

2022 CHEVROLET CORVETTE SERVICE MANUAL

- **SEARCH**

1. **Steering**

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3. **Repair Instructions**

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Electric Belt Drive Rack and Pinion Steering Gear Replacement

Removal Procedure

Caution:

Electrostatic discharge (ESD) can damage many solid-state electrical components. ESD susceptible components may or may not be labeled with the ESD symbol. Handle all electrical components carefully. Use the following precautions in order to avoid ESD damage:

- Touch a metal ground point in order to remove your body's static charge before servicing any electronic component; especially after sliding across the vehicle seat.
- Do not touch exposed terminals. Terminals may connect to circuits susceptible the ESD damage.
- Do not allow tools to contact exposed terminals when servicing connectors.
- Do not remove components from their protective packaging until required to do so.
- Avoid the following actions unless required by the diagnostic procedure:

Other List:attention-list2

- Ground the protective packaging of any component before opening. Do not rest solid-state components on metal workbenches, or on top of TVs, radios, or other electrical devices.

Caution:

During removal and installation, all EPS components including mechanical and/or electrical is extremely susceptible to damage. Dropping or prying on any EPS component may cause internal damage. If damage occurs or a part is dropped, the EPS component must be replaced.

Caution:

Care must be taken during removal and installation of the Electronic Power Steering (EPS) components to not hit or break the EPS motor/controller module or module harness connectors. If the EPS motor/ controller module or module connectors are damaged, the complete component must be replaced.

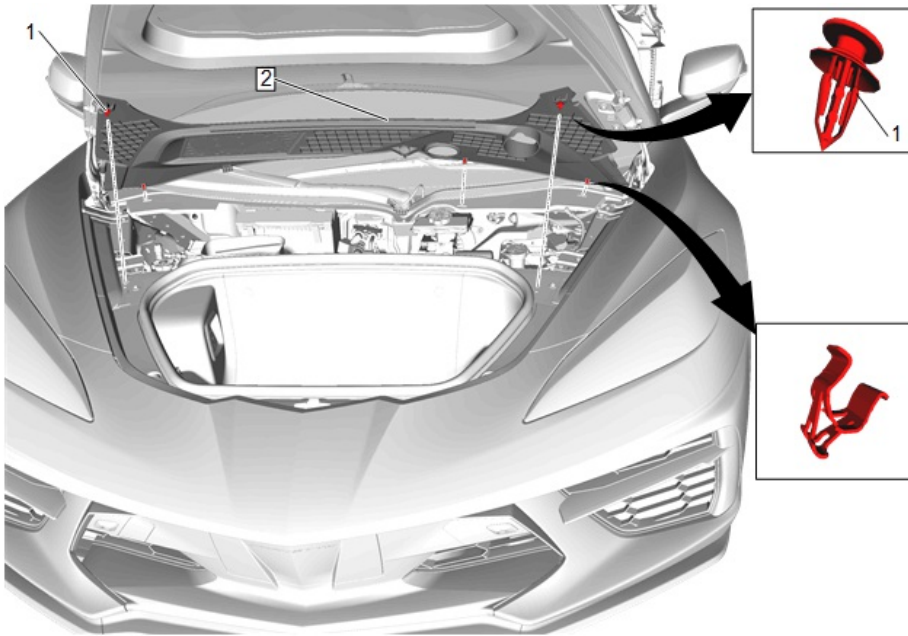
Caution:

With wheels of the vehicle facing straight ahead, secure the steering wheel utilizing steering column anti-rotation pin, steering column lock, or a strap to prevent rotation. Locking of the steering column will prevent damage and a possible malfunction of the SIR system. The steering wheel must be secured in position before disconnecting the following components:

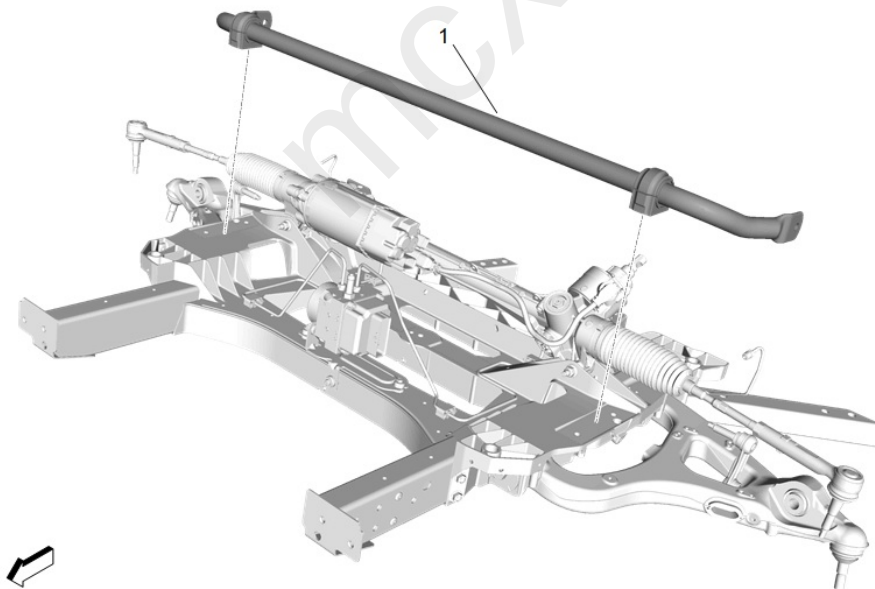
- The steering column
- The intermediate shaft(s)
- The steering gear

After disconnecting these components, do not rotate the steering wheel or move the front tires and wheels. Failure to follow this procedure may cause the SIR coil assembly to become un-centered and cause possible damage to the SIR coil. If you think the SIR coil has become un-centered, refer to your specific SIR coil's centering procedure to re-center SIR Coil.

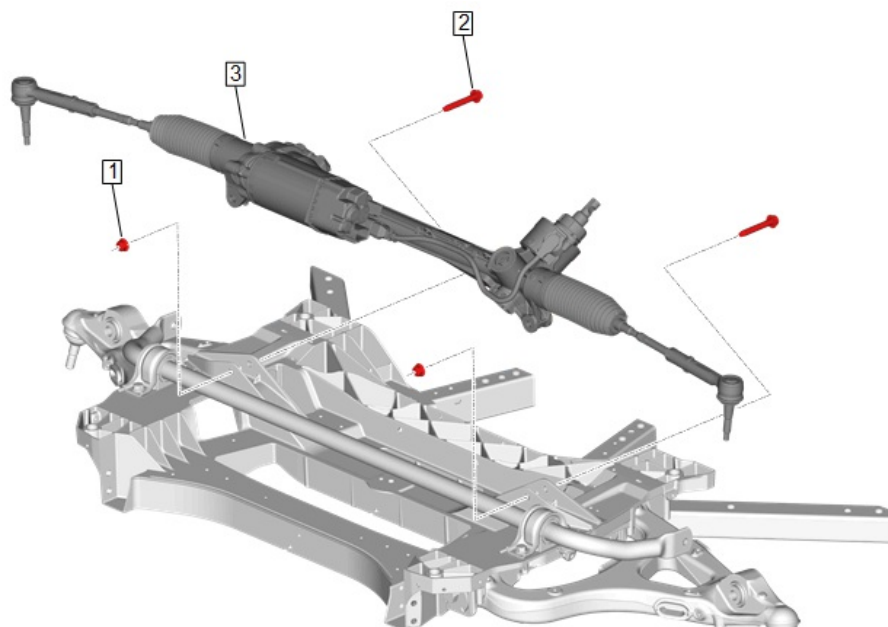
1. Secure the steering wheel to prevent steering column rotation.



2. [Click here for full size](#)
3. Front Compartment Rear Access Cover (2) >>> Remove - Front Compartment Rear Access Cover Replacement
4. Separate the intermediate steering shaft at the electric belt drive rack and pinion steering gear. Intermediate Steering Shaft Replacement
5. Separate the left and right side steering linkage outer tie rod from the steering knuckle. Steering Linkage Outer Tie Rod Replacement
6. Without disconnecting suspension components, lower the drivetrain and front suspension cradle as necessary.
7. Drivetrain and Front Suspension Cradle Removal and Installation



8. [Click here for full size](#)
9. Front Stabilizer Shaft (1) >>> Remove - Front Stabilizer Shaft Replacement
10. Disconnect the 2 electrical connectors attached to the electric belt drive rack and pinion steering gear.



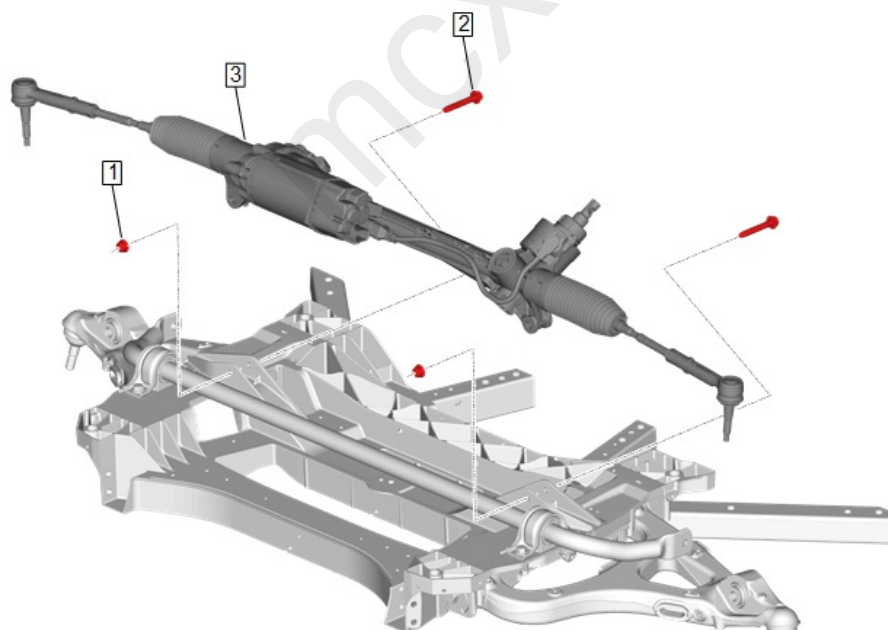
11. [Click here for full size](#)

12. Note:

The drivetrain and front suspension cradle is shown removed for graphic clarity, removal is not required.

13. Steering Gear Nut (1) >> Remove [2x]
14. Steering Gear Bolt (2) >> Remove [2x]
15. Rotate the electric belt drive rack and pinion steering gear (3) as necessary and remove from the left side of the vehicle.
16. Transfer components as necessary.

Installation Procedure



1. [Click here for full size](#)
2. Electric Belt Drive Rack and Pinion Steering Gear (3) >> Install
3. Steering Gear Bolt (2) >> Install [2x]
4. Steering Gear Nut (1) >> Install [2x]

5. Caution:

Refer to Fastener Caution.

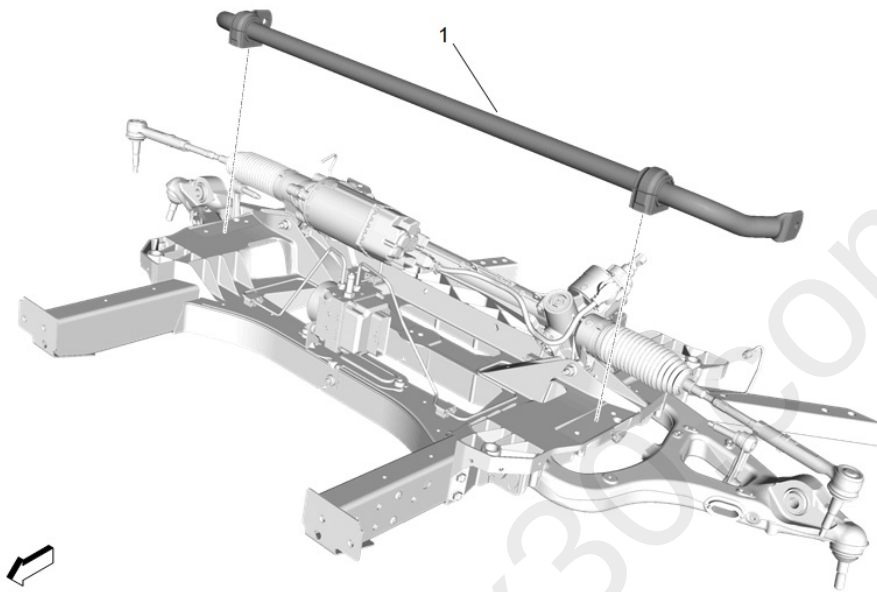
6. Steering Gear Bolt (2) >> Tighten [2x]

7.

1. First Pass: 58 N-m (43 lb ft)

2. Final Pass: 30°±45 degrees

8. Connect the 2 electric belt drive rack and pinion steering gear electrical connectors.



9.

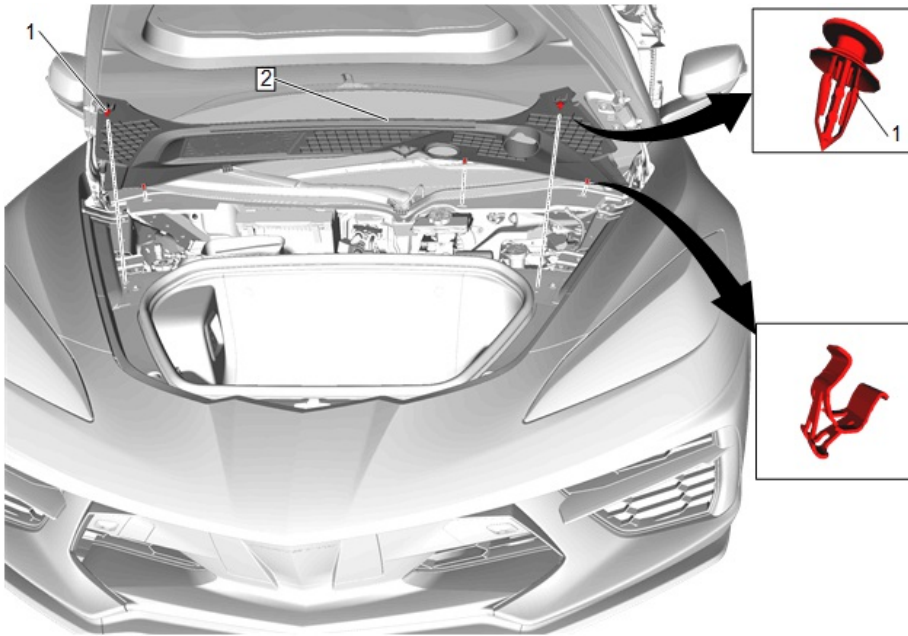
[Click here for full size](#)

10. Front Stabilizer Shaft (1) >> Install - Front Stabilizer Shaft Replacement

11. Drivetrain and Front Suspension Cradle >> Install - Drivetrain and Front Suspension Cradle Removal and Installation

12. Install the left and right steering linkage outer tie rods to the steering knuckle. Steering Linkage Outer Tie Rod Replacement

13. Install the intermediate steering shaft at the electric belt drive rack and pinion steering gear. Intermediate Steering Shaft Replacement



14. [Click here for full size](#)
15. Front Compartment Rear Access Cover (2) >>> Install - Front Compartment Rear Access Cover Replacement
16. Program the power steering control module. Control Module References
17. Measure and adjust the wheel alignment. Wheel Alignment Measurement