

## Technical Service Bulletin (TSB)

### Flash: Electric Power Steering (EPS) Module Updates

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |       |               |                                                                                                                                                                                                                     |           |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| REFERENCE:         | TSB: 08-149-23 REV. A<br>GROUP 08 - Electrical                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Date: | June 23, 2023 | REVISION:                                                                                                                                                                                                           | 08-149-23 |
| VEHICLES AFFECTED: | 2023 (GC) Alfa Romeo Tonale<br>This bulletin applies to vehicles built on or before May 30, 2023 (MDH 0530XX).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |               | MARKET APPLICABILITY:<br><input checked="" type="checkbox"/> NA <input type="checkbox"/> MEA<br><input type="checkbox"/> SA <input type="checkbox"/> IAP<br><input type="checkbox"/> EE <input type="checkbox"/> CH |           |
| CUSTOMER SYMPTOM:  | Customers may experience a Malfunction Indicator Lamp (MIL) illumination. Upon further investigation the technician may find that the following DTC has been set: <ul style="list-style-type: none"><li>C0529-00 - Steering Angle Sensor Module Missing Calibration - No Subtype Information.</li></ul> The customer may experience the following: <ul style="list-style-type: none"><li>During a key OFF and ON action, rotating the steering wheel without any power assist, the Malfunction Indicator Light (MIL) ON will be activated due to a loss of calibration of the steering angle sensor. After turning the steering wheel lock to lock, the MIL will be switched off.</li></ul> |       |               |                                                                                                                                                                                                                     |           |
| CAUSE:             | EPS software                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |               |                                                                                                                                                                                                                     |           |

This bulletin supersedes Technical Service Bulletin (TSB) 08-149-23, date of issue June 17, 2023, which should be removed from your files. All revisions are highlighted with **\*\*asterisks\*\*** and include Step changes.

This Technical Service Bulletin (TSB) has also been released as a Rapid Service Update (RSU) 23-182, date of issue June 17, 2023. All applicable RSU VINs have been loaded. To verify this RSU service action is applicable to the vehicle, use VIP or perform a VIN search in DealerCONNECT/Service Library. All repairs are reimbursable within the provisions of warranty. This RSU will expire 18 months after the date of issue.

#### REPAIR SUMMARY:

This bulletin involves updating the EPS module with the latest available software.

**CAUTION!** The supplier of this EPS has indicated multiple update steps are required to completely update this EPS prior to returning to the customer.

#### CLAIMS DATA:

| Labor Operation No: | Labor Description                                                                                      | Skill Category                  | Labor Time |
|---------------------|--------------------------------------------------------------------------------------------------------|---------------------------------|------------|
| 18-19-56-AA         | Module, Electric Power Steering (EPS) -Inspect (0 - Introduction)                                      | 6 - Electrical and Body Systems | 0.2 Hrs    |
| 18-19-56-AB         | Module, Electric Power Steering (EPS) - Inspect, Reprogram (Step C) Software (0 - Introduction)        | 6 - Electrical and Body Systems | 0.3 Hrs.   |
| 18-19-56-AC         | Module, Electric Power Steering (EPS) - Inspect, Reprogram (Steps B and C) Software (0 - Introduction) | 6 - Electrical and Body Systems | 0.4 Hrs.   |

| Labor Operation No: | Labor Description                                                                                         | Skill Category                  | Labor Time |
|---------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------|------------|
| 18-19-56-AD         | Module, Electric Power Steering (EPS) - Inspect, Reprogram (Steps A, B and C) Software (0 - Introduction) | 6 - Electrical and Body Systems | 0.5 Hrs.   |
| Failure code        | RF                                                                                                        | Required Flash                  |            |
|                     | CC                                                                                                        | Customer Concern                |            |

**The dealer must choose which failure code to use depending on if this is a Rapid Service Update (RSU) or Technical Service Bulletin.**

- The “RF” failure code is required for essential module flash/reprogramming and can only be used after confirmation that the VIN is included on the RSU.
- The failure code “RF” (Required Flash) can no longer be used on Technical Service Bulletin flashes. The “RF” failure code must be used on an RSU.
- If the customer’s concern matches the SYMPTOM/CONDITION identified in the Technical Service Bulletin, failure code CC is to be used. When utilizing this failure code, the 3C’s must be supplied.

#### DIAGNOSIS:

Using a Scan Tool (wiTECH) with the appropriate Diagnostic Procedures available in DealerCONNECT/Service Library, verify all related systems are functioning as designed. If DTCs or symptom conditions, other than the ones listed above are present, record the issues on the repair order and repair as necessary before proceeding further with this bulletin.

If a customer’s VIN is listed in VIP or your RSU VIN list, perform the repair. If any vehicle not on the VIN list exhibits any of the symptoms listed above in the customer symptom section, perform the Repair Procedure.

#### SPECIAL TOOLS/EQUIPMENT:

| Description          | Ref. No. | Notes |
|----------------------|----------|-------|
| wiTECH or Equivalent | —        | —     |

#### REPAIR PROCEDURE:

**CAUTION!** The supplier of this EPS has indicated multiple update steps are required to completely update this EPS prior to returning to the customer.

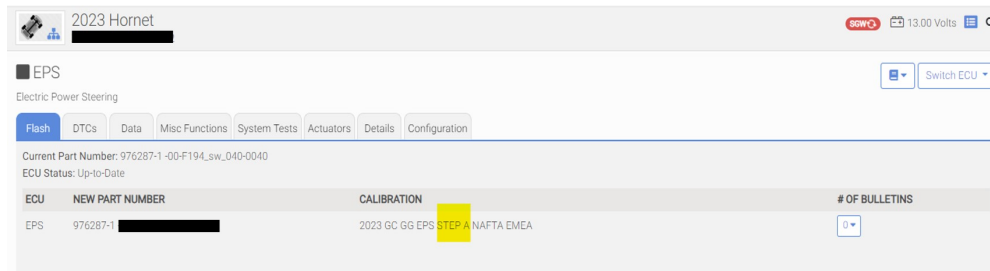
**NOTE:** Upon completion of flash reprogramming please perform the Steering Angle Calibration routine.

**NOTE:** Install a battery charger to ensure battery voltage does not drop below 13.2 volts. Do not allow the charging voltage to climb above 13.5 volts during the flash process.

**NOTE:** If this flash process is interrupted/aborted, the flash should be restarted.

1. Is the vehicle on the RSU VIN list?
  - YES>>> Proceed to [Step 2](#).
  - NO>>> Proceed to [Step 3](#).
2. Does the EPS have the latest software already installed?
  - YES>>> This bulletin has been completed, use inspect LOP (18-19-56-AA) to close the active RSU.
  - NO>>> Proceed to [Step 3](#).

**CAUTION! \*\*Multiple step flashes up to three may be necessary and are required to completely update this EPS these must be performed in order starting with STEP A or B and ending with Step C, be sure to follow wiTECH accordingly (Fig. 1) .\*\***



**Fig. 1**  
**Example of wiTECH Step Flashes**

3. **\*\*Select the appropriate software per wiTECH (Step A, B or C) either Step A or B must be done first in order and end with Step C when finished.\*\***
4. Reprogram the EPS module with the latest software. Detailed instructions for flashing control modules using the wiTECH Diagnostic Application are available by selecting the application's "HELP" tab.
5. Wait 2 minutes after the EPS flash has been completed.
6. To perform an EPS reset with wiTECH - Go to the Guided Diagnostics menu --> Select Reset ECU --> Select "EPS" from the list of modules --> Click "Continue" at the bottom of the page then follow the wiTECH prompts.

**NOTE: If the EPS module is not reset, this may cause the Electronic Vehicle Information Center (EVIC) to display a service the Active Lane Management (ALM) message.**

7. Using wiTECH, perform "PROXI Alignment Procedure" located in BCM>Misc Functions Tab>PROXI ALIGNMENT PROCEDURE.

**NOTE: Please select "Align specific ECU" option and perform PROXI alignment procedure for the EPS module , regardless IF wiTECH screen is showing no ECU to align at this time.**

8. Perform another EPS reset in the Guided Diagnostics menu from wiTECH.
9. To perform an EPS reset in the guided diagnostics menu from wiTECH - Go to the Guided Diagnostics menu --> Select Reset ECU --> Select "EPS" from the list of modules --> Click "Continue" at the bottom of the page then follow the wiTECH prompts.
10. Perform a Steering Angle Calibration Routine in EPS Module>Misc Functions Tab>Steering Angle Calibration from wiTECH.
11. Clear all DTCs that may have been set in any module due to reprogramming. The wiTECH application will automatically present all DTCs after the flash and allow them to be cleared.

#### **POLICY:**

Reimbursable within the provisions of the warranty.

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