



# CX-90

## 2024+ Mazda CX-90 1.5" lift kit installation guide

*Professional installation is recommended*

*FOR OFF-ROAD USE ONLY!*

### **IMPORTANT!**

Lifting and modifying the suspension on your vehicle may result in drive line vibrations, damaged bushings, erratic handling characteristics, and shortened suspension component life. HRG Offroad recommends the following:

- Checking and/or replacing worn drive axles with new parts, not remanufactured.
- Checking and/or replacing all worn factory rubber bushings with urethane bushings, such as Prothane.
- Checking and/or replacing worn shock absorbers and bump stops.
- Performing a 4 wheel alignment after working on suspension components.

**Lift kits may not be legal for use on public highways in your area. Please check local laws before installing!!**

### **WARNING!**

***Lifted vehicles are more prone to rolling over.***

Some HRG Offroad products are designed to improve off-road capabilities. Modifying the suspension of your vehicle may result in handling characteristics that are different from a factory equipped vehicle. Extreme care must be used to prevent a rollover or loss of control. Always operate your modified vehicle at a reduced speed to ensure your ability to maintain control under all driving conditions. Driving your vehicle in an unsafe manner may result in serious injury or death. HRG Offroad lift kits are designed and tested to work together. HRG Offroad does not recommend combining this lift kit with any other type of suspension or body lift. Always wear your seat belt.

Recommended tire/wheel sizes:

**STOCK SIZE 19 INCH WHEEL: 265/55/19 (30.5")**

255/60/19 (31")

255/65/19 (32")

**STOCK SIZE 21 INCH WHEEL 275/45/21 (30.7")**

285/45/21 (31.1")

275/50/21 (31.8")

**WITH 18X8.5" +20 AFTERMARKET WHEELS:**

255/65/18 (31")

265/65/18 (31.6")

275/65/18 (32.1")

**MAX TIRE SIZE: (MAY REQUIRE MODIFICATION TO FRONT OF FENDER LINERS)**

**285/65/18 (32.6")**

**WITH 17X8.5" +15 AFTERMARKET WHEELS**

255/70/17 (31")

265/70/17 (31.6")

275/70/17 (32.2")

***\*Be sure to check fitment prior to installation! These sizes are only suggestions. HRG is not responsible for improperly fitted wheels/tires***

**Included in the kit:**

2 1.5 inch front lift spacers 5570

2 1.5 inch rear lift spacers 5571

6 M10 nuts

4 M12 nuts

4 "pac-man" spacers (rear subframe)

4 1.5" M14 0.25" spacers (rear subframe)

2 .75x0.5 M6 spacers (rear ABS wiring)

2 M6x25mm bolts (rear ABS wiring)

**Installation time: Approximately 3-4 hours**

## **Front installation**

### **Parts needed:**

- 2 1.5 inch front spacers
- 6 m10 nuts

## Tools needed:

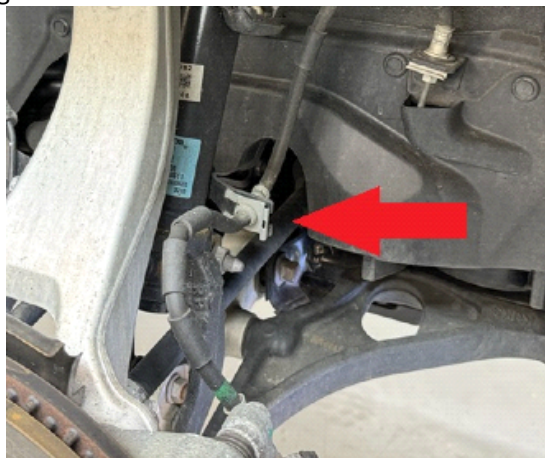
**Floor jack, lug wrench, impact driver, 14mm socket, 17mm socket 19mm socket, 6mm hex key, large hammer, 17mm wrench, large pry bar.**

Step 1. Lift vehicle and remove wheels.

Step 2. Remove bolt holding driver side steering knuckle to upper control arm.

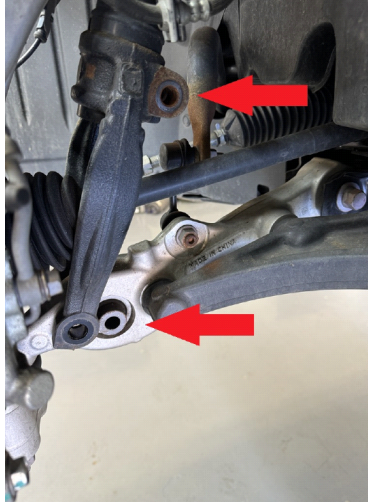


Step 3. Remove C-clip holding the brake line to the strut.



Step 4. Remove bolt holding strut fork to strut.

Step 5. Remove bolt holding strut fork to lower control arm.



Step 6. Remove bolt holding sway bar end link to lower control arm.

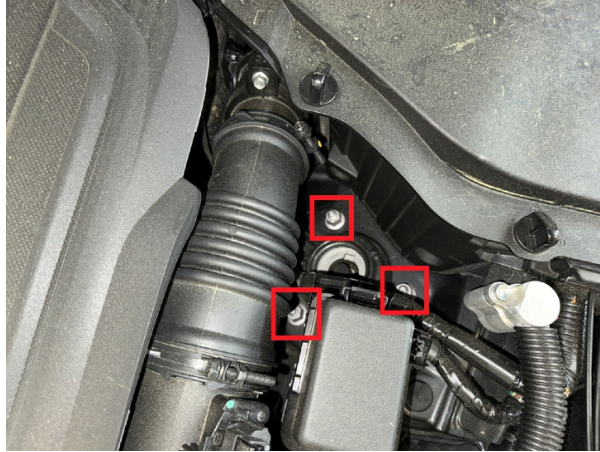


Step 7. Push suspension assembly downward to release strut fork from lower control arm.

Step 8. Using a large hammer, tap the strut fork to slide it off the strut.

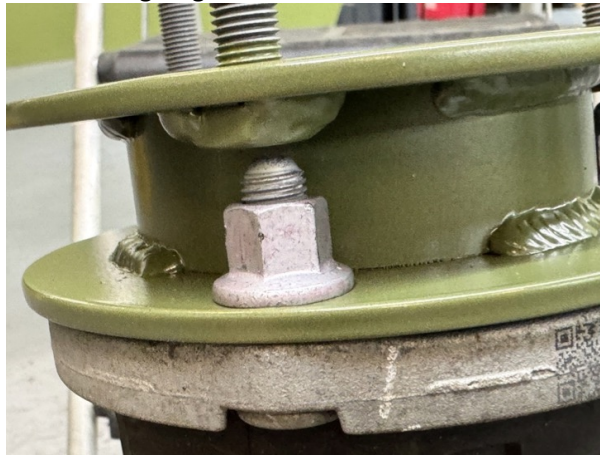


Step 9. Once strut and strut fork are separated, remove 3 nuts on the shock tower holding the strut in.



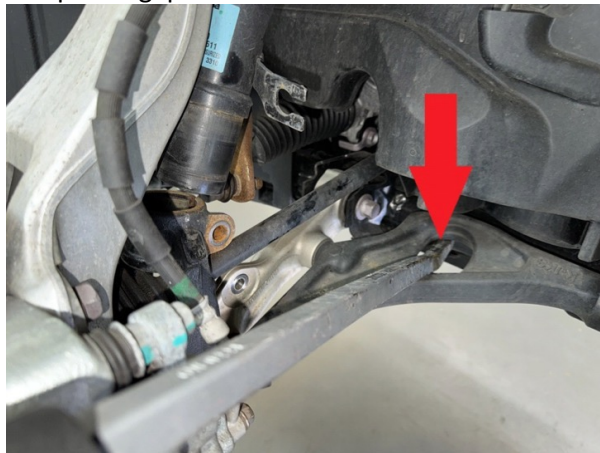
Step 10. Remove strut.

Step 11. Attach lift spacer to strut using original hardware.



Step 12. Position strut back in shock tower, and loosely install 3 M10 nuts included in the kit to hold it in place but allow some movement until the installation is complete.

Step 13. Using a large pry bar, have a helper push the lower control arm downward until the strut fork can be slid onto the strut. Tap the strut fork with a heavy hammer so it can slide all the way back on. Be sure tab on back of strut lines up with gap in back of strut fork!



Step 14. Reinstall bolt holding strut fork to strut.

Step 15. Reinstall bolt holding strut fork to lower control arm.

Step 16. Using a floor jack, compress suspension until upper ball joint lines up with steering knuckle.

Step 17. Install bolt holding upper ball joint to steering knuckle.

Step 18. Reinstall c-clip on brake line.

Step 19. Leave sway bar end link loose until both sides are completed.

Step 20. Repeat steps 2-19 on passenger side.

Step 21. Install sway bar links and install nut. Be sure to get this nut extremely tight, to avoid rattles.



## Rear lift installation

**Parts needed:**

**2 rear spacers**

**4 M12 nuts**

**2 .875x0.5" rear ABS wire spacers**

**2 M6x25 bolts**

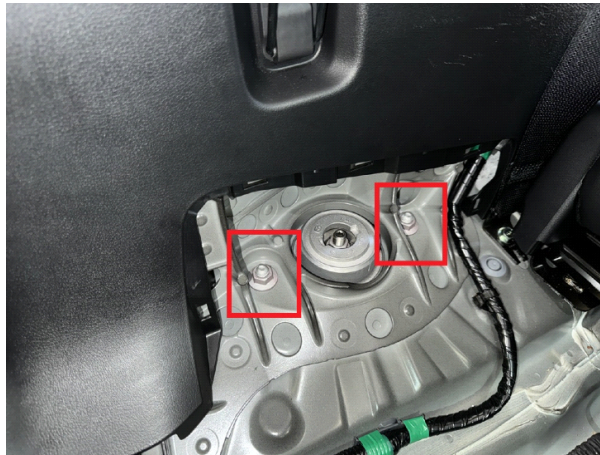
Step 1. Remove third row seat by pushing release tabs to the right. Lift front of seat up.



Step 2. Pull up on back edges of seat to remove.



Step 3. Locate rear strut access panels and carefully remove them to allow access to rear strut mounting bolts.

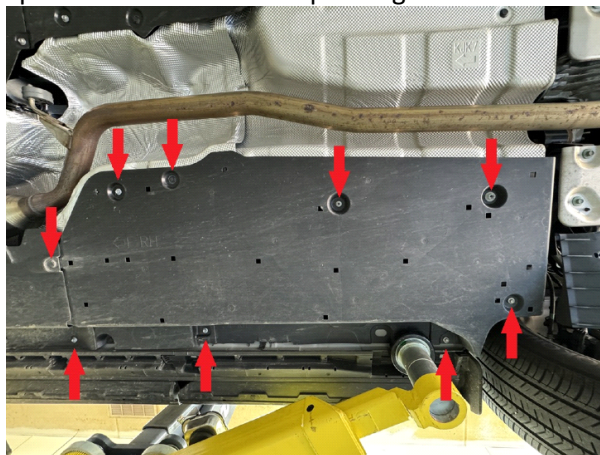


Step 4. Remove the 2 17mm nuts on driver and passenger sides.

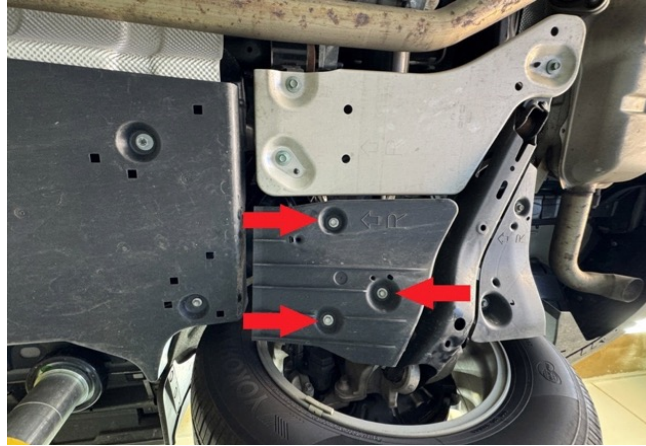
Step 5. Lift vehicle and support with jackstands.

Step 6. Remove rear wheels.

Step 7. Remove plastic aero panels under driver and passenger sides.



Step 8. Remove plastic aero panels under lower control arms on driver and passenger sides.

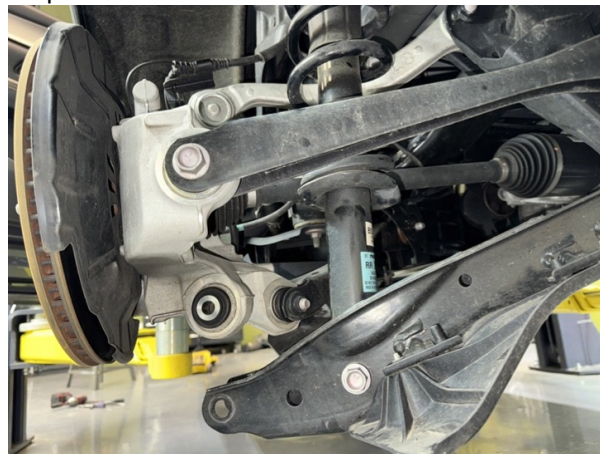


Step 9. Support driver side rear lower control arm with a hydraulic jack.



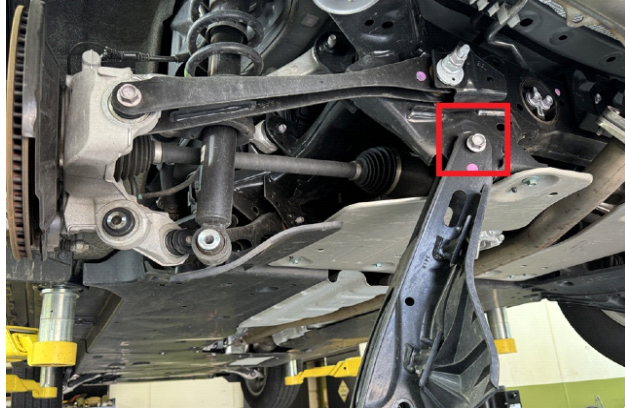
Step 10. Loosen bolt holding lower control arm to wheel hub.

Step 11. Lower jack to release pressure on rear strut.



Step 12. Remove lower rear strut bolt.

Step 13. Loosen, do not remove inner lower control arm bolt to allow it to drop.



Step 14. Remove rear strut.

Step 15. Attach spacer to strut using OEM hardware.



Step 16. Position strut in place and attach strut to lower control arm.

Step 17. Using a hydraulic jack, lift strut into position.



Step 18. Install nuts holding strut/spacer combo under rear seat using hardware provided in the kit.

Step 19. Using a hydraulic jack, compress rear strut while **pushing the lower control arm forward** to line up the bolt holes on the wheel hub.

**Note: this step can be challenging, it is best to have a helper pushing forward on the jack while moving suspension into position.**

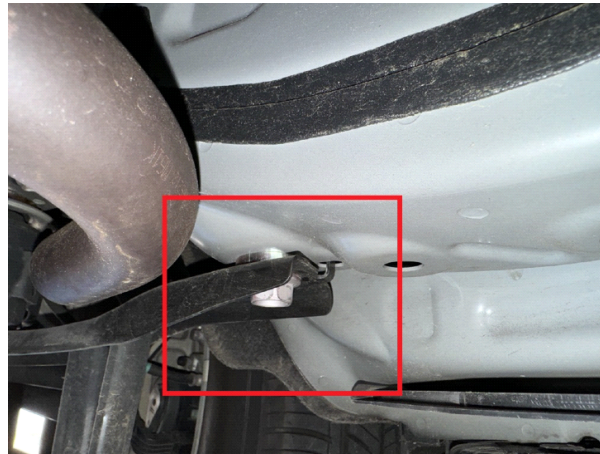
Step 20. Install bolt into lower control arm.

Step 21. Repeat steps 9-19 for passenger side.

Step 22. Reinstall plastic rear strut access covers.

Step 23. Reinstall rear seat.

Step 24. Locate subframe stiffener brackets and remove 17mm bolts. Place 1.5x 0.25 spacer between brackets and body as shown.



Step 25. Locate 19mm nuts on main subframe studs, loosen, do not remove both rear nuts, allowing subframe to drop about ¼ inch (6.3mm)

Step 26. Slide 1 “pac-man” spacer between subframe and body on each stud as shown:





Step 27. Tighten all main subframe nuts.

Step 28. Double check all suspension bolts.

Step 29. Reinstall plastic aero panels.

Step 30. Check all brake rotor dust shields to be sure they are not contacting the rotors.

Step 31. Reinstall wheels.

Step 32. Get a professional alignment.

Step 33. Hit some trails!!



**Note: Installing a lift kit will change the suspension geometry and will require a 4 wheel alignment.**

**Warning: Failure to follow the procedures in these installation instructions may result in unsafe handling characteristics, damage to vehicle, or loss of control.**

**For tech support, please call 1-844-HRG-LIFT (474-5438) Mon-Thurs 8AM-4:30PM, Fri 8AM-3:30PM EST or email us 24/7 at [support@hrgoffroad.com](mailto:support@hrgoffroad.com).**

***This product is intended for off-road use only!!***

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