

2018 ACCESSORIES & EQUIPMENT

Frame And Underbody - Equinox, Terrain

SPECIFICATIONS

FASTENER SPECIFICATIONS

Single Use Threaded Fastener/Component Tightening Specifications

NOTE: <i>All fasteners/components listed in this table MUST BE DISCARDED and replaced with NEW after removal.</i>	
Application	Specification
	Metric (English)
Front Cradle Brace Bolt	
• First Pass:	58 N.m (43 lb ft)
• Final Pass:	30 - 45 Degrees
Rear Suspension Cradle Mounting Bolt - Large Bolt	
• First Pass:	90 N.m (66 lb ft)
• Final Pass:	90 - 105 Degrees

Reusable Threaded Fastener Tightening Specifications

NOTE: <i>All fasteners listed in this table can be reused after removal.</i>	
Application	Specification
	Metric (English)
Drivetrain and Front Suspension Cradle Mounting Bolt	175 N.m (129 lb ft)
Front Tire Front Air Deflector Bolt	2.5 N.m (22 lb in)
Front Wheelhouse Liner Bolt	2.5 N.m (22 lb in)
Rear Suspension Cradle Bolts - Small	100 N.m (74 lb ft)
Rear Tire Front Air Deflector Bolt	2.5 N.m (22 lb in)
Trailer Hitch Bolt	100 N.m (74 lb ft)
Trailer Hitch Nuts	58 N.m (43 lb ft)
Rear Wheelhouse Liner Bolt	2.5 N.m (22 lb in)
Front Compartment Air Deflector Bolt	2.5 N.m (22 lb in)
Underbody Rear Air Deflector Nut	3 N.m (27 lb in)
Underbody Rear Air Deflector Bolt	5 N.m (44 lb in)

REPAIR INSTRUCTIONS

UNDERBODY FRONT AIR DEFLECTOR REPLACEMENT (EQUINOX)

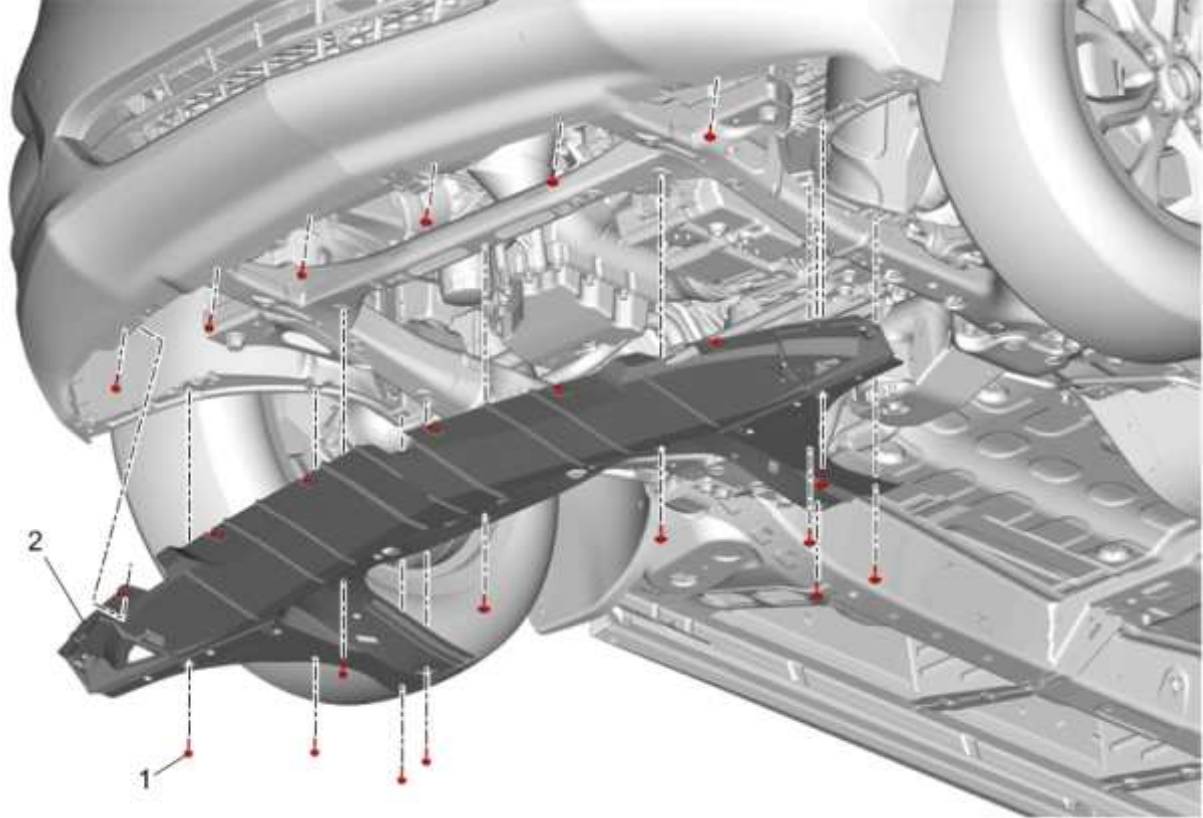


Fig. 1: Underbody Front Air Deflector
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Raise and support the vehicle. Lifting and Jacking the Vehicle 2. Front Tire Front Air Deflector Replacement (Equinox).	
1	Front Compartment Air Deflector Bolt [17x] CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Underbody Front Air Deflector Procedure 1. Pull rearward and down to remove. 2. Remove the support and lower the vehicle.

UNDERBODY FRONT AIR DEFLECTOR REPLACEMENT (TERRAIN)

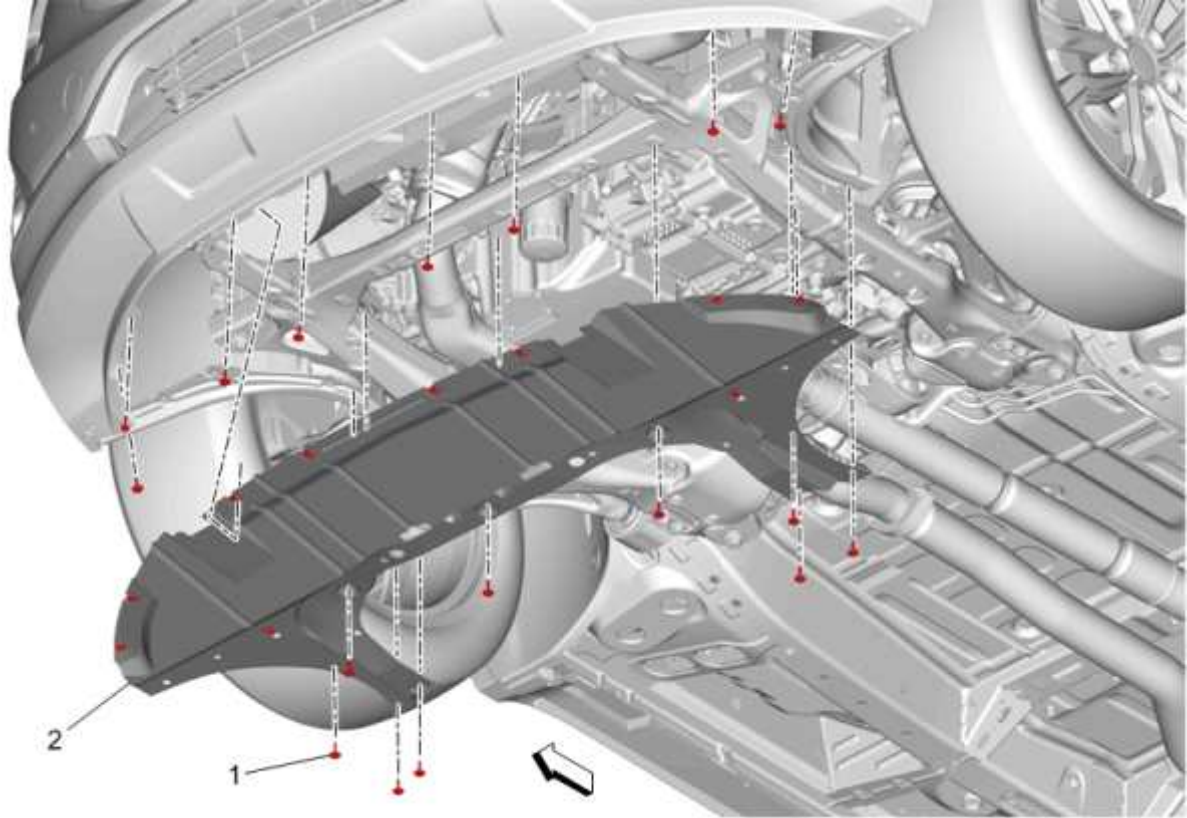


Fig. 2: Underbody Front Air Deflector
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle 2. Front Tire Front Air Deflector Replacement (Terrain).	
1	Front Compartment Air Deflector Bolt [17x] CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Underbody Front Air Deflector Procedure 1. Pull rearward and down to remove. 2. Remove the support and lower the vehicle.

UNDERBODY REAR AIR DEFLECTOR REPLACEMENT (FRONT WHEEL DRIVE)

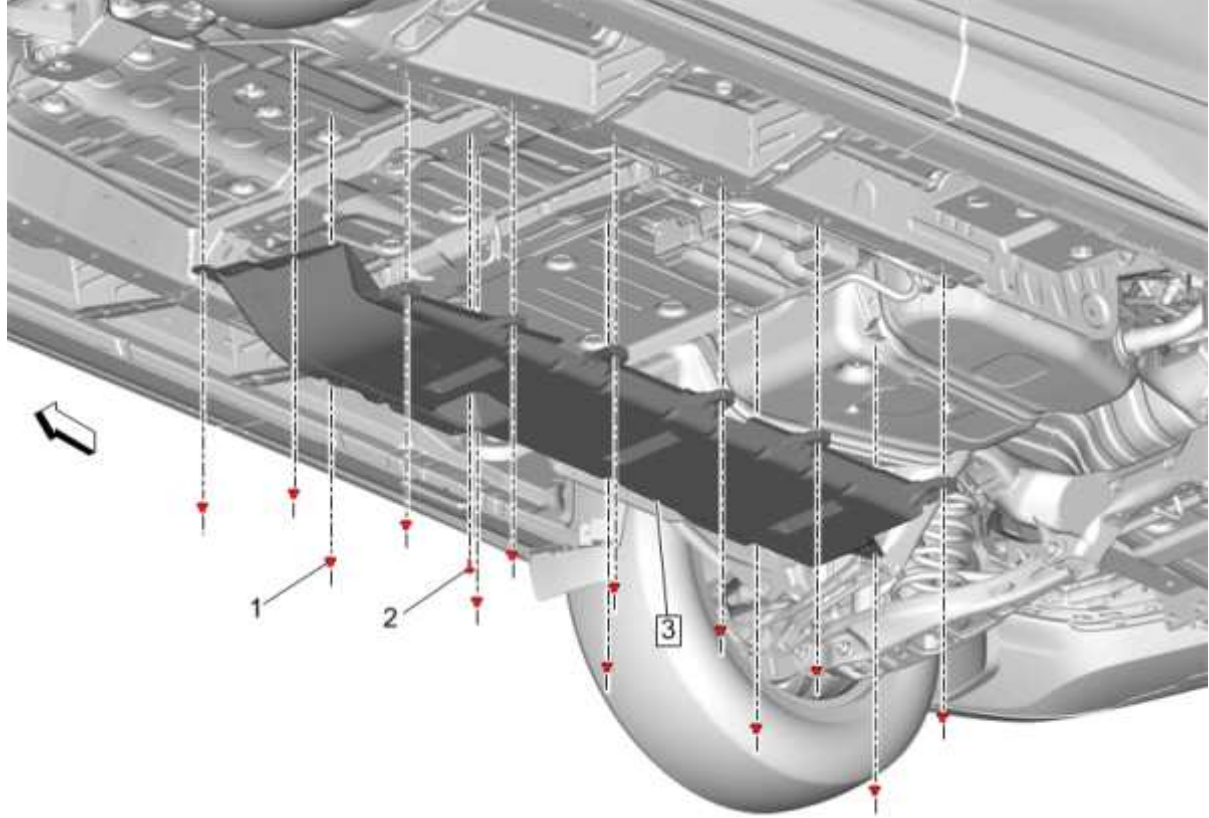


Fig. 3: Underbody Rear Air Deflector
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle	
1	Underbody Rear Air Deflector Nut[13x] CAUTION: Refer to Fastener Caution . Tighten 3 N.m (27 lb in)
2	Underbody Rear Air Deflector Bolt Tighten 5 N.m (44 lb in)
3	Underbody Rear Air Deflector Procedure Remove the support and lower the vehicle. Refer to Lifting and Jacking the Vehicle

UNDERBODY REAR AIR DEFLECTOR REPLACEMENT (ALL WHEEL DRIVE)

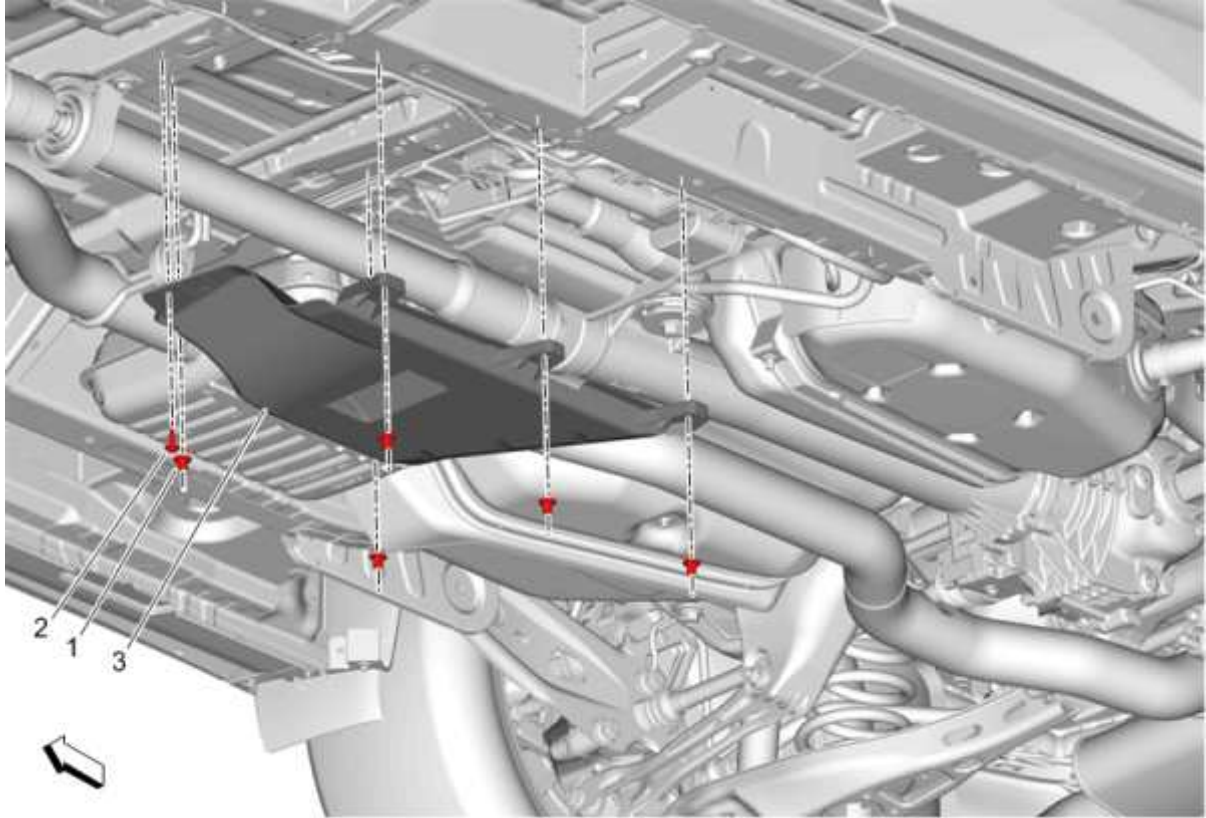


Fig. 4: Underbody Rear Air Deflector

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle	
1	Underbody Rear Air Deflector Nut [5x] CAUTION: Refer to Fastener Caution . Tighten 3 N.m (27 lb in)
2	Underbody Rear Air Deflector Bolt Tighten 5 N.m (44 lb in)
3	Underbody Rear Air Deflector Procedure Remove the support and lower the vehicle. Refer to Lifting and Jacking the Vehicle

UNDERBODY REAR AIR DEFLECTOR REPLACEMENT (DIESEL)

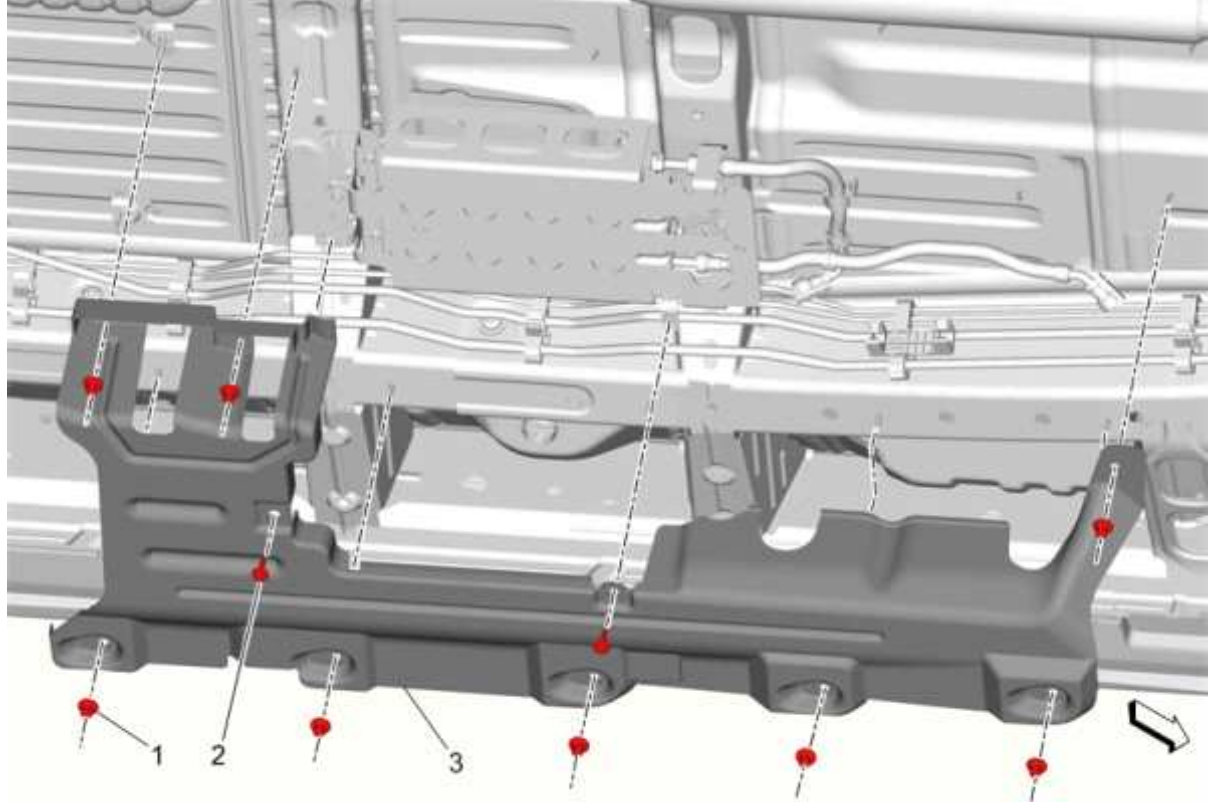


Fig. 5: Underbody Rear Air Deflector
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle	
1	Underbody Rear Air Deflector Nut [8x] CAUTION: Refer to Fastener Caution . Tighten 3 N.m (27 lb in)
2	Underbody Rear Air Deflector Bolt [2x] Tighten 5 N.m (44 lb in)
3	Underbody Rear Air Deflector Procedure Remove the support and lower the vehicle. Refer to Lifting and Jacking the Vehicle

FRONT CRADLE BRACE REPLACEMENT

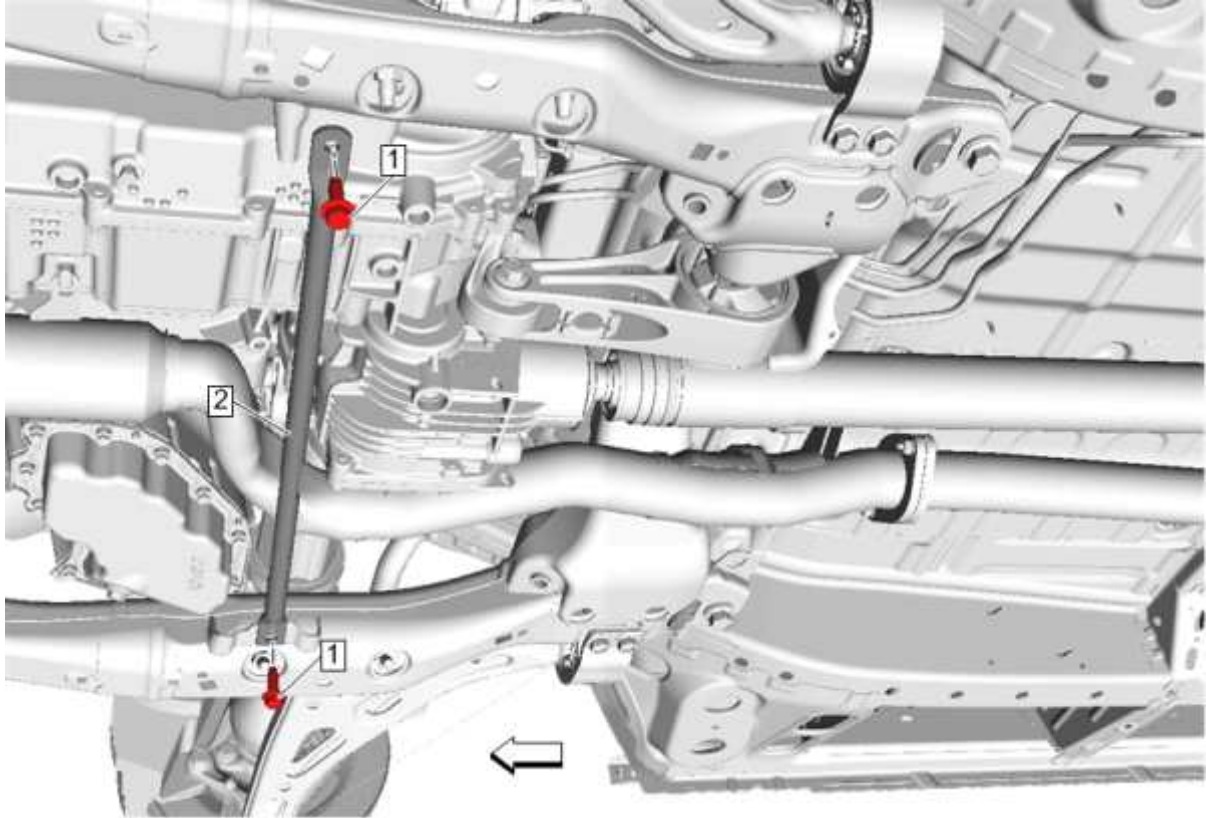


Fig. 6: Front Cradle Brace

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle	
1	Front Cradle Brace Fasteners [2x] NOTE: Discard the bolts, they are not reusable. CAUTION: Refer to Fastener Caution . Tighten 1. First pass: 58 N.m (43 lb ft) 2. Final pass: 30-45 degrees
2	Front Cradle Brace NOTE: Ensure the RH UP and LH UP stamped indicators on each end of brace are oriented correctly to vehicle.

DRIVETRAIN AND FRONT SUSPENSION CRADLE REPLACEMENT (FRONT WHEEL DRIVE)

Special Tools

- CH-51034 - A Cradle Alignment Pins

For equivalent regional tools, refer to [Special Tools](#).

Removal Procedure

NOTE:

Vehicle alignment is not required if the cradle is being lowered or dropped to perform another procedure. This vehicle is equipped with a cradle to body aligning feature: cradle to body through holes or self aligning pins that are part of the cradle or body. Only align if replacing the cradle with a NEW cradle and transferring components.

1. Disconnect the battery negative cable. [Battery Negative Cable Disconnection and Connection \(KL9\)](#)
2. Disconnect the steering intermediate shaft from the steering gear. [Intermediate Steering Shaft Replacement \(Equinox\)](#) [Intermediate Steering Shaft Replacement \(Terrain\)](#)
3. Remove the steering column dash inner seal. [Steering Column Dash Inner Seal Replacement \(Equinox\)](#) [Steering Column Dash Inner Seal Replacement \(Terrain\)](#)
4. Remove the exhaust front pipe. [Exhaust Front Pipe Replacement \(LTG\)](#) [Exhaust Front Pipe Replacement \(LYX\)](#) [Exhaust Front Pipe Replacement \(LH7\)](#)
5. Remove the front bumper fascia lower stiffener. [Front Bumper Fascia Lower Stiffener Replacement](#)
6. Remove the front wheelhouse splash shield. [Front Wheelhouse Splash Shield Replacement \(Equinox\)](#) [Front Wheelhouse Splash Shield Replacement \(Terrain\)](#)
7. Support the front brake rotor with a suitable jack.

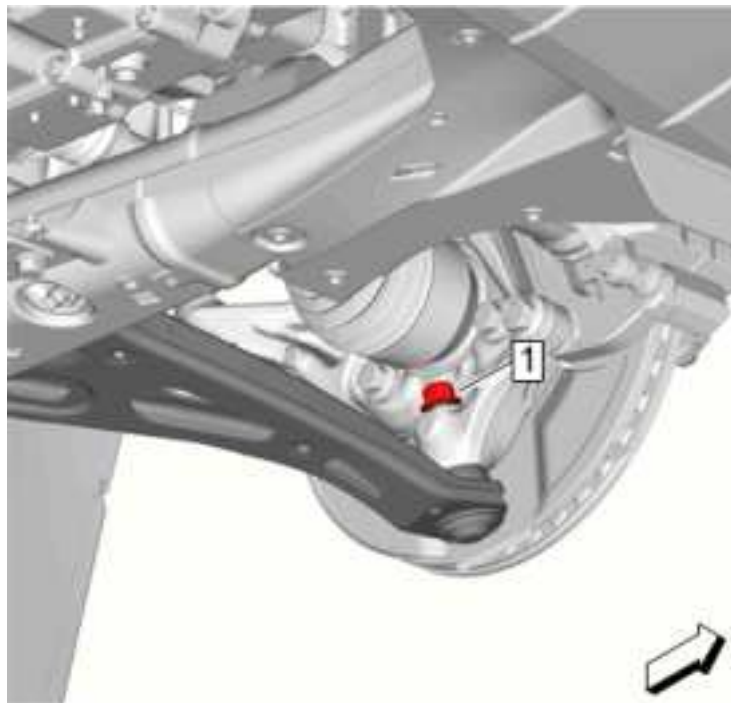


Fig. 7: Lower Control Arm To Steering Knuckle Nut
Courtesy of GENERAL MOTORS COMPANY

8. Loosen the lower control arm to steering knuckle nut (1).
9. Separate the lower ball joint from the steering knuckle. [Lower Control Arm Replacement \(Equinox\)](#) [Lower Control Arm Replacement \(Terrain\)](#)
10. Disconnect the outer tie rod from the steering knuckle. [Steering Linkage Outer Tie Rod Replacement](#)

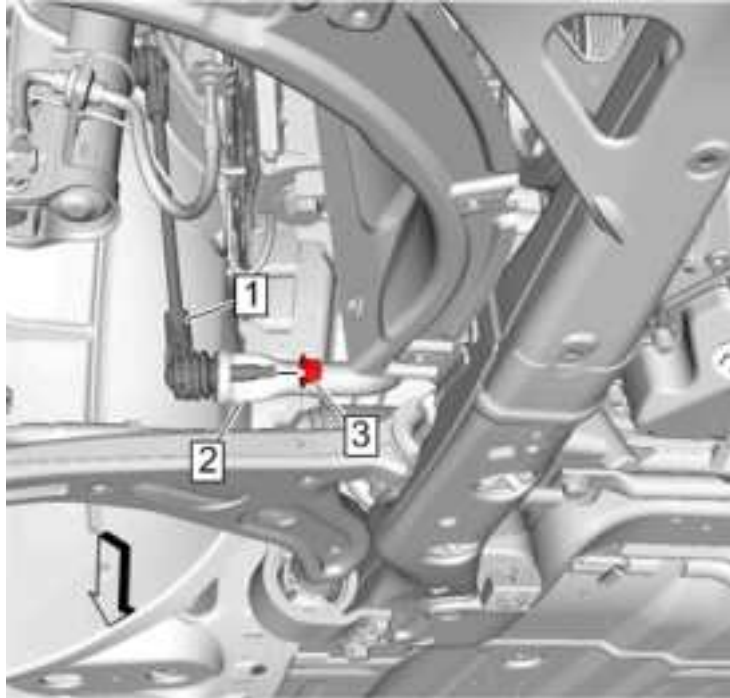


Fig. 8: Stabilizer Shaft And Shaft Links

Courtesy of GENERAL MOTORS COMPANY

11. Remove the stabilizer shaft links (1) from the stabilizer shaft (2). [Stabilizer Shaft Link Replacement \(Equinox\)](#) [Stabilizer Shaft Link Replacement \(Terrain\)](#)
12. Support the engine with the engine support fixture. [Engine Support Fixture](#)
13. Remove the transmission rear strut. [Transmission Mount Strut Replacement \(Front Wheel Drive\)](#)

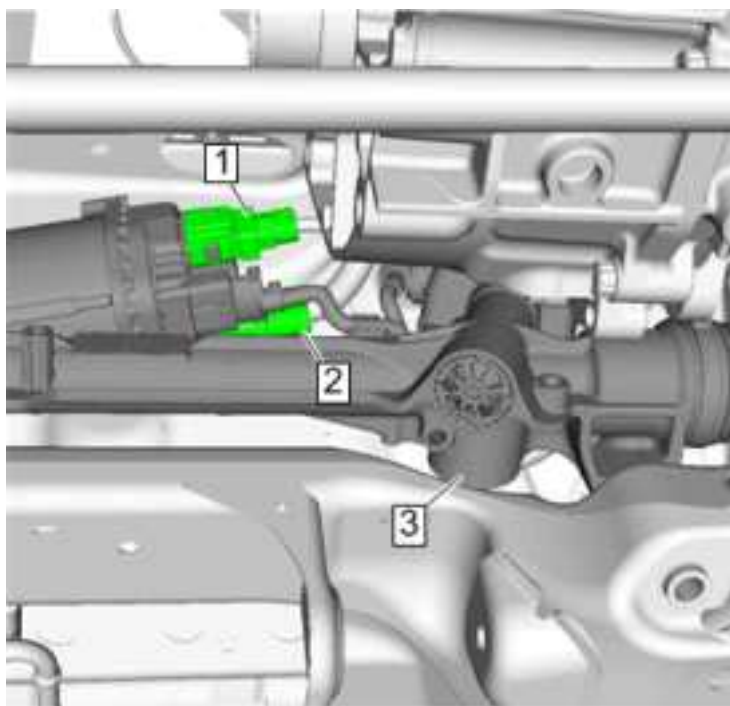


Fig. 9: Power Steering Assist Motor And Connectors

Courtesy of GENERAL MOTORS COMPANY

14. Disconnect the connectors (1, 2) from the power steering assist motor (3) and release the wire harness retainers from the steering gear assembly.
15. Using mechanics wire, retain the radiator in the vehicle.
16. Support the drivetrain and front suspension cradle with a suitable jack.

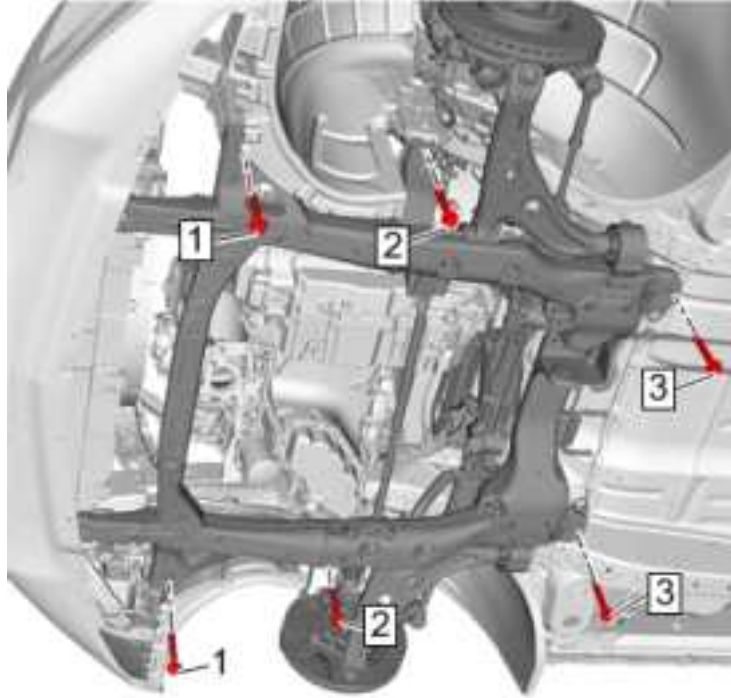


Fig. 10: Front Cradle Mounting Bolts

Courtesy of GENERAL MOTORS COMPANY

17. Remove the front cradle mounting bolts (1, 2, 3).
18. Lower the drivetrain and front suspension cradle making sure no harness retainers remain attached to the cradle.

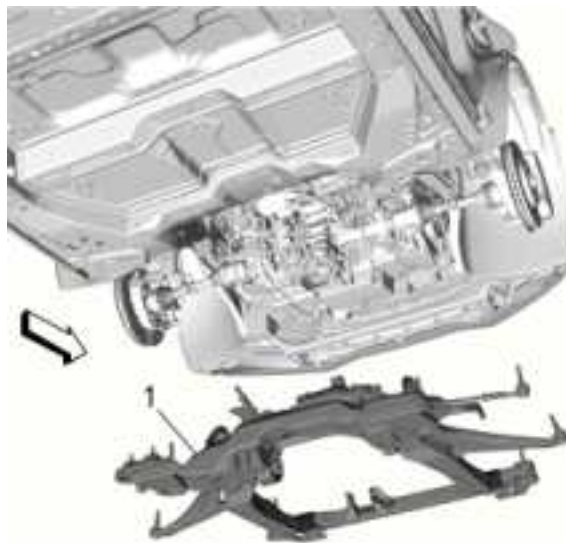


Fig. 11: Drivetrain And Front Suspension Cradle

Courtesy of GENERAL MOTORS COMPANY

19. Remove the drivetrain and front suspension cradle (1) from the vehicle.
20. If replacing the drivetrain and front suspension cradle, transfer the following:
 - Steering Gear Assembly - [Electric Dual Pinion Rack and Pinion Steering Gear Replacement](#)
 - Lower Control Arm - [Lower Control Arm Replacement \(Equinox\)](#), [Lower Control Arm Replacement \(Terrain\)](#)
 - Stabilizer Shaft - [Stabilizer Shaft Replacement \(Equinox, Terrain, FWD, LYX\)](#), [Stabilizer Shaft Replacement \(Equinox, Terrain, AWD, LYX\)](#), [Stabilizer Shaft Replacement \(Equinox, Terrain, FWD, LH7\)](#), [Stabilizer Shaft Replacement \(Equinox, Terrain, AWD, LH7\)](#), [Stabilizer Shaft Replacement \(Equinox, Terrain, FWD, LTG\)](#), [Stabilizer Shaft Replacement \(Equinox, Terrain, AWD, LTG\)](#)

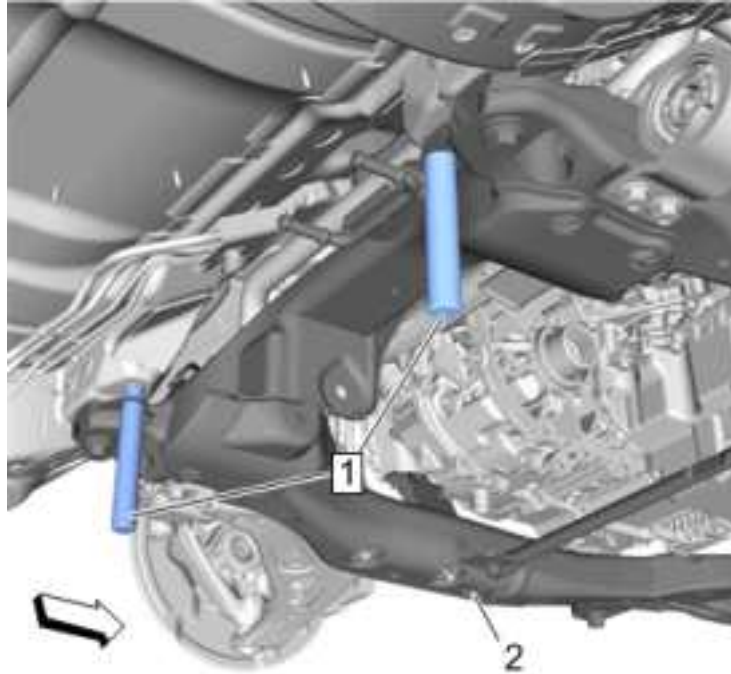


Fig. 12: Cradle Alignment Pins

Courtesy of GENERAL MOTORS COMPANY

1. Position the drivetrain and front suspension cradle to the vehicle. Install the 2 **CH-51034 - A** Cradle Alignment Pins (1) into the alignment holes on the cradle frame.

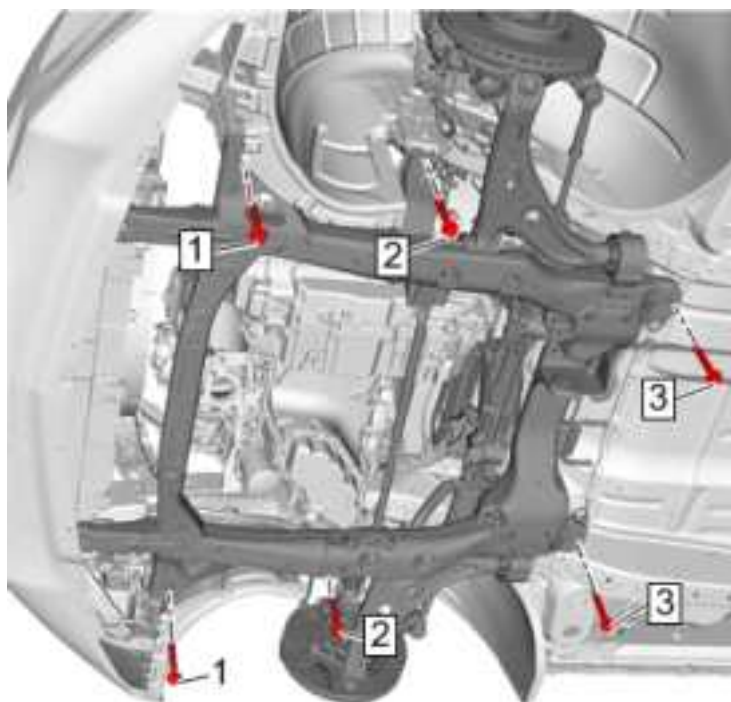


Fig. 13: Front Cradle Mounting Bolts

Courtesy of GENERAL MOTORS COMPANY

2. Install the drivetrain and front suspension cradle mounting bolts (1, 2, 3) but do not tighten.

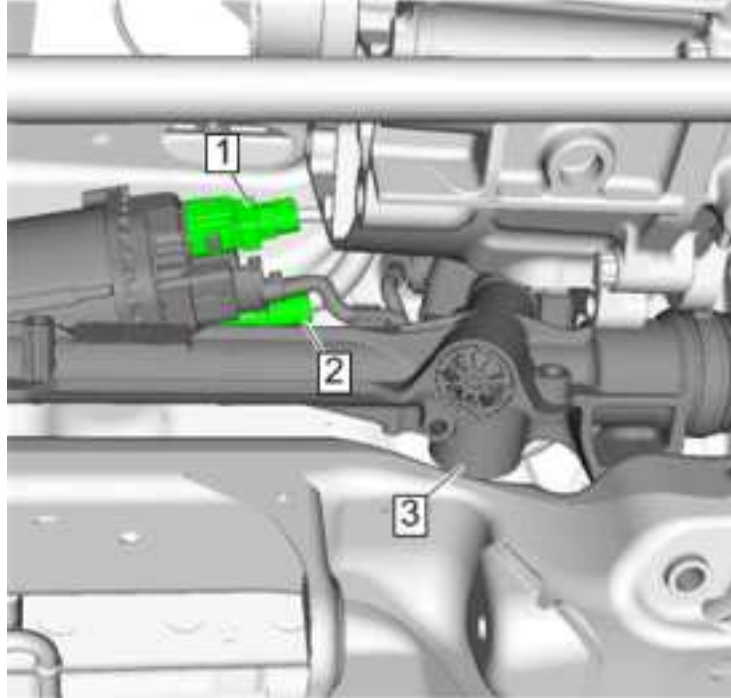


Fig. 14: Power Steering Assist Motor And Connectors

Courtesy of GENERAL MOTORS COMPANY

3. Connect the connectors (1, 2) to the power steering assist motor (3) and install the harness retainers to the steering gear assembly.
4. Make sure the steering column dash outer seal fits correctly on the electric dual pinion rack and pinion steering gear. [Steering Column Dash Outer Seal Replacement \(Equinox, Terrain\)](#)

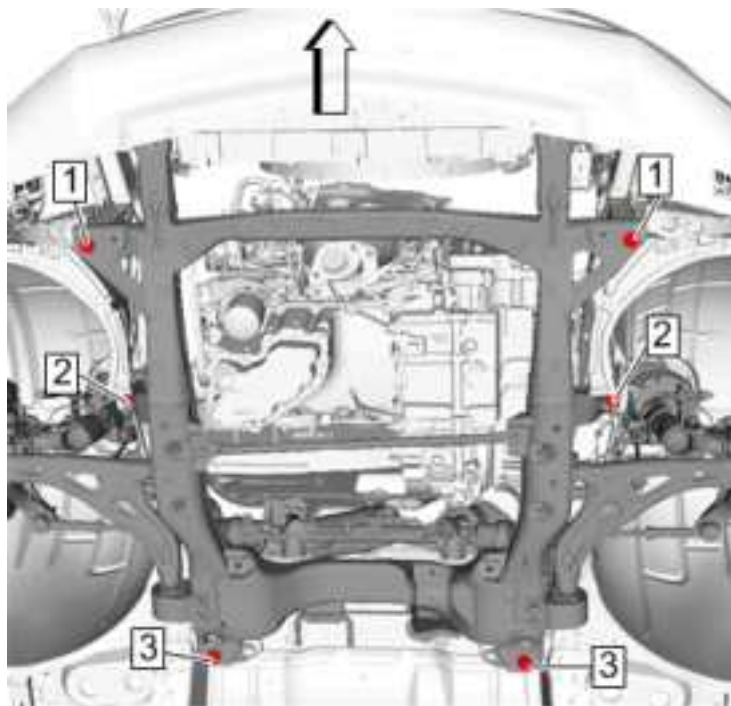


Fig. 15: Front Cradle Mounting Bolts

Courtesy of GENERAL MOTORS COMPANY

CAUTION: Refer to [Fastener Caution](#) .

5. Tighten the front cradle mounting bolts (1, 2, 3) to 175 N.m (129 lb ft).
6. Remove the jack from the drivetrain and front suspension cradle.
7. Remove the mechanics wire from the radiator assembly.
8. Install the transmission rear strut. [Transmission Mount Strut Replacement \(Front Wheel Drive\)](#)

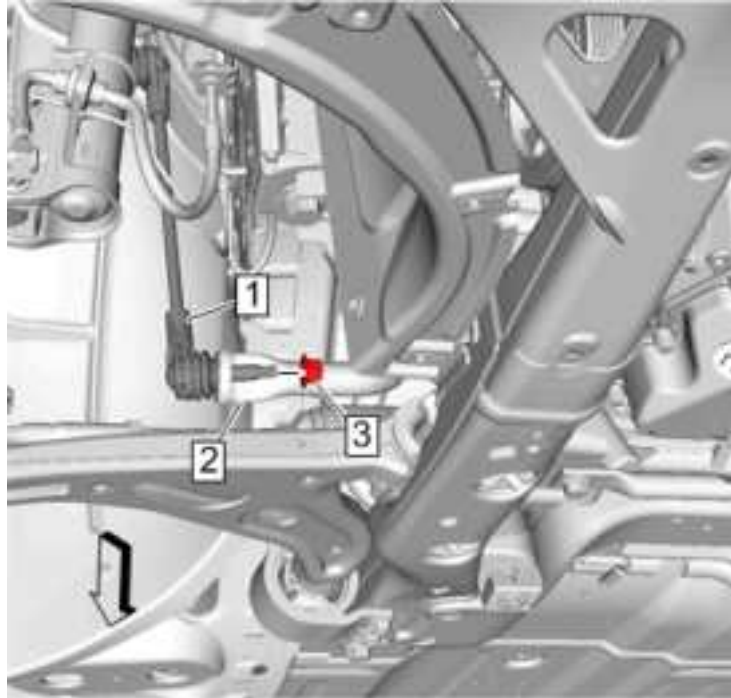


Fig. 16: Stabilizer Shaft And Shaft Links

Courtesy of GENERAL MOTORS COMPANY

9. Install the stabilizer shaft links (1). [Stabilizer Shaft Link Replacement \(Equinox\)](#) [Stabilizer Shaft Link Replacement \(Terrain\)](#)
10. Connect the outer tie rod to the steering knuckle. [Steering Linkage Outer Tie Rod Replacement](#)

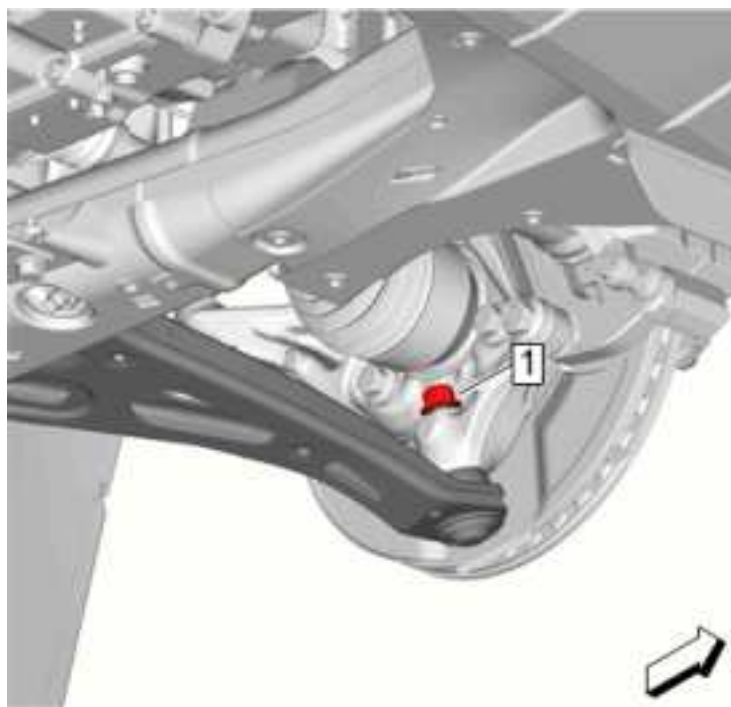


Fig. 17: Lower Control Arm To Steering Knuckle Nut

Courtesy of GENERAL MOTORS COMPANY

11. Install the front lower control arm ball stud nut (1). [Lower Control Arm Replacement \(Equinox\)](#) [Lower Control Arm Replacement \(Terrain\)](#)
12. Install the front bumper fascia lower stiffener. [Front Bumper Fascia Lower Stiffener Replacement](#)
13. Install the front wheelhouse splash shield. [Front Wheelhouse Splash Shield Replacement \(Equinox\)](#) [Front Wheelhouse Splash Shield Replacement \(Terrain\)](#)
14. Install the exhaust front pipe. [Exhaust Front Pipe Replacement \(LTG\)](#) [Exhaust Front Pipe Replacement \(LYX\)](#) [Exhaust Front Pipe Replacement \(LH7\)](#)
15. Install the steering column dash inner seal. [Steering Column Dash Inner Seal Replacement \(Equinox\)](#) [Steering Column Dash Inner Seal Replacement \(Terrain\)](#)

16. Connect the steering intermediate shaft to the steering gear. [Intermediate Steering Shaft Replacement \(Equinox\)](#) [Intermediate Steering Shaft Replacement \(Terrain\)](#)
17. Connect the battery negative cable. [Battery Negative Cable Disconnection and Connection \(KL9\)](#)
18. Remove the engine support fixture. [Engine Support Fixture](#)
19. If the drivetrain and front suspension cradle was replaced with a NEW cradle, perform a wheel alignment. [Wheel Alignment - Steering Wheel Angle and/or Front Toe Adjustment](#)

DRIVETRAIN AND FRONT SUSPENSION CRADLE REPLACEMENT (ALL WHEEL DRIVE)

Special Tools

- **CH-51034** - A Cradle Alignment Pins

For equivalent regional tools, refer to [Special Tools](#).

Removal Procedure

NOTE: Vehicle alignment is not required if the cradle is being lowered or dropped to perform another procedure. This vehicle is equipped with a cradle to body aligning feature: cradle to body through holes or self aligning pins that are part of the cradle or body. Only align if replacing the cradle with a NEW cradle and transferring components.

1. Disconnect the battery negative cable. [Battery Negative Cable Disconnection and Connection \(KL9\)](#)
2. Disconnect the steering intermediate shaft from the steering gear. [Intermediate Steering Shaft Replacement \(Equinox\)](#) [Intermediate Steering Shaft Replacement \(Terrain\)](#)
3. Remove the steering column dash inner seal. [Steering Column Dash Inner Seal Replacement \(Equinox\)](#) [Steering Column Dash Inner Seal Replacement \(Terrain\)](#)
4. Remove the exhaust front pipe. [Exhaust Front Pipe Replacement \(LTG\)](#) [Exhaust Front Pipe Replacement \(LYX\)](#) [Exhaust Front Pipe Replacement \(LH7\)](#)
5. Remove the front bumper fascia lower stiffener. [Front Bumper Fascia Lower Stiffener Replacement](#)
6. Remove the front wheelhouse splash shield. [Front Wheelhouse Splash Shield Replacement \(Equinox\)](#) [Front Wheelhouse Splash Shield Replacement \(Terrain\)](#)
7. Support the front brake rotor with a suitable jack.

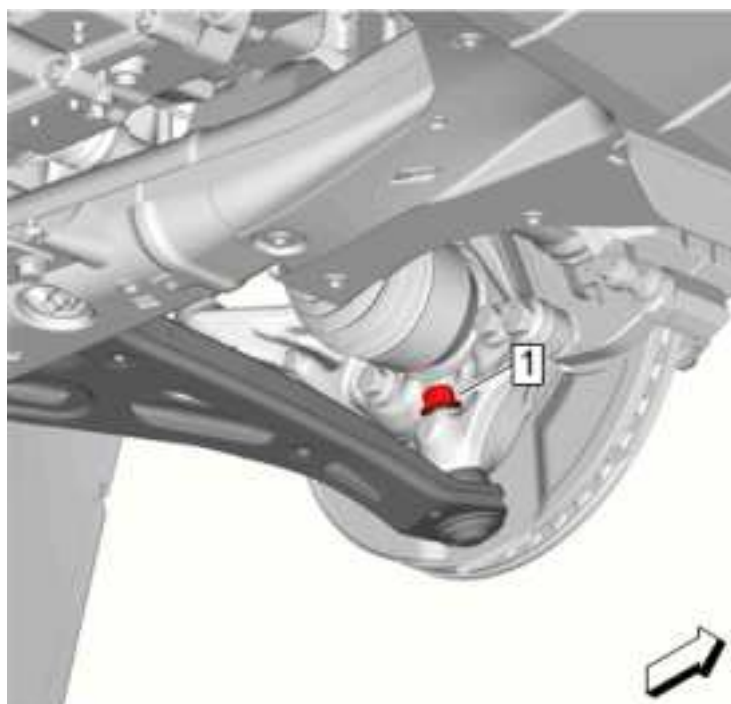


Fig. 18: Lower Control Arm To Steering Knuckle Nut
Courtesy of GENERAL MOTORS COMPANY

8. Loosen the lower control arm to steering knuckle nut (1).
9. Separate the lower ball joint from the knuckle. [Lower Control Arm Replacement \(Equinox\)](#)
[Lower Control Arm Replacement \(Terrain\)](#).
10. Disconnect the outer tie rod from the steering knuckle. [Steering Linkage Outer Tie Rod Replacement](#)

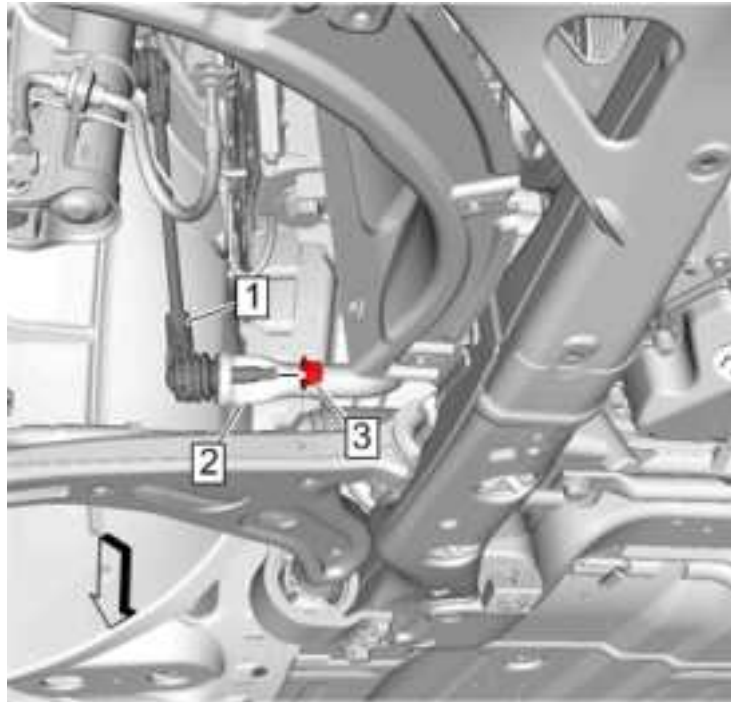


Fig. 19: Stabilizer Shaft And Shaft Links
Courtesy of GENERAL MOTORS COMPANY

11. Remove the stabilizer shaft links (1) from the stabilizer shaft (2). [Stabilizer Shaft Link Replacement \(Equinox\)](#) [Stabilizer Shaft Link Replacement \(Terrain\)](#).
12. Support the engine with the engine support fixture. [Engine Support Fixture](#)
13. Remove the transmission rear strut. [Transmission Mount Strut Replacement \(All Wheel Drive\)](#).
14. Remove the two piece propeller shaft. [Two-Piece Propeller Shaft Replacement](#)

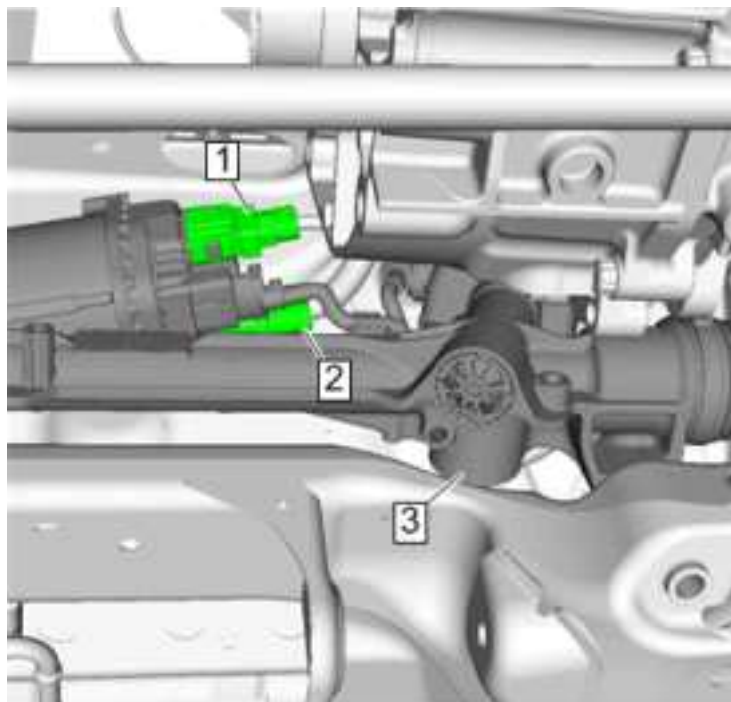


Fig. 20: Power Steering Assist Motor And Connectors
Courtesy of GENERAL MOTORS COMPANY

15. Disconnect the connectors (1, 2) from the power steering assist motor (3) and release the wire harness retainers from the steering gear assembly.

16. Support the radiator assembly with a suitable jack.
17. Support the drivetrain and front suspension cradle with a suitable jack.

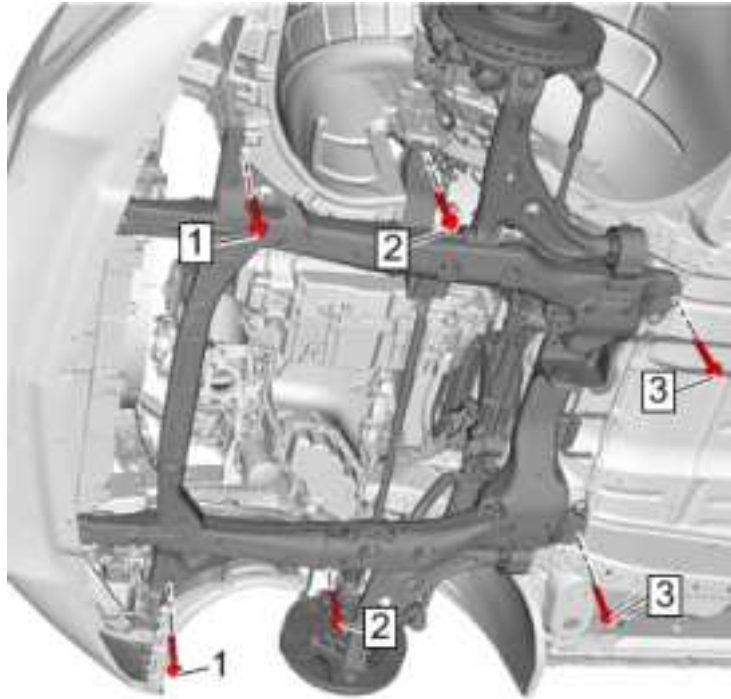


Fig. 21: Front Cradle Mounting Bolts
Courtesy of GENERAL MOTORS COMPANY

18. Remove the front cradle mounting bolts (1, 2, 3).
19. Lower the drivetrain and front suspension cradle making sure no harness retainers remain attached to the cradle.

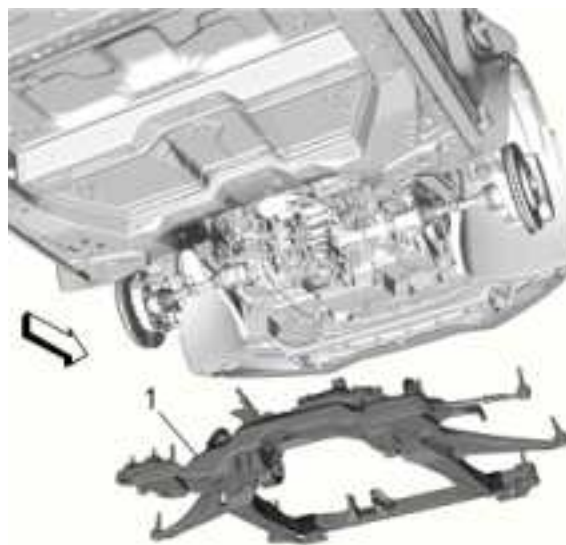


Fig. 22: Drivetrain And Front Suspension Cradle
Courtesy of GENERAL MOTORS COMPANY

20. Remove the drivetrain and front suspension cradle (1) from the vehicle.
21. If replacing the drivetrain and front suspension cradle, transfer the following:
 - Steering Gear Assembly - [Electric Dual Pinion Rack and Pinion Steering Gear Replacement](#)
 - Lower Control Arm - [Lower Control Arm Replacement \(Equinox\)](#) [Lower Control Arm Replacement \(Terrain\)](#)
 - Stabilizer Shaft - [Stabilizer Shaft Replacement \(Equinox, Terrain, FWD, LYX\)](#) [Stabilizer Shaft Replacement \(Equinox, Terrain, AWD, LYX\)](#) [Stabilizer Shaft Replacement \(Equinox, Terrain, FWD, LH7\)](#) [Stabilizer Shaft Replacement \(Equinox, Terrain, AWD, LH7\)](#) [Stabilizer Shaft Replacement \(Equinox, Terrain, FWD, LTG\)](#) [Stabilizer Shaft Replacement \(Equinox, Terrain, AWD, LTG\)](#)

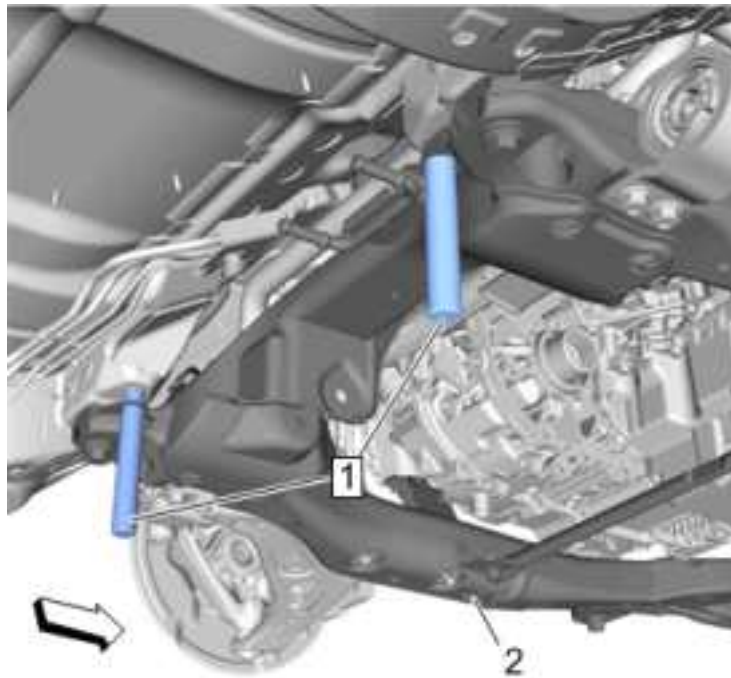


Fig. 23: Cradle Alignment Pins

Courtesy of GENERAL MOTORS COMPANY

1. Position the drivetrain and front suspension cradle to the vehicle. Install the 2 **CH-51034 - A** Cradle Alignment Pins (1) into the alignment holes on the cradle frame.

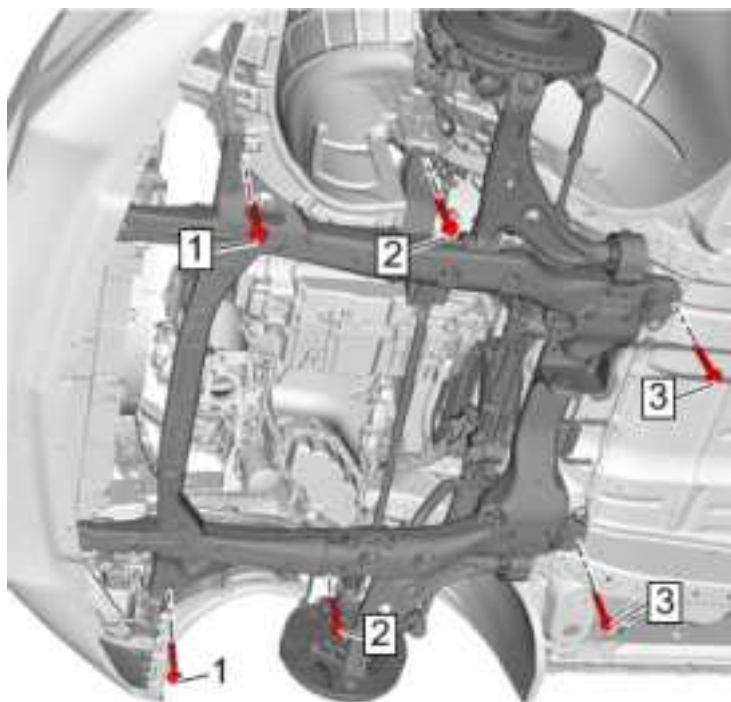


Fig. 24: Front Cradle Mounting Bolts

Courtesy of GENERAL MOTORS COMPANY

2. Install the drivetrain and front suspension cradle mounting bolts (1, 2, 3) but do not tighten.

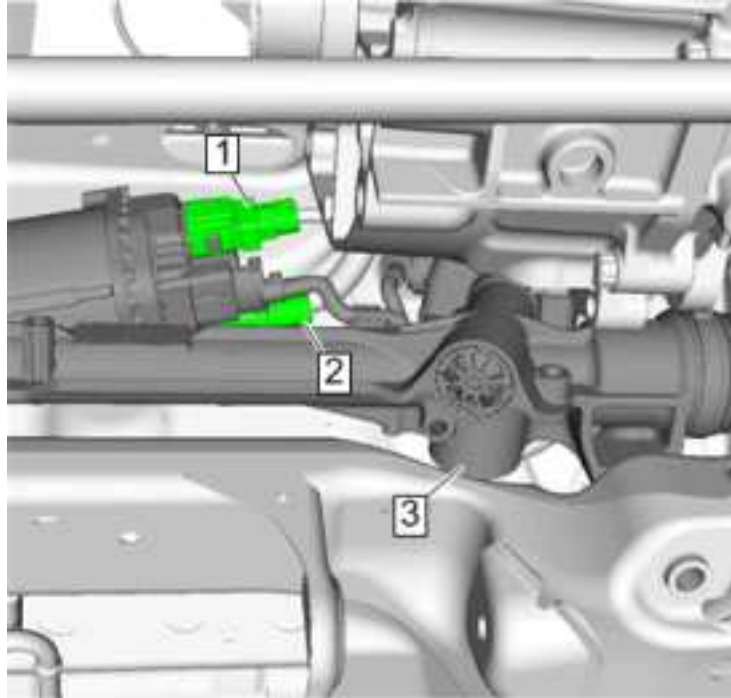


Fig. 25: Power Steering Assist Motor And Connectors

Courtesy of GENERAL MOTORS COMPANY

3. Connect the connectors (1, 2) to the power steering assist motor (3) and install the harness retainers to the steering gear assembly.
4. Make sure the steering column dash outer seal fits correctly on the electric dual pinion rack and pinion steering gear. **Steering Column Dash Outer Seal Replacement (Equinox, Terrain)**

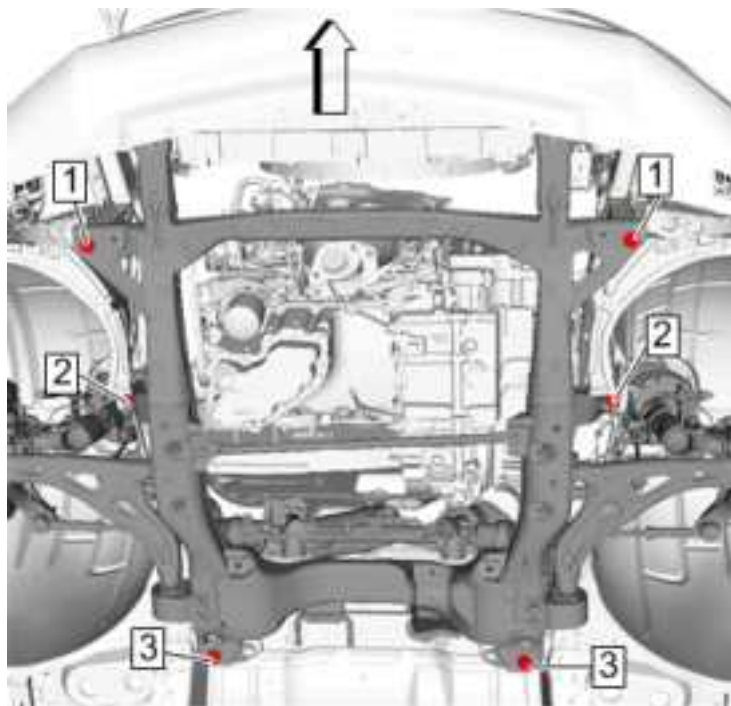


Fig. 26: Front Cradle Mounting Bolts

Courtesy of GENERAL MOTORS COMPANY

CAUTION: Refer to **Fastener Caution** .

5. Tighten the front cradle mounting bolts (1, 2, 3) to 175 N.m (129 lb ft).
6. Remove the jack from the drivetrain and front suspension cradle.
7. Remove the jack from the radiator assembly.
8. Install the transmission rear strut. **Transmission Mount Strut Replacement (All Wheel Drive)**

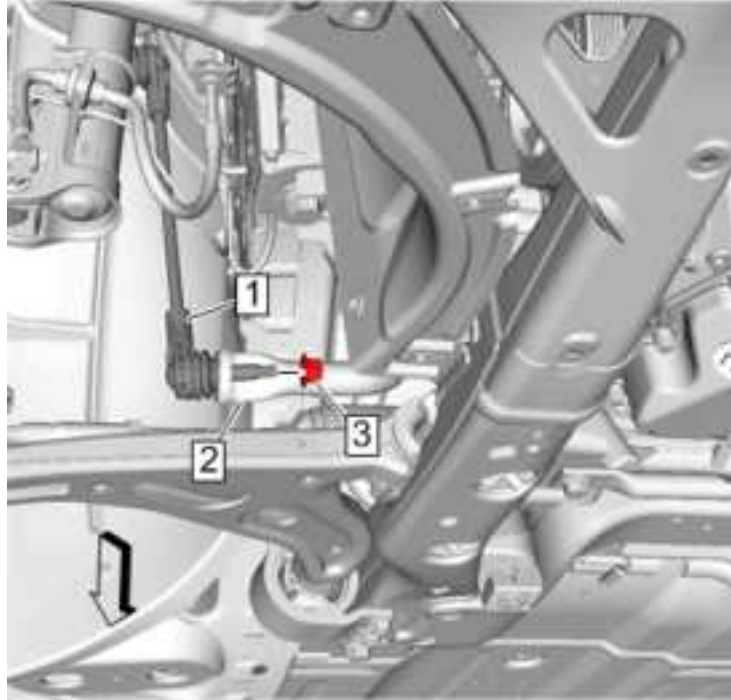


Fig. 27: Stabilizer Shaft And Shaft Links

Courtesy of GENERAL MOTORS COMPANY

9. Install the stabilizer shaft links (1). [Stabilizer Shaft Link Replacement \(Equinox\)](#) [Stabilizer Shaft Link Replacement \(Terrain\)](#)
10. Connect the outer tie rod to the steering knuckle. [Steering Linkage Outer Tie Rod Replacement](#)

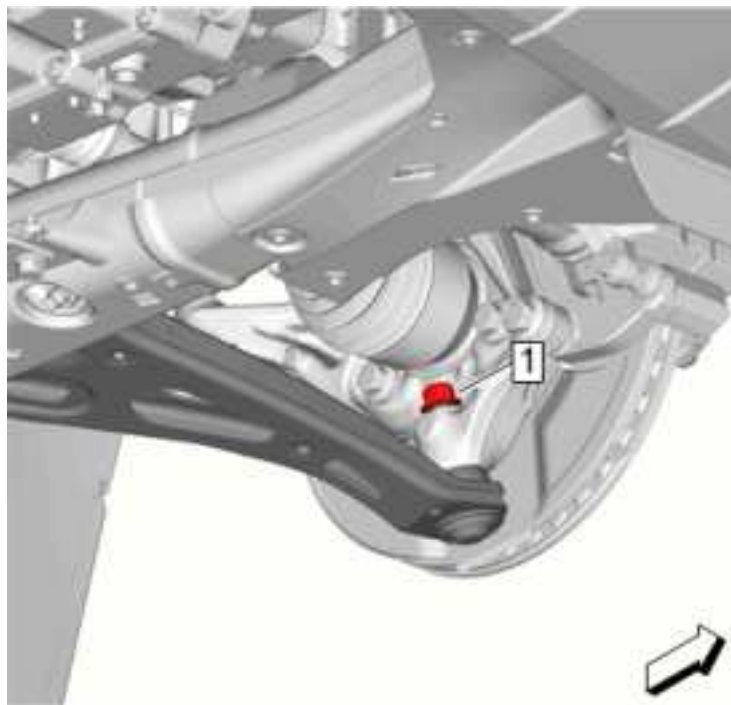


Fig. 28: Lower Control Arm To Steering Knuckle Nut

Courtesy of GENERAL MOTORS COMPANY

11. Install the front lower control arm ball stud nut (1). [Lower Control Arm Replacement \(Equinox\)](#) [Lower Control Arm Replacement \(Terrain\)](#)
12. Install the front wheelhouse splash shield. [Front Wheelhouse Splash Shield Replacement \(Equinox\)](#) [Front Wheelhouse Splash Shield Replacement \(Terrain\)](#)
13. Install the front bumper fascia lower stiffener. [Front Bumper Fascia Lower Stiffener Replacement](#)
14. Install the two piece propeller shaft. [Two-Piece Propeller Shaft Replacement](#)
15. Install the exhaust front pipe. [Exhaust Front Pipe Replacement \(LTG\)](#) [Exhaust Front Pipe Replacement \(LYX\)](#) [Exhaust Front Pipe Replacement \(LH7\)](#)
16. Install the steering column dash inner seal. [Steering Column Dash Inner Seal Replacement \(Equinox\)](#) [Steering Column Dash Inner Seal Replacement \(Terrain\)](#)

17. Connect the steering intermediate shaft to the steering gear. [Intermediate Steering Shaft Replacement \(Equinox\)](#) [Intermediate Steering Shaft Replacement \(Terrain\)](#)
18. Connect the battery negative cable. [Battery Negative Cable Disconnection and Connection \(KL9\)](#)
19. Remove the engine support fixture. [Engine Support Fixture](#)
20. If the drivetrain and front suspension cradle was replaced with a NEW cradle, perform a wheel alignment. [Wheel Alignment - Steering Wheel Angle and/or Front Toe Adjustment](#)

DRIVETRAIN AND FRONT SUSPENSION CRADLE REMOVAL AND INSTALLATION (ALL WHEEL DRIVE)

Special Tools

- **CH-51034** - A Cradle Alignment Pins

For equivalent regional tools, refer to [Special Tools](#).

Removal Procedure

NOTE: Vehicle alignment is not required if the cradle is being lowered or dropped to perform another procedure. This vehicle is equipped with a cradle to body aligning feature: cradle to body through holes or self aligning pins that are part of the cradle or body. Only align if replacing the cradle with a NEW cradle and transferring components.

1. Disconnect the battery negative cable. [Battery Negative Cable Disconnection and Connection \(KL9\)](#)
2. Disconnect the steering intermediate shaft from the steering gear. [Intermediate Steering Shaft Replacement \(Equinox\)](#) [Intermediate Steering Shaft Replacement \(Terrain\)](#)
3. Remove the steering column dash inner seal. [Steering Column Dash Inner Seal Replacement \(Equinox\)](#) [Steering Column Dash Inner Seal Replacement \(Terrain\)](#)
4. Remove the exhaust front pipe. [Exhaust Front Pipe Replacement \(LTG\)](#) [Exhaust Front Pipe Replacement \(LYX\)](#) [Exhaust Front Pipe Replacement \(LH7\)](#)
5. Remove the front bumper fascia lower stiffener. [Front Bumper Fascia Lower Stiffener Replacement](#)
6. Remove the front wheelhouse splash shield. [Front Wheelhouse Splash Shield Replacement \(Equinox\)](#) [Front Wheelhouse Splash Shield Replacement \(Terrain\)](#)
7. Support the front brake rotor with a suitable jack.

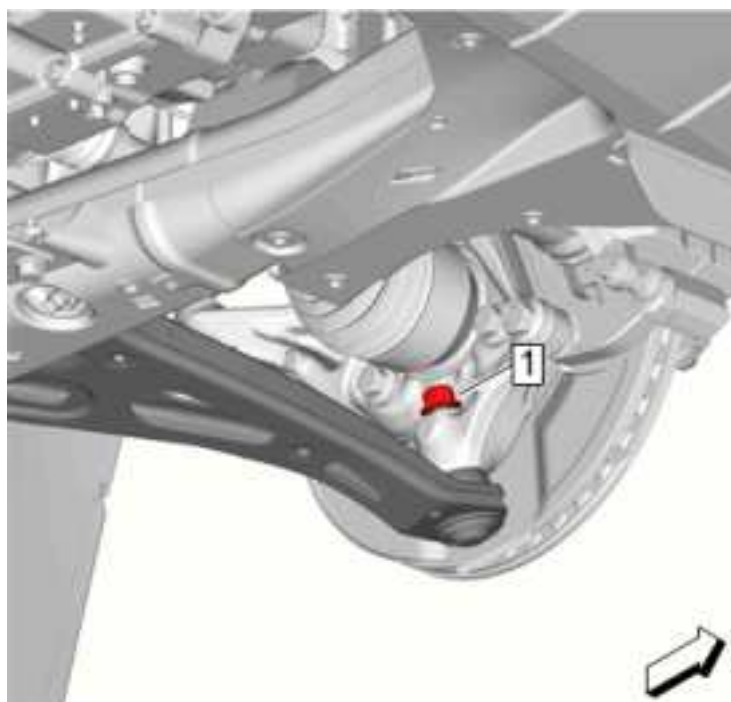


Fig. 29: Lower Control Arm To Steering Knuckle Nut
Courtesy of GENERAL MOTORS COMPANY

8. Loosen the lower control arm to steering knuckle nut (1).
9. Separate the lower ball joint from the knuckle. [Lower Control Arm Replacement \(Equinox\)](#)
[Lower Control Arm Replacement \(Terrain\)](#).
10. Disconnect the outer tie rod from the steering knuckle. [Steering Linkage Outer Tie Rod Replacement](#)

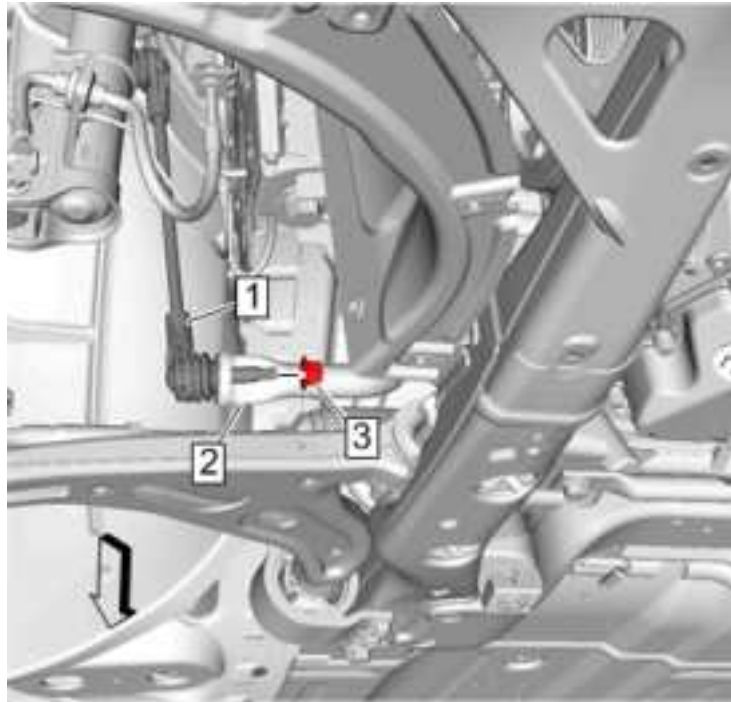


Fig. 30: Stabilizer Shaft And Shaft Links
Courtesy of GENERAL MOTORS COMPANY

11. Remove the stabilizer shaft links (1) from the stabilizer shaft (2). [Stabilizer Shaft Link Replacement \(Equinox\)](#) [Stabilizer Shaft Link Replacement \(Terrain\)](#).
12. Support the engine with the engine support fixture. [Engine Support Fixture](#)
13. Remove the transmission rear strut. [Transmission Mount Strut Replacement \(All Wheel Drive\)](#).
14. Remove the two piece propeller shaft. [Two-Piece Propeller Shaft Replacement](#)

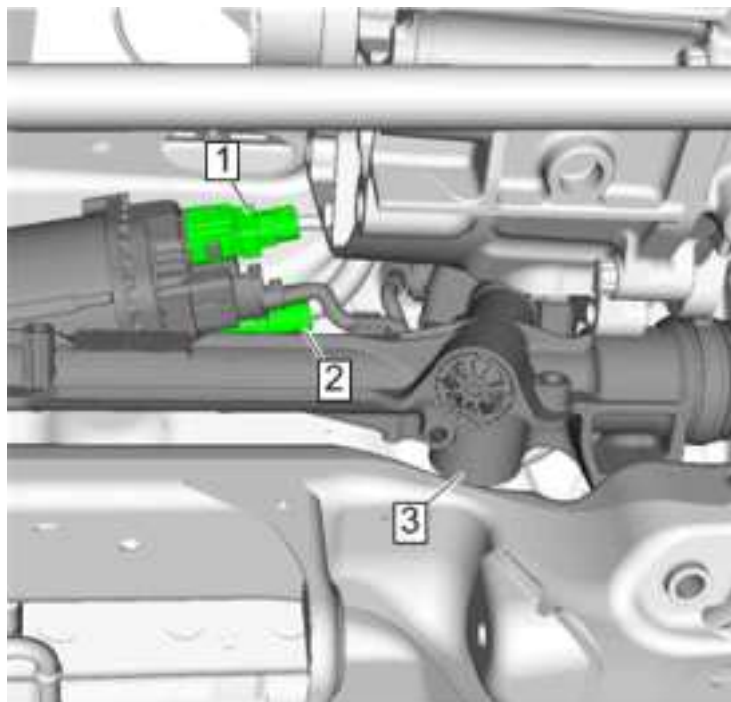


Fig. 31: Power Steering Assist Motor And Connectors
Courtesy of GENERAL MOTORS COMPANY

15. Disconnect the connectors (1, 2) from the power steering assist motor (3) and release the wire harness retainers from the steering gear assembly.

16. Support the radiator assembly with a suitable jack.
17. Support the drivetrain and front suspension cradle with a suitable jack.

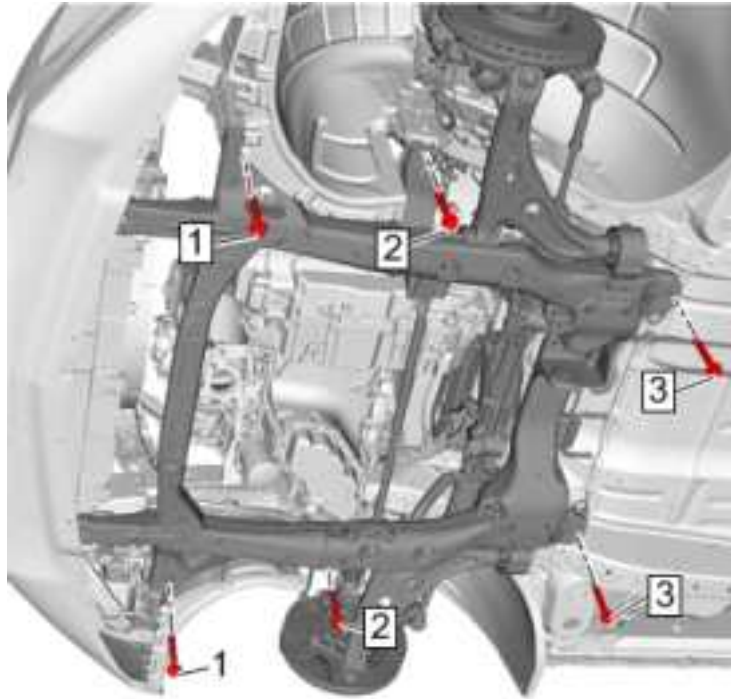


Fig. 32: Front Cradle Mounting Bolts
Courtesy of GENERAL MOTORS COMPANY

18. Remove the front cradle mounting bolts (1, 2, 3).
19. Lower the drivetrain and front suspension cradle making sure no harness retainers remain attached to the cradle.



Fig. 33: Drivetrain And Front Suspension Cradle
Courtesy of GENERAL MOTORS COMPANY

20. Remove the drivetrain and front suspension cradle (1) from the vehicle.

Installation Procedure

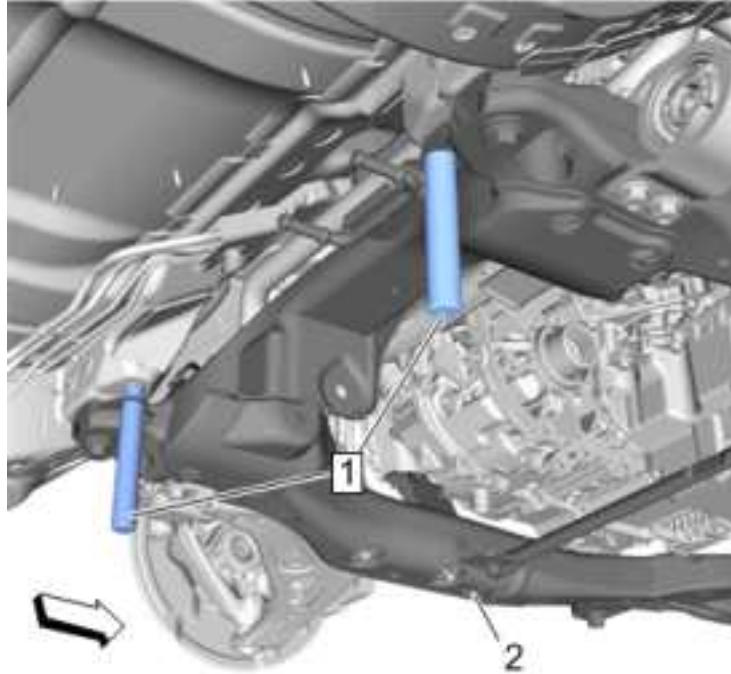


Fig. 34: Cradle Alignment Pins

Courtesy of GENERAL MOTORS COMPANY

1. Position the drivetrain and front suspension cradle to the vehicle. Install the 2 **CH-51034 - A** Cradle Alignment Pins (1) into the alignment holes on the cradle frame.

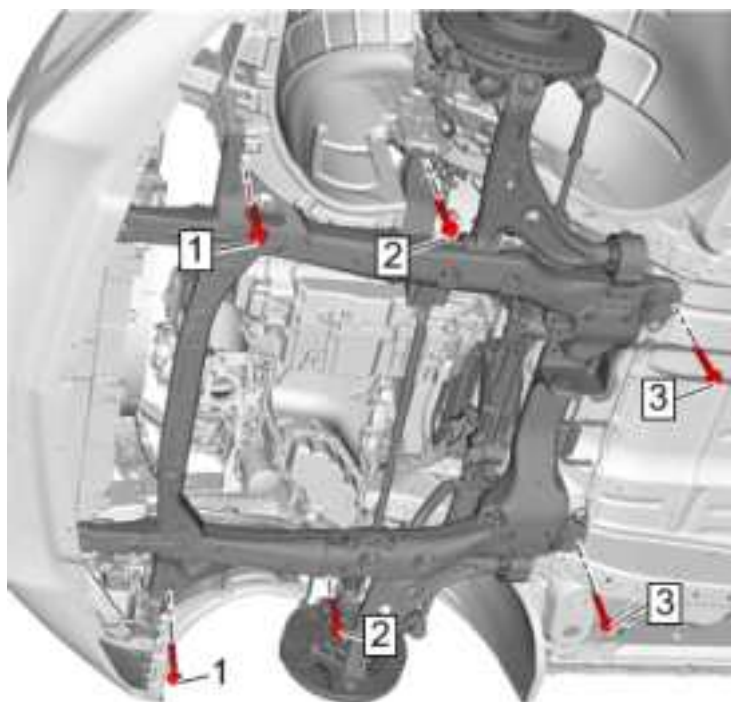


Fig. 35: Front Cradle Mounting Bolts

Courtesy of GENERAL MOTORS COMPANY

2. Install the drivetrain and front suspension cradle mounting bolts (1, 2, 3) but do not tighten.

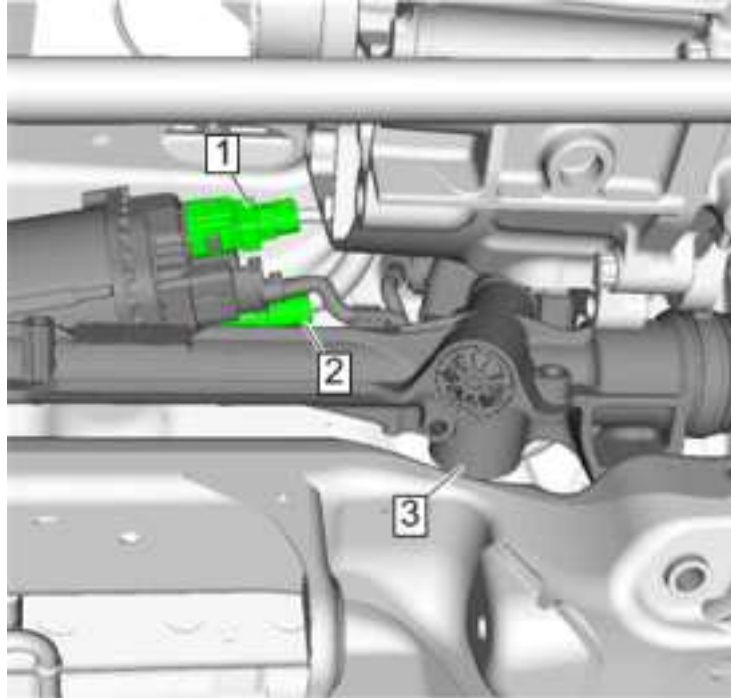


Fig. 36: Power Steering Assist Motor And Connectors

Courtesy of GENERAL MOTORS COMPANY

3. Connect the connectors (1, 2) to the power steering assist motor (3) and install the harness retainers to the steering gear assembly.
4. Make sure the steering column dash outer seal fits correctly on the electric dual pinion rack and pinion steering gear. [Steering Column Dash Outer Seal Replacement \(Equinox, Terrain\)](#)

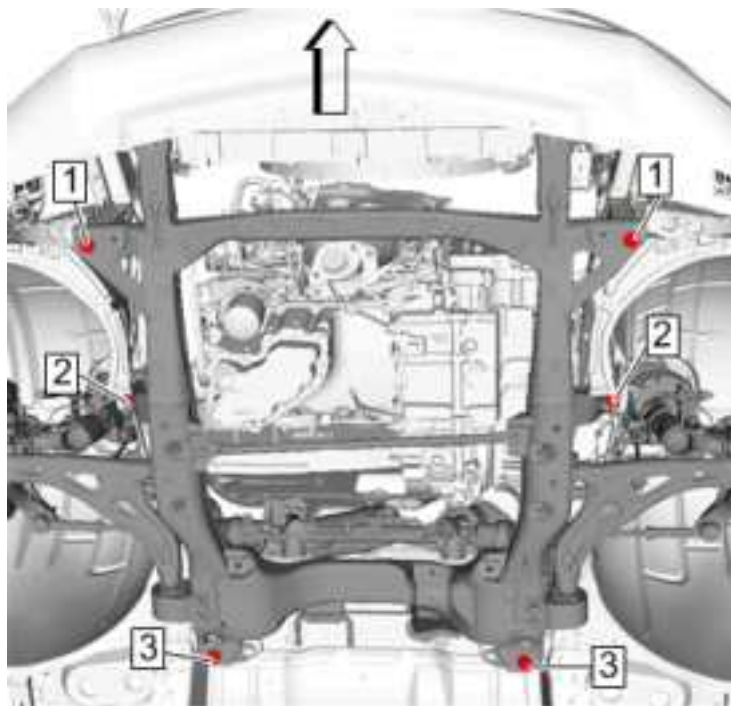


Fig. 37: Front Cradle Mounting Bolts

Courtesy of GENERAL MOTORS COMPANY

CAUTION: Refer to [Fastener Caution](#) .

5. Tighten the front cradle mounting bolts (1, 2, 3) to 175 N.m (129 lb ft).
6. Remove the jack from the drivetrain and front suspension cradle.
7. Remove the jack from the radiator assembly.
8. Install the transmission rear strut. [Transmission Mount Strut Replacement \(All Wheel Drive\)](#)

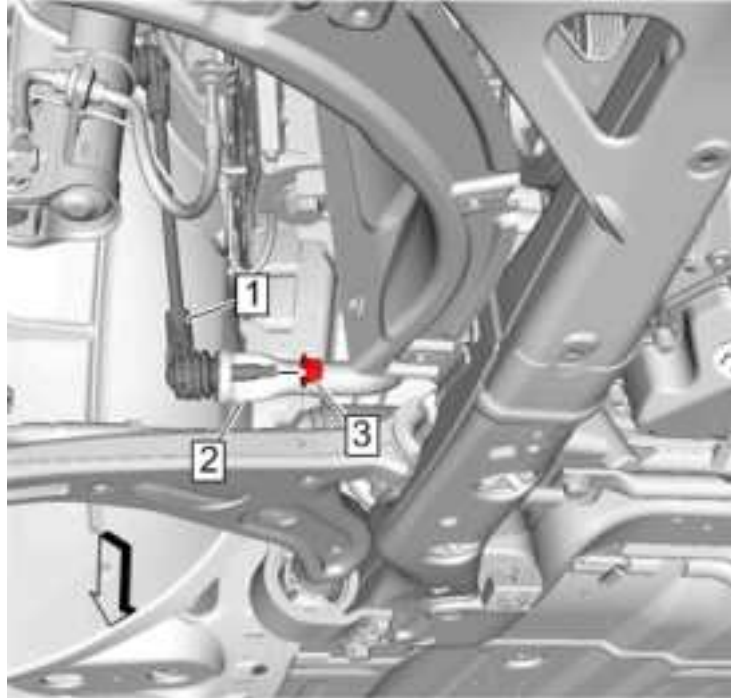


Fig. 38: Stabilizer Shaft And Shaft Links

Courtesy of GENERAL MOTORS COMPANY

9. Install the stabilizer shaft links (1). [Stabilizer Shaft Link Replacement \(Equinox\)](#) [Stabilizer Shaft Link Replacement \(Terrain\)](#)
10. Connect the outer tie rod to the steering knuckle. [Steering Linkage Outer Tie Rod Replacement](#)

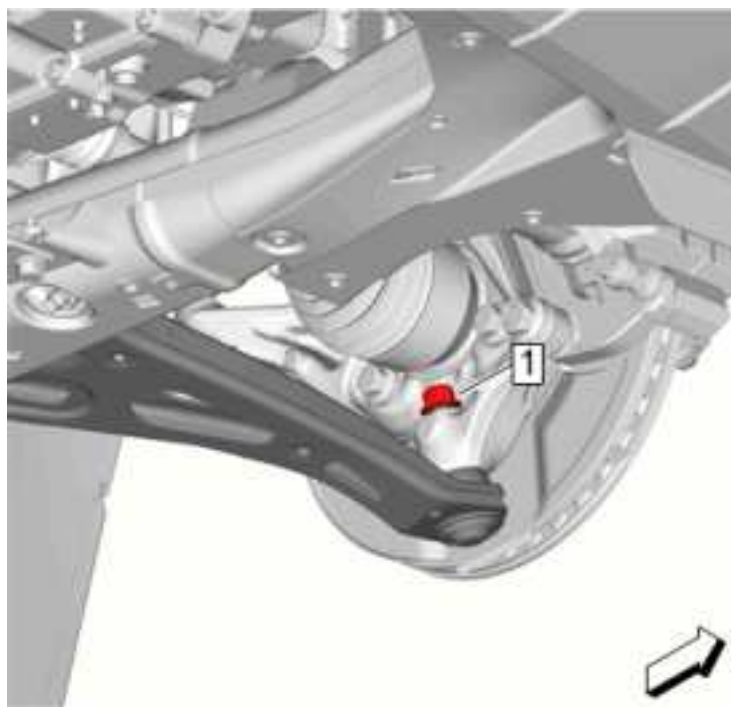


Fig. 39: Lower Control Arm To Steering Knuckle Nut

Courtesy of GENERAL MOTORS COMPANY

11. Install the front lower control arm ball stud nut (1). [Lower Control Arm Replacement \(Equinox\)](#) [Lower Control Arm Replacement \(Terrain\)](#)
12. Install the front wheelhouse splash shield. [Front Wheelhouse Splash Shield Replacement \(Equinox\)](#) [Front Wheelhouse Splash Shield Replacement \(Terrain\)](#)
13. Install the front bumper fascia lower stiffener. [Front Bumper Fascia Lower Stiffener Replacement](#)
14. Install the two piece propeller shaft. [Two-Piece Propeller Shaft Replacement](#)
15. Install the exhaust front pipe. [Exhaust Front Pipe Replacement \(LTG\)](#) [Exhaust Front Pipe Replacement \(LYX\)](#) [Exhaust Front Pipe Replacement \(LH7\)](#)
16. Install the steering column dash inner seal. [Steering Column Dash Inner Seal Replacement \(Equinox\)](#) [Steering Column Dash Inner Seal Replacement \(Terrain\)](#)

17. Connect the steering intermediate shaft to the steering gear. [Intermediate Steering Shaft Replacement \(Equinox\)](#) [Intermediate Steering Shaft Replacement \(Terrain\)](#)
18. Connect the battery negative cable. [Battery Negative Cable Disconnection and Connection \(KL9\)](#)
19. Remove the engine support fixture. [Engine Support Fixture](#)

DRIVETRAIN AND FRONT SUSPENSION CRADLE REMOVAL AND INSTALLATION (FRONT WHEEL DRIVE)

Special Tools

- CH-51034 - A Cradle Alignment Pins

For equivalent regional tools, refer to [Special Tools](#).

Removal Procedure

NOTE: Vehicle alignment is not required if the cradle is being lowered or dropped to perform another procedure. This vehicle is equipped with a cradle to body aligning feature: cradle to body through holes or self aligning pins that are part of the cradle or body. Only align if replacing the cradle with a NEW cradle and transferring components.

1. Disconnect the battery negative cable. [Battery Negative Cable Disconnection and Connection \(KL9\)](#)
2. Disconnect the steering intermediate shaft from the steering gear. [Intermediate Steering Shaft Replacement \(Equinox\)](#) [Intermediate Steering Shaft Replacement \(Terrain\)](#)
3. Remove the steering column dash inner seal. [Steering Column Dash Inner Seal Replacement \(Equinox\)](#) [Steering Column Dash Inner Seal Replacement \(Terrain\)](#)
4. Remove the exhaust front pipe. [Exhaust Front Pipe Replacement \(LTG\)](#) [Exhaust Front Pipe Replacement \(LYX\)](#) [Exhaust Front Pipe Replacement \(LH7\)](#)
5. Remove the front bumper fascia lower stiffener. [Front Bumper Fascia Lower Stiffener Replacement](#)
6. Remove the front wheelhouse splash shield. [Front Wheelhouse Splash Shield Replacement \(Equinox\)](#) [Front Wheelhouse Splash Shield Replacement \(Terrain\)](#)
7. Support the front brake rotor with a suitable jack.

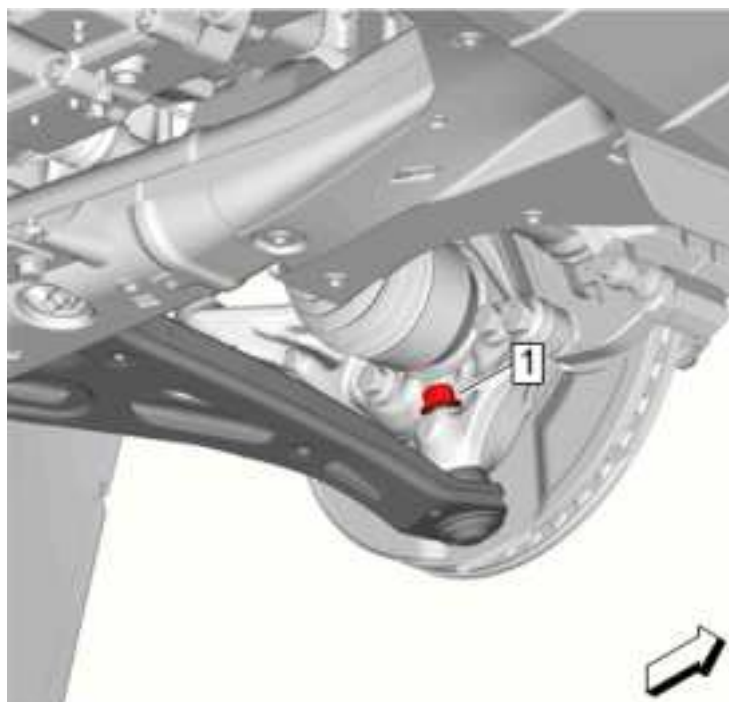


Fig. 40: Lower Control Arm To Steering Knuckle Nut
Courtesy of GENERAL MOTORS COMPANY

8. Loosen the lower control arm to steering knuckle nut (1).

9. Separate the lower ball joint from the steering knuckle. [Lower Control Arm Replacement \(Equinox\)](#) [Lower Control Arm Replacement \(Terrain\)](#)
10. Disconnect the outer tie rod from the steering knuckle. [Steering Linkage Outer Tie Rod Replacement](#)

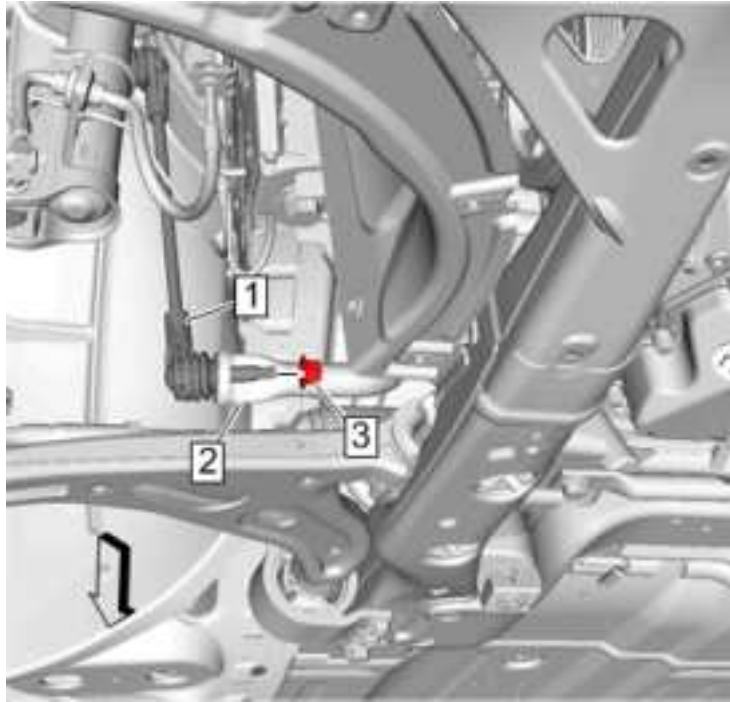


Fig. 41: Stabilizer Shaft And Shaft Links

Courtesy of GENERAL MOTORS COMPANY

11. Remove the stabilizer shaft links (1) from the stabilizer shaft (2). [Stabilizer Shaft Link Replacement \(Equinox\)](#) [Stabilizer Shaft Link Replacement \(Terrain\)](#)
12. Support the engine with the engine support fixture. [Engine Support Fixture](#)
13. Remove the transmission rear strut. [Transmission Mount Strut Replacement \(Front Wheel Drive\)](#)

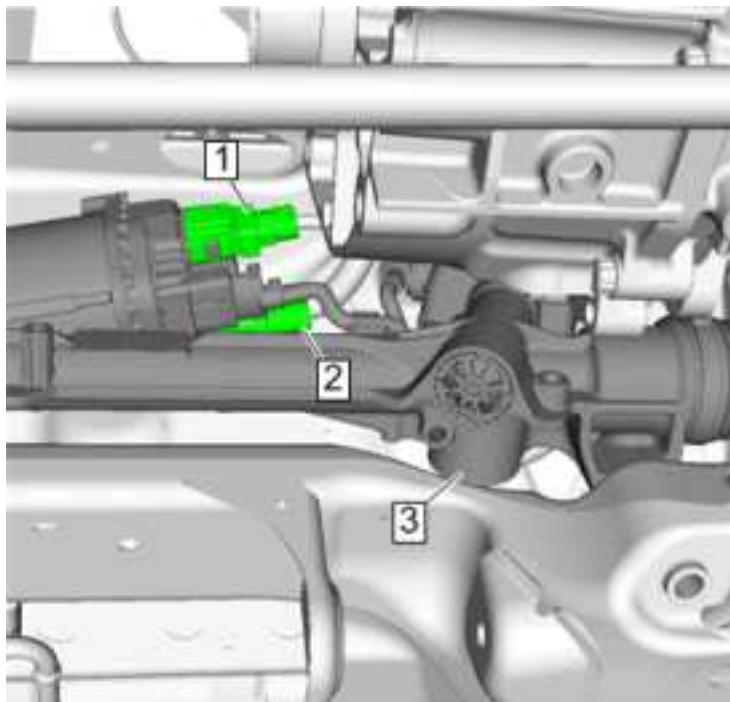


Fig. 42: Power Steering Assist Motor And Connectors

Courtesy of GENERAL MOTORS COMPANY

14. Disconnect the connectors (1, 2) from the power steering assist motor (3) and release the wire harness retainers from the steering gear assembly.
15. Using mechanics wire, retain the radiator in the vehicle.
16. Support the drivetrain and front suspension cradle with a suitable jack.

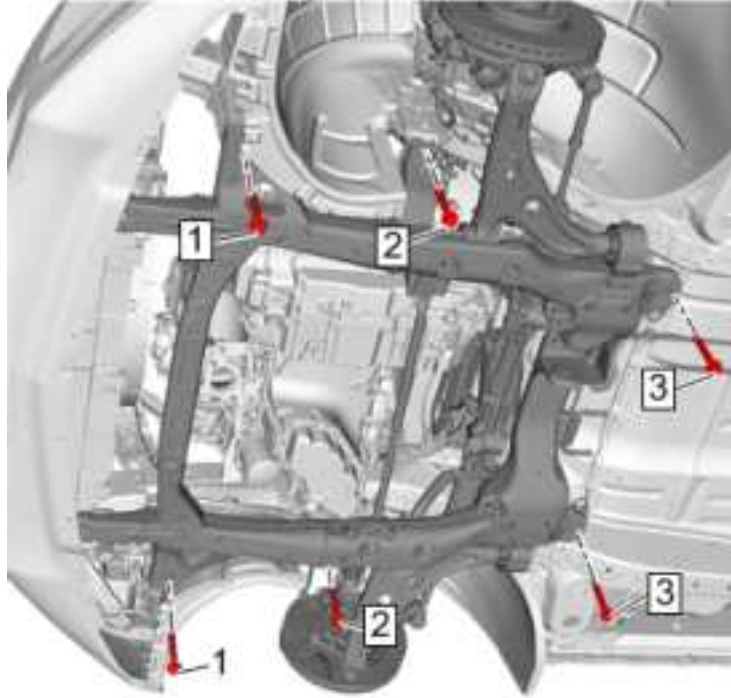


Fig. 43: Front Cradle Mounting Bolts

Courtesy of GENERAL MOTORS COMPANY

17. Remove the front cradle mounting bolts (1, 2, 3).
18. Lower the drivetrain and front suspension cradle making sure no harness retainers remain attached to the cradle.



Fig. 44: Drivetrain And Front Suspension Cradle

Courtesy of GENERAL MOTORS COMPANY

19. Remove the drivetrain and front suspension cradle (1) from the vehicle.

Installation Procedure

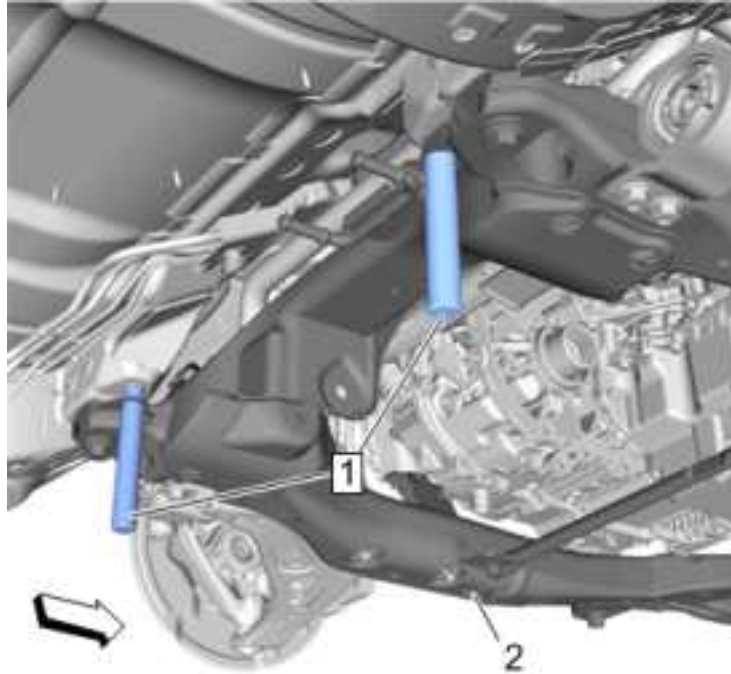


Fig. 45: Cradle Alignment Pins

Courtesy of GENERAL MOTORS COMPANY

1. Position the drivetrain and front suspension cradle to the vehicle. Install the 2 **CH-51034 - A** Cradle Alignment Pins (1) into the alignment holes on the cradle frame.

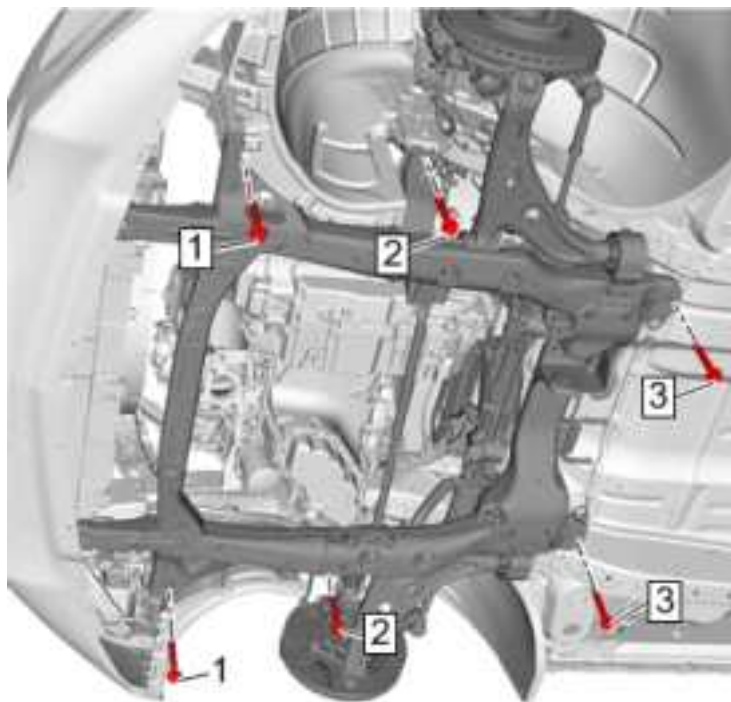


Fig. 46: Front Cradle Mounting Bolts

Courtesy of GENERAL MOTORS COMPANY

2. Install the drivetrain and front suspension cradle mounting bolts (1, 2, 3) but do not tighten.

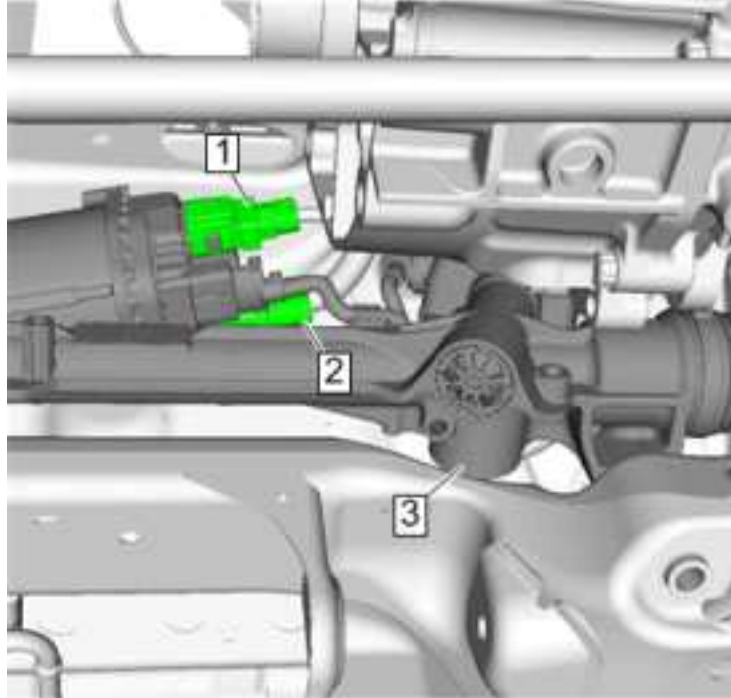


Fig. 47: Power Steering Assist Motor And Connectors

Courtesy of GENERAL MOTORS COMPANY

3. Connect the connectors (1, 2) to the power steering assist motor (3) and install the harness retainers to the steering gear assembly.
4. Make sure the steering column dash outer seal fits correctly on the electric dual pinion rack and pinion steering gear. [Steering Column Dash Outer Seal Replacement \(Equinox, Terrain\)](#)

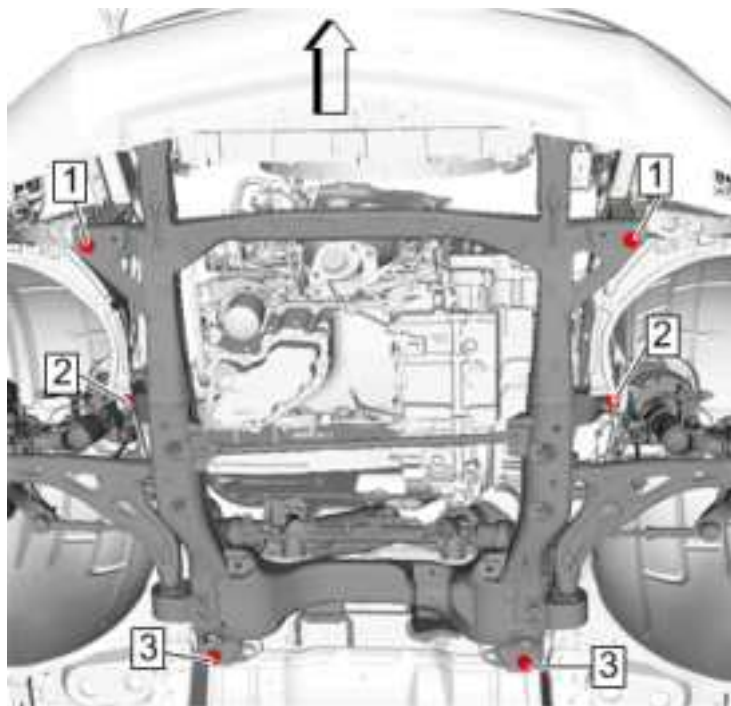


Fig. 48: Front Cradle Mounting Bolts

Courtesy of GENERAL MOTORS COMPANY

CAUTION: Refer to [Fastener Caution](#) .

5. Tighten the front cradle mounting bolts (1, 2, 3) to 175 N.m (129 lb ft).
6. Remove the jack from the drivetrain and front suspension cradle.
7. Remove the mechanics wire from the radiator assembly.
8. Install the transmission rear strut. [Transmission Mount Strut Replacement \(Front Wheel Drive\)](#)

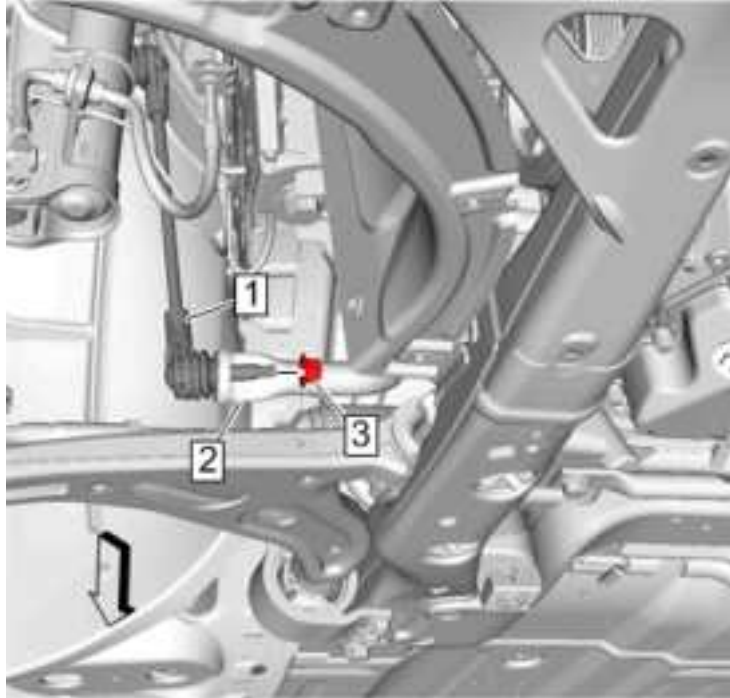


Fig. 49: Stabilizer Shaft And Shaft Links

Courtesy of GENERAL MOTORS COMPANY

9. Install the stabilizer shaft links (1). [Stabilizer Shaft Link Replacement \(Equinox\)](#) [Stabilizer Shaft Link Replacement \(Terrain\)](#)
10. Connect the outer tie rod to the steering knuckle. [Steering Linkage Outer Tie Rod Replacement](#)

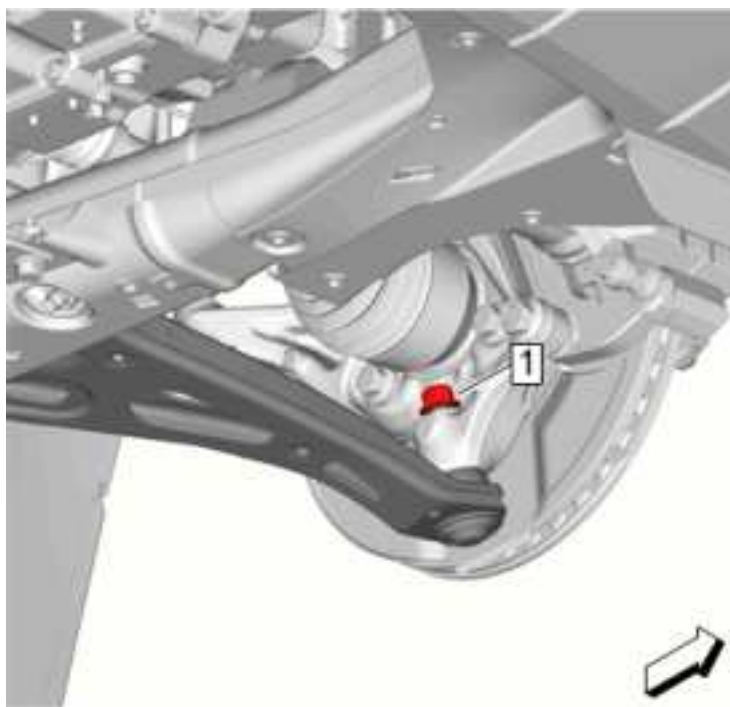


Fig. 50: Lower Control Arm To Steering Knuckle Nut

Courtesy of GENERAL MOTORS COMPANY

11. Install the front lower control arm ball stud nut (1). [Lower Control Arm Replacement \(Equinox\)](#) [Lower Control Arm Replacement \(Terrain\)](#)
12. Install the front bumper fascia lower stiffener. [Front Bumper Fascia Lower Stiffener Replacement](#)
13. Install the front wheelhouse splash shield. [Front Wheelhouse Splash Shield Replacement \(Equinox\)](#) [Front Wheelhouse Splash Shield Replacement \(Terrain\)](#)
14. Install the exhaust front pipe. [Exhaust Front Pipe Replacement \(LTG\)](#) [Exhaust Front Pipe Replacement \(LYX\)](#) [Exhaust Front Pipe Replacement \(LH7\)](#)
15. Install the steering column dash inner seal. [Steering Column Dash Inner Seal Replacement \(Equinox\)](#) [Steering Column Dash Inner Seal Replacement \(Terrain\)](#)

16. Connect the steering intermediate shaft to the steering gear. [Intermediate Steering Shaft Replacement \(Equinox\)](#) [Intermediate Steering Shaft Replacement \(Terrain\)](#)
17. Connect the battery negative cable. [Battery Negative Cable Disconnection and Connection \(KL9\)](#)
18. Remove the engine support fixture. [Engine Support Fixture](#)

REAR SUSPENSION CRADLE REPLACEMENT (ALL WHEEL DRIVE)

Special Tools

- CH-51034 - A Cradle Alignment Pins

Removal Procedure

NOTE: Vehicle alignment is not required if cradle is being lowered or dropped to perform another procedure. This vehicle is equipped with a cradle to body aligning feature: cradle to body through holes or self-aligning pins that are part of cradle or body. Only align if replacing the cradle with new part and transferring components.

1. Set the rear parking brake to service mode. [Rear Parking Brake Service Mode Selection](#)
2. Remove the rear wheel and tire assemblies. [Tire and Wheel Removal and Installation](#)
3. Remove the exhaust muffler. [Exhaust Muffler Replacement \(LTG, LYX\)](#) [Exhaust Muffler Replacement \(LH7\)](#)

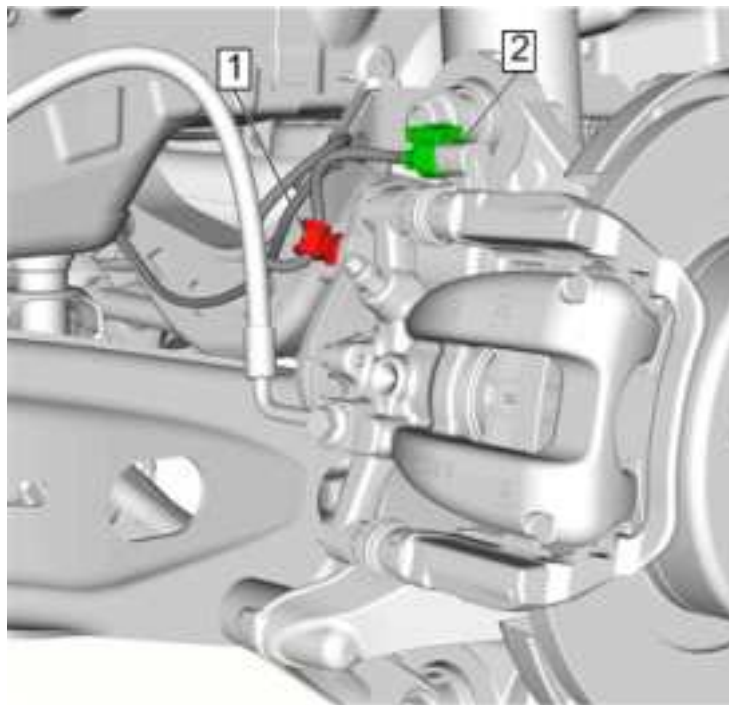


Fig. 51: Park Brake Electrical Connector And Wiring Harness Retainer
Courtesy of GENERAL MOTORS COMPANY

4. Disconnect the park brake electrical connector (2) and wiring harness retainer (1) from both left and right rear brake calipers.

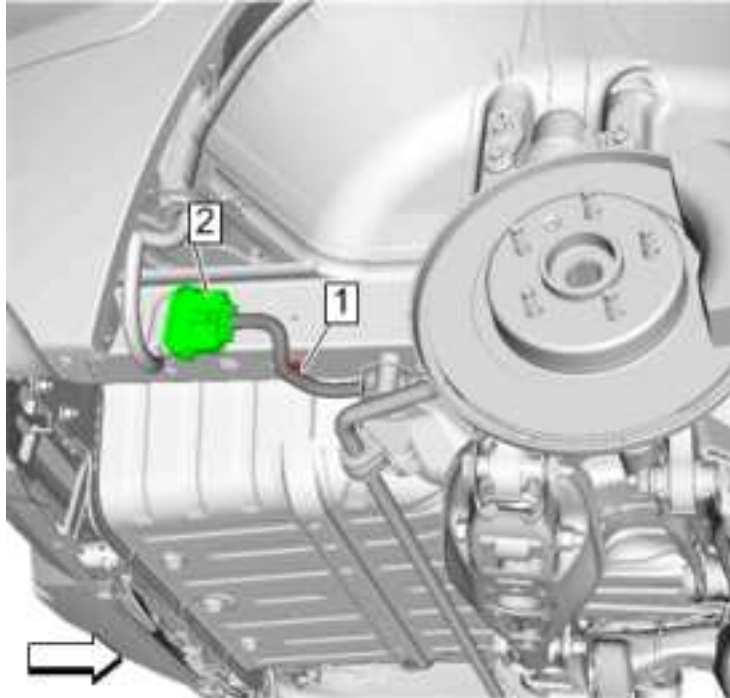


Fig. 52: Electrical Connector And Wiring Harness Retainer
Courtesy of GENERAL MOTORS COMPANY

5. Disconnect the electrical connector (2) and wiring harness retainer (1) from the body.



Fig. 53: Rear Differential Assembly
Courtesy of GENERAL MOTORS COMPANY

6. Remove the differential. **Differential Replacement**

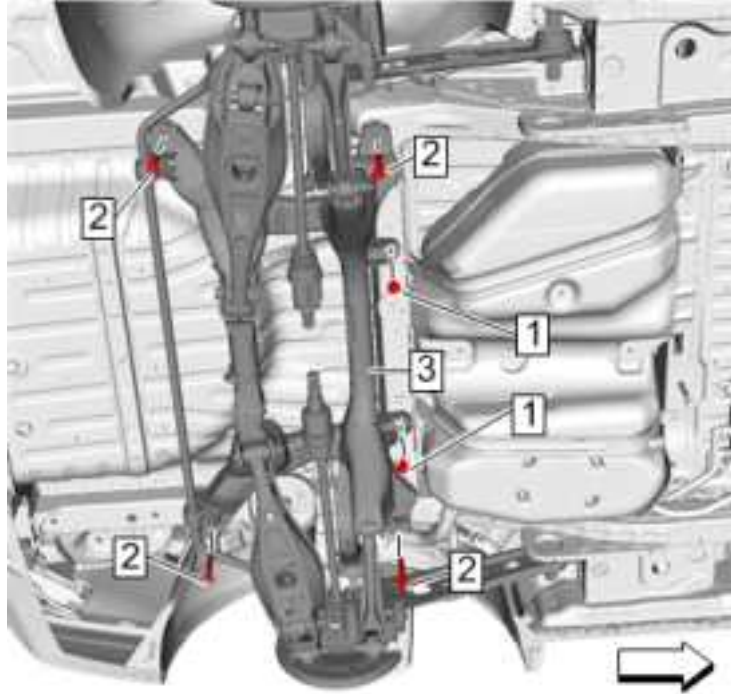


Fig. 54: Rear Suspension Cradle And Mounting Fasteners
Courtesy of GENERAL MOTORS COMPANY

7. Support the rear suspension cradle (3) with a suitable jack.
8. Remove the rear suspension cradle mounting fasteners (1).
9. Remove and DISCARD the rear suspension cradle mounting fasteners (2).
10. Lower the rear suspension cradle (3) to the floor.
11. Transfer components as necessary.

Installation Procedure

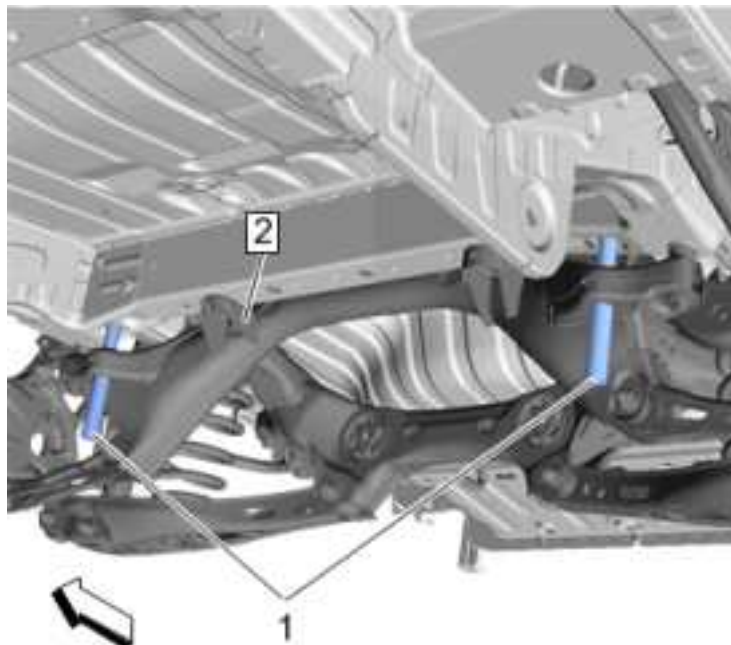


Fig. 55: Cradle Frame And Cradle Alignment Pins
Courtesy of GENERAL MOTORS COMPANY

1. Install the **CH-51034 - A** Cradle Alignment Pins (1) or equivalent 19 mm pins into the alignment holes on the cradle frame (2).

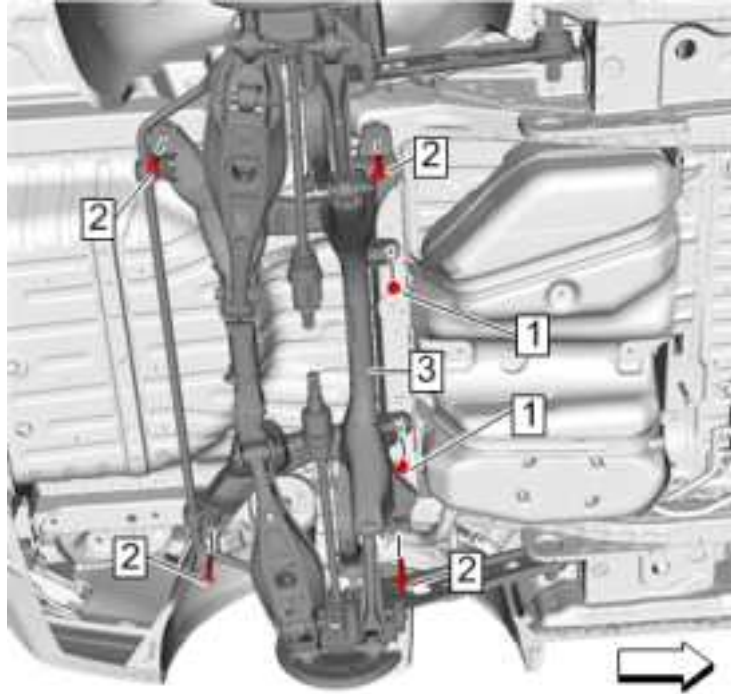


Fig. 56: Rear Suspension Cradle And Mounting Fasteners

Courtesy of GENERAL MOTORS COMPANY

CAUTION: This vehicle is equipped with torque-to-yield or single use fasteners. Install a NEW torque-to-yield or single use fastener when installing this component. Failure to replace the torque-to-yield or single use fastener could cause damage to the vehicle or component.

2. Position the rear suspension cradle (3) into position and tighten the NEW mounting bolts (2) to:
 1. First Pass: 90 N.m (66 lb ft)
 2. Final Pass: plus 90 to 105 degrees

CAUTION: Refer to [Fastener Caution](#) .

3. Install the rear suspension cradle bolts (1) and tighten to 100 N.m (74 lb ft)

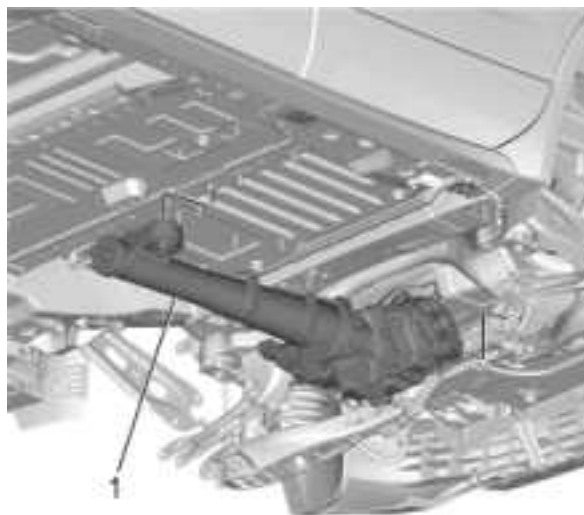


Fig. 57: Rear Differential Assembly

Courtesy of GENERAL MOTORS COMPANY

4. Install the differential. [Differential Replacement](#)
5. Install the exhaust muffler. [Exhaust Muffler Replacement \(LTG, LYX\)](#) [Exhaust Muffler Replacement \(LH7\)](#)

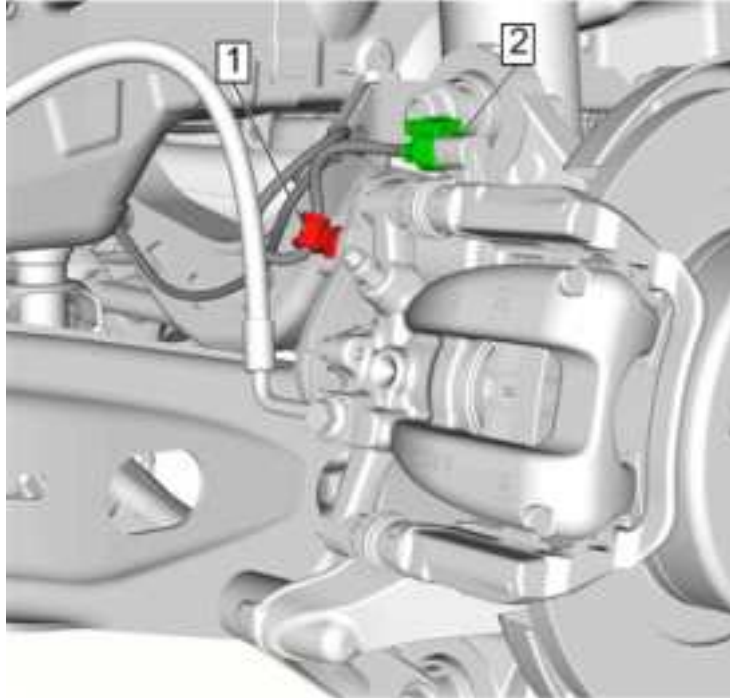


Fig. 58: Park Brake Electrical Connector And Wiring Harness Retainer
Courtesy of GENERAL MOTORS COMPANY

6. Connect the park brake electrical connector (2) and wiring harness retainer (1) to both left and right rear brake calipers.

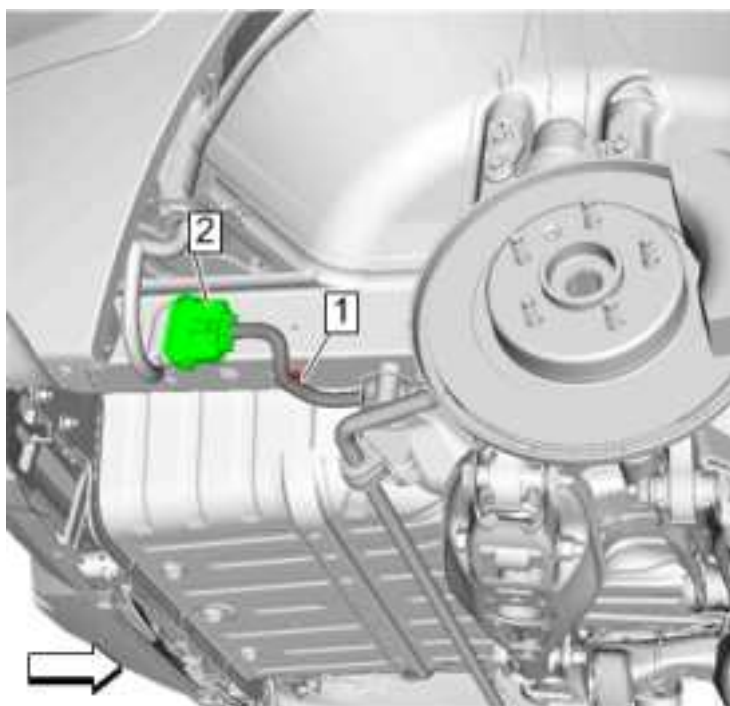


Fig. 59: Electrical Connector And Wiring Harness Retainer
Courtesy of GENERAL MOTORS COMPANY

7. Connect the electrical connector (2) and wiring harness retainer (1) to the body.
8. Connect all electrical connectors as required.
9. Reset the rear parking brake from service mode. [Rear Parking Brake Service Mode Selection](#)
10. Install the rear wheel and tire assemblies. [Tire and Wheel Removal and Installation](#)
11. Align the vehicle, if the rear suspension cradle was replaced with a NEW cradle. [Wheel Alignment Specifications](#)

REAR SUSPENSION CRADLE REPLACEMENT (FRONT WHEEL DRIVE)

Special Tools

- CH-51034 - A Cradle Alignment Pins

NOTE:

Vehicle alignment is not required if cradle is being lowered or dropped to perform another procedure. This vehicle is equipped with a cradle to body aligning feature: cradle to body through holes or self-aligning pins that are part of cradle or body. Only align if replacing the cradle with new part and transferring components.

1. Remove the exhaust muffler. [Exhaust Muffler Replacement \(LTG, LYX\)](#) [Exhaust Muffler Replacement \(LH7\)](#)
2. Remove the brake calipers from the spindle assemblies, then position out of the way. [Rear Brake Caliper Replacement](#)
3. Remove the left and right coil springs. [Rear Coil Spring Replacement](#)

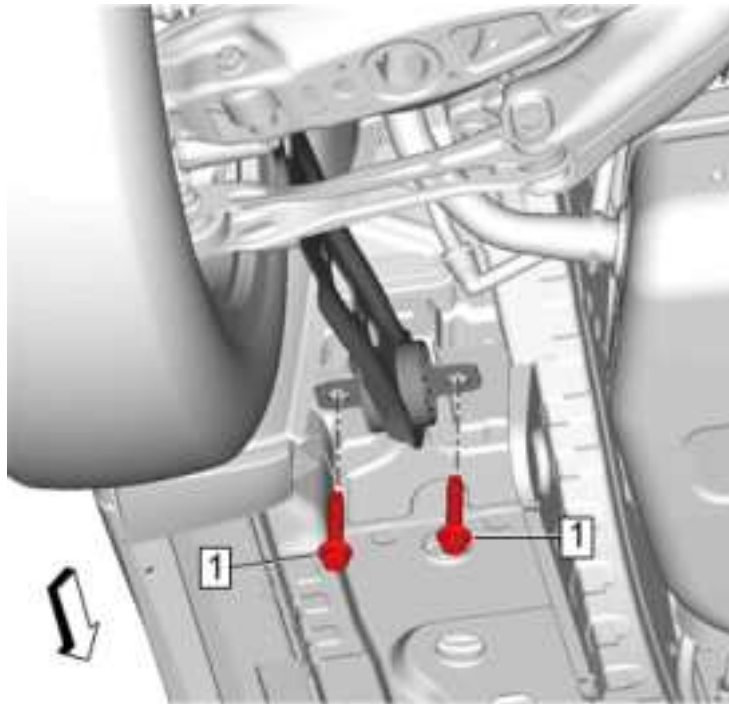


Fig. 60: Left And Right Rear Suspension Trailing Arm Bolts
Courtesy of GENERAL MOTORS COMPANY

4. Remove and DISCARD the left and right rear suspension trailing arm bolts (1). [Trailing Arm Replacement](#)
5. Disconnect and reposition the wiring harness from rear suspension cradle.

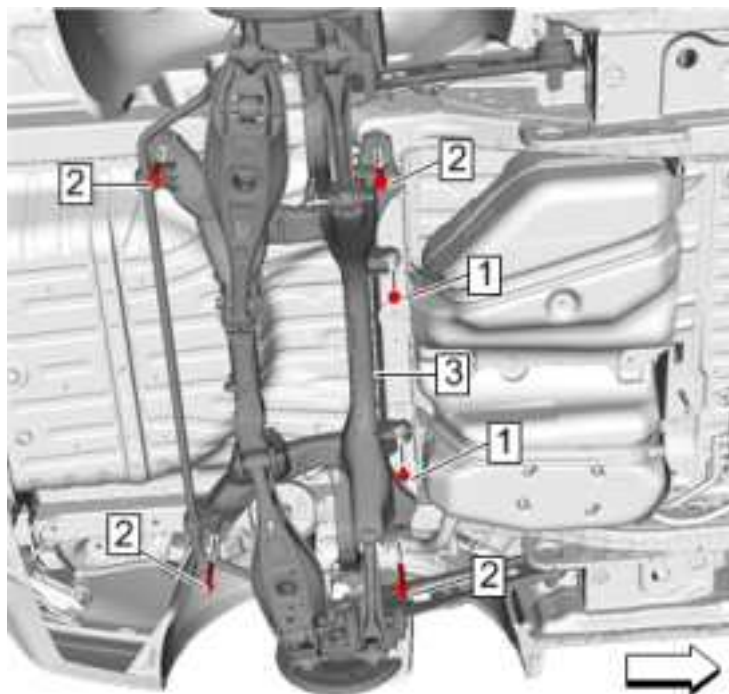


Fig. 61: Rear Suspension Cradle And Mounting Fasteners
Courtesy of GENERAL MOTORS COMPANY

6. Support the rear suspension cradle (3) with a suitable jack.
7. Remove the rear suspension cradle mounting fasteners (1).
8. Remove and DISCARD the rear suspension cradle mounting fasteners (2).
9. Lower the rear suspension cradle (3) to the floor.
10. Transfer components as necessary.

Installation Procedure

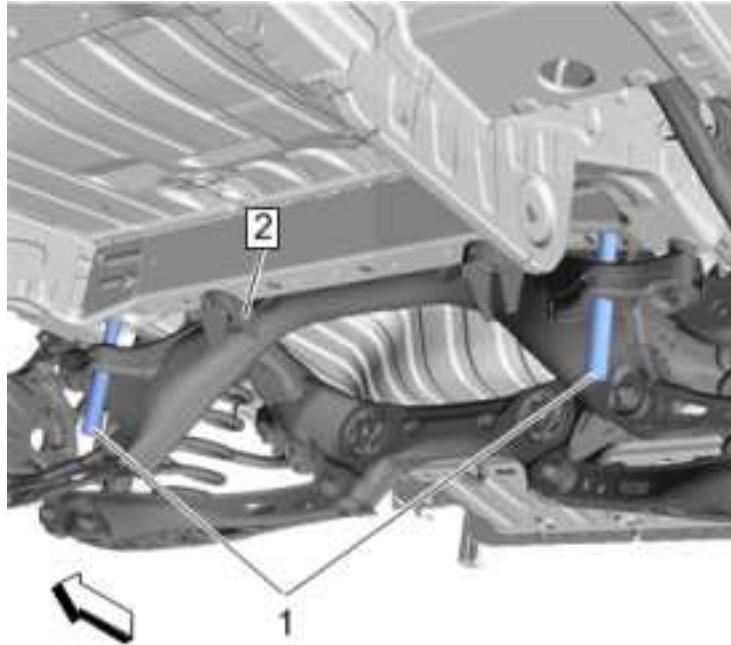


Fig. 62: Cradle Frame And Cradle Alignment Pins
Courtesy of GENERAL MOTORS COMPANY

1. Install the **CH-51034 - A** Cradle Alignment Pins (1) or equivalent 19 mm pins into the alignment holes on the cradle frame (2).

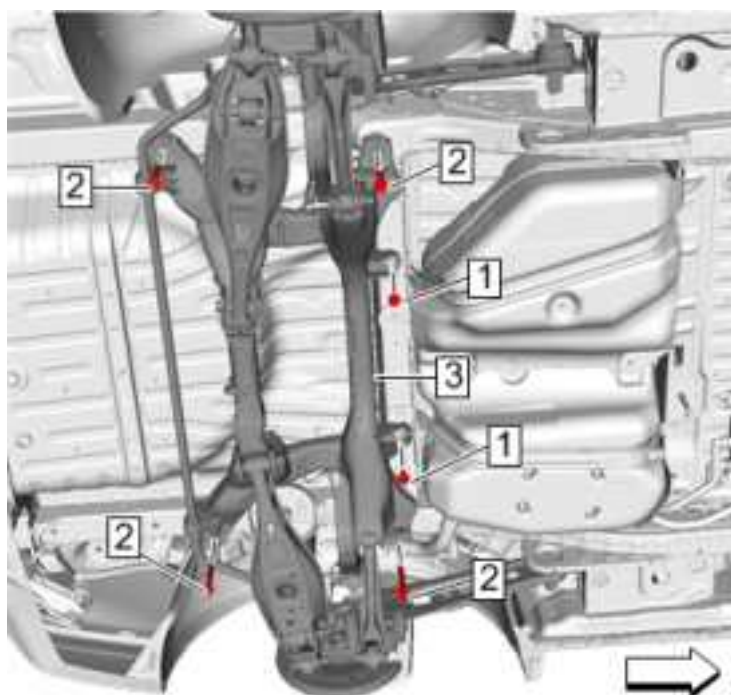


Fig. 63: Rear Suspension Cradle And Mounting Fasteners
Courtesy of GENERAL MOTORS COMPANY

CAUTION: This vehicle is equipped with torque-to-yield or single use fasteners.

Install a NEW torque-to-yield or single use fastener when installing this component. Failure to replace the torque-to-yield or single use fastener could cause damage to the vehicle or component.

2. Position the rear suspension cradle (3) into position and tighten the NEW mounting bolts (2) to:
 1. First Pass: 90 N.m (66 lb ft)
 2. Final Pass: plus 90 to 105 degrees

CAUTION: Refer to [Fastener Caution](#) .

3. Install the rear suspension cradle bolts (1) and tighten to 100 N.m (74 lb ft)

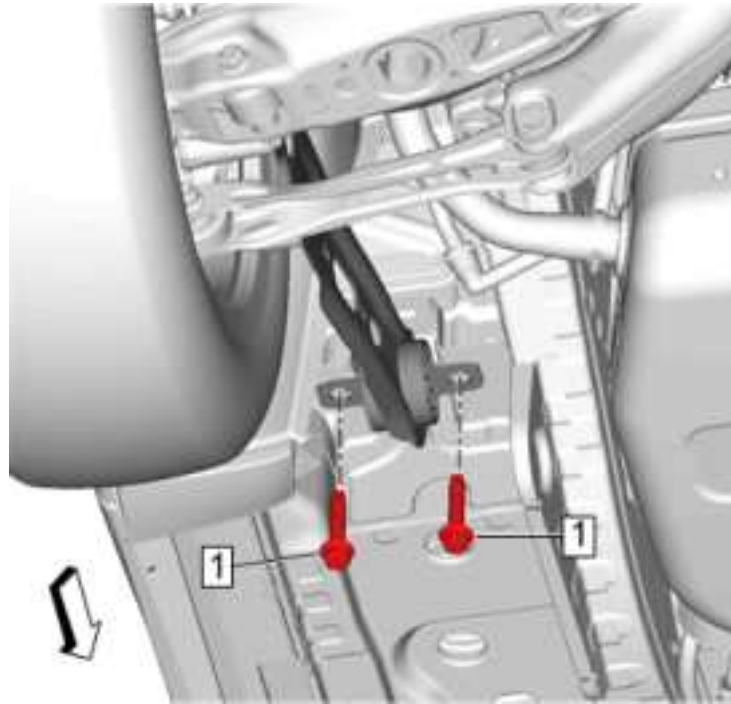


Fig. 64: Left And Right Rear Suspension Trailing Arm Bolts
Courtesy of GENERAL MOTORS COMPANY

4. Install the NEW left and right rear suspension trailing arm bolts (1). [Trailing Arm Replacement](#)
5. Position and re-connect the wiring harness to the rear suspension cradle.
6. Install the left and right coil springs. [Rear Coil Spring Replacement](#)
7. Install the exhaust muffler. [Exhaust Muffler Replacement \(LTG, LYX\)](#) [Exhaust Muffler Replacement \(LH7\)](#)
8. Install the brake calipers to the spindle assemblies. [Rear Brake Caliper Replacement](#)
9. Connect all electrical connectors as required.
10. Align the vehicle, if the rear suspension cradle was replaced with a NEW cradle. [Wheel Alignment Specifications](#)

FRONT WHEELHOUSE LINER REPLACEMENT - RIGHT SIDE (EQUINOX)

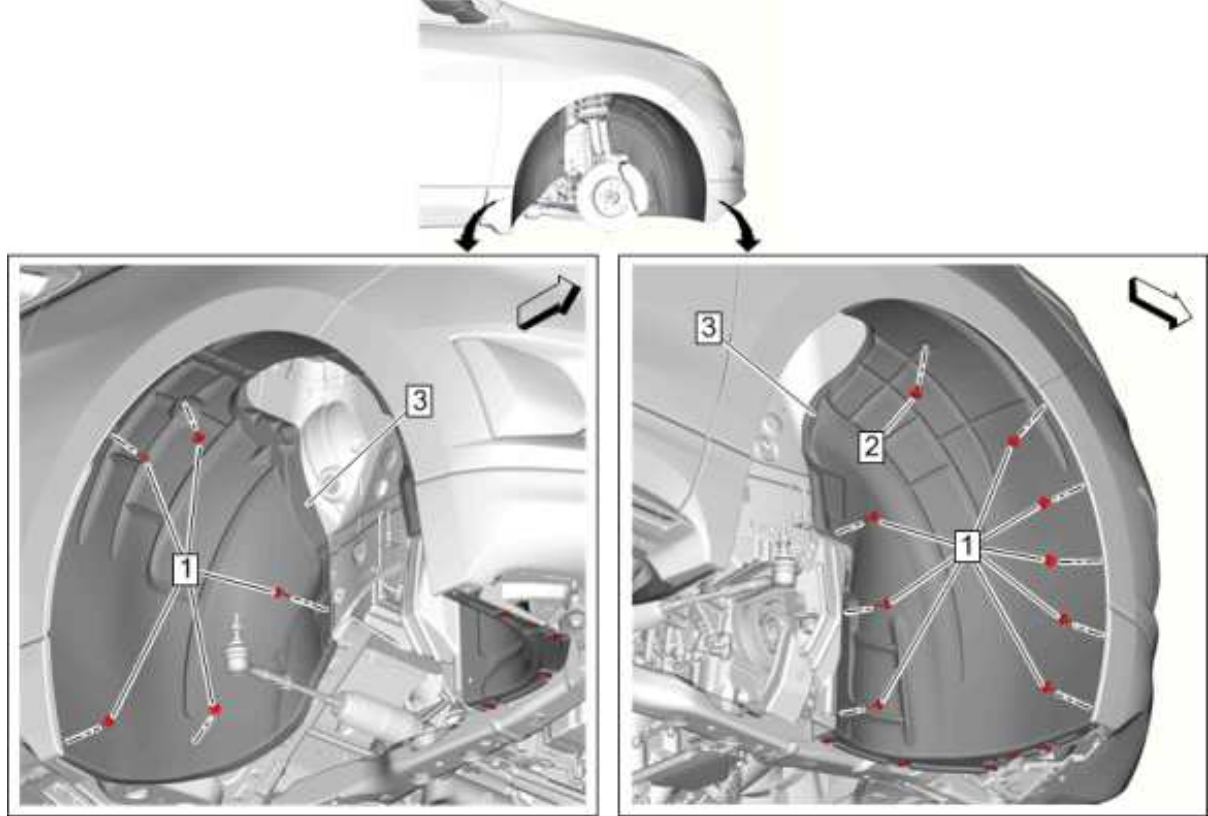


Fig. 65: Front Wheelhouse Liner - Right Side
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Remove the tire and wheel assembly. Tire and Wheel Removal and Installation 2. Front Tire Front Air Deflector Replacement (Equinox) 3. Underbody Front Air Deflector Replacement (Equinox)	
1	Front Wheelhouse Liner Bolt[13x] CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Front Wheelhouse Liner Retainer
3	Front Wheelhouse Liner - Right Side Procedure Install the tire and wheel assembly. Tire and Wheel Removal and Installation

FRONT WHEELHOUSE LINER REPLACEMENT - RIGHT SIDE (TERRAIN)

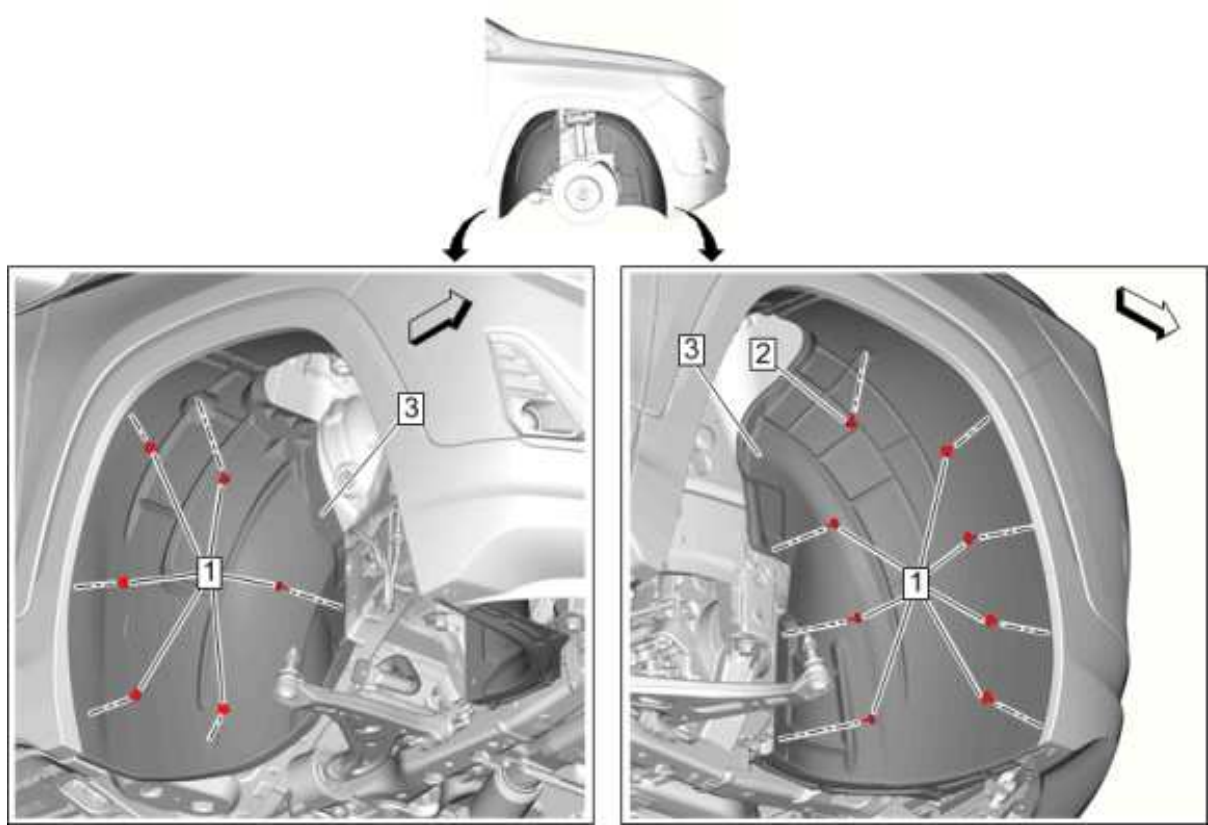


Fig. 66: Front Wheelhouse Liner - Right Side
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Remove the tire and wheel assembly. Tire and Wheel Removal and Installation 2. Front Tire Front Air Deflector Replacement (Terrain). 3. Underbody Front Air Deflector Replacement (Terrain).	
1	Front Wheelhouse Liner Bolt[13x] CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Front Wheelhouse Liner Retainer
3	Front Wheelhouse Liner - Right Side Procedure Install the tire and wheel assembly. Tire and Wheel Removal and Installation

FRONT WHEELHOUSE LINER REPLACEMENT - LEFT SIDE (EQUINOX)

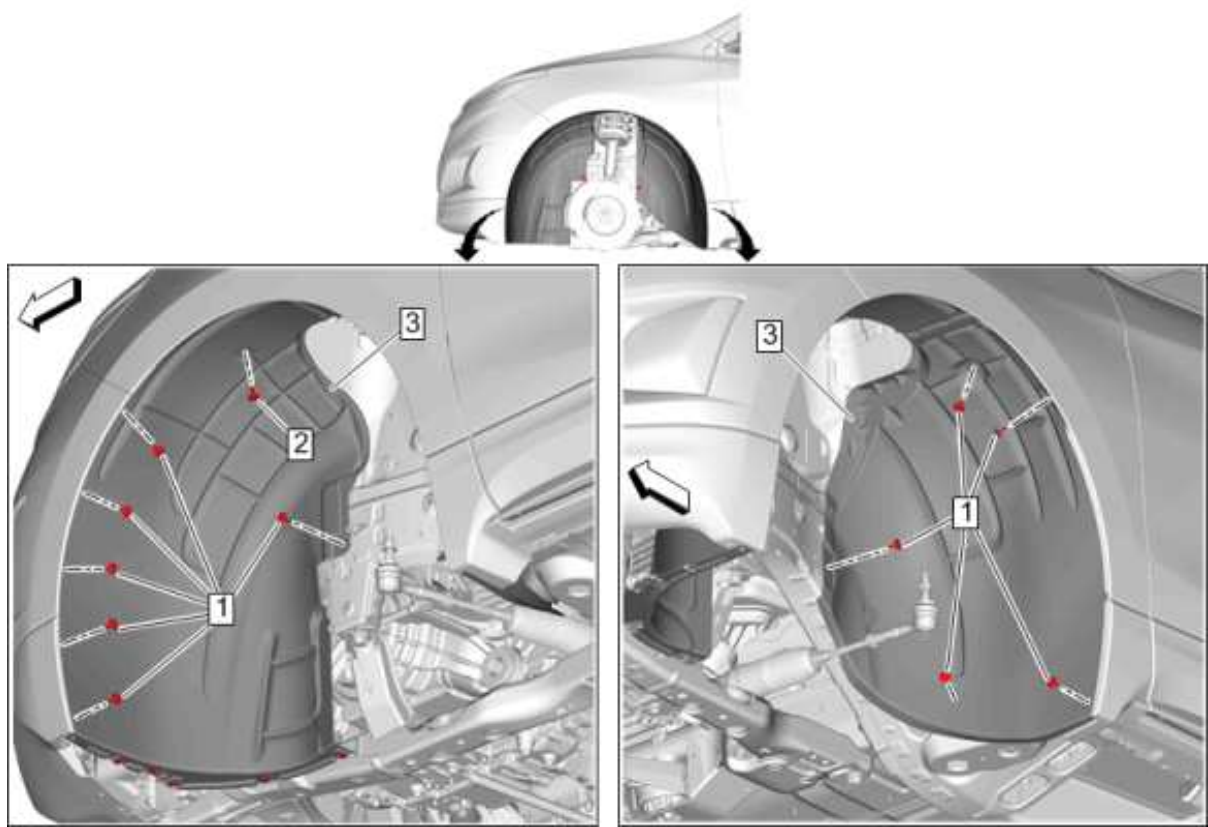


Fig. 67: Front Wheelhouse Liner - Left Side
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Remove the tire and wheel assembly. Tire and Wheel Removal and Installation 2. Front Tire Front Air Deflector Replacement (Equinox). 3. Underbody Front Air Deflector Replacement (Equinox)	
1	Front Wheelhouse Liner Bolt[11x] CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Front Wheelhouse Liner Retainer
3	Front Wheelhouse Liner - Left Side Procedure Install the tire and wheel assembly. Tire and Wheel Removal and Installation

FRONT WHEELHOUSE LINER REPLACEMENT - LEFT SIDE (TERRAIN)

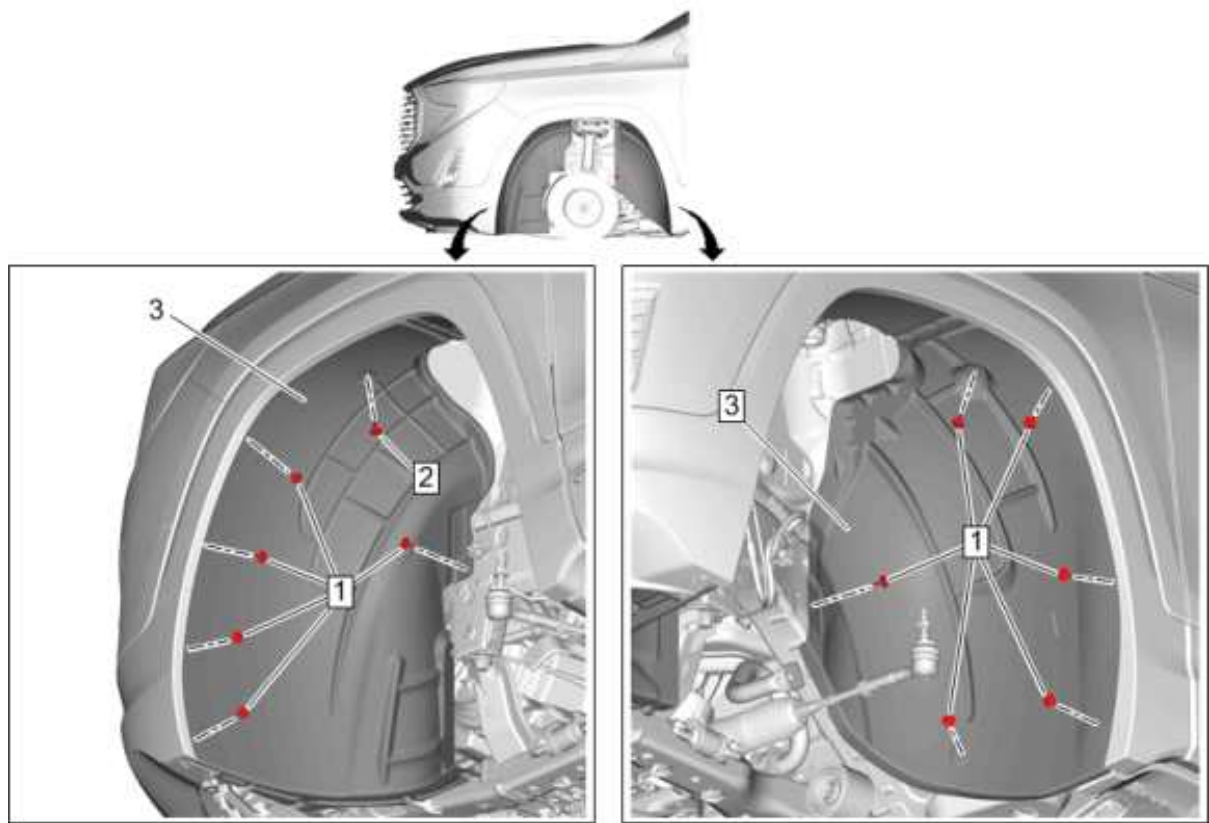


Fig. 68: Front Wheelhouse Liner Replacement - Left Side

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Remove the tire and wheel assembly. Tire and Wheel Removal and Installation 2. Front Tire Front Air Deflector Replacement (Terrain) 3. Underbody Front Air Deflector Replacement (Terrain)	
1	Front Wheelhouse Liner Bolt[11x] CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Front Wheelhouse Liner Retainer
3	Front Wheelhouse Liner - Left Side Procedure Install the tire and wheel assembly. Tire and Wheel Removal and Installation

REAR WHEELHOUSE LINER REPLACEMENT - RIGHT SIDE (TERRAIN)

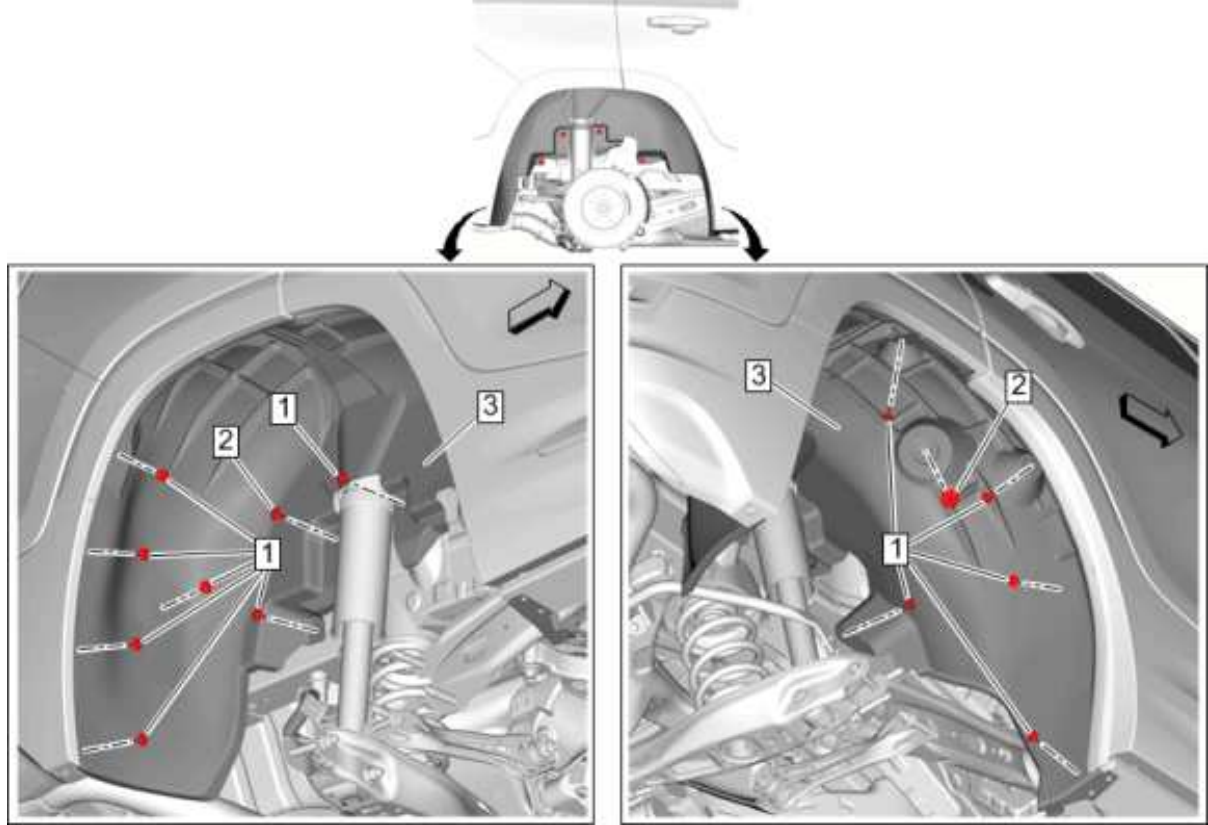


Fig. 69: Rear Wheelhouse Liner - Right Side
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Remove the tire and wheel assembly. Tire and Wheel Removal and Installation 2. Rear Tire Front Air Deflector Replacement (Terrain).	
1	Rear Wheelhouse Liner Bolt[12x] CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Rear Wheelhouse Liner Retainer[2x]
3	Rear Wheelhouse Liner - Left Side Procedure Install the tire and wheel assembly. Tire and Wheel Removal and Installation

REAR WHEELHOUSE LINER REPLACEMENT - RIGHT SIDE (EQUINOX)

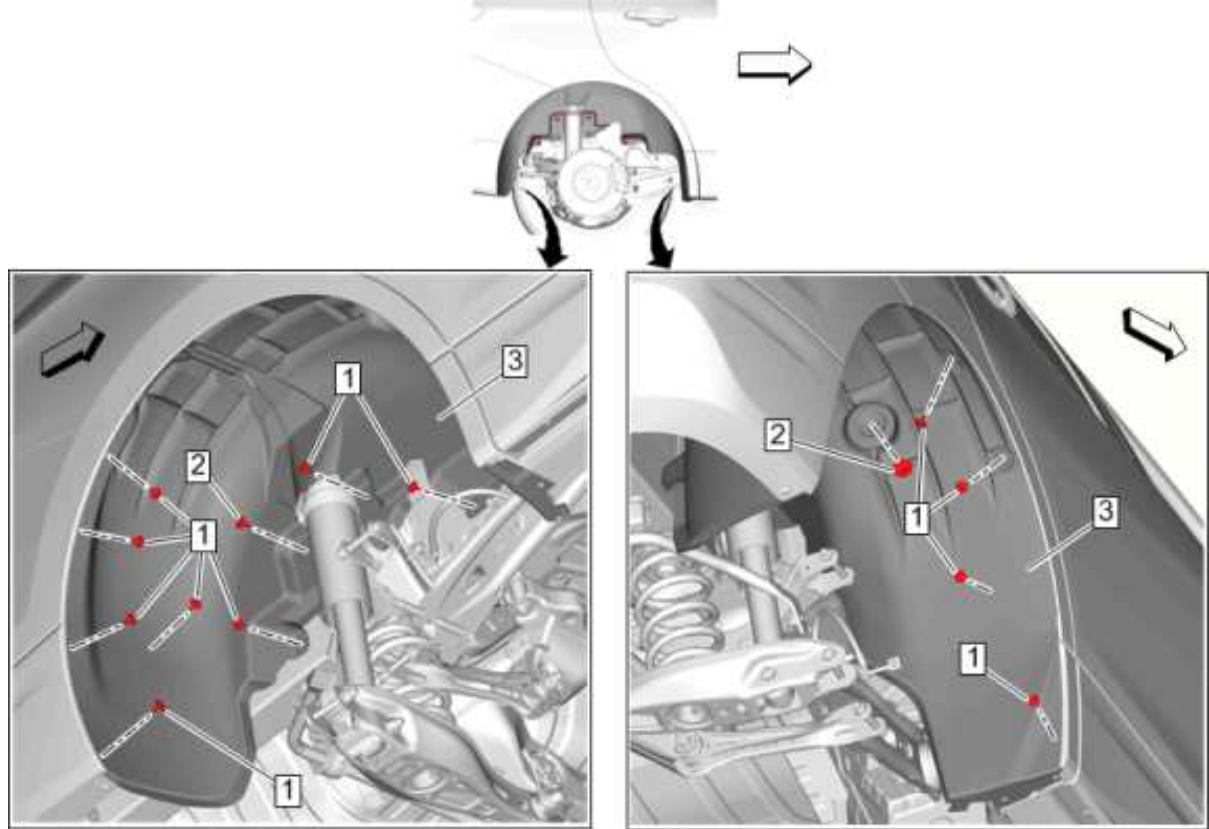


Fig. 70: Rear Wheelhouse Liner - Right Side
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Remove the tire and wheel assembly. Tire and Wheel Removal and Installation 2. Rear Tire Front Air Deflector Replacement (Equinox)	
1	Rear Wheelhouse Liner Bolt[12x] CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Rear Wheelhouse Liner Retainer[2x]
3	Rear Wheelhouse Liner Procedure Install the tire and wheel assembly. Tire and Wheel Removal and Installation

REAR WHEELHOUSE LINER REPLACEMENT - LEFT SIDE (EQUINOX)

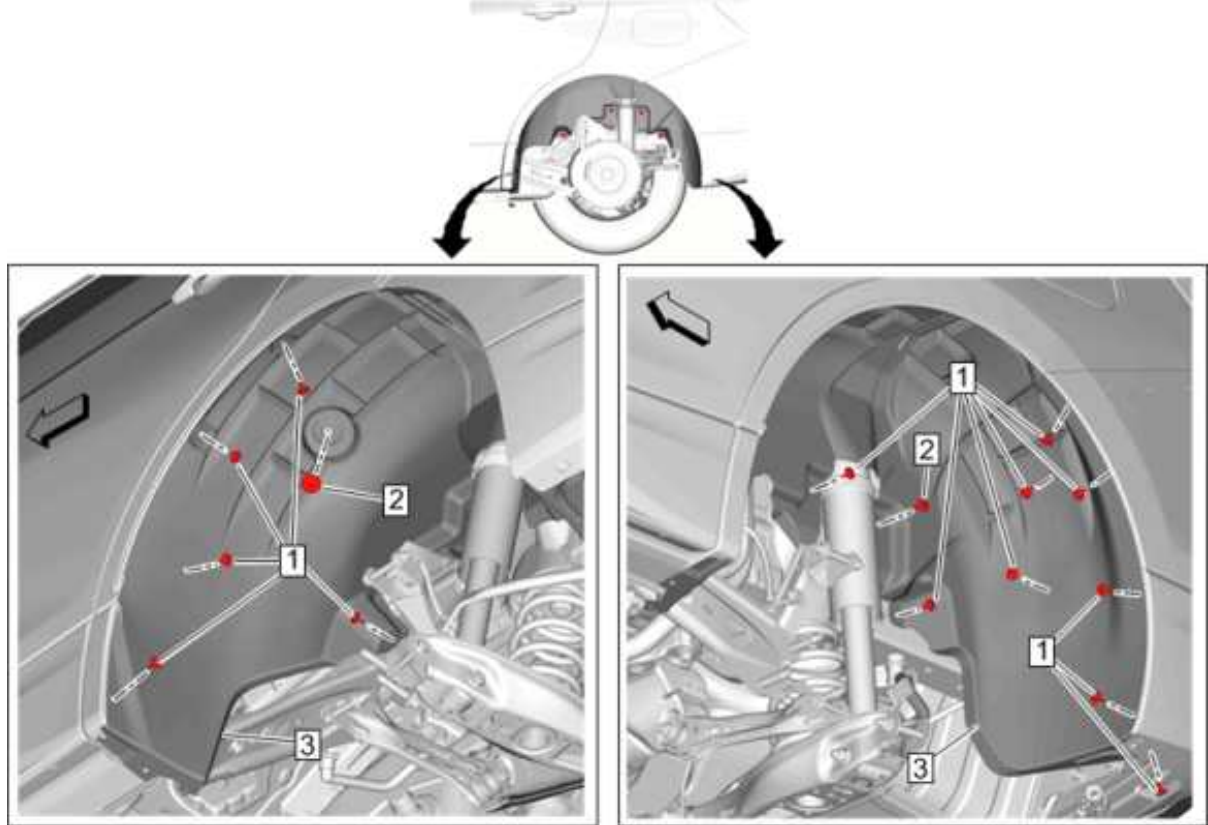


Fig. 71: Rear Wheelhouse Liner - Left Side
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Remove the tire and wheel assembly. Refer to Tire and Wheel Removal and Installation 2. Rear Tire Front Air Deflector Replacement (Equinox)	
1	Rear Wheelhouse Liner Bolt[14x] CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Rear Wheelhouse Liner Retainer[2x]
3	Rear Wheelhouse Liner Procedure Install the tire and wheel assembly. Tire and Wheel Removal and Installation

REAR WHEELHOUSE LINER REPLACEMENT - LEFT SIDE (TERRAIN)

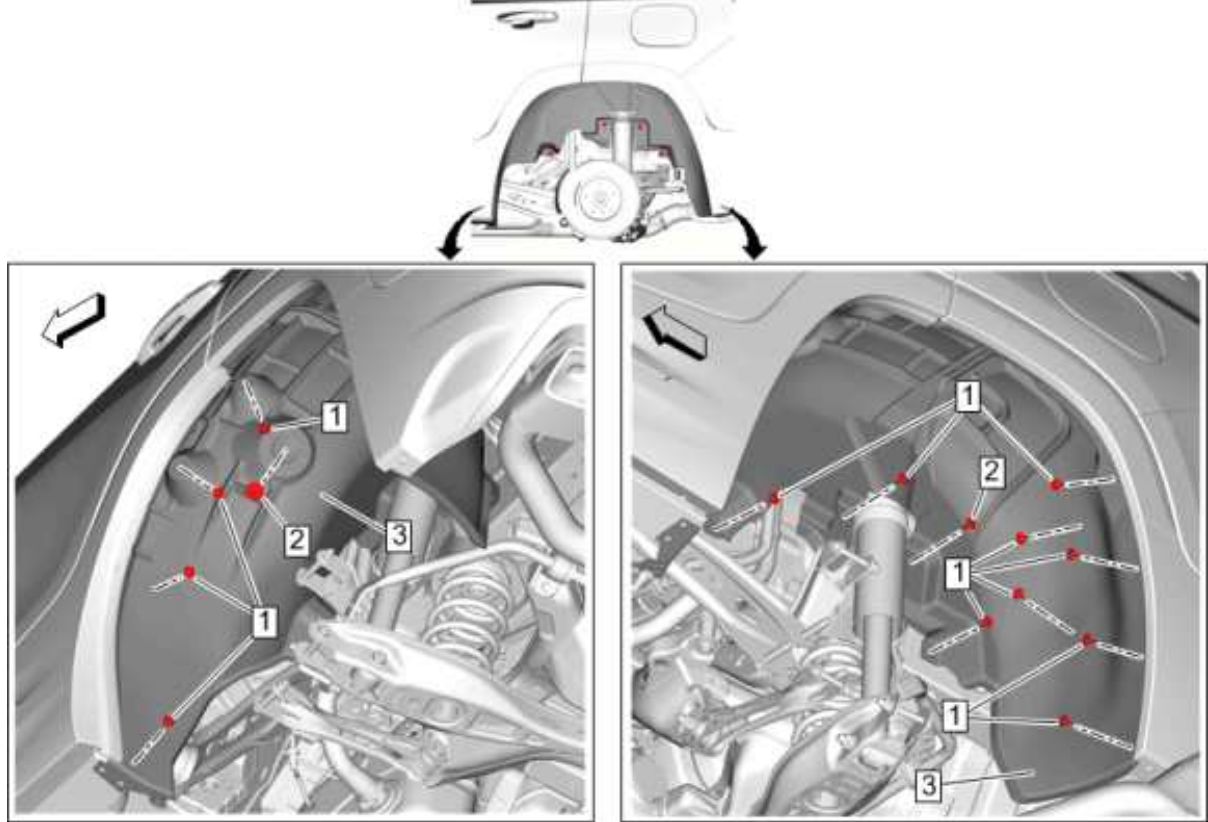


Fig. 72: Rear Wheelhouse Liner - Left Side
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Remove the tire and wheel assembly. Tire and Wheel Removal and Installation 2. Rear Tire Front Air Deflector Replacement (Terrain).	
1	Rear Wheelhouse Liner Bolt [13x] CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Rear Wheelhouse Liner Retainer[2x]
3	Rear Wheelhouse Liner - Left Side Procedure Install the tire and wheel assembly. Tire and Wheel Removal and Installation

REAR WHEELHOUSE LINER REAR BRACE REPLACEMENT (TERRAIN)

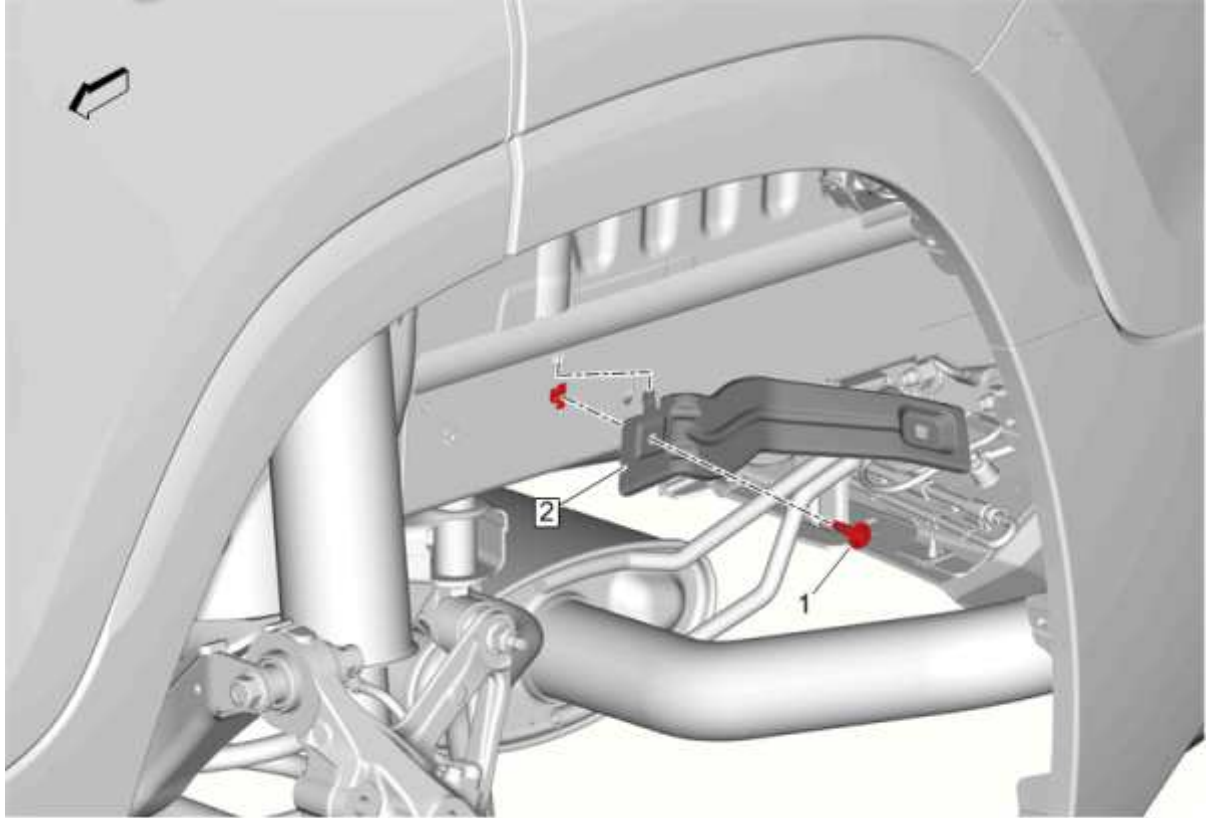


Fig. 73: Rear Wheelhouse Liner Rear Brace
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Rear Wheelhouse Liner Replacement - Left Side (Terrain)	
1	Rear Wheelhouse Liner Rear Brace Bolt CAUTION: Refer to Fastener Caution . Tighten 9 N.m (80 lb in)
2	Rear Wheelhouse Liner Rear Brace

REAR WHEELHOUSE LINER REAR BRACE REPLACEMENT (EQUINOX)

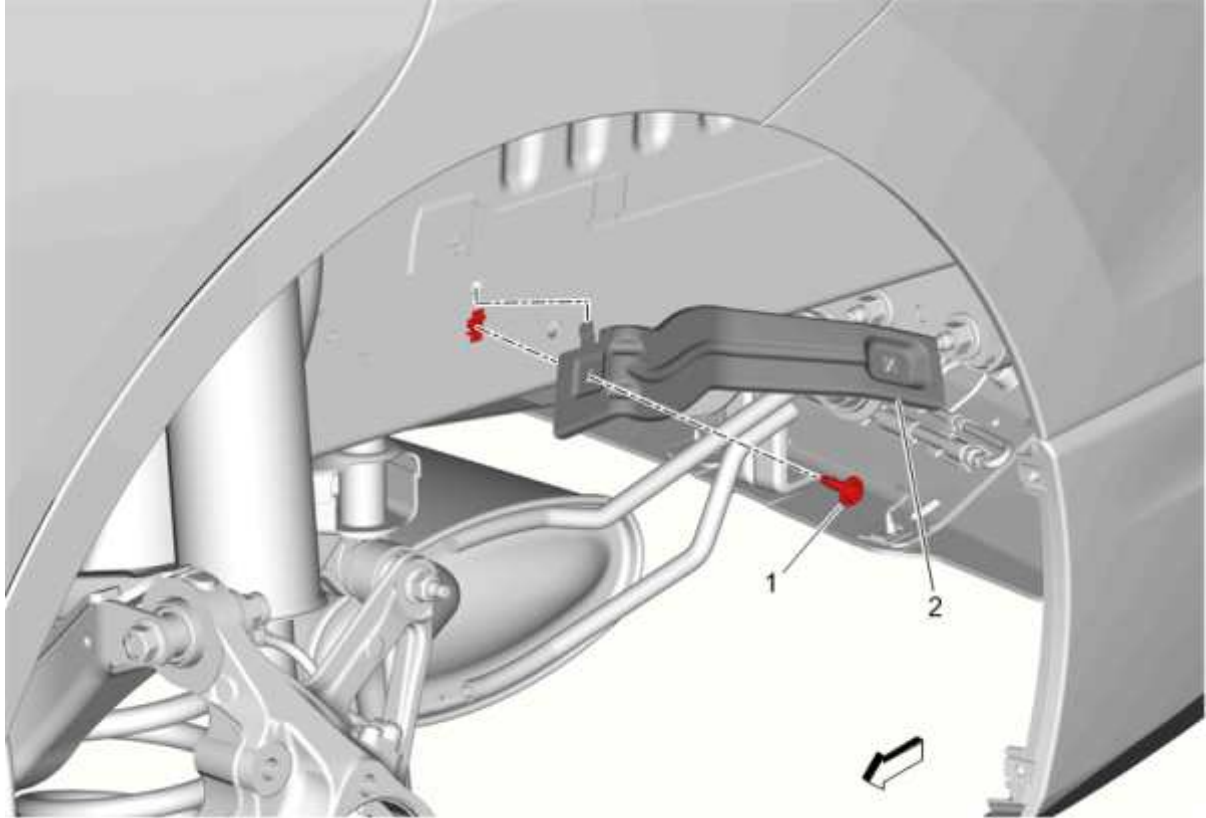


Fig. 74: Rear Wheelhouse Liner Rear Brace
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Rear Wheelhouse Liner Replacement- Left Side (Equinox)	
1	Rear Wheelhouse Liner Rear Brace Bolt CAUTION: Refer to Fastener Caution . Tighten 9 N.m (80 lb in)
2	Rear Wheelhouse Liner Rear Brace

FRONT WHEELHOUSE SPLASH SHIELD REPLACEMENT (EQUINOX)

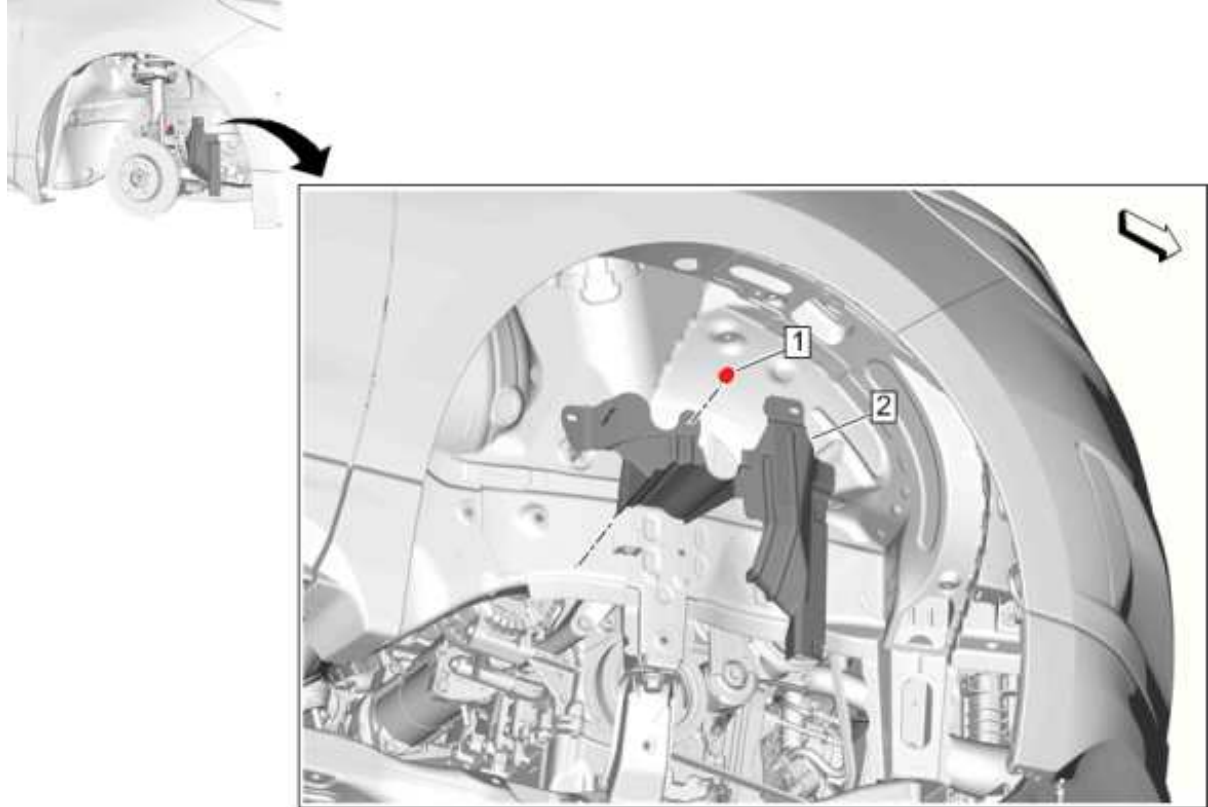


Fig. 75: Front Wheelhouse Splash Shield
Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures 1. Remove the tire and wheel assembly. Tire and Wheel Removal and Installation 2. Front Wheelhouse Liner Replacement - Right Side (Equinox). 3. Disconnect the front wheel speed sensor. Front Wheel Speed Sensor Replacement (Left). Front Wheel Speed Sensor Replacement (Right)	
1	Front Wheelhouse Panel Splash Shield Retainer
2	Front Wheelhouse Splash Shield

FRONT WHEELHOUSE SPLASH SHIELD REPLACEMENT (TERRAIN)

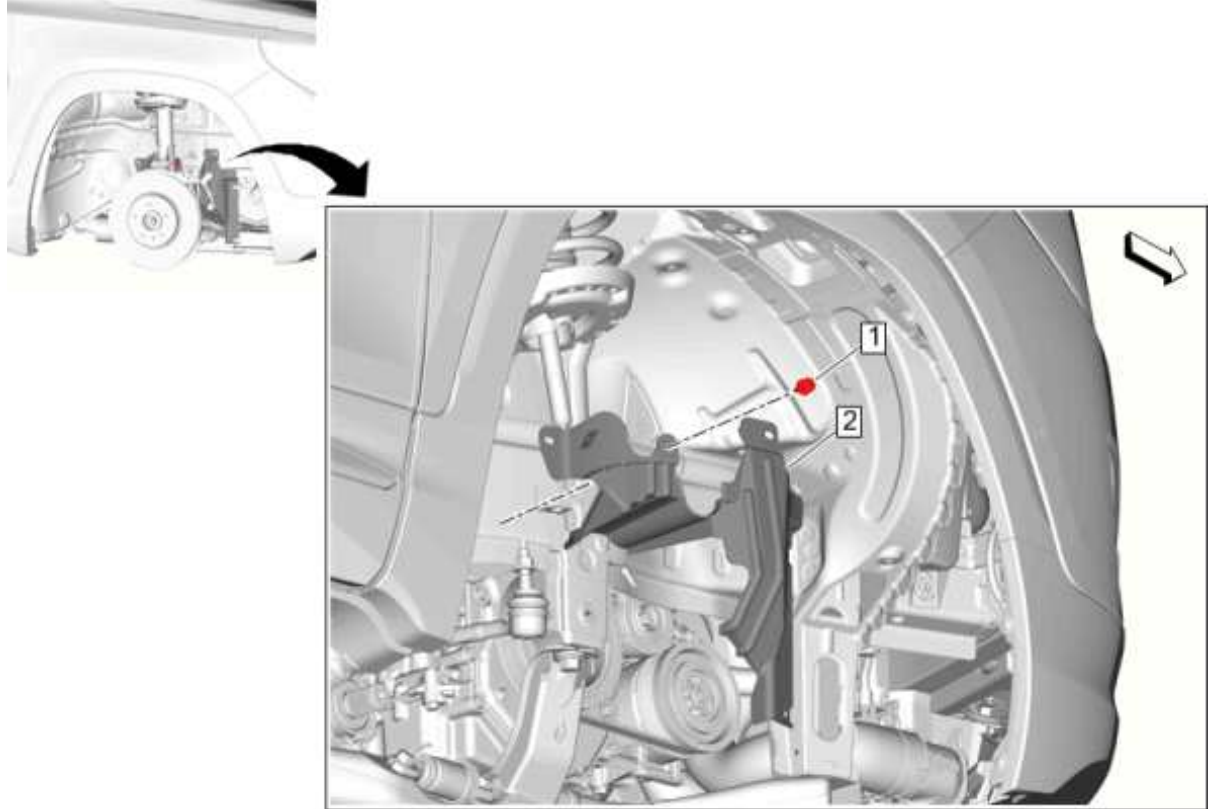


Fig. 76: Front Wheelhouse Splash Shield
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedures	
1. <u>Front Wheelhouse Liner Replacement - Right Side (Terrain).</u> 2. Disconnect the front wheel speed sensor. <u>Front Wheel Speed Sensor Replacement (Left).</u> <u>Front Wheel Speed Sensor Replacement (Right).</u>	
1	Front Wheelhouse Panel Splash Shield Retainer
2	Front Wheelhouse Splash Shield

FRONT TIRE FRONT AIR DEFLECTOR REPLACEMENT (EQUINOX)

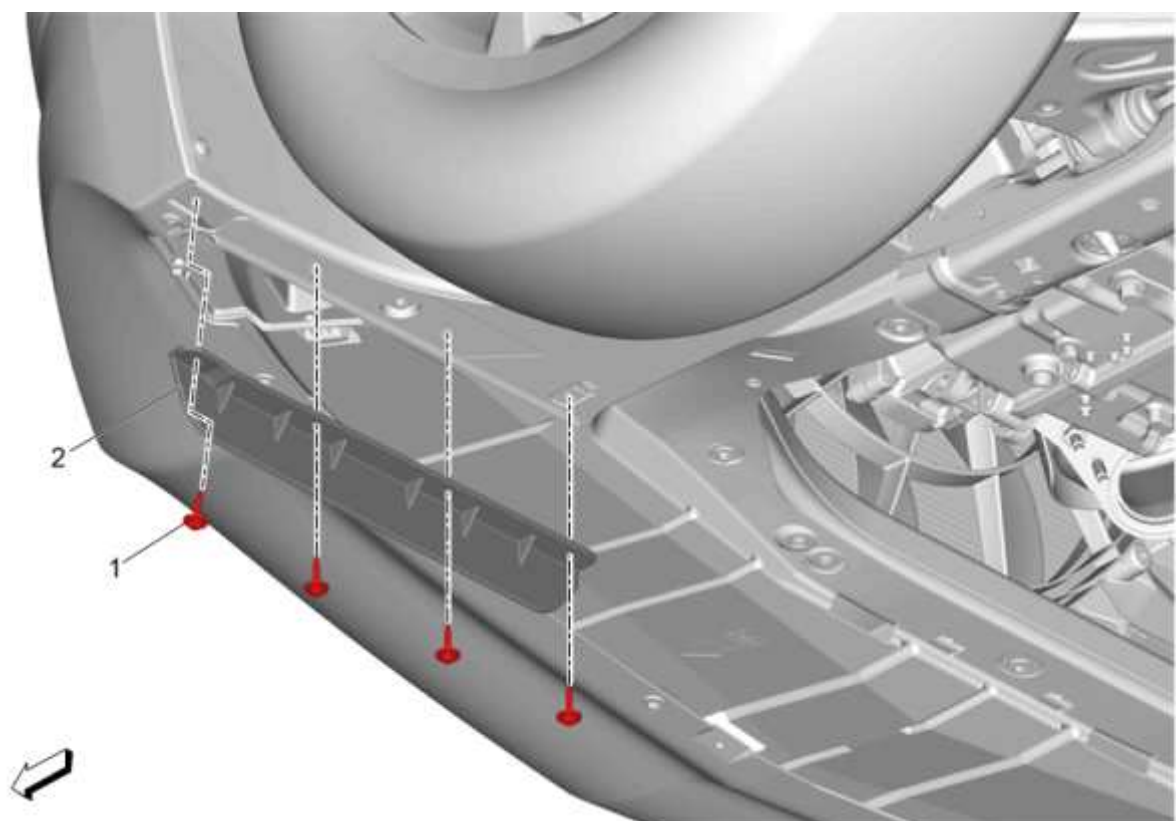


Fig. 77: Front Tire Front Air Deflector
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Raise and support the vehicle. Lifting and Jacking the Vehicle	
1	Front Tire Front Air Deflector Bolt [4x] CAUTION: Refer to Fastener Caution Tighten 2.5 N.m (22 lb in)
2	Front Tire Front Air Deflector Procedure Remove the support and lower the vehicle. Lifting and Jacking the Vehicle

FRONT TIRE FRONT AIR DEFLECTOR REPLACEMENT (TERRAIN)

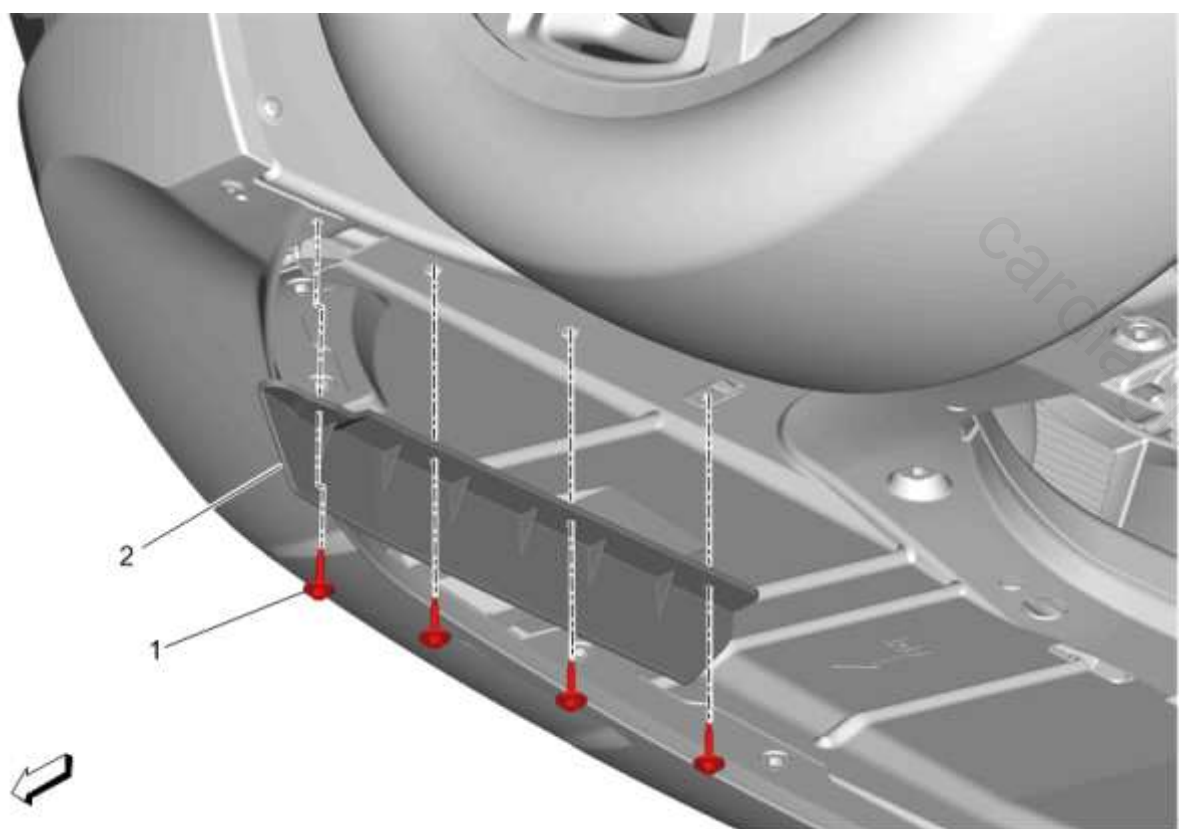


Fig. 78: Front Tire Front Air Deflector
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle	
1	Front Tire Front Air Deflector Bolt [4x] CAUTION: Refer to Fastener Caution Tighten 2.5 N.m (22 lb in)

Callout	Component Name
2	Front Tire Front Air Deflector Procedure Remove the support and lower the vehicle. Lifting and Jacking the Vehicle

REAR TIRE FRONT AIR DEFLECTOR REPLACEMENT (EQUINOX)

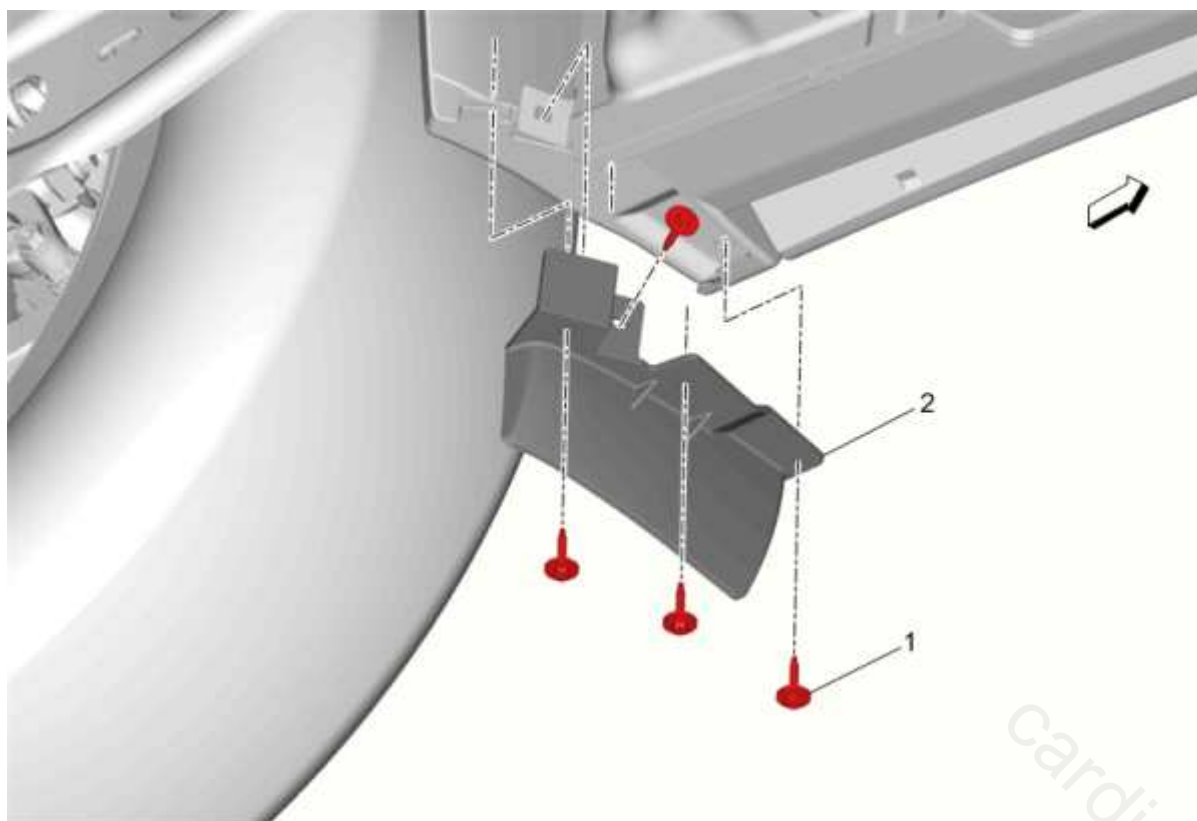


Fig. 79: Rear Tire Front Air Deflector

Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Raise and support the vehicle. Lifting and Jacking the Vehicle	
1	Rear Tire Front Air Deflector Bolt [4x] CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Rear Tire Front Air Deflector Procedure Remove the support and lower the vehicle. Refer to Lifting and Jacking the Vehicle

REAR TIRE FRONT AIR DEFLECTOR REPLACEMENT (TERRAIN)

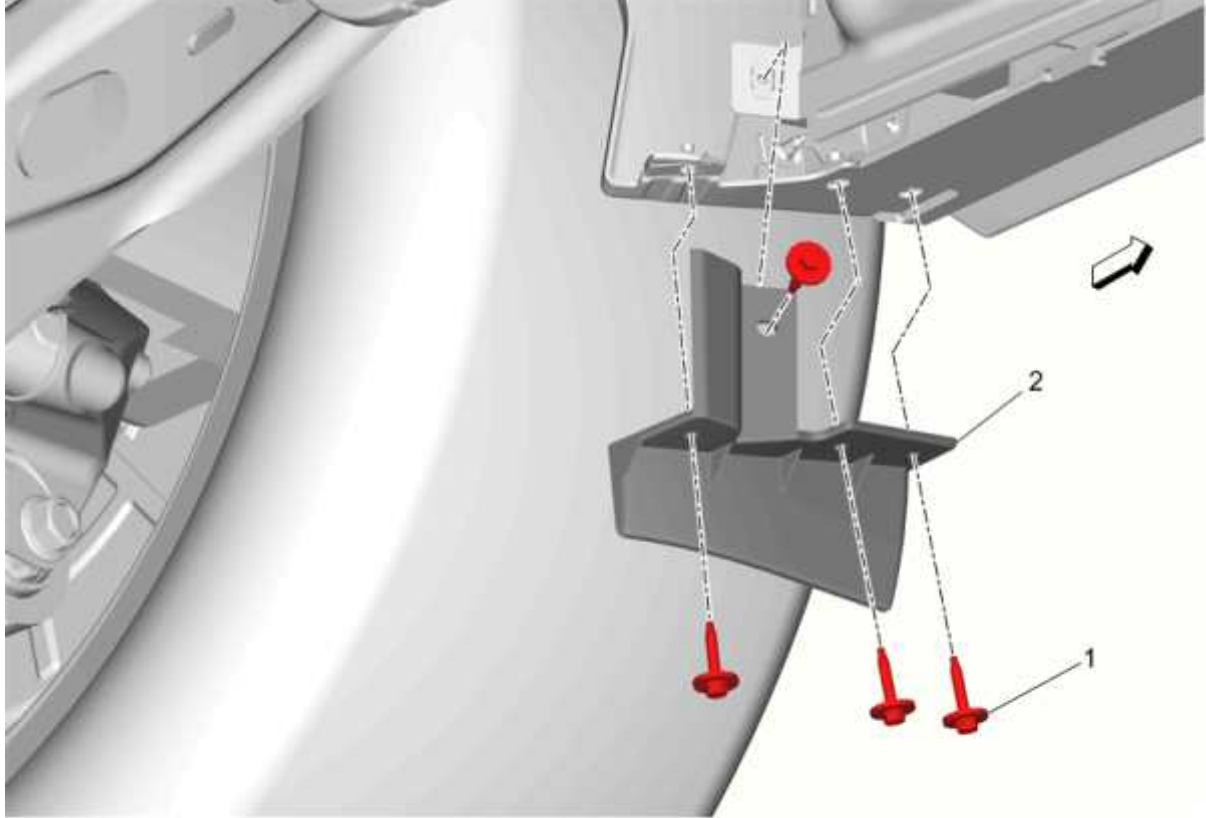


Fig. 80: Rear Tire Front Air Deflector
 Courtesy of GENERAL MOTORS COMPANY

Callout	Component Name
Preliminary Procedure Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle	
1	Rear Tire Front Air Deflector Bolt [4x] CAUTION: Refer to Fastener Caution . Tighten 2.5 N.m (22 lb in)
2	Rear Tire Front Air Deflector Procedure Remove the support and lower the vehicle. Refer to Lifting and Jacking the Vehicle

TRAILER HITCH PLATFORM REPLACEMENT

Removal Procedure

1. Remove the rear bumper fascia. [Rear Bumper Fascia Replacement \(Equinox\)](#) [Rear Bumper Fascia Replacement \(Terrain\)](#).
2. Remove the right and left exhaust rear muffler insulators from the trailer hitch. [Exhaust Muffler Replacement \(LTG, LYX\)](#) [Exhaust Muffler Replacement \(LH7\)](#).

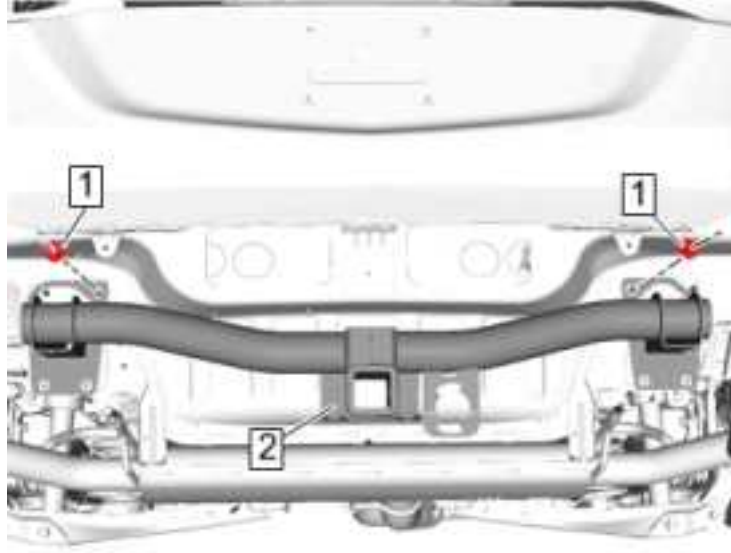


Fig. 81: Trailer Hitch Retaining Nuts

Courtesy of GENERAL MOTORS COMPANY

3. Remove the trailer hitch retaining nuts (1).

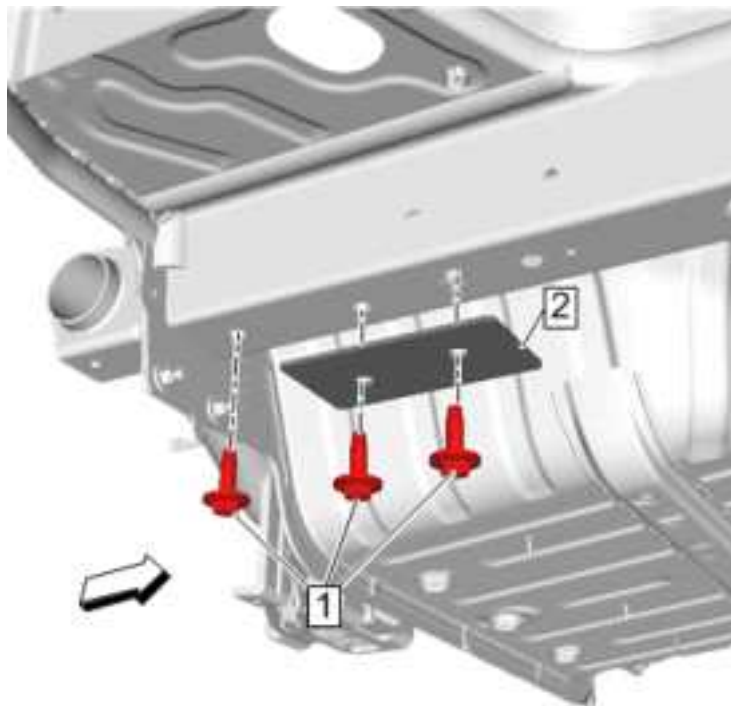


Fig. 82: Trailer Hitch Retaining Bolts And Two Plates

Courtesy of GENERAL MOTORS COMPANY

4. Remove the six (three each side) trailer hitch retaining bolts (1) and the two plates (2) (one each side) from the left and right sides.

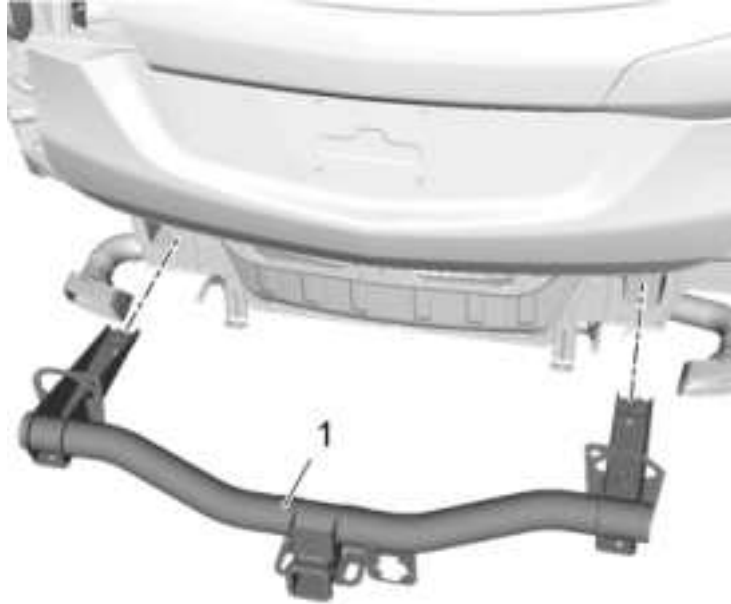


Fig. 83: Trailer Hitch Assembly

Courtesy of GENERAL MOTORS COMPANY

5. Pull the trailer hitch assembly (1) from the vehicle.

Installation Procedure



Fig. 84: Trailer Hitch Assembly

Courtesy of GENERAL MOTORS COMPANY

1. Push the trailer hitch assembly (1) into the vehicle.

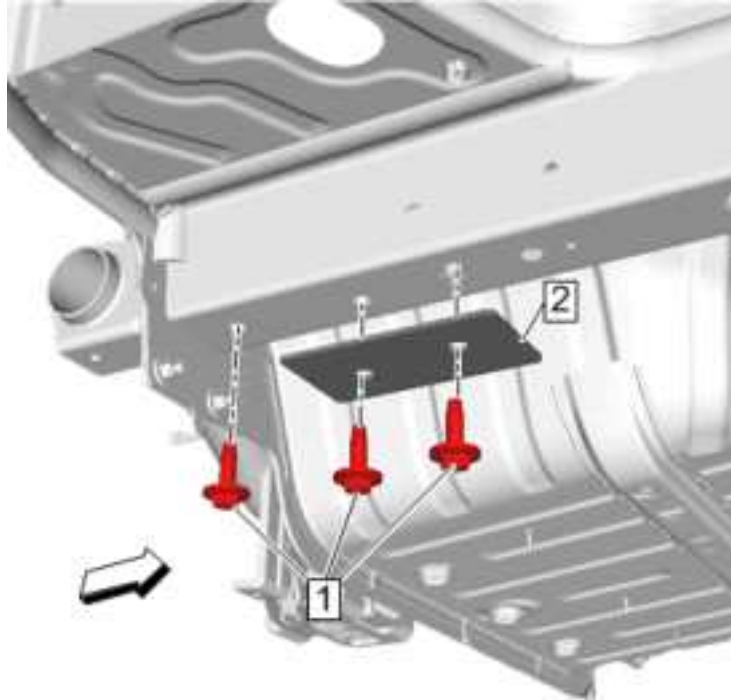


Fig. 85: Left And Right Trailer Hitch Plates
 Courtesy of GENERAL MOTORS COMPANY

2. Install the left and right trailer hitch plates (2).

CAUTION: Refer to [Fastener Caution](#) .

3. Install the six bolts (1) and tighten to 100 N.m (74 lb ft).

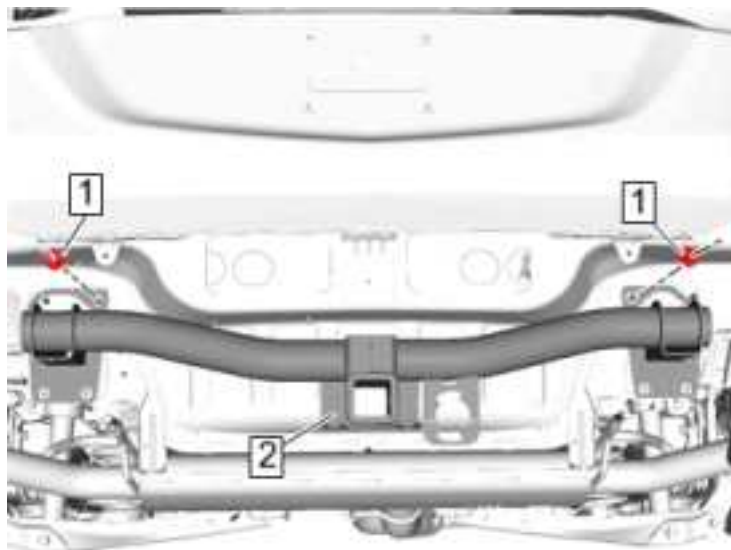


Fig. 86: Trailer Hitch Retaining Nuts
 Courtesy of GENERAL MOTORS COMPANY

4. Install the trailer hitch retaining nuts (1) and tighten to 58 N.m (43 lb ft).
5. Install the right and left exhaust rear muffler insulators to the trailer hitch. [Exhaust Muffler Replacement \(LTG, LYX\)](#) [Exhaust Muffler Replacement \(LH7\)](#)
6. Install the rear bumper fascia. [Rear Bumper Fascia Replacement \(Equinox\)](#) [Rear Bumper Fascia Replacement \(Terrain\)](#)

SPECIAL TOOLS AND EQUIPMENT

SPECIAL TOOLS

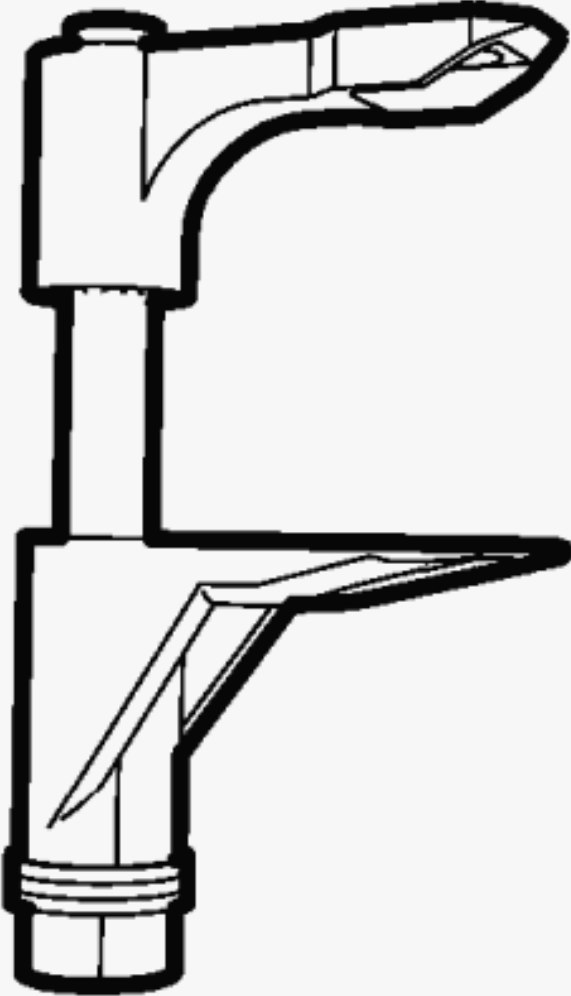
Illustration	Tool Number/ Description
	CH-42188-B J-42188-B Ball Joint Separator

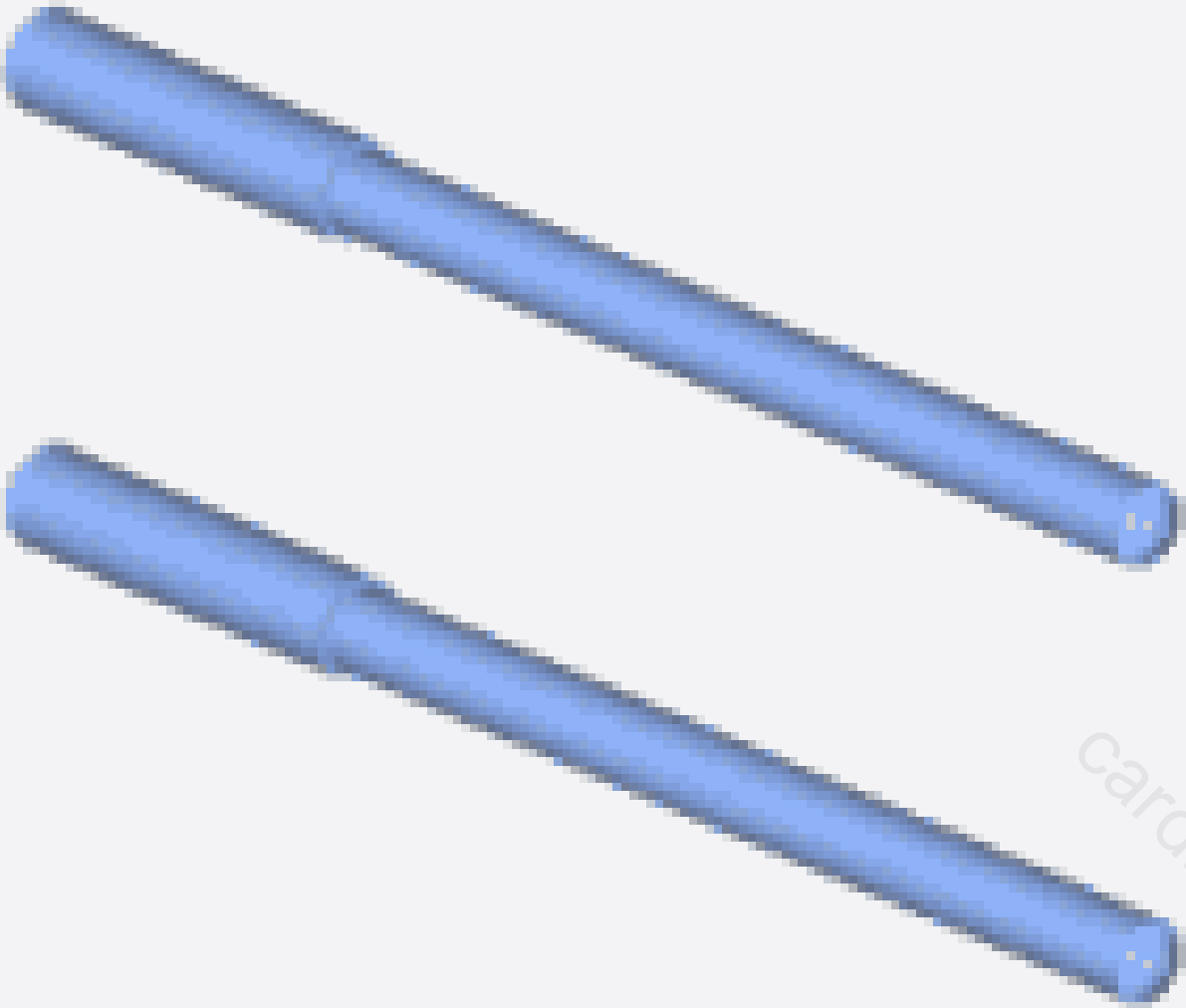
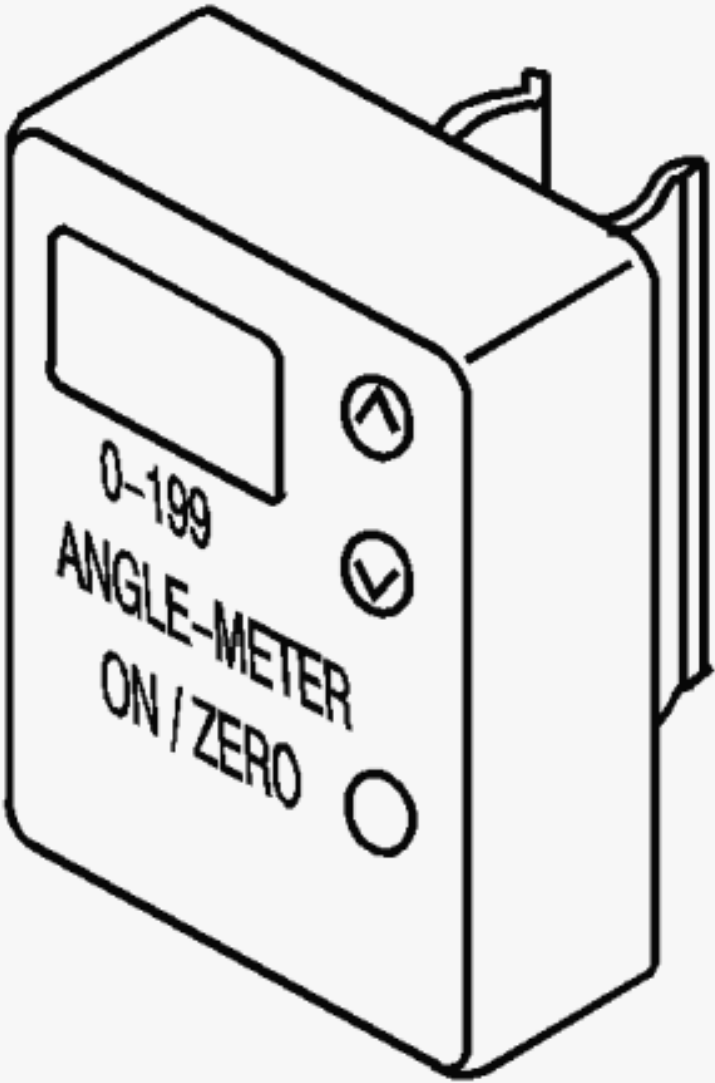
Illustration	Tool Number/ Description
 The illustration shows two identical blue cylindrical pins, one positioned above the other. Each pin has a small, light-colored rectangular mark near its right end. A faint, diagonal watermark reading 'cardiagn.com' is visible across the lower right portion of the pins.	CH-51034-A Cradle Alignment Pins

Illustration	Tool Number/ Description
	EN-45059 J-45059 Angle Meter