

2022 CHEVROLET CORVETTE SERVICE MANUAL

- **SEARCH**

1. **Brakes**

2. **Hydraulic Brakes**

3. **Repair Instructions**

- 4.

Hydraulic Brake System Bleeding (J55)

Special Tools

- CH-29532-AA, ^ Pressure Brake Bleeder
- CH-35589-AA, ^ Brake Bleeder Adapter
- CH-44894-AA, ^ Brake Bleeder Adapter

For equivalent regional tools. Special Tools

Warning:

Brake Dust Warning

Warning:

Brake Fluid Irritant Warning.

Caution:

Brake Fluid Effects on Paint and Electrical Components Caution.

Caution:

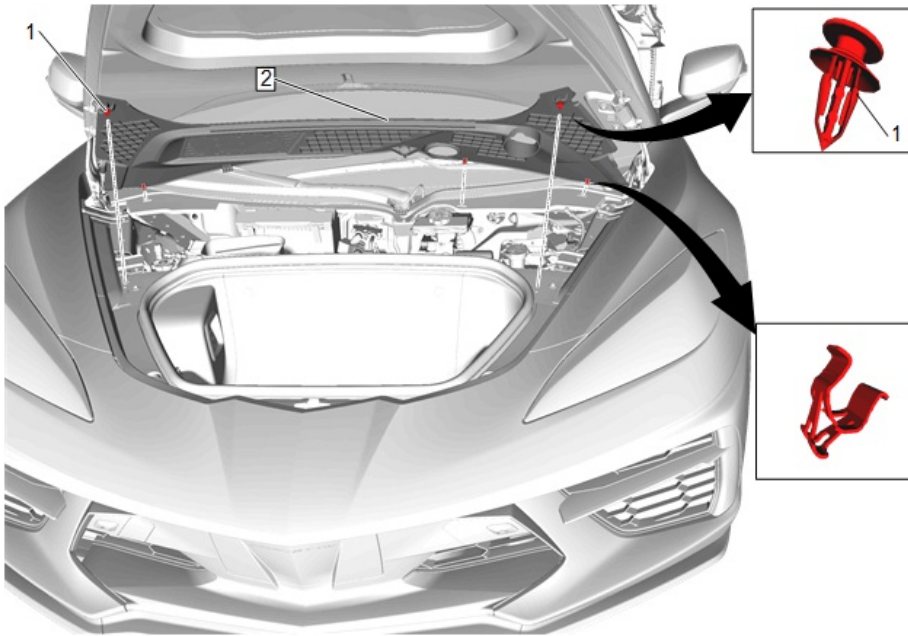
Only use products that comply with GM specifications and check manufacturer information respectively. We recommend the use of GM genuine products. Instructions must be followed at all times. The use of any type of fluid other than the recommended type of brake fluid, may cause contamination which could result in damage to the internal rubber seals and/or rubber linings of hydraulic brake system components.

Note:

If the system is opened at the brake master cylinder, a full hydraulic brake system bleed is necessary.

Bleeding a Single Front Hydraulic Brake Circuit

1. Power down the vehicle with key off, engine off.



2.
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3. Front Compartment Rear Access Cover (2) >>> Remove - Front Compartment Rear Access Cover Replacement
4. Disconnect brake fluid level sensor
5. Use Global Diagnostic System (GDS) to deactivate brake boost system
6. Disconnect the battery negative cable. Battery Negative Cable Disconnection and Connection
7. Place a clean shop cloth beneath the brake master cylinder to prevent brake fluid spills.
8. Clean the outside of the reservoir on and around the reservoir cap prior to removing the cap and diaphragm.
9. Note:
 The pressure bleeding equipment must be the diaphragm type. The rubber diaphragm between the air supply and the brake fluid prevents air, moisture, oil, and other contaminants from entering the hydraulic system.
10. Fill the brake master cylinder reservoir with GM approved brake fluid from a clean, sealed brake fluid container. Ensure that the brake master cylinder reservoir remains at least half-full during this bleeding procedure. Add fluid as needed to maintain the proper level. Brake Master Cylinder Reservoir Filling
11. Check the brake fluid level in the *CH-29532-A* Pressure Brake Bleeder. Add GM approved brake fluid from a clean, sealed brake fluid container as necessary to bring the level to approximately the half-full point. Adhesives, Fluids, Lubricants, and Sealers
12. Install the *CH-44894-A* Brake Bleeder Adapter or *CH-35589-A* Brake Bleeder Adapter to the brake master cylinder reservoir.
13. Connect the *CH-29532-A* Pressure Brake Bleeder, to the *CH-44894-A* Brake Bleeder Adapter or *CH-35589-A* Brake Bleeder Adapter.
14. Charge the *CH-29532-A* Pressure Brake Bleeder, air tank to **207 - 310 kPa (30 - 45 psi)**.
15. Open the *CH-29532-A* Pressure Brake Bleeder, fluid tank valve to allow pressurized brake fluid to enter the brake system.
16. Wait approximately 30 seconds, then inspect the entire hydraulic brake system in order to ensure that there are no existing external brake fluid leaks. Any brake fluid leaks identified require repair prior to completing this procedure. Brake System External Leak Inspection
17. Remove the tire and wheel assembly.
18. Install a proper box-end wrench onto the wheel hydraulic circuit UPPER bleeder valve which has been serviced.
19. Install a transparent hose over the end of the UPPER bleeder valve.
20. Submerge the open end of the transparent hose into a transparent container partially filled with GM approved brake fluid from a clean, sealed brake fluid container. Adhesives, Fluids, Lubricants, and Sealers

21. Open the UPPER bleeder, allow fluid to flow for 10 seconds, close bleeder and repeat the step two more times before moving on.
22. Note:
 - Ensure to protect the caliper painted surface.
 - Squeeze rapidly, as faster pad/piston retraction guarantees high fluid flow to release air.
23. Reopen UPPER bleeder, use channel locks to quickly squeeze pad to caliper in locations by each piston beginning with **Sequence A**, then repeating with **Sequence B**:
24.
 1. Click here for full size
Extra Item: video
 2. Note:

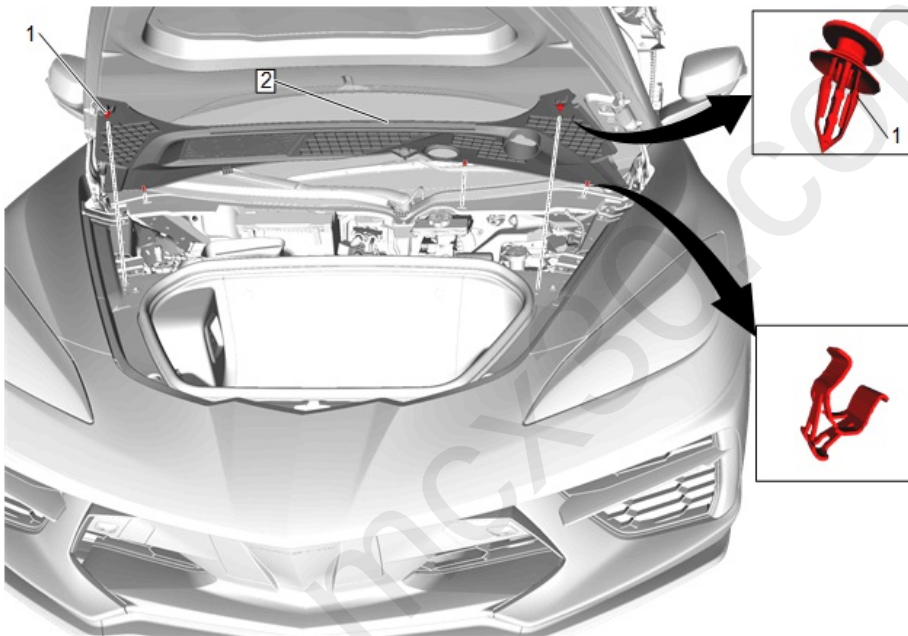
Left side shown, right side similar.
 3. **Sequence A:** Beginning with the pad section furthest from the UPPER bleeder (2) and ending with the pad section nearest to the UPPER bleeder (2):
 4.
 1. Outboard leading piston
 2. Inboard leading piston
 3. Outboard trailing piston
 4. Inboard trailing piston
 5. Click here for full size
Extra Item: video
 6. Note:

Left side shown, right side similar.
 7. **Sequence B:** Beginning with the pad section nearest to the UPPER bleeder (2) and ending with the pad section furthest from the UPPER bleeder (2):
 8.
 1. Inboard trailing piston
 2. Outboard trailing piston
 3. Inboard leading piston
 4. Outboard leading piston
25. Use a rubber mallet to tap 3 times behind each piston and 3 times gently on the top and bottom of caliper.
26. Close bleeder and wait 5 seconds to allow pressure to rebuild and pistons/pads to spread back out to rotor.
27. Repeat step 20 four more times.
28. After all air has been purged from the hydraulic circuit, tighten the bleeder valve to the necessary torque specification and install the dust cap. Front Brake Caliper Bleeder Valve Replacement
29. Install the tire and wheel assembly.
30. Note:

The brake reservoir may have residual pressure after the bleeding operation is complete. Wrap a clean shop towel around the bleeder adapter and all hose connections before disconnecting the pressure bleeding equipment to prevent brake fluid from contacting and damaging vehicle components and painted surfaces
31. Close the CH-29532-AA,Â Pressure Brake Bleeder, fluid tank valve, then disconnect the CH-29532-AA,Â Pressure Brake Bleeder, from the CH-44894-AA,Â Brake Bleeder Adapter or CH-35589-AA,Â Brake Bleeder Adapter .
32. Remove the CH-44894-AA,Â Brake Bleeder Adapter or CH-35589-AA,Â Brake Bleeder Adapter from the brake master cylinder

reservoir.

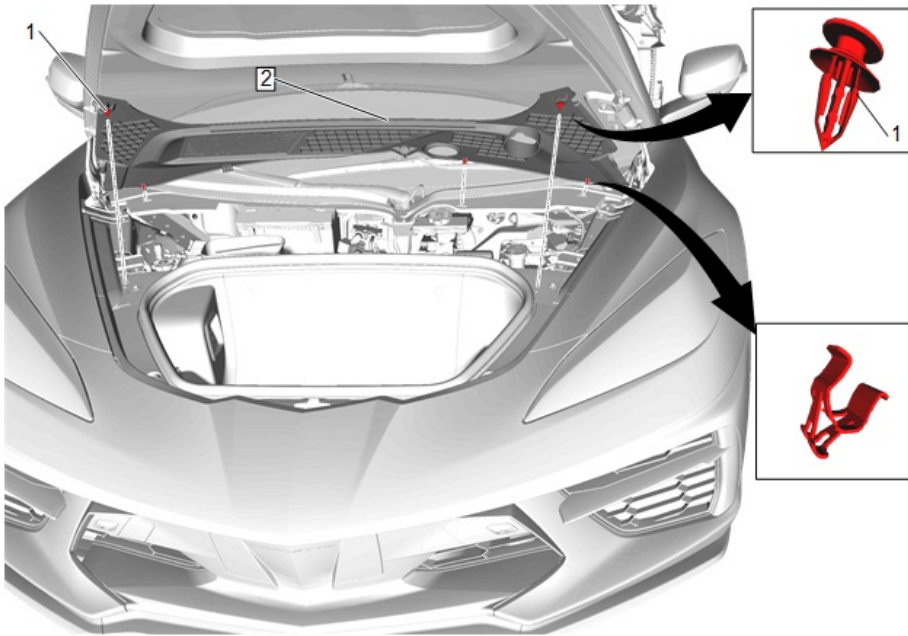
33. Fill the brake master cylinder reservoir to the maximum-fill level with GM approved brake fluid from a clean, sealed brake fluid container. Adhesives, Fluids, Lubricants, and Sealers
34. Inspect the brake system for external leaks. Brake System External Leak Inspection
35. Connect the battery negative cable. Battery Negative Cable Disconnection and Connection
36. Run the GDS - Brake Hydraulic Test, if it fails, perform the Bleeding the Complete Brake Hydraulic System procedure.
37. Connect the brake fluid level sensor
38. Perform the automated brake bleed. Automated Brake Bleed
39. Turn the ignition ON, with the engine OFF. Check to see if the brake system warning lamp remains illuminated.
40. Inspect the brake system for external leaks. Brake System External Leak Inspection
41. Note:
DO NOT allow the vehicle to be driven until it is diagnosed and repaired.
42. If the brake system warning lamp remains illuminated, go to Diagnostic Starting Point - Vehicle.



43. [Click here for full size](#)
44. Front Compartment Rear Access Cover (2) >> Install - Front Compartment Rear Access Cover Replacement

Bleeding a Single Rear Hydraulic Brake Circuit

1. Power down the vehicle with key off, engine off.



2.
[Click here for full size](#)

3. Front Compartment Rear Access Cover (2) >>> Remove - Front Compartment Rear Access Cover Replacement

4. Disconnect brake fluid level sensor

5. Use Global Diagnostic System (GDS) to deactivate brake boost system

6. Disconnect the battery negative cable. Battery Negative Cable Disconnection and Connection

7. Place a clean shop cloth beneath the brake master cylinder to prevent brake fluid spills.

8. Clean the outside of the reservoir on and around the reservoir cap prior to removing the cap and diaphragm.

9. Note:

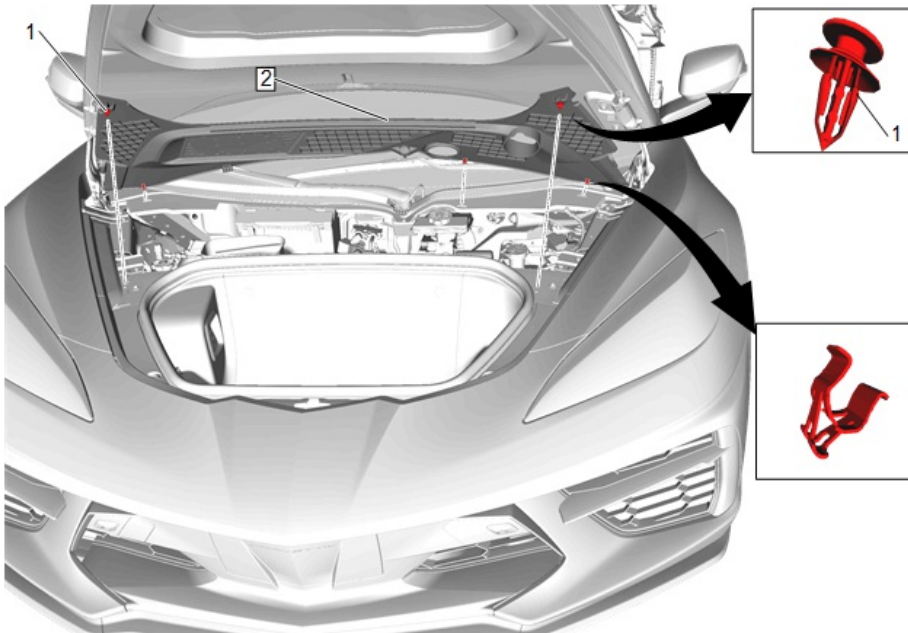
The pressure bleeding equipment must be the diaphragm type. The rubber diaphragm between the air supply and the brake fluid prevents air, moisture, oil, and other contaminants from entering the hydraulic system.

10. Fill the brake master cylinder reservoir with GM approved brake fluid from a clean, sealed brake fluid container. Ensure that the brake master cylinder reservoir remains at least half-full during this bleeding procedure. Add fluid as needed to maintain the proper level. Brake Master Cylinder Reservoir Filling
11. Check the brake fluid level in the *CH-29532-A*, $\hat{A}$ Pressure Brake Bleeder. Add GM approved brake fluid from a clean, sealed brake fluid container as necessary to bring the level to approximately the half-full point. Adhesives, Fluids, Lubricants, and Sealers
12. Install the *CH-44894-A*, $\hat{A}$ Brake Bleeder Adapter or *CH-35589-A*, $\hat{A}$ Brake Bleeder Adapter to the brake master cylinder reservoir.
13. Connect the *CH-29532-A*, $\hat{A}$ Pressure Brake Bleeder, to the *CH-44894-A*, $\hat{A}$ Brake Bleeder Adapter or *CH-35589-A*, $\hat{A}$ Brake Bleeder Adapter.
14. Charge the *CH-29532-A*, $\hat{A}$ Pressure Brake Bleeder, air tank to **207 - 310 kPa (30 - 45 psi)**.
15. Open the *CH-29532-A*, $\hat{A}$ Pressure Brake Bleeder, fluid tank valve to allow pressurized brake fluid to enter the brake system.
16. Wait approximately 30 seconds, then inspect the entire hydraulic brake system in order to ensure that there are no existing external brake fluid leaks. Any brake fluid leaks identified require repair prior to completing this procedure. Brake System External Leak Inspection
17. Remove the tire and wheel assembly.
18. Install a proper box-end wrench onto the wheel hydraulic circuit INNER bleeder valve which has been serviced.
19. Install a transparent hose over the end of the INNER bleeder valve.
20. Submerge the open end of the transparent hose into a transparent container partially filled with GM approved brake fluid from a clean, sealed brake fluid container. Adhesives, Fluids, Lubricants, and Sealers

21. Loosen the INNER bleeder valve to purge air from the wheel hydraulic circuit.
22. Allow fluid to flow until air bubbles stop flowing from the INNER bleeder.
23. Hand tighten the INNER bleeder valve.
24. Install a proper box-end wrench onto the wheel hydraulic circuit OUTER bleeder valve which has been serviced.
25. Install a transparent hose over the end of the OUTER bleeder valve.
26. Submerge the open end of the transparent hose into a transparent container partially filled with GM approved brake fluid from a clean, sealed brake fluid container. Adhesives, Fluids, Lubricants, and Sealers
27. Loosen the OUTER bleeder valve to purge air from the wheel hydraulic circuit.
28. Allow fluid to flow until air bubbles stop flowing from the OUTER bleeder.
29. After all air has been purged from the hydraulic circuit, tighten the INNER and OUTER bleeder valve to the necessary torque specification and install the dust cap. Rear Brake Bleeder Valve Replacement
30. Install the tire and wheel assembly.
31. Note:

The brake reservoir may have residual pressure after the bleeding operation is complete. Wrap a clean shop towel around the bleeder adapter and all hose connections before disconnecting the pressure bleeding equipment to prevent brake fluid from contacting and damaging vehicle components and painted surfaces
32. Close the *CH-29532-A*, $\hat{A}$ Pressure Brake Bleeder, fluid tank valve, then disconnect the *CH-29532-A*, $\hat{A}$ Pressure Brake Bleeder, from the *CH-44894-A*, $\hat{A}$ Brake Bleeder Adapter or *CH-35589-A*, $\hat{A}$ Brake Bleeder Adapter .
33. Remove the *CH-44894-A*, $\hat{A}$ Brake Bleeder Adapter or *CH-35589-A*, $\hat{A}$ Brake Bleeder Adapter from the brake master cylinder reservoir.
34. Fill the brake master cylinder reservoir to the maximum-fill level with GM approved brake fluid from a clean, sealed brake fluid container. Adhesives, Fluids, Lubricants, and Sealers
35. Inspect the brake system for external leaks. Brake System External Leak Inspection
36. Connect the battery negative cable. Battery Negative Cable Disconnection and Connection
37. Run the GDS - Brake Hydraulic Test, if it fails, perform the Bleeding the Complete Brake Hydraulic System procedure.
38. Connect the brake fluid level sensor
39. Perform the automated brake bleed. Automated Brake Bleed
40. Turn the ignition ON, with the engine OFF. Check to see if the brake system warning lamp remains illuminated.
41. Inspect the brake system for external leaks. Brake System External Leak Inspection
42. Note:

DO NOT allow the vehicle to be driven until it is diagnosed and repaired.
43. If the brake system warning lamp remains illuminated, go to Diagnostic Starting Point - Vehicle.

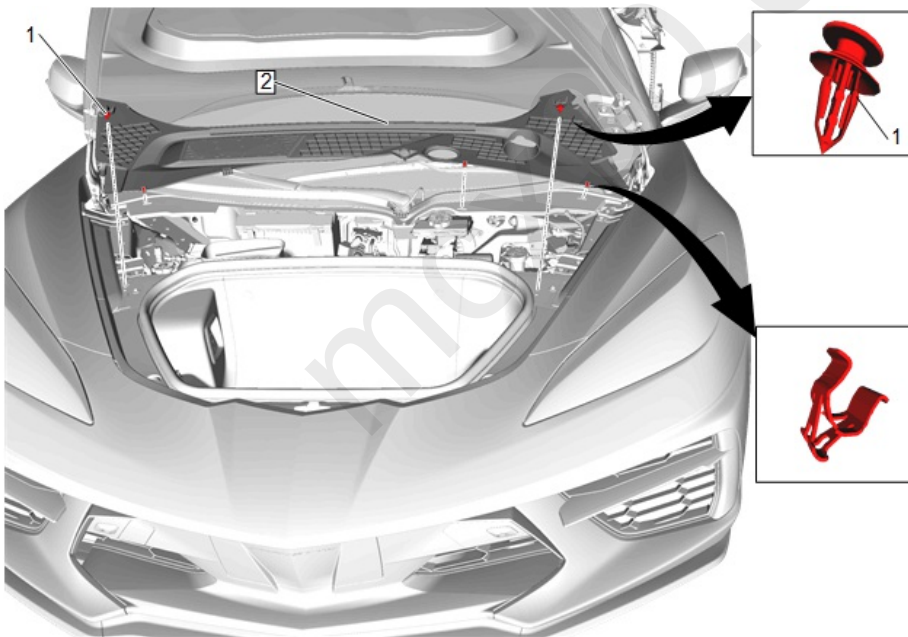


44.
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45. Front Compartment Rear Access Cover (2) >>> Install - Front Compartment Rear Access Cover Replacement

Bleeding Complete Brake Hydraulic System

1. Power down the vehicle with key off, engine off.



2.
[Click here for full size](#)

3. Front Compartment Rear Access Cover (2) >>> Remove - Front Compartment Rear Access Cover Replacement

4. Disconnect brake fluid level sensor

5. Use Global Diagnostic System (GDS) to deactivate brake boost system

6. Disconnect the battery negative cable. Battery Negative Cable Disconnection and Connection

7. Place a clean shop cloth beneath the brake master cylinder to prevent brake fluid spills.

8. Clean the outside of the reservoir on and around the reservoir cap prior to removing the cap and diaphragm.

9. Note:

The pressure bleeding equipment must be the diaphragm type. The rubber diaphragm between the air supply and the brake fluid prevents air, moisture, oil, and other contaminants from entering the hydraulic system.

10. Fill the brake master cylinder reservoir with GM approved brake fluid from a clean, sealed brake fluid container. Ensure that the brake master cylinder reservoir remains at least half-full during this bleeding procedure. Add fluid as needed to maintain the proper level. Brake Master Cylinder Reservoir Filling
11. Check the brake fluid level in the *CH-29532-A*,  Pressure Brake Bleeder. Add GM approved brake fluid from a clean, sealed brake fluid container as necessary to bring the level to approximately the half-full point. Adhesives, Fluids, Lubricants, and Sealers
12. Install the *CH-44894-A*,  Brake Bleeder Adapter or *CH-35589-A*,  Brake Bleeder Adapter to the brake master cylinder reservoir.
13. Connect the *CH-29532-A*,  Pressure Brake Bleeder, to the *CH-44894-A*,  Brake Bleeder Adapter or *CH-35589-A*,  Brake Bleeder Adapter.
14. Charge the *CH-29532-A*,  Pressure Brake Bleeder, air tank to **207 - 310 kPa (30 - 45 psi)**.
15. Open the *CH-29532-A*,  Pressure Brake Bleeder, fluid tank valve to allow pressurized brake fluid to enter the brake system.
16. Wait approximately 30 seconds, then inspect the entire hydraulic brake system in order to ensure that there are no existing external brake fluid leaks. Any brake fluid leaks identified require repair prior to completing this procedure. Brake System External Leak Inspection
17. Remove the tire and wheel assemblies.
18. Install a proper box-end wrench onto the RIGHT FRONT UPPER bleeder valve.
19. Install a transparent hose over the end of the UPPER bleeder valve.
20. Submerge the open end of the transparent hose into a transparent container partially filled with GM approved brake fluid from a clean, sealed brake fluid container. Adhesives, Fluids, Lubricants, and Sealers
21. Open the UPPER bleeder, allow fluid to flow for 10 seconds, close bleeder and repeat the step two more times before moving on.
22. Note:
 - Ensure to protect the caliper painted surface.
 - Squeeze rapidly, as faster pad/piston retraction guarantees high fluid flow to release air.
23. Reopen UPPER bleeder, use channel locks to quickly squeeze pad to caliper in locations by each piston beginning with **Sequence A**, then repeating with **Sequence B**:
24.
 1. [Click here for full size](#)
 2. Note:

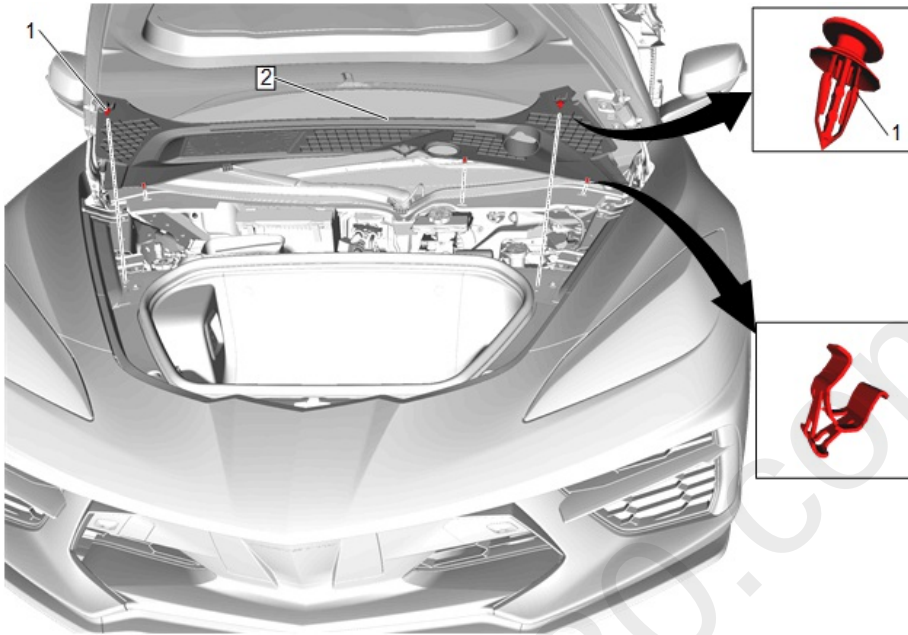
Left side shown, right side similar.
 3. **Sequence A:** Beginning with the pad section furthest from the UPPER bleeder (2) and ending with the pad section nearest to the UPPER bleeder (2):
 4.
 1. Outboard leading piston
 2. Inboard leading piston
 3. Outboard trailing piston
 4. Inboard trailing piston
 5. [Click here for full size](#)
 6. Note:

Left side shown, right side similar.
 7. **Sequence B:** Beginning with the pad section nearest to the UPPER bleeder (2) and ending with the pad section furthest from the UPPER bleeder (2):
 - 8.

1. Inboard trailing piston
 2. Inboard leading piston
 3. Outboard trailing piston
 4. Outboard leading piston
25. Use a rubber mallet to tap 3 times behind each piston and 3 times gently on the top and bottom of caliper.
 26. Close bleeder and wait 5 seconds to allow pressure to rebuild and pistons/pads to spread back out to rotor.
 27. Repeat step 20 four more times.
 28. Close RIGHT FRONT UPPER bleeder and repeat entire process for LEFT FRONT UPPER bleeder.
 29. After all air has been purged from the front hydraulic circuit, tighten the FRONT UPPER bleeder valves to the necessary torque specification and install the dust cap. Front Brake Caliper Bleeder Valve Replacement
 30. Install a proper box-end wrench onto the LEFT REAR INNER bleeder valve.
 31. Install a transparent hose over the end of the INNER bleeder valve.
 32. Submerge the open end of the transparent hose into a transparent container partially filled with GM approved brake fluid from a clean, sealed brake fluid container. Adhesives, Fluids, Lubricants, and Sealers
 33. Loosen the INNER bleeder valve to purge air from the wheel hydraulic circuit.
 34. Allow fluid to flow until air bubbles stop flowing from the INNER bleeder.
 35. Hand tighten the INNER bleeder valve.
 36. Install a proper box-end wrench onto the LEFT REAR OUTER bleeder valve.
 37. Install a transparent hose over the end of the OUTER bleeder valve.
 38. Submerge the open end of the transparent hose into a transparent container partially filled with GM approved brake fluid from a clean, sealed brake fluid container. Adhesives, Fluids, Lubricants, and Sealers
 39. Loosen the OUTER bleeder valve to purge air from the wheel hydraulic circuit.
 40. Allow fluid to flow until air bubbles stop flowing from the OUTER bleeder.
 41. Hand tighten the OUTER bleeder valve
 42. Repeat steps 26 - 37 for the RIGHT REAR bleeder.
 43. After all air has been purged from the hydraulic circuit, tighten the INNER and OUTER bleeder valves to the necessary torque specification and install the dust cap. Rear Brake Bleeder Valve Replacement
 44. Install the tire and wheel assemblies.
 45. Note:

The brake reservoir may have residual pressure after the bleeding operation is complete. Wrap a clean shop towel around the bleeder adapter and all hose connections before disconnecting the pressure bleeding equipment to prevent brake fluid from contacting and damaging vehicle components and painted surfaces
 46. Close the CH-29532-A, Pressure Brake Bleeder, fluid tank valve, then disconnect the CH-29532-A, Pressure Brake Bleeder, from the CH-44894-A, Brake Bleeder Adapter or CH-35589-A, Brake Bleeder Adapter .
 47. Remove the CH-44894-A, Brake Bleeder Adapter or CH-35589-A, Brake Bleeder Adapter from the brake master cylinder reservoir.
 48. Fill the brake master cylinder reservoir to the maximum-fill level with GM approved brake fluid from a clean, sealed brake fluid container. Adhesives, Fluids, Lubricants, and Sealers
 49. Inspect the brake system for external leaks. Brake System External Leak Inspection
 50. Connect the battery negative cable. Battery Negative Cable Disconnection and Connection

51. Run the GDS "Brake Hydraulic Test, if it fails. Automated Brake Bleed
52. Connect the brake fluid level sensor
53. Turn the ignition ON, with the engine OFF. Check to see if the brake system warning lamp remains illuminated.
54. Inspect the brake system for external leaks. Brake System External Leak Inspection
55. Note:
DO NOT allow the vehicle to be driven until it is diagnosed and repaired.
56. If the brake system warning lamp remains illuminated, go to Diagnostic Starting Point - Vehicle.



57. [Click here for full size](#)
58. Front Compartment Rear Access Cover (2) >>> Install - Front Compartment Rear Access Cover Replacement