

Urethane Front Spring Isolators, 1984-04 (U-5)



Maximum Motorsports continues our tradition of designing and manufacturing the highest-quality components.

This kit is a direct replacement and upgrade for factory spring isolators.

SAFETY WARNING

Compressed springs contain a lot of potential energy. Be very careful not to inadvertently release a compressed spring. Serious injury and property damage may occur. If you're not confident with your expertise in removal and installation of springs, consult a professional installer.

Read all instructions before beginning work. Following instructions in the proper sequence will ensure the best and easiest installation.

Required Tools

- Standard assortment of hand tools
- Floor jack & 2 jack stands
- 1/2" Torque Wrench

Recommended Tools

- MMT-8 (Spring Installation Tool)
- Internal spring compressor

Installation Time

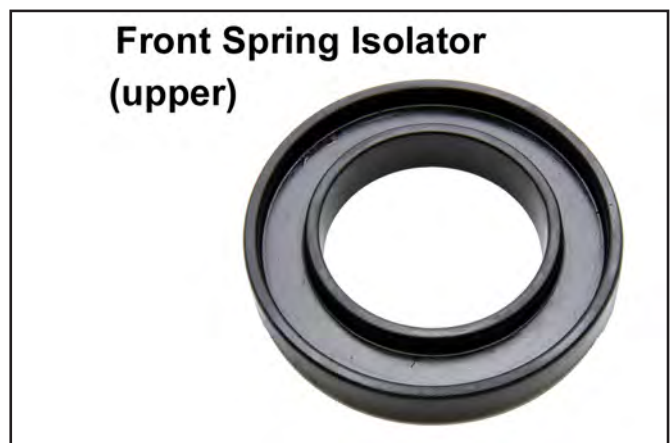
- Shop: 2.5 Hours
- Home Mechanic: 5.0 Hours

NOTE: If installing springs, no additional time will be necessary. Installing new spring isolators requires removing the springs, which is why this task is usually done when the springs are already going to be removed for some other reason, such as installing new springs, new front control arms, or a spindle swap.

This Kit Contains

Description	QTY
Front Spring Isolator, upper	2
Front Spring Isolator, lower	2
Installation Instructions	1

Component Identification



Installation

1. Loosen the strut-top retaining nut, but don't remove it. This is sometimes easier when done before raising the car onto jack stands. Depending on the design of the strut shaft, you may need a hex key or very large screwdriver to prevent the shaft from turning with the nut. An air-powered impact wrench works even better. Also break loose the front lug nuts, but don't remove them.
2. Block the rear wheels, jack up the front of the car, and place it safely on jack stands. The car must be high enough that the front control arms can swing down, nearly vertical, for the front spring installation.
3. Remove both front wheels, and then work on one side of the car at a time.
4. Remove the front brake caliper (and caliper bracket/ anchor plate if necessary) and hang it securely. Don't let the caliper hang from the brake hose, as this can cause unseen damage to the hose. Steel-braided hoses are especially susceptible to damage if the caliper is dropped or allowed to hang from the brake hose.
5. If present, remove the ABS sensor and bracket.
6. Remove the front brake rotor on 1994-04 cars. While this step isn't required on 1984-93 cars, removal will make the control arm assembly lighter and easier to handle.

NOTE: On 1984-93 cars, removal of the rotor will require wheel bearing adjustment during reassembly.
7. Detach the front swaybar end-link from the front control arm.
8. Loosen the front strut-to-spindle bolts, but **do not remove them**.
9. If the OEM rubber control arm pivot bushings are present, loosen the front control arm pivot bolts, but **do not remove them**. If urethane or Delrin control arm bushings are fitted, there's no need to loosen the pivot bolts.
10. Loosen the outer tie-rod end nut, but **do not remove it**. If you have an aftermarket bumpsteer kit, note the spacer arrangement and unbolt the rod end from the tapered stud/bolt. Skip to Step 14.
11. Spray the outer tie-rod end's tapered stud with penetrating oil. Turn the steering wheel to full lock so the tie-rod end is pointed out.

12. Free the tie-rod end from the spindle by hitting the front end of the steering arm with a large hammer. Be careful to not damage the threads of the outer tie-rod end.



13. Remove the nut and tie-rod end from the steering arm.
14. If stock-length springs are installed, use an internally mounted coil spring compressor to compress the spring enough for safe removal and installation. If using aftermarket **LOWERING** springs, use the MMT-8 tool.
15. Support the front control arm by placing a floor jack under it, as close to the ball joint as possible. Exert just enough upward force with the jack to allow removal of the strut-to-spindle mounting bolts.
16. Remove the strut from the car.

NOTE: If aftermarket caster-camber plates are installed, note the position of the strut spacers prior to disassembly. This will save time during reinstallation. Do not disassemble the camber-caster plates. If they're moved, you'll need an alignment after installation.
17. Carefully lower the floor jack until the front spring becomes unseated from the upper spring perch. Allow the control arm to hang free.
18. With the floor jack completely removed from under the control arm, carefully release the internal spring compressor to free the spring. Remove it from the car. Don't stand in line with the spring in case it unexpectedly comes loose. Discard old isolators.
19. Install the lower spring isolator on the spring, making sure to rotate it until the isolator's end is flush with the spring's end.



20. Install the upper spring isolator. It's essential to seat the spring fully into the groove made for it.



21. Begin reinstalling the spring, upper end first. Set it in the lower seat on the control arm to align the spring in the lower spring perch. Use the MMT-8 installation tool for best results. Note that there are two holes near the end of the pocket on the control arm, spaced about 1 in. apart. The end of the spring should be placed between the two holes.

NOTE: If re-installing stock-length springs, use a spring compressor.



22. Using a floor jack, raise the control arm up so the spring starts to seat in the upper perch. Make sure the upper spring isolator is in place.

NOTE: The floor jack must be positioned to lift the control arm from directly underneath the ball joint. If the jack is positioned inboard of the ball joint, the leverage of the control arm will begin to lift the car off the stands before the spring is compressed enough to allow strut installation.

23. Continue raising the jack until the spring is fully seated in the upper perch, and the spring is compressed enough to allow reinstallation of the strut.

24. Reinstall the strut. Start with placing it in the upper mount, threading on the strut-top retaining nut, and then attaching the strut to the spindle. Bolts are installed from the front of the car going back.

NOTE: Be sure to correctly reinstall the strut shaft spacers removed in Step 16 if using caster camber plates.

25. Once the strut is attached to both its upper mount and the spindle, it's safe to remove the floor jack, as the spring cannot become dislodged.

26. Torque the OEM strut mounting bolts at the spindle to 148 lb-ft.

27. Torque the strut-top retaining nut to manufacturer specifications. The OEM torque is 74 ft-lb. Some aftermarket struts, particularly adjustable ones, require a lower torque value. Over-tightening those may cause the strut shaft to break. Refer to your strut manufacturer's torque recommendations.

28. If present, reinstall and torque the ABS sensor to 53 lb-in. Then install ABS bracket and torque the jam nut to 21 ft-lb.

29. Reinstall the tie-rod ends. Torque the tie-rod studs to 41 lb-ft and install a new cotter pin.

NOTE: For aftermarket bumpsteer kits, reinstall the rod-end and spacer arrangement as noted in Step 10.

30. Reinstall the brake rotor if previously removed. If applicable, adjust the wheel bearings as per a shop manual.

31. Re-install the brake caliper to the spindle.

32. Torque the brake caliper mounting bolts. The stock calipers are torqued to the following specifications. For aftermarket calipers, consult the manufacturer's instructions:

- 1984-93 Caliper to Spindle: 45-65 lb-ft
- 1994-04 Caliper to Anchor Plate: 23 lb-ft
- 1994-04 Anchor Plate to Spindle: 85 lb-ft

33. Repeat Steps 4 through 32 on the other side of the car.

34. Reconnect the swaybar end-links.

35. Reinstall the wheels and torque the lug nuts to the wheel manufacturer's specifications.

WARNING for customers still using stock rubber front control arm bushings:

When using rubber control arm bushings, the car must be at ride height when tightening the control arm pivot bolts. If the car is placed on ramps for ease of access, be sure that all four wheels are up on ramps of equal height. The best method is to have the car on a drive-on lift such as those found at a muffler shop. Failure to torque the bolts with the car at ride height will add undesirable pre-load to the rubber bushings. This will change the wheel rate of the suspension, increase ride harshness, and cause the rubber bushings to wear out prematurely. You may tighten the pivot bolts on Urethane and Delrin control arm bushings with the suspension at full droop without any resulting damage or problems.

36. Torque the front control arm pivot bolts to 148 lb-ft.

37. Install swaybar end-links. Do not overtighten them. They only need to be snug. You should be able to rotate the end-link bushings with your fingers, but still feel some friction from the contact between the washers and the end-link bushings. If you cannot rotate the bushing, the nut is too tight. Adjusting the tightness of the end-links with the car on the ground will ensure that there's no pre-load on your swaybar.

38. Reinstall the wheels and safely lower the vehicle to the ground. Torque the lug nuts to the manufacturer's specifications.