INSTALLATION MANUAL:

COR-4109030

JEEP JL 18+ REAR LOWER CONTROL ARM
AND SHOCK MOUNT BOLT-ON SKID PLATE

CLAYTON
OFF ROAD

INCLUDED ITEMS

4109030 Jeep Rear Shock and Control Arm Skid Plate (2018+, JL)			
QTY	Part Number	Description	Class/Grade
1	4109030	JL Rear Shock and Control Arm Skid Plate Left and Right (2018+, JL)	N/A
2	0128794	M12-1.75 x 80mm Long Bolt	Class 10.9
2	90683	M12-1.75 Zinc Finish Top Lock Nut	Class 10
4	11103710	M12-24mm Washer	Grade HV200
2	18952	9/16" – 18 x 4.5" Control Arm Bolt	Grade 8 SAE
4	33818	9/16"- 1.156" OD Washer	Grade 8 SAE
2	37310	9/16" x 18 Zinc Finish Top Lock Nut	Grade C SAE

Product Notes and Features:

- Designed with a $\frac{1}{4}$" thick steel base plate and $\frac{3}{16}$" side bracing for a durable, impact-resistant construction
- Optimized shock clearance to ensure shock mount protection of even the largest shock eyelet
- Includes hardware to replace the factory lower control arm and rear shock axle mount bolts
- Grade 8 hardware (9/16-18" and M12) included for a tighter, no-play suspension bolt upgrade
- Drain hole strategically located at the lowest point to promote proper and simple water drainage

NOTE: Reaming out the rear lower control arm bushing may be required depending on your aftermarket control arm manufacturer. COR has tested and confirmed fitment (no reaming required) on factory lower control arms, as well as COR lower control arms.

DISCLAIMER

WARNING:

Suspension systems and their components are designed to enhance your vehicle's off-road performance. This may cause your vehicle to handle differently, on and off-road. Always wear your seatbelt and take extra care when driving a modified vehicle. Failure to do so can result in loss of control which may result in a rollover causing serious injury, or even death to the driver and/or passengers of the vehicle. Regular maintenance and consistent inspections are required to keep your modified vehicle safe and functioning properly. These suspension systems and any components should be installed by certified technicians only. Attempts to install these products without proper knowledge can lead to poor performance, or possible failure, which may jeopardize the safety of the vehicle and its passengers. The installer is responsible for proper installation ensuring a safe and properly functioning vehicle. Take extra care when operating a modified vehicle and thoroughly inspect your vehicle before and after every off-road use.

Read the instruction set in its entirety before attempting the installation.

NOTE:

This product may require general welding, fabrication, and automotive mechanic skills. Welding should only be done by a competent welder. Clayton Off Road implies no guarantees or warranties and is not liable for improper installation. Some grinding and fitment may be required when installing this product. Every vehicle varies slightly, and some fabrication and/or modification may be required.

ATTENTION:

It is the customer's responsibility to thoroughly inspect all received parts to ensure they are assembled correctly and fully welded. Please carefully examine all weld seams and verify that bolt-through holes are properly aligned. Some Clayton Off Road products are permanent, non-removable, weld-on solutions. **If a defect or issue is found after installation, especially with permanent weld-on components, it may be difficult or impossible to correct.** Inspecting the part(s) received beforehand helps prevent unnecessary and avoidable complications.

ATTENTION: TORQUE SPECIFICATION

When working on any vehicle, it is good practice to torque suspension/weight-bearing components while the vehicle is resting under its load. This instruction set, as well as any other Clayton Off Road instruction set, assumes the installer will tighten any suspension-related components properly, to the recommended torque specification, when the vehicle is resting safely under its own weight.

INSTALLATION INSTRUCTIONS

*****Take this product to a licensed professional if you are hesitant about the installation process!*****

TOOLS REQUIRED FOR THIS INSTALLATION:

- Hammer / Dead Blow Mallet
- Impact Drill
- Pliers, Crowbar, or a leverage tool
- Torque Wrench (40-250 ft-lbs range)
- Crescent Wrench
- Metric and SAE Socket Sets
    - 18mm, 19mm, 21mm sockets/wrenches
    - 13/16", 7/8" sockets/wrenches

NOTE: This product can be installed on a vehicle lift or on the ground. However, an adjustable / locking jack stand is required.

INSTALLATION INSTRUCTIONS

1. Position the vehicle on flat ground or a lift. Position the jack stand at the rear left axle tube. Adjust the jack stand until it puts slight pressure on the tube. This will support the axle and allow the control arm to be easily removed/reinstalled.

Figure 1: Vehicle positioned on a four-post lift with supporting axle jack stand

INSTALLATION INSTRUCTIONS

2. Remove the left rear lower shock bolt using an 18mm socket and wrench. You may leave the shock eyelet resting inside the lower shock mount. This will make reinstallation of the shocks easier in future steps.

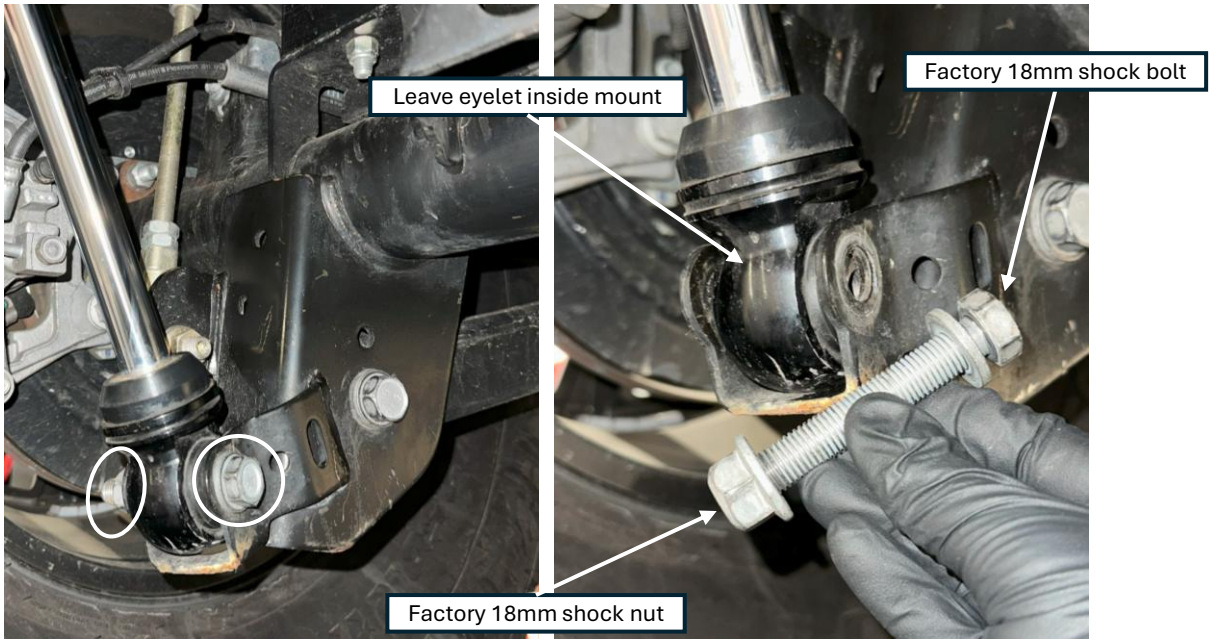

Figure 2: Rear lower shock bolt/nut before and after removal

TIP: The shocks will decompress (extend) to their full length if the vehicle is sitting at ride height (installed on the ground), and if the eyelet is removed from the mount. Be prepared to compress the shock to return the eyelet to its mounting position if you remove the shock eyelet from the mount.

INSTALLATION INSTRUCTIONS

3. Remove the left rear lower control arm bolt using a 21mm socket and crescent wrench. The control arm should rest inside the mount when the bolt is removed. If it does not, remember to insert the arm up into the mount before positioning the new skid plate.

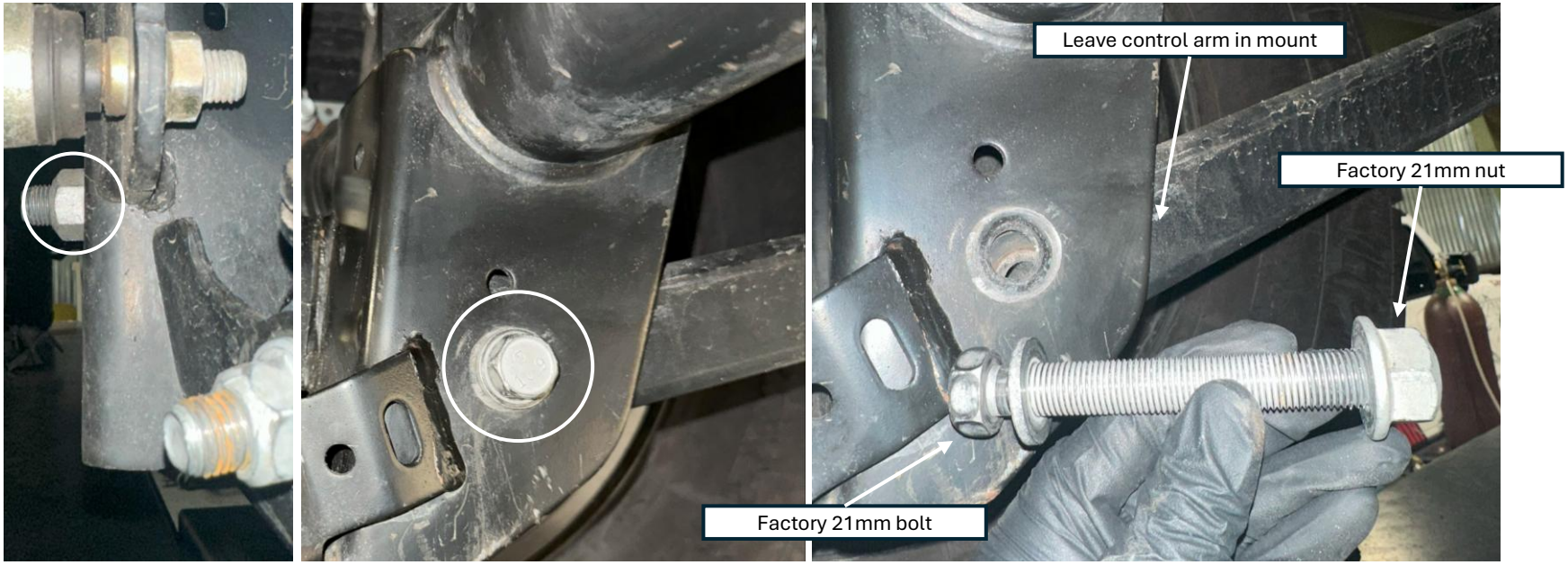

Figure 3: Left rear lower control arm bolt/nut before and after removal

NOTE: The bracket pictured in these instructions is a prototype and was therefore spray-painted black. The skid plates will ship to you in a clean, matte, powder-coated finish.

INSTALLATION INSTRUCTIONS

4. Position the new left skid plate. The bracket is designed to fit around the control arm mount and surround the shock mount. Slip the bracket over its position by hand, then tap it into place using a hammer or dead-blow mallet. The fit should be tight. Align the bracket to match up the shock and control arm bolt thru-holes.

Figure 3: Left skid plate bracket fitting process

TIP: If the bracket is extremely tight and you cannot fit the bracket by hand, utilize a clamp on both sides of the control arm mount to close the flare enough to slip the bracket into place. This usually occurs when the factory mount has pre-existing damage.

If you do not have a large clamp, you can use the factory bolt as a clamp by tightening it down (do not install the control arm).

INSTALLATION INSTRUCTIONS

5. Compress the shock shaft until you can insert the new M12 shock bolt. Install the bolt with the bolt head facing toward the inside of the vehicle. Use pliers, a crowbar, or a leverage tool to compress the shock shaft from the bottom of the eyelet. Use the factory shock mount to gain the leverage needed. **Do not torque yet.**

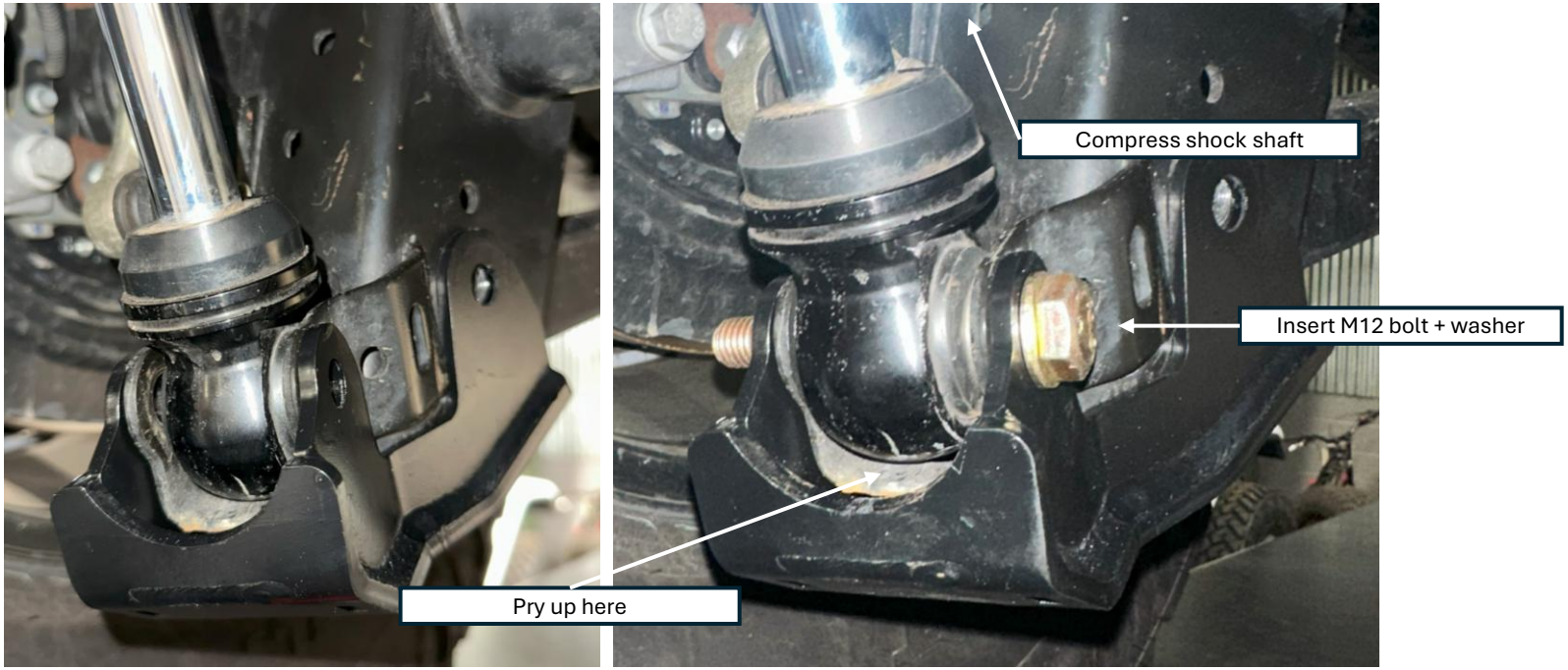

Figure 4: Shock bolt with included washer installed

TIP: Recruiting a friend may make this part of the installation easier. You may also find it easier to take the shock eyelet out of the mount, compress it completely, and then catch the bushing with the bolt as it decompresses into place.

INSTALLATION INSTRUCTIONS

6. Install the new 9/16"-18 bolt and hardware at the lower control arm mount. Loosely install the top-lock nut and washers by hand. Install the bolt with the bolt head facing toward the inside of the vehicle. **Do not torque yet.**

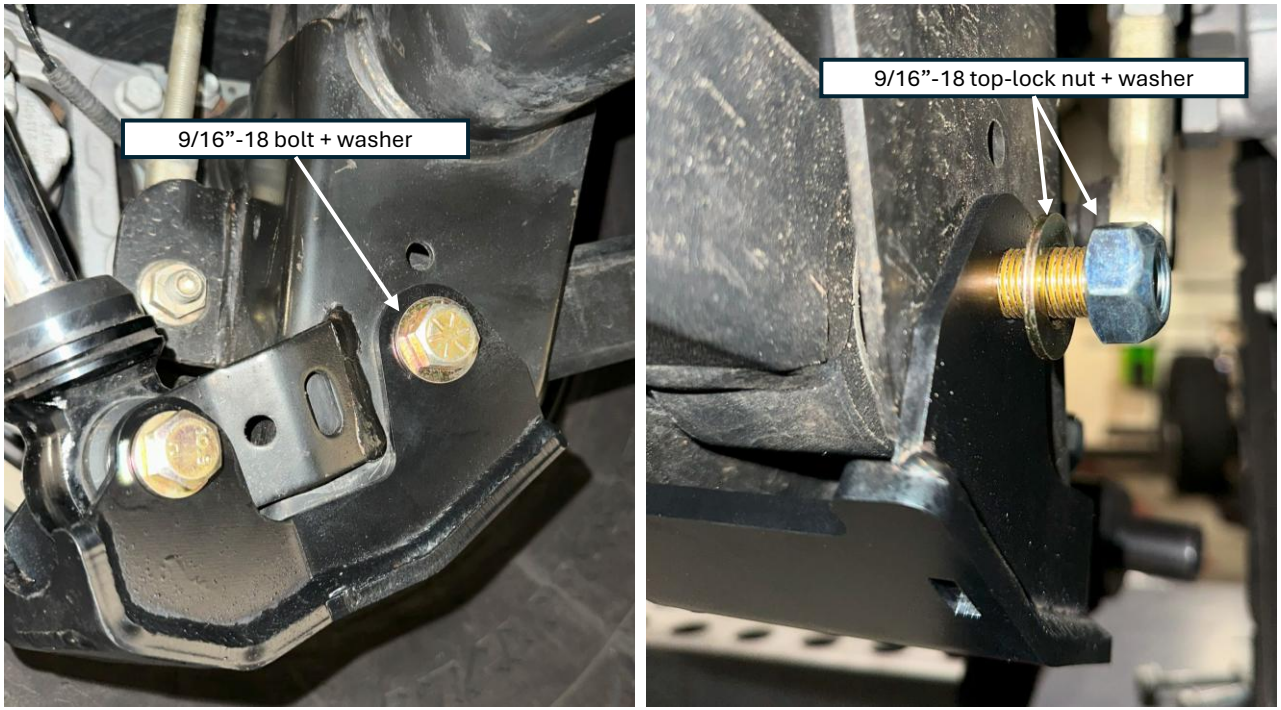

Figure 5: 9/16"-18 control arm bolt installed loosely

TIP: If the control arm bushing seems off and you cannot feed the bolt through, simply raise or lower the jack stand slightly, hold the control arm up to the hole, and align the bushing with the thru-hole.

INSTALLATION INSTRUCTIONS

6. Repeat steps 2 – 6 on the right side. When both skid plates are loosely installed with hardware, remove the supporting axle stands and lower the vehicle to the ground if it isn't already.

Figure 6: Left and right bracket installed

NOTE: Do not forget to move the jack stand to the right axle tube for the right skid plate installation

INSTALLATION INSTRUCTIONS

7. It is now time to torque the new hardware to spec. **With the vehicle resting on flat ground and under its weight,** torque the lower shock bolts to **75 ft-lbs**, and the control arm bolts to **170 ft-lbs.** The new hardware wrench sizes are listed below:

Shock bolt:	19mm socket/wrench
Control arm bolt:	13/16" socket, 7/8" wrench

Figure 7: Skid plate torqued to specification

INSTALLATION INSTRUCTIONS

9. The installation is now complete. Be sure to re-torque all replaced hardware after 500 miles of driving. Inspect any/all skid plates after an impact for damage.

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