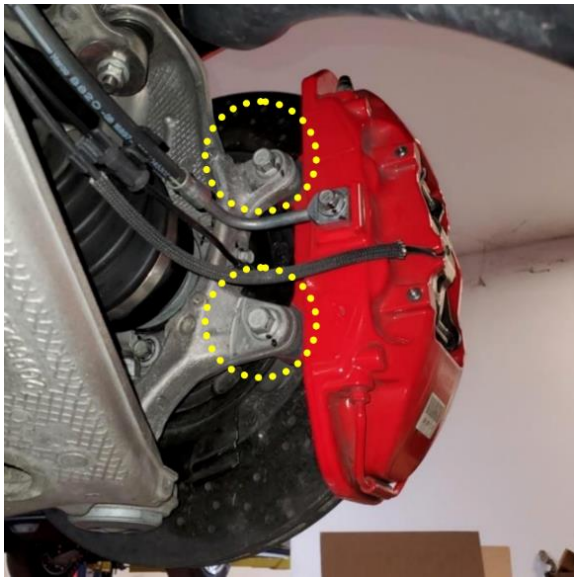
C7 Corvette Control Arm Bearing Kit Install Instructions

Tools Required:

- Jack and jackstands or service lift
- Metric wrenches and sockets
- 32mm hub socket
- Torx bits
- Pick
- Flathead screwdriver
- Tie Rod Separator
- Internal/External Snap Ring Pliers
- Hydraulic press
- Mallet
- Reciprocating saw
- Drill and drill bits
- Torque Wrench
- Dial or Digital Calipers



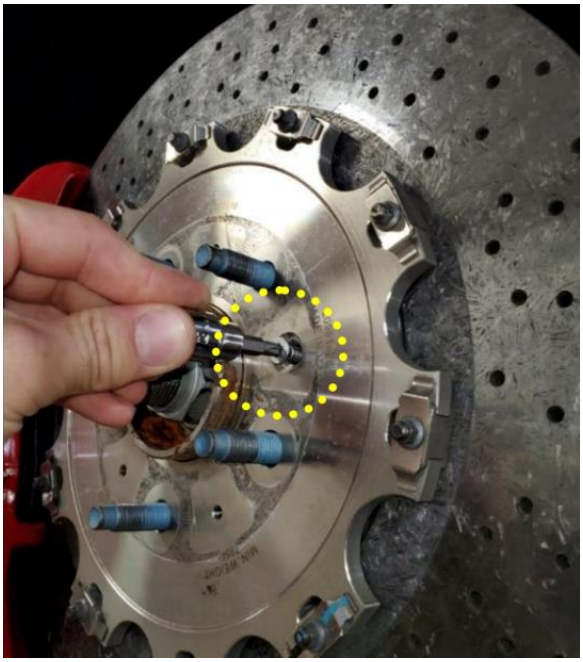
Installation:

1. Lift the rear of the vehicle and safely support it with jack stands under the cradle. Make sure the parking brake is released.

2. Undo the clips holding the brake pad sensor, brake line, and wheel speed sensor

3. Using a **15mm** socket, remove the two (2) bolts holding the caliper to the spindle as shown. Hang and support the brake caliper in the top front of the wheel well. Ensure that the brake lines have no tension on them.

4. Using a **T30** Torx, remove the screw holding the rotor onto the hub.



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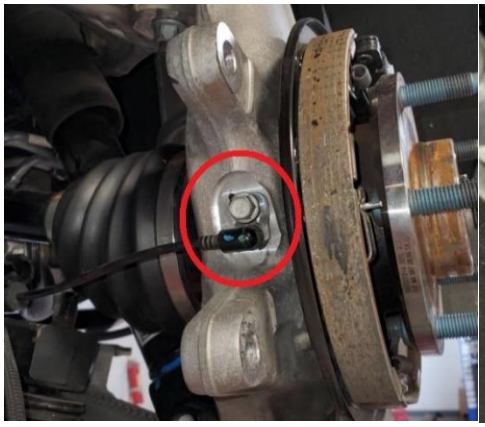
C7 Corvette Control Arm Bearing Kit Install Instructions

5. Using a **10mm** socket, remove the wheel speed sensor from the spindle. Hang the sensor off to the side to prevent damage.



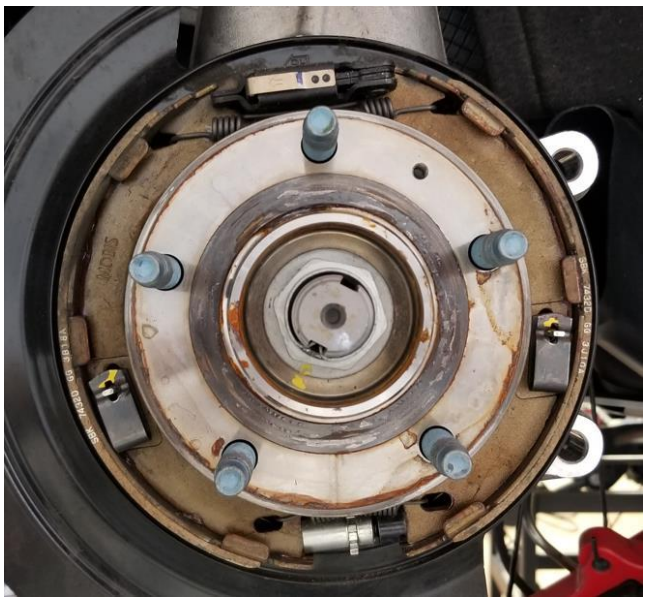
6. Using a **T15** Torx, remove the three (3) screws holding the brake duct to the spindle

7. Using a **10mm** wrench, remove the stud from the control arm connecting to the ride height sensor

NOTE: It is best to leave the ride height sensor linkage connected to the stud to avoid damaging the ball socket

8. With the hub exposed, use a **10mm** socket and remove the bolt holding the parking brake line to the spindle

9. Use a flat-head screwdriver or a pick to release the ball from the parking brake mechanism on the hub face.



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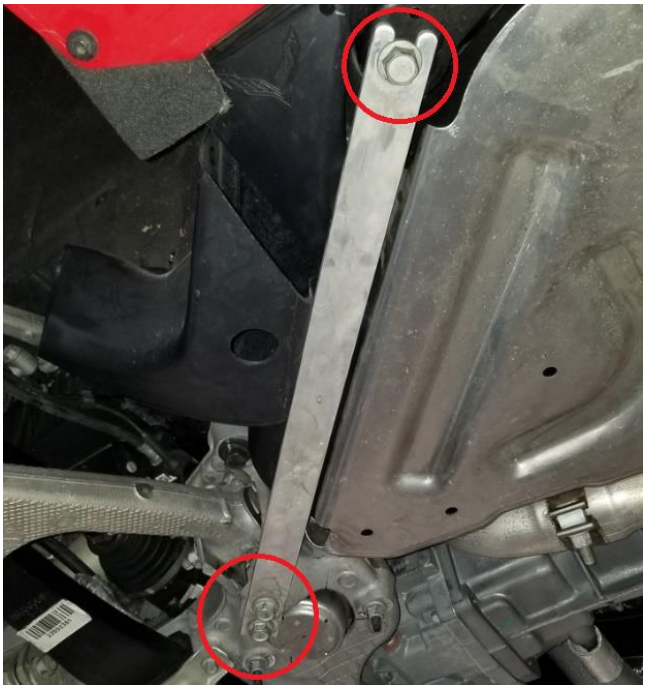

10. To gain more room to work around the control arm, use an **18mm** socket and remove the three (3) bolts holding the aluminum strap brace to the chassis and rear cradle.

11. Remove the lower sway bar end link from the control arm using an **18mm** wrench and an **8mm** Allen socket.

12. Using a **32mm** socket and a large impact, remove the axle retaining nut from the inside of the hub.

NOTE: You may have to use a dead blow or non-marring hammer to free the axle splines from the hub.

13. Using a **21mm** socket and wrench, loosen the inner bolts of the lower control arm to allow the control arm to pivot without binding the bushings for future steps

NOTE: You must drop the cradle to remove the forward lower control arm bolts. During re-assembly, it is possible to flip the direction of the bolt, so this is not required in the future.

14. Using an **18mm** wrench, remove the nut holding the toe rod to the spindle. Completely remove the toe rod if replacing it with an adjustable one.

C7 Corvette Control Arm Bearing Kit Install Instructions

15. Support the lower control arm with a screw jack or a jack and loosen the **21mm** bolt holding the shock to the control arm. With the bolt removed, lower the control arm and suspension

16. With the axle nut removed, use a **21mm** wrench to loosen the nut holding the lower control arm ball joint to the spindle. Unseat the ball joint and set aside the spindle and hub

17. Loosen the nut on the upper control arm ball joint using an **18mm** socket or wrench. Unseat the ball joint

18. Disconnect the upper ball joint from the spindle and pivot the spindle outward, pulling the axle stub through the spindle. Be careful not to damage the axle boots during removal.

19. Lower the rear cradle to remove and flip the forward lower control arm bolts.

20. Using a screw jack or a jack, support the transmission. Ensure that the placement of the jack will not interfere with removing the rear cradle.

21. Inspect and follow all wiring, brake lines and cooler lines connecting the rear cradle. Using a trim tool or appropriate socket/wrench. Remove the clips or brackets.

22. In the rear of the cradle, you must disconnect the parking brake lines as shown.

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This product is an aftermarket accessory and not designed by the vehicles manufacturer for use on this vehicle. As such, Buyer assumes all risk of any damage caused to the vehicle or person during installation or use of this product.

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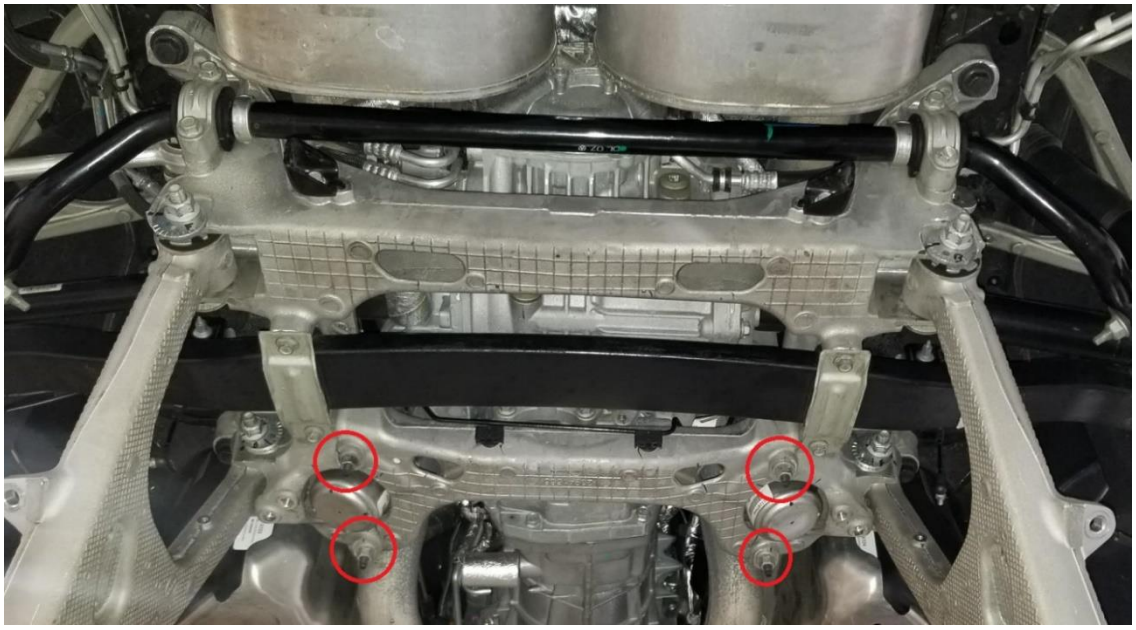
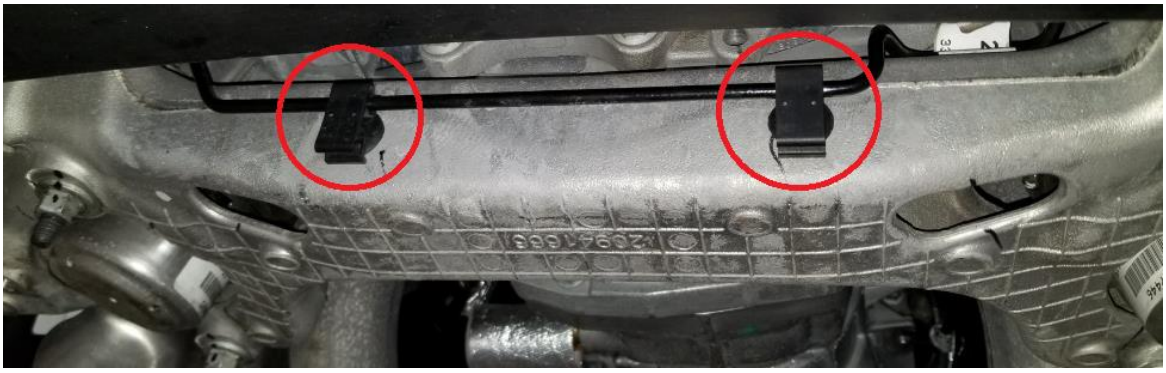


23. Remove the four (4) nuts from the transmission mounts as shown.

24. Ensuring that all wiring, brake hoses, and cooler lines are disconnected and free of the rear cradle, use a **24mm** socket and loosen the four (4) bolts holding the cradle to the chassis. Using a screw-jack, transmission jack, or hydraulic jack, support the rear cradle and remove the four (4) bolts holding it to the chassis.

NOTE: The rear cradle has locating dowels that fit tight in the chassis; lower the cradle slowly to ensure you are not bending or binding on these dowels.



C7 Corvette Control Arm Bearing Kit Install Instructions

25. Lower the entire rear cradle, sway bar, leaf spring, control arm, and toe rods as one assembly.

26. With the rear cradle secure and at a workable height, remove the lower control arm.

27. After removing the rear lower control arm, the rear cradle can be raised and reinstalled.

28. Remove the rear upper control arm by loosening the (4) **13mm** bolts.

29. For the front control arms; start by removing the front wheels.

30. Remove the wheel speed sensor and the ride height sensor and position them so they will not be damaged.

31. Remove the two caliper bolts and support the caliper to ensure the brake line is not tensioned or stressed. Also, make sure to ensure the brake pad life sensor is not tensioned.

32. To remove the rotor, remove the screw securing the rotor in place.

C7 Corvette Control Arm Bearing Kit Install Instructions

33. Now, support the bottom of the lower control arm with a floor jack or a screw jack.

34. Loosen and remove the two shock mount bolts on the lower control arm.

35. Slowly let the jack down.

36. Remove the nut holding the tie rod in place. Using a ball joint separator, remove the tie rod from the hub

37. Remove the sway bar link from the lower control arm and the sway bar.

38. Remove the upper ball joint nut and use a ball joint separator to disconnect the upper control arm from the hub.

39. Remove the upper control arm by removing the (4) **13mm** bolts holding the upper control arm to the chassis.

40. Remove the lower ball joint nut and use a ball joint separator to disconnect the lower control arm from the hub.

41. Loosen and remove the lower control arm chassis bolts and remove the lower control arm.

42. To remove the bushings from the control arms, start by drilling multiple holes in the bushing to remove rubber from the bushing.

43. Once enough rubber is removed, fit a jab saw into the bushing and cut through the bushing sleeve (being careful not to damage the control arm).

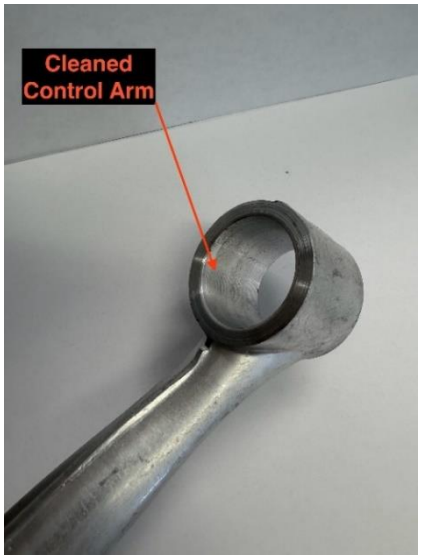
44. Once you cut through the bushing sleeve, remove the old bushing by tapping the sleeve out of the control arm.

45. Repeat this step until all the old bushings are removed.

C7 Corvette Control Arm Bearing Kit Install Instructions

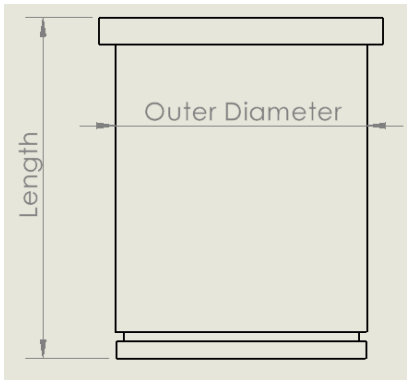
Qty:	Part Description:	Part #:	OD:	Length:	Snap Ring ID:
2	Front Lower Control Arm Front Bearing Cup	BMR2745	1.724”	2.326”	1-11/16”
2	Front Lower Control Arm Rear Bearing Cup	BMR2746	2.000”	2.326”	1.969”
2	Rear Lower Control Arm Front Bearing Cup	BMR2747	1.805’’	2.326”	1-3/4”
2	Rear Lower Control Arm Rear Bearing Cup	BMR2748	1.765’’	2.389”	1-3/4”
4	Front Upper Control Arm Bearing Cup	BMR2749	1.413”	1.801”	1-7/16”
2	Rear Upper Front Control Arm Bearing Cup	BMR2750	1.571’’	1.663”	1-9/16”
2	Rear Upper Rear Control Arm Bearing Cup	BMR2751	1.730’’	1.663”	1-11/16”
4	Front Upper Control Arm Cross-shaft	BMR2754	.740”	5.45”	5/8”
4	Rear Upper Control Arm Cross-shaft	BMR2755	.740”	4.5”	5/8”
8	Bearing Spacer	BMR2773	1.240”	1.330”	-

46. Before installing the new control arm bearings, clean the control arm with brake cleaner to remove any remaining debris from the old bushings.

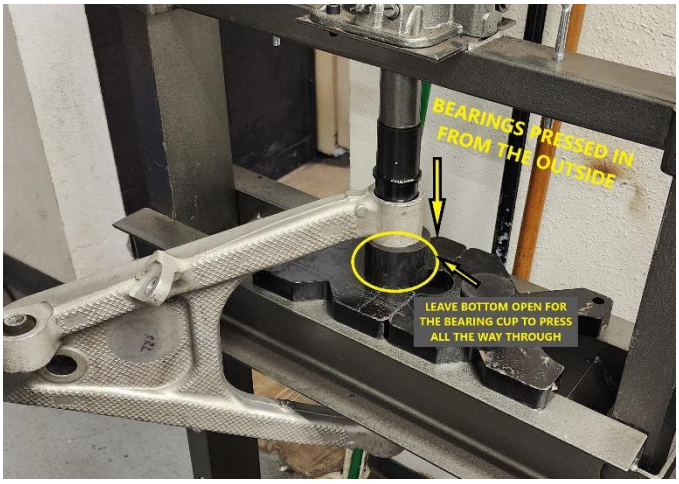


47. Before proceeding, verify that all the parts are correct by referencing the table, measuring the outer diameter and length of every bearing cup with calipers, and organizing all parts.

48. Keep track of which snap ring goes with which bearing cup



C7 Corvette Control Arm Bearing Kit Install Instructions

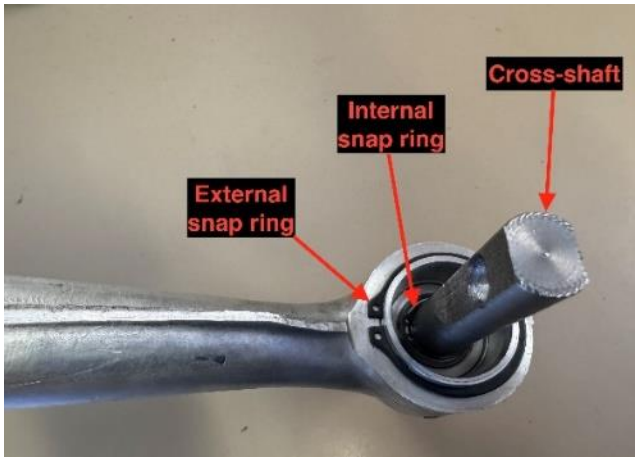


49. To install the bearings, you will need a hydraulic press to press in the new bearing cups.

50. According to the figure, press the bearing cups from the outside of the control arm inward.

NOTE: When installing the cross-shaft, it is recommended to use a green retaining compound installed on the upper control arm bearings before sliding the cross-shaft in.

51. To assemble the upper control arms, slide the cross-shaft into the control arm from the outside inward, according to the figure, and secure it using the supplied cross-shaft external snap ring.



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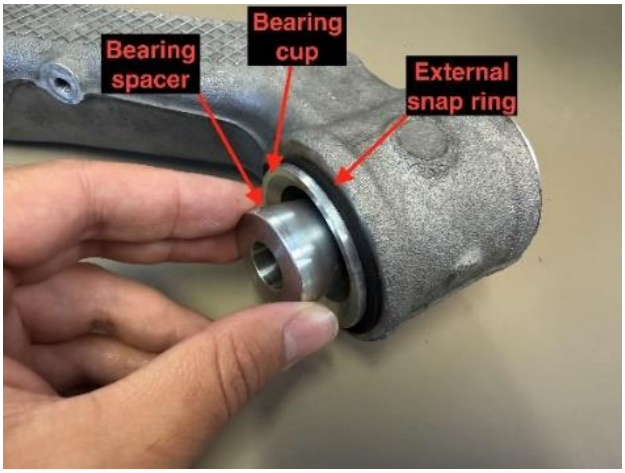

52. To assemble the lower control arms, insert the (4) bearing spacers into each lower control arm.

53. Install the control arms back into the car and assemble all other components taken off during installation.

NOTE: The fitment of the bearings is tight, you may need a soft mallet to get the control arms into position.

These fasteners are listed as T.A.Y (Torque-Angle-Yield Fasteners), also known as single-use or Torque-to-Yield fasteners.

Although GM recommends that you replace these fasteners, we have not replaced ours at any point during our design and testing process. Re-use these fasteners at your own risk.

Torque Specs:

Front & Rear Lower Control Arm Cam Nuts - **125 ft lbs**
Upper Control Arm Mounting Bolts - **48 ft lbs**
Front Upper Ball joint (if using new ball joints) - **22 ft lbs + 120°**
Rear Upper Ball joint (if using new ball joints) - **22 ft lbs + 140°**
Front & Rear Lower Ball joint (if using new ball joints) - **22 ft lbs + 180°**

Front and Rear Upper Ball joint (if using the same ball joints) – **88 ft lbs**
Front and Rear Lower Ball joint (if using the same ball joints) – **135 ft lbs**