



## INSTALLATION INSTRUCTIONS

**PART#: SMX-MC9**

**FITS: Chevrolet/GMC**

**•2020 and Up 2500HD/3500HD**



To view the video tutorial visit:

[youtu.be/iklufkhzSbo](https://youtu.be/iklufkhzSbo)

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 manufacturers 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

- Torsion Bar Unloader Tool (SMX-2011MT or CH-48809)
- Load-rated floor jack
- Load-rated jack stands
- 7/8" or 22mm socket for lug-nuts and differential bolts
- 18mm & 19mm wrenches for shock absorber
- 21mm wrench for OEM differential bolt
- 21mm socket for OEM differential bolts
- 1" socket for SMX-2011MT
- 1/2" torque wrench rated up to 150 ft/lbs
- Anti-seize



**Again, Thank you for your purchase! Enjoy your SuspensionMAXX leveling system!**

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## PRELIMINARY STEPS

1. Park vehicle on level surface.
2. Block rear wheels.
3. Using load-rated floor jack and stands, raise and safely support vehicle under certified frame lift points and remove front wheels.

## STEP 1: Removal

1. Using specified torsion bar unloader tool, increase tension on torsion bar adjusting lever, remove height adjustment bolt and bridge nut when unloaded.
2. Slowly relieve torsion bar tension and remove unloader tool.
3. Slide torsion bar forward, disengaging hex from lever.

**CAUTION: Disengaging lever can fall from vehicle and cause injury.**

**NOTICE:** Torsion bar may be frozen in lever, added force may be required for disassembly.

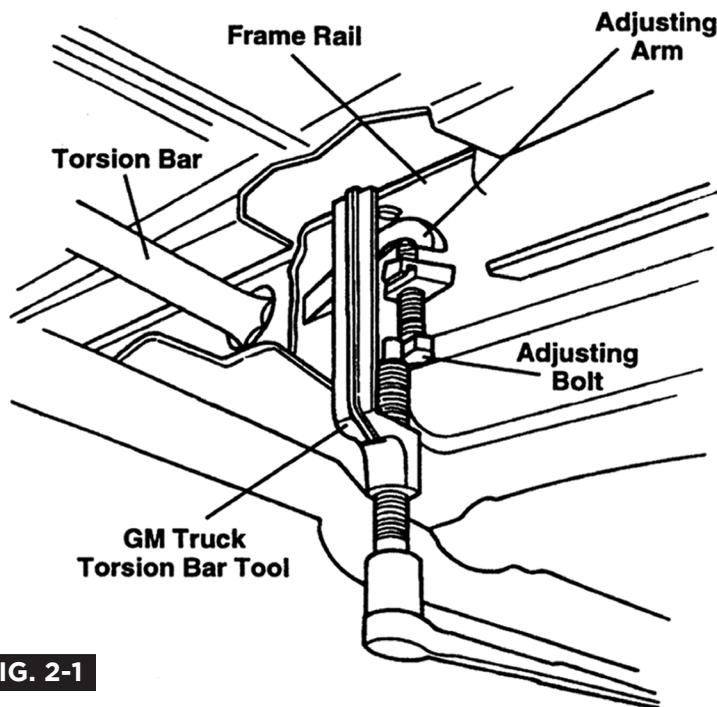


FIG. 2-1

## STEP 2: Shock Relocation Kit Installation

**NOTE: All stock length shock absorbers including Bilstein 5100 require shock extensions. Failing to use shock extensions will cause harsh ride and shock damage.**

1. Remove upper and lower shock mounting hardware (21mm) Remove shock from vehicle .
2. Remove OE shock studs by supporting the shock by it's cross-pin and striking the stud out from the

cross-pin.  
**(FIG 2-1)**

3. Flip the shock over strike new studs into shock cross-pin.  
**(FIG 2-2)**
4. Reinstall shock with spacer sleeve. Torque supplied nut to **50ft/lbs.**
5. Reinstall wire loom clips onto exposed shock threads.
6. Repeat steps 1 through 4 for each side of the vehicle.



FIG. 2-1



FIG. 2-2

## STEP 3: Differential Spacer Installation

1. Support differential with suitable floor jack or stand.
2. Loosen four differential mounting bolts with 21mm socket. **DO NOT** remove at this time. Flex head ratchet is recommended for access to the top nut.
3. Remove one differential mounting bolt at a time.
4. Carefully lower the differential and install differential spacers one at a time.
5. Install new differential bolt with heavy duty washer. **DO NOT** tighten.
6. Repeat steps 3-5 on the remaining 3 differential bolts.
7. Tighten all four differential mounting bolts. Torque to **85ft/lbs**

**NOTE:** Tight clearance between differential and cross-member, centering of the differential may be required to keep proper clearance. Recentering or shifting of the differential may be required to maintain proper clearances.



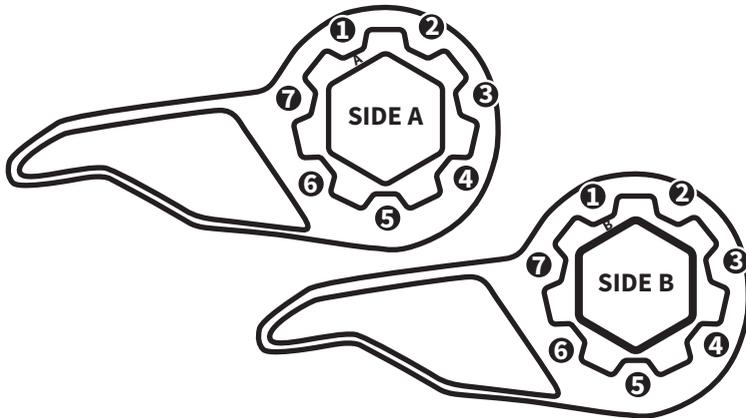
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## STEP 4: Calibration

**NOTICE:** Calibration is required before installation

1. To calibrate, match **A** or **B**, stamped on the internal hub, with the appropriate numbered outer position. Calibrate both MAXXCAM torsion keys to the same position.
2. Apply anti-seize on gear tooth area to ease future disassembly.
3. Install hub alignment clip to aid in holding the **MAXXCAM 9's** gear in place. (Only 1 supplied)
4. Reinstall **MAXXCAM 9** in vehicle.
5. Remove hub alignment clip. (Discard - not required)
6. Adjust suspension ride height within specified range.



## CALIBRATION CHART

Actual measurements may vary due to initial starting position, load and bar fatigue.

### 2020 & Up Silverado HD & Sierra HD

ONLY RECOMMENDED WITH  
AFTERMARKET  
UPPER CONTROL ARMS

**B2 = +2.5"**

**A2 = +1.7-2.5"**

**B3 = +1.0"**

**INCREASE** **A3 = -1"**

**DECREASE** **A4 = -2"**

**B4 = -2"**

Record position for reference:

LEFT \_\_\_\_\_

RIGHT \_\_\_\_\_

INSTALLED \_\_\_/\_\_\_/\_\_\_

MILEAGE \_\_\_\_\_

**NOTE:** Lift heights shown on chart reflect the initial height achieved by the MAXXCAM prior to adjustment of the torsion bar bolt. *Results may vary.*

This kit adds suspension travel only and will not add load carrying capacity to the suspension system.

**\*DO NOT OVERLOAD\***

This kit can be over calibrated. Over adjustment of the torsion bar is not recommended!

NOTICE ALL POSITIONS MAY NOT BE USED IN SOME APPLICATIONS

## STEP 5: Installation

1. Inspect torsion bars, cross-member support for cracks, rust or damage. Check adjusting bolts and nuts for damage, rust or stripped threads. Replace if necessary.
2. Calibrate MAXXCAM 9 as needed to compensate for torsion bar sag and fatigue. **See Calibration Chart.**
3. Install MAXXCAM 9 into cross-member, slide torsion bar rearward fully engaging torsion bar hex in MAXXCAM 9.

**NOTICE:** A slight adjustment of torsion bar cross-member is required to clear MAXXCAM 9 Leveling kit (FIG 5-1)

4. Reinstall torsion bar unloader tool. Increase tension on torsion bar unloader tool as required to reinsert bridge nut.

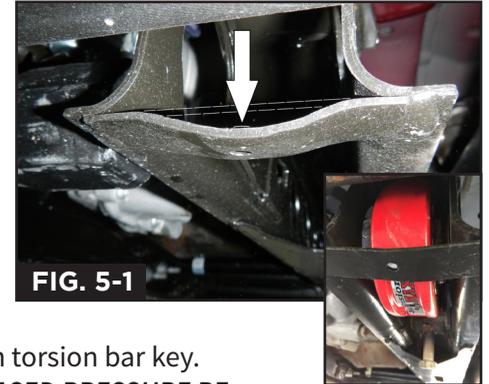


FIG. 5-1

5. Reinstall torsion bar adjustment bolt, thread the bolt in until it makes contact with the MAXXCAM torsion bar key.

**WARNING: INCREASED PRESSURE REQUIRED! USE EXTREME CAUTION!**

6. Reinstall skid plate using the SMX-MC9 kit's 4 included skid plate bolts, spacers, and washers. Place the spacer between the skid plate and the vehicle frame. Place the washer between the skid plate and the bolt head. See (FIG 2-2) Torque bolts to **20ft/lbs**

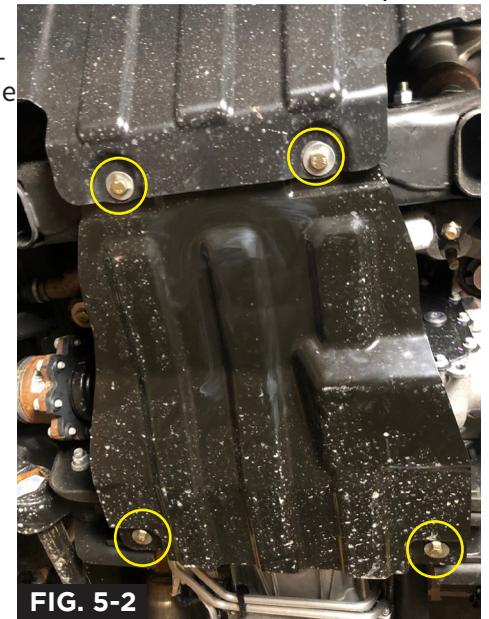


FIG. 5-2

**Continue to STEP 6: Adjustments on next page**

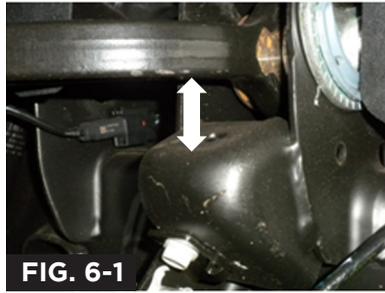
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## STEP 6: Adjustments

1. With vehicle sitting on level ground on all four tires check and adjust ride height and be aware of upper control arm gap.

As you adjust the torsion bar bolt the upper control arm gap will decrease. The gap must maintain **1/4" - 3/8"** clearance between upper control arm and stop bracket. Adjust until ride height is adequate. Use the torsion bar adjustment bolts to balance ride height between both sides of the vehicle.



**NOTICE:** Over-adjustment will result in poor ride and difficulty setting the vehicles wheel alignment.

2. Check and adjust wheel alignment.

**NOTICE:** For best ride quality set ride height at 2.0" of lift, 26.5" center hub to fender opening. Stock 24.5" on most trucks. See (FIG 6-2)



NOTICE: WHEEL ALIGNMENT REQUIRED

### WHEEL ALIGNMENT SPECS W/ LEVELING KIT

<b>CAMBER</b>	<b>0.0Deg. +/- 0.5Deg.</b>
<b>CASTER</b>	<b>2.0Deg. +/- 1.0Deg.</b> (LEFT TO RIGHT MUST BE EQUAL +/- 0.25Deg.)
<b>TOTAL TOE</b>	<b>1/8in. +/- 1/16in.</b>

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