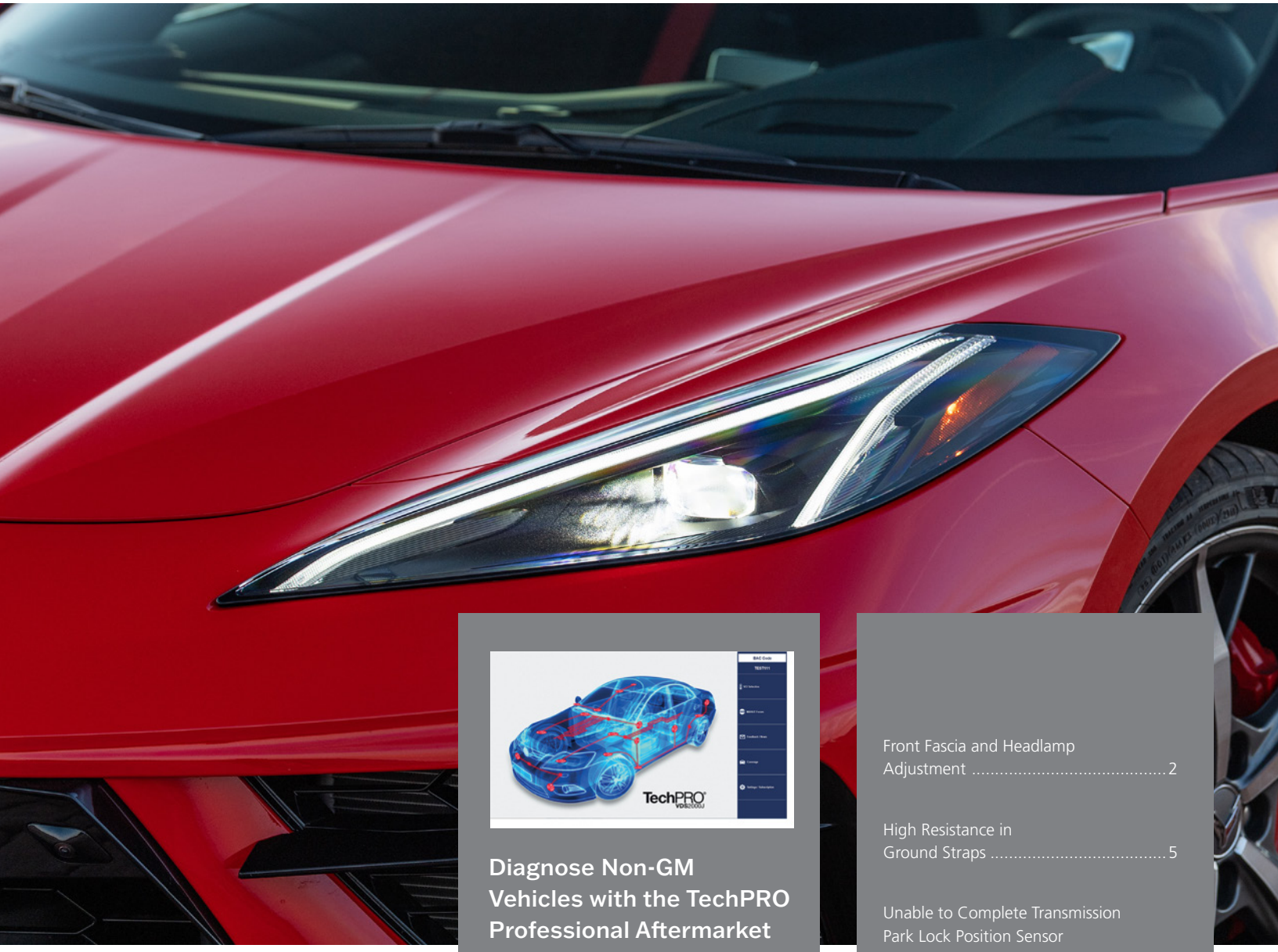
TECH LINK

Mid-September 2023, Volume 25, No. 18

Front Fascia and Headlamp Adjustment



Diagnose Non-GM Vehicles with the TechPRO Professional Aftermarket Diagnostic App

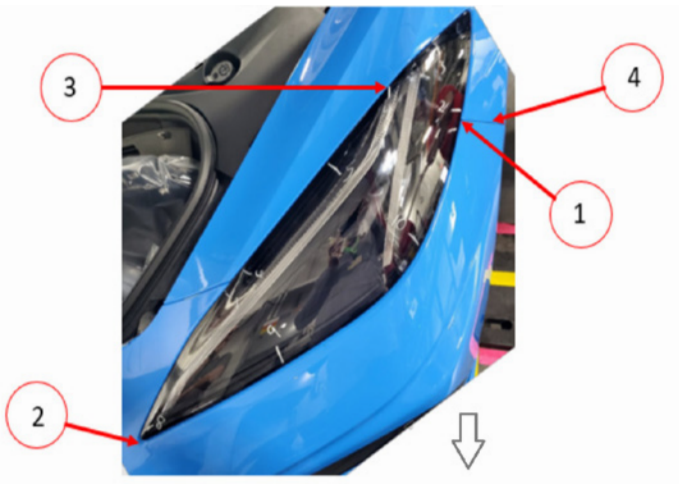
see page 4

Front Fascia and Headlamp Adjustment

The paint may have chipped or peeled on the front fascia or fender-to-fascia body seam on some 2020-2024 Corvettes. The paint chip may be due to the headlamp being positioned too tightly to the body panel. The fit between the front fascia and fender also may be too tight on the same vehicle.

If these conditions are found, there are four potential high-contact areas where the paint may chip or peel:

1. Fender/fascia under the headlamp
2. Front corner of the headlamp to the fascia
3. Headlamp tight to fender
4. Front fascia to fender



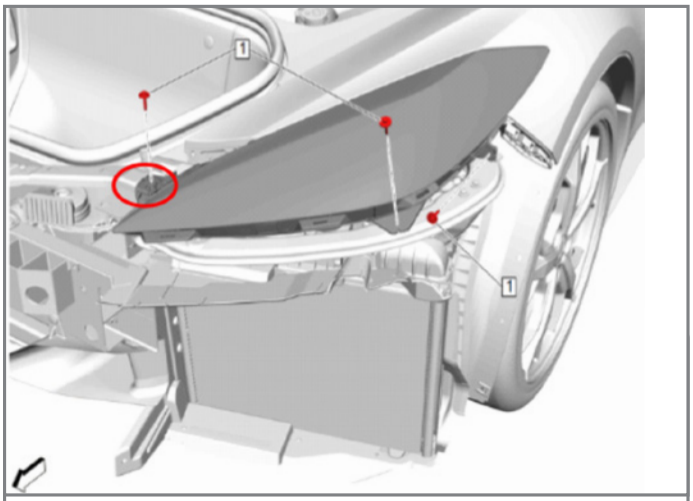
1. Fender/fascia under the headlamp
2. Front corner of the headlamp to the fascia
3. Headlamp tight to fender
4. Front fascia to fender

Check for the correct headlamp position before and after any repairs. The headlamp lens should have a minimum 0.5 mm (0.02 in.) gap between the lens and the body panel.

Measure the headlamp position.

HEADLAMP ADJUSTMENT

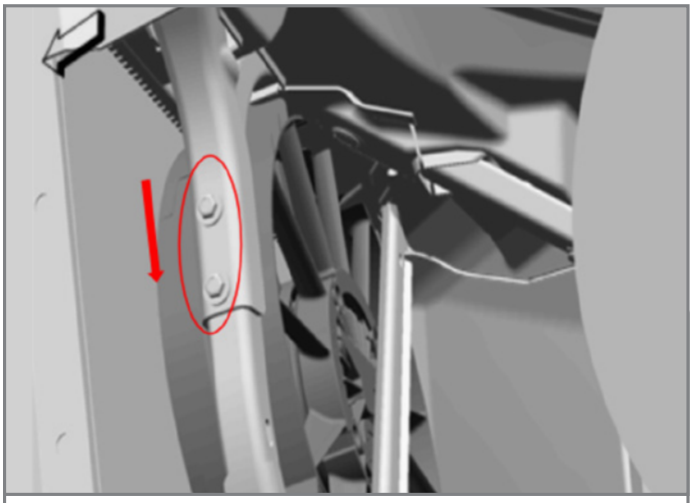
To adjust the headlamps, the front tire/wheel assemblies and wheelhouse liners as well as the front fascia must be removed.



Complete a partial paint repair to the affected locations of the front fascia and reinstall the fascia.

CONTINUED ON PAGE 3

The headlamps can be adjusted on both sides, as necessary, by loosening the fasteners and moving the front corner of the headlamp away from the front compartment opening. In some cases, the forward mounting hole in the headlamp housing may need to be slightly enlarged to move the headlamp away from the fascia. After positioning the headlamp, hold it in place when reinstalling the bolt.



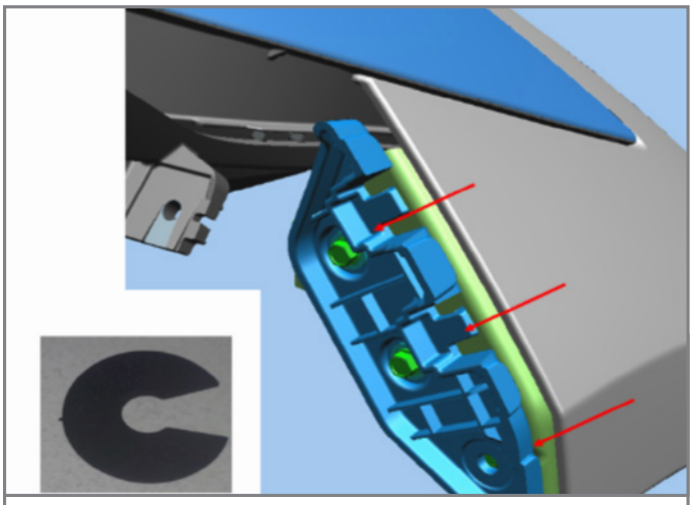
Two cobra bracket bolts

HEADLAMP-TO-FENDER GAP

If there is a tight gap at the headlamp-to-fender area, mark the location of the two cobra bracket bolts on each side of the vehicle and adjust the brackets. Lowering the bracket will create a larger gap between the headlamp lens and the fender.

FASCIA-TO-FENDER GAP

If there is a tight gap at the front fascia-to fender area, install shims at three locations (as indicated) between the bracket and fender.



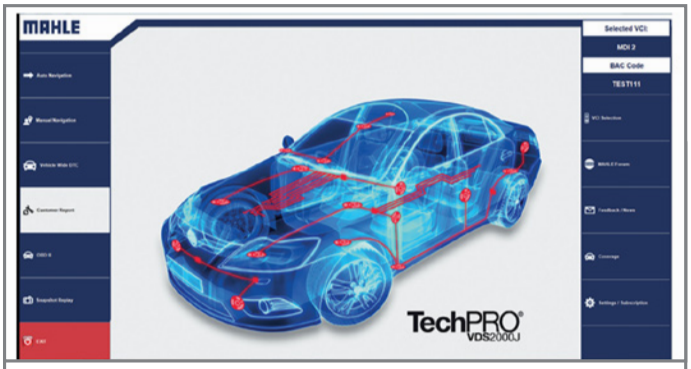
Install shims at three locations between the bracket and fender.

For complete repair instructions and part numbers, refer to Bulletin #22-NA-081.

▶ Thanks to Lane Rezek and Jeff Strausser

Diagnose Non-GM Vehicles

WITH THE TECHPRO PROFESSIONAL AFTERMARKET DIAGNOSTIC APP



TechPRO Professional Aftermarket Diagnostics application

Analyze all DTCs from the control modules on the vehicle.

The MAHLE TechPRO Professional Aftermarket Diagnostics application was recently introduced by GM Customer Care and Aftersales to help U.S. dealerships with diagnosing non-GM vehicles. The diagnostic app provides dealerships' used car departments and collision repair centers with a convenient and effective way to diagnose most non-GM vehicles.

The TechPRO software diagnostics application doesn't require any new hardware. The app can be used with the dealership's current Techline computer and the MDI/MDI 2.

SIMILAR TO GDS2

Offering functionality that will be familiar to those using GDS2, it can be used to quickly scan, analyze, diagnose and repair most non-GM makes and models. The app offers diagnostic data on a number of control modules, including the ECM, BCM, TCM, ABS, HVAC, TPMS and many others.

With the application installed on a Techline PC, users can make their VCI Device Selection (MDI or MDI 2) from the menu on the home page and then begin to gather data from the vehicle. Once connected to a vehicle, select Auto Navigation to read the VIN or click Manual Navigation to enter the make, model, and year of a vehicle. The software decodes a VIN within seconds and reports all DTCs from the control modules on the vehicle. The app also can be set up to automatically perform an all-module DTC check on the vehicle.

In addition, the app has snapshot replay and graphing functions to assist with reviewing and analyzing vehicle data.

ONE SUBSCRIPTION FOR ALL

One annual subscription for the software application covers the entire dealership. It can be installed and run on any dealership computer that meets current GM PC specifications. Additional information, including how to get started, make and model coverage, and software downloading tips, is available through mahletechpro.com/gm.

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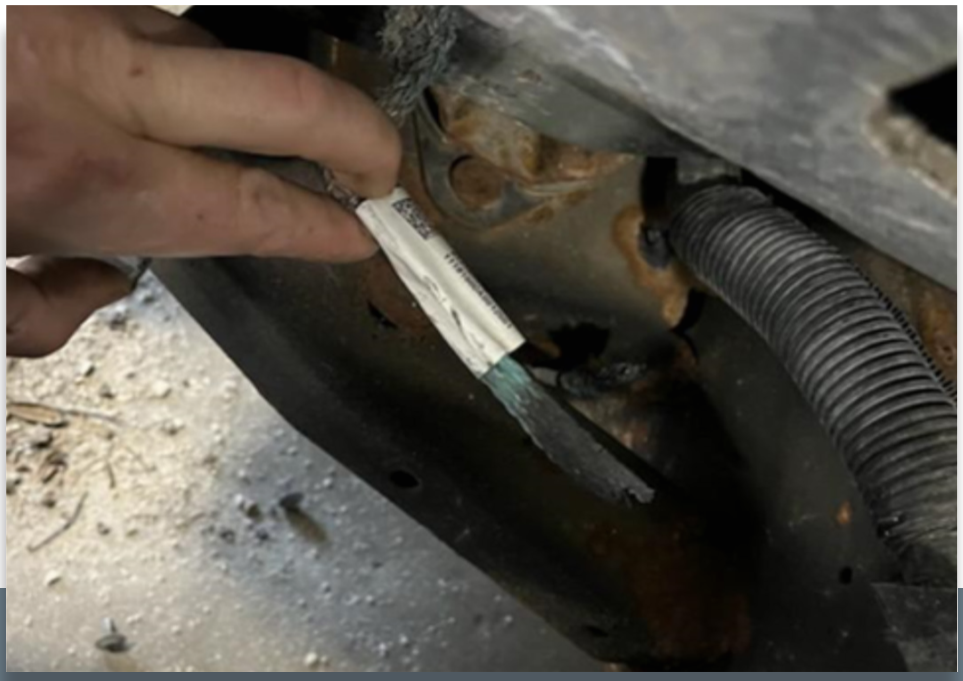
Any questions about the app can be directed to MAHLE Service Solutions at 1-800-468-2321

▶ Thanks to Chris Henley

High Resistance in Ground Straps



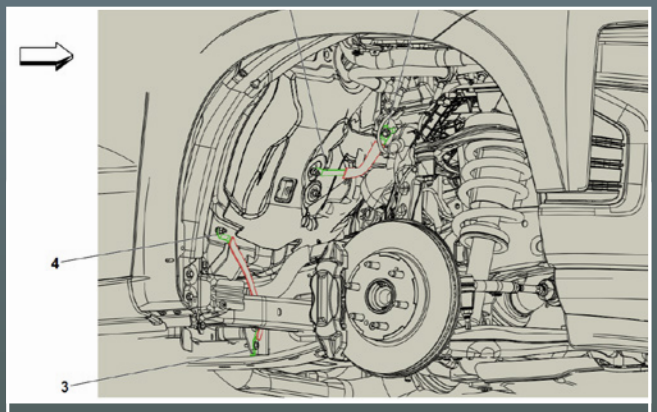
There may be high resistance in the G132 and G133 grounds, located behind the right-hand wheelhouse liner on some 2019-2022 Silverado 1500 and Sierra 1500 models. As a result, a loss of power steering assist or power braking assist may occur.

DTCs B127B (Rearview Camera Input Signal Circuit), B1325 (Control Module Power Circuit), B3205 (Driver Window Motor), C116C (Front Brake Pad Wear Signal Circuit), C1595 (Trailer Brake Signal to Trailer Brake Power Control Module Circuit), P25A2 (Brake System Control Module 1 Requested MIL Illumination), U0420 (Invalid Data Received from Power Steering Control Module) and/or U0422 (Invalid Data Received from Body Control Module) may be set.

If these conditions are found, inspect the G132 engine ground strap and G133 frame ground strap for high resistance and repair as necessary. Check for any loose, stripped or corroded straps or connections. Refer to Ground Repair in the appropriate Service Information.

For additional information, including part numbers, refer to Bulletin #23-NA-201.

▶ Thanks to Dave MacGillis

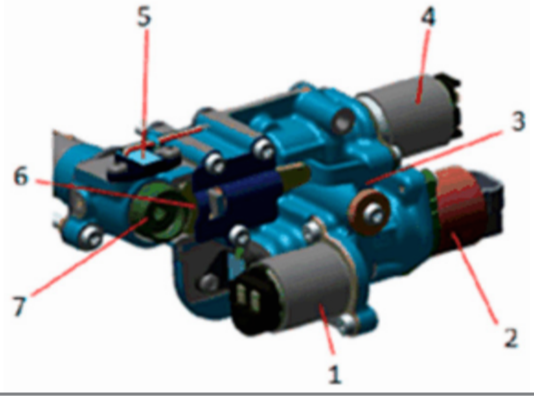


Inspect G132 (#1) and G133 (#4) for high resistance.

Unable to Complete Transmission Park Lock Position Sensor Measurement

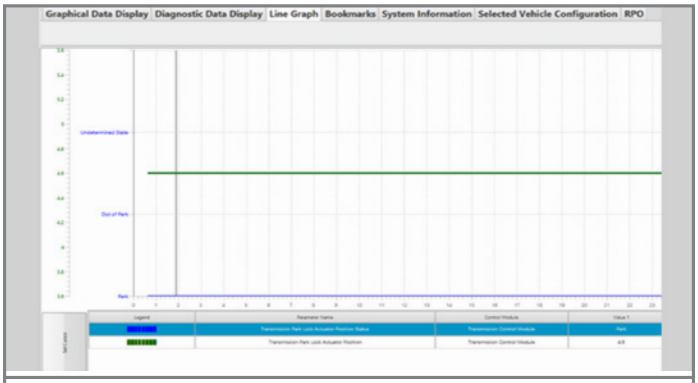
Some 2020-2024 Corvettes may have a no start condition or the vehicle may not shut down. In some cases, these conditions may lead to a drained battery. There also may be a number of communication and powertrain DTCs set, including DTCs U0402, U0422, U1611, U0101, U0209, U3002, U1008, U0073, P07E6, P18E7, P17F6, P1961, P1964, P0652, P284F, P1789 and P0562.

These conditions may be due to park sensor drift in the transmission or a communication error caused by a module or circuitry.



Park Lock Position Sensor (#5)

To help with diagnosis, start a Technical Assistance Center (TAC) case and forward the park sensor measurement in millimeters



Park sensor measurement

found in the GDS transmission data; ETRS data lists. It's not necessary to submit the session log for this condition.

TAC will contact GM Engineering with this data to verify the park position at birth. The data comparison will confirm whether the transmission has park sensor drift that will require transmission replacement or if there is another direction for vehicle repair.

For additional information, refer to Bulletin #23-NA-176.

Thanks to Marty Leach

TECHLINK

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