

## Spring Installation Tool, Front Control Arm (MMT-8)



This new MM tool is invaluable when installing lowering springs. This tool bolts to the front control arm, and guides the bottom coil of the spring into its proper position on the front control arm as the arm is swung up into place with a floor jack. The tool is then easily dismantled from the control arm, and is removed through the access hole in the arm. The often-frustrating task of spring installation is made quick and easy with this MM tool.

Note: Not for use with stock Mustang springs because of their long free length. A spring compressor is *required* to install stock springs.

Note: While spring installation in a 1994-2004 Mustang is easier than it is in a 1979-93 Mustang because the later cars have longer front control arms, this MM tool may still be a valuable asset.

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

### Safety Warning

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

### Installation

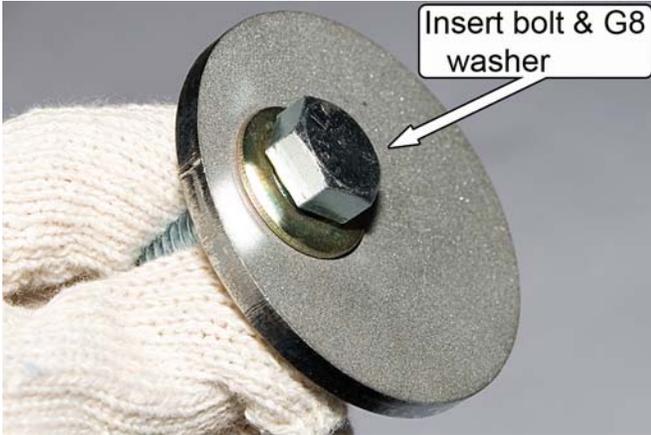
These installation instructions begin at the point of installing lowering springs. It is assumed that the existing springs have already been properly removed, and that the swaybar, caliper, strut, and outer tie-rod have been disconnected from the control arm and spindle.

Note: The spindle has been removed for clarity in the following pictures but it is not necessary to remove it for spring installation purposes.

1. The car must be supported high enough by jack stands or a lift so that the front control arms can swing down, nearly vertical, for the front spring installation.
2. Begin by working on one side of the car at a time. If 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 is no need to loosen the pivot bolts. Loosening the pivot bolts to allow the arm to rotate on the bolts greatly reduces the possibility of damage to rubber control arm bushings because rubber bushings allow rotation by the internal deflection of the rubber, not by pivoting of the rubber around the crush sleeve.
3. Install the MM Spring Installation Tool in the circular opening at the center of the lower spring perch. The welded-on nut should face up and be adjacent to the inboard side of the opening. The bottom of the tool has a thin, circular locating feature that should be recessed into the opening when properly installed.



- Place the provided G8 washer under the head of the 7/16" bolt and insert the bolt through the Backing Washer.



- Place the Backing Washer across the underside of the circular opening in the front control arm. Thread the bolt into the welded nut and hand tighten.



- Pivot the control arm down so that it is perpendicular to the ground. Make sure that the welded-on nut is still oriented adjacent to the inboard side of the lower spring perch center hole. Tighten the bolt.

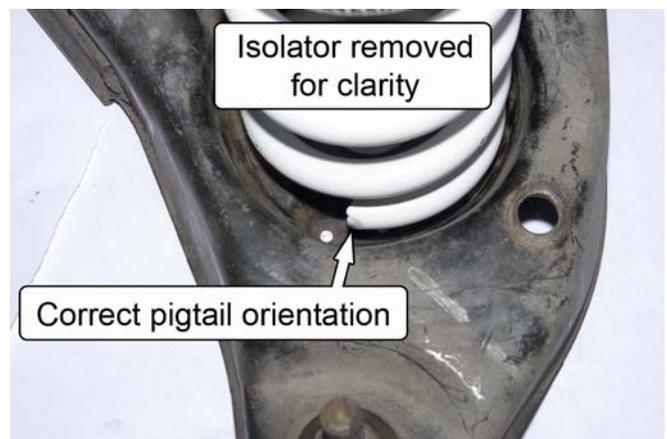


- Install the upper and lower spring isolators onto the spring. Use factory replacement parts, or contact MM to upgrade to Urethane Spring Isolators. (Part number: 6-1703-BL)

- Hold the spring upwards, against the upper spring perch. Orient the lower pigtail so that the tail will rest between the two holes in the end of the lower spring perch pocket once the control arm is raised into position.



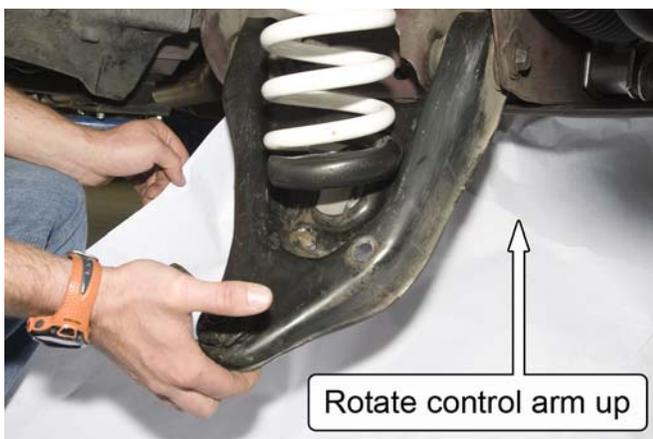
NOTE: The hole closest to the end of the spring perch pocket must remain uncovered once the control arm is raised into position. By leaving one of the holes uncovered, water will be allowed to drain out of the pocket.



9. Press upwards and inwards on the bottom of the spring so that it slides up onto the MM Spring Installation tool and is seated in the lower spring perch pocket.



10. Rotate the lower control arm upward by hand. The bottom, inboard end of the spring should remain in position between the MM Spring Installation Tool and the spring perch pocket as the control arm is raised.



11. Once the control arm can no longer be rotated upwards by hand, place a floor jack beneath the ball joint.

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 installation of the strut.



12. Check the alignment of the pigtail in the lower spring perch. It should be between the two holes in the spring pocket. If it is not properly aligned, lower the control arm and adjust the spring.
13. Carefully continue raising the jack until the spring is compressed enough to allow reinstallation of the strut.
14. If you removed the spindle, reinstall it on the ball joint now. Thread the ball joint nut on a few turns.
15. Re-install the strut onto the spindle along with the two spindle mounting bolts and the upper strut mounting nut.
16. Remove the bolt and Backing Washer from the MM Spring Installation Tool.
17. Remove the tool from the front control arm through the hole in the lower spring perch.



18. Re-install the tie-rod ends. Torque the tie-rod studs to **41 ft-lb** and install a new cotter pin. If an adjustable outer tie-rod end bumpsteer kit has been fitted, torque per the manufacturer's specifications.
19. Torque the ball joint nut to **129 ft-lb** (if necessary).

20. Torque the strut mounting bolts at the spindle to **148 ft-lb**. Torque the strut top nut to the specification of your strut manufacturer. Once the strut mounting bolts are torqued, it is safe to remove the jack.
21. Reinstall the brake rotor, if previously removed. If applicable, adjust the wheel bearings as per the shop manual.
22. Re-install the brake caliper to the spindle.
23. Torque the brake caliper mounting bolts. The stock calipers are torqued to the following specifications. For aftermarket calipers, consult the manufacturer's instructions:

Caliper Application	Torque
1979-93 Caliper to Spindle	55 ft-lbs
1994-04 Caliper to Anchor Plate	23 ft-lbs
1994-04 Anchor Plate to Spindle	85 ft-lbs

24. Repeat Steps 2-23 for the other side of the car.
25. Reconnect the swaybar end links.
26. Re-install the wheels and torque the lug nuts to the wheel manufacturer's specifications.
27. Torque the front control arm pivot bolts to **148 ft-lb**.

NOTE: When rubber control arm bushings are still in use, the car must be at the new lower ride height when tightening the control arm pivot bolts. If the car is placed on ramps for ease of access, be sure that all 4 wheels are up on ramps of equal height. The easiest 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 the new lower ride height will add undesirable pre-load to the rubber bushings. This will change the wheel rate of the suspension, increase ride harshness, and will cause the rubber bushings to wear out prematurely. Urethane and Delrin control arm bushings may have their pivot bolts tightened with the suspension at full droop, without any resulting damage or problems.

NOTE: After installing springs with a different ride height, the car will have different static alignment because of geometry changes caused by the change in ride height. The camber should be adjusted. **The toe setting must be adjusted.** Have your car aligned by a professional alignment shop immediately.

This kit includes:

- 1 MM Spring Installation Tool
- 1 MM Backing Washer
- 1 7/16" x 1-1/4" Bolt
- 1 7/16" G8 Washer