidity and low temperatures, or due to incorrect positioning of the Bowden cable. These factors can potentially lead to increased difficulty or even render it impossible to open one or more doors.

**ECU errors**: No DTCs

**Note:** DO NOT apply any type of grease or lubricant during PDI or Service of the Soft Close Lock mechanism as this may affect operation.

#### **CHECKLIST**

| 1) | n what atmospheric conditions did the anomaly occur (For example: |  |  |  |  |  |
|----|---|--|--|--|--|--|
|    | rain, wind, fog, outside temperature)?                            |  |  |  |  |  |
|    |   |  |  |  |  |  |
|    |   |  |  |  |  |  |
|    |   |  |  |  |  |  |
|    |   |  |  |  |  |  |
|    |   |  |  |  |  |  |

2) Is the Customer Complaint reproducible in the workshop?

□YES NO□

If yes, attach a video to the BOL report.

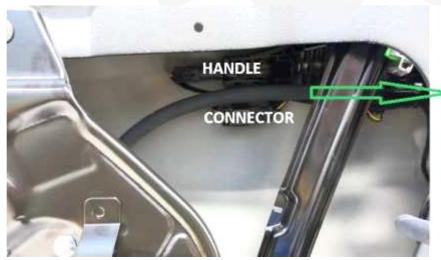
- 3) Perform the door handle stroke measurement by following the procedure below:
  - Slowly pull the handle until the door, if possible, is unlocked;
  - Measure the stroke with a caliper, as shown in the following image;



Write the measure (in mm):\_\_\_mm

Remove the Door Panel of the affected side and take a picture of the Door Lock Bowden Cable Layout as is (to be attached to the BOL); then compare the Bowden cable layout to the pictures below:

### **CORRECT BOWDEN CABLE POSITION**



In this case the Door Lock Bowden Cable has the correct layout between the connector and the handle.

Picture 0

#### **CASE 1: WRONG POSITION**

In this case, as shown in **Picture 1**, the Door Lock Bowden Cable is "too low" if compared to the position of the connector and the handle. This wrong positioning could take to a difficult or not possible door opening from the outside, by increasing the Door Handle stroke. See below "**HOW TO FIX**" to reposition the Bowden cable and solve the Customer Concern.



Picture 1

#### **CASE 2: WRONG POSITION**

In this case, as shown in **Picture 2**, the Door Lock Bowden Cable is "too high" if compared to the position of the connector and the handle. This wrong positioning could take to a difficult or not possible door opening from the outside.

See below "**HOW TO FIX**" to reposition the Bowden cable and solve the Customer Concern.



Picture 2

#### **HOW TO FIX**

In order to reposition the Door Lock Bowden Cable in Picture 1 and 2, you'll have to pull and let it to slide through the white clamp into the Picture 3 until the Bowden cable reaches its correct position (as per Picture 0).



Picture 3

4) Take a picture: Attached to the BOL after having repositioned the Door Lock Bowden Cable and report to the BOL the new measurement of the handle door stroke according to point 3), to confirm the success of the operation (handle door stroke reduction) and the resolution of the Customer Complaint.

Note: The external handle stroke will have to be included **between 22 and 28 mm**, after the Bowden cable repositioning. If the stroke is over 30 mm, it means there is a problem.

5) Please open a **BOL** as **Support Request for CASE 1** by providing all Diagnostic outcomes of the above checks.

# CASE 2

Models: M156 and M157 (from MY18 to MY22) and M161 from MY18 to MY20 (included) equipped with "Soft Door Close" (OPT 228+).

Complaint: Difficult or not possible to open the doors.

The operational performance of the door locks may be impacted by environmental conditions characterized by high humidity and low temperatures, or due to incorrect positioning of the Bowden cable. These factors can potentially lead to increased difficulty or even render it impossible to open one or more doors.

ECU errors: no DTC

**Solution:** Proceed with the replacement of the defective door lock (for all models: M156 – M157 and M161) and open a BOL as Factory Information by filling out the following checklist to get approval to submit the warranty claim.

**Note:** DO NOT apply any type of grease or lubricant during PDI or Service of the Soft Close Lock mechanism as this may affect operation.

#### **CHECKLIST**

| 1) In what atmos sun, outside tempe | •            | ditions did th | e anomaly   | occur (Exa | ample; rain, v | wind, fog, |
|-------------------------------------|--------------|----------------|-------------|------------|----------------|------------|
|                                     |              |                |             |            |                |            |
|                                     |              |                |             |            |                |            |
|                                     |              |                |             |            |                |            |
|                                     |              |                |             |            |                |            |
|                                     |              |                |             |            |                |            |
| 2) Is the Customer C                | Complaint re | producible i   | n the works | shop?      |                |            |
|                                     | YES          | NO             |             |            |                |            |
| If yes, atta                        | ach a video  | to the BOL     | report.     |            |                |            |

- 3) Perform the door handle stroke measurement by following the procedure below:
- Slowly pull the handle, if possible, until the door is unlocked;
- Measure the stroke with a caliper, as shown in the following image;



- Write the measure (in mm):\_\_\_\_mm
- 4) Other findings useful for the description of the anomaly:
- 5) Replace the defective Door Lock;
- **6)** Take a picture of the traceability code, when the Door Lock gets removed to perform the repair action, as shown below; to be attached to the BOL.



7) Please open a **BOL** as **Factory Info for CASE 2** by providing all Diagnostic outcomes of the above checks.