

1500 4WD/2WD/AWD

Thank you for choosing SuspensionMaxx for your vehicle. This kit is designed to add suspension travel and increase front and ground clearance. Specially designed tools and experience are required to complete the installation properly. These parts should only be installed by a qualified mechanic otherwise an unsafe vehicle and/or injury may result. Consult manufactures service manual for proper torque specifications and procedures. Instructions are supplied for the leveling kit installation only. Safety is important. Use safe working habits.

## **WARNING!**

This suspension system will enhance off road performance and increase ground clearance. Larger tires will increase vehicle roll center height. The vehicle will handle and respond to driver steering and braking differently from a stock factory equipped passenger car or truck. Extreme care must be used to prevent loss of control or vehicle rollover during abrupt maneuvers both on and off-road. Failure to operate this vehicle safely can result in vehicle damage, serious injury or death to the driver and passengers. Always wear your seat belt and reduce your speed, avoid sharp turns, inclines and abrupt maneuvers. Tread lightly, respect nature and enjoy the Off-Road Experience! Help keep it available for future generations.

Thank You! SuspensionMAXX Inc.

## **INSTRUCTIONS**

SuspensionMAXX kits are designed to be easily installed and completely reversible to the factory supplied settings. These instructions are supplied for ease of installation, correct procedures and safety. Automotive experience recommended.

## **REQUIRED TOOLS**

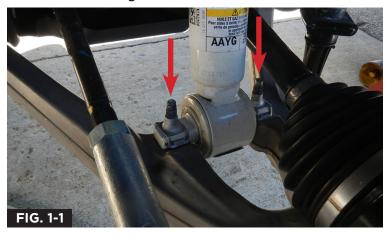
- Load-rated floor jack
- Safety stands x2
- Wheel Chocks
- Metric tool set
- **Torque Wrench**
- Loctite threadlocker for all fasteners



## STEP 1: Removal

- Jack and support front of vehicle under frame with load rated jack stands. (Allow the suspension to relax fully by supporting the frame)
- 2. Installation will be performed on both left and right sides together.
- 3. Mark lug and wheel location. Remove front wheels on both sides.
- 4. Mark lower strut location that faces outward.
- 5. Remove 2 lower strut mounting bolts with a 15mm socket. (Fig 1.2)
- 6. Remove 2 lower strut clip nuts with flat head screw driver or small pry bar.

**NOTICE:** Repeat procedure on both sides of the vehicle before continuing.



# For vehicles with Auto-ride or Magnetic-ride Part#: SMX-725M *ONLY*

1. Verify if your vehicle has the Electronic Ride Control option. Check the glove box lid for the GM code "RPO Z55" (Auto-ride) or "RPO Z95" (Magnetic-Ride) This code verifies that your vehicle does include active ride control suspension.

NOTICE: If your vehicle

does not include this option continue to

Step 2.



2. Temporarily disconnect linkage from upper control arm bracket with 10mm open-end wrench. (Fig 1.1)

## STEP 1: Removal (Continued)

- 7. View upper strut frame tower.

  NOTICE: Wire loom attachment clip locations. Pry closely upward on plastic retainers to free from mounting stud threads, as these will be reused later.
- Use an 18mm wrench to remove 3 tall tower nuts in triangle arrangement. DO NOT REMOVE CENTER STRUT PISTON SHAFT NUT!
- Slide lower strut inward off of lower control arm.
   NOTICE: Wire loom attachment clip locations. Pry closely upward on plastic retainers to free from mounting stud threads, as these will be reused later.
- 10. Hold strut and pry down on sway bar with pry bar which will lower the control arm allowing for removal of the strut. Gently lower strut assembly downward 1 to 2 inches. Guide strut assembly up and in between the upper A-Arm. Be sure to clear inner CV boot.



11. Select number of shims to be installed in place on top of strut mount. See "Lift Option Height Chart" on next page.

LIFT OPTION HEIGHT CHART		
STRUT MOUN EXTENDIR (3/4" Thick) SHIM	0.25"	0
	0.5"	00
	0.75"	000
	1.0"	0000
	1.5″	
	1.75"	TO.
	2.0"	noo
	2.25"	<b>1000</b>
	2.5"	<b>10000</b>

\*Spacer Thickness is not directly proportional to lift height. Spacer thickness is less than overall lift amount height.

## STEP 1: Removal (Continued)

12. Reinstall strut with selected shims installed on top. Prying down on the sway bar is required in the same procedure as **Step 10.** Hand tighten three new supplied short flanged nuts onto exposed threads on top strut mount.

**NOTICE:** Repeat procedure 7-12 on both sides of the vehicle before continuing.

1. NOTICE: For 1.75-2" you do not need to disconnect upper ball joint to complete installation. For customers lift their vehicle 2.25-2.5" disconnecting the upper ball joint is required.

## STEP 2A: For 1.75-2" of Lift

- Pry down on sway bar with pry bar which will lower the control arm allowing for installation of the **Strut Mount Extender**.
  - "SUSPENSIONMAXX" side facing up.
- Align mounting holes install supplied bolt, washers and nuts.
   Torque to 35ft/lbs (FIG 2A-1)
- 3. Torque 3 upper strut mount nuts to 25ft/lbs.





(FIG 2A-2) Reinstall wire loom clips.

## STEP 2B: For 2.25-2.5" of Lift (Recommended)

- Lightly support lower A-arm with bottle jack or foot jack
- 2. Unlock the ABS wire loom clip, allowing the ABS wire to be free from the clip.

  (FIG 2B-1)



3. Remove ball joint nut with 18mm wrench

4. Use the "Kent J-42188-B" tool to separate upper ball joint taper.

**CAUTION:** Do not DAMAGE CV boot when lowering, and closely watch ABS cable as well.



## STEP 2B: For 2.25-2.5" of Lift (Alternative Method)

**NOTICE:** We recommend the procedure above. Use the alternative method at your own risk.

- Lightly support lower A-arm with bottle jack or foot jack
- 2. Unlock the ABS wire loom clip, allowing the ABS wire to be free from the clip. (**FIG 2B-1**)
- 3. Loosen upper ball joint nut with 18mm wrench, 3-5 threads, until an air gap is achieved and the nut spins freely. Pry downward on the suspension, strike the knuckle with a brass drift and hammer to shock the taper and unseat the ball joint.
- 4. Pry down on sway bar with pry bar which will lower the control arm allowing for installation of the **Strut Mount Extender**. "SUSPENSIONMAXX" side facing up. **NOTICE:** Use EXTREME Caution during the step above, closely monitor ABS wire and CV Axel clearances to prevent damage.
- 5. Align mounting holes install supplied bolt, washers and nuts. *Torque to 35ft/lbs* (FIG 2A-1)
- 6. Reconnect ball-joint. Apply pressure by pumping the bottle jack under the lower control arm.
- 7. Raise the lower A-Arm with the bottle jack on the outermost point on the control arm.

  NOTICE: Use caution when jacking under the lower control

arm as it may cause the vehicle to raise off jack stands.

8. Pry downward on the upper control arm realigning the upper ball joint with the knuckle. Thread on upper ball joint nut.

NOTICE: Prying downward on the upper A-Arm will seat taper and hold the stud from rotating as you tighten the 18mm ball joint nut. Some ball joint tapers have Allen hex to hold ball joint stud while seating the taper.

Torque to 37ft/lbs plus an additional 1/4 turn. (FIG 2A-2)



- 9. Reinstall ABS wire into A-Arm Clip.
- 10. Torque upper 3 strut mount nuts to 25ft/lbs.
- 11. Reinstall wire loom clips.
- 12. Install wheels.
- 13. Perform wheel alignment to specifications below.

## WHEEL ALIGNMENT SPECS W/ LEVELING KIT

**CAMBER 0.5**Deg. +/- **0.5**Deg. **CASTER 2.0**Deg. +/- **1.0**Deg. (LEFT TO RIGHT MUST BE EQUAL +/- **0.25**Deg.)

**TOTAL TOE** 1/8in. +/- 1/8in.

## **MAGNETIC-RIDE CONTROL (Continued)**

 Bolt on adjustable relocation bracket with a 5mm Allen wrench. Reference the chart for correct positioning based on the lift of the vehicle. Relocate linkage arm into the bracket. Both linkage and bracket bolt must be kept in line vertically. Use supplied nut to fasten linkage arm.





## **Height Adjustment Diagram**

