



CS-DLTB-19-D

Ram Long Travel Airbags, 2019+ 3500

Note

Please review the product instructions prior to attempting installation to ensure installer is equipped with all tools and capabilities necessary to complete the product installation. We recommend thoroughly reading the instructions at least twice prior to attempting installation.

Before beginning disassembly of the vehicle, check the "Parts Checklist" section of the instructions to ensure you've received all parts necessary to complete installation. Further, verify that the parts received are PROPER TO YOUR application (year range, motor, etc.) to avoid potential down-time in correcting potential discrepancies. Any discrepancies will be handled by Carli Suspension and the correcting products will be shipped UPS Ground.

Lifetime Warranty

Carli Suspension provides a limited lifetime product warranty against defects in workmanship and materials from date of purchase to the original purchaser for all products produced by Carli Suspension.

Proof of purchase (from the original purchaser only) will be required to process any warranty claims. Carli Suspension products must be purchased for the listed Retail Price reflected by the price listed on the Carli Suspension Website at the time of purchase. Carli Suspension reserves the right to refuse warranty claims made by any customer refusing or unable to present proof of purchase or presenting proof of purchase reflecting a price lower than Carli Suspension's Retail Price at the time the item was purchased.

Carli Suspension's Limited Lifetime Warranty excludes the following parts which are subject to wear: Bushings, Heim Joints, Uniballs, Limit Straps. Carli Suspension cannot warrant a product's cosmetic finish due to the varying extreme elements that may be encountered.

Note

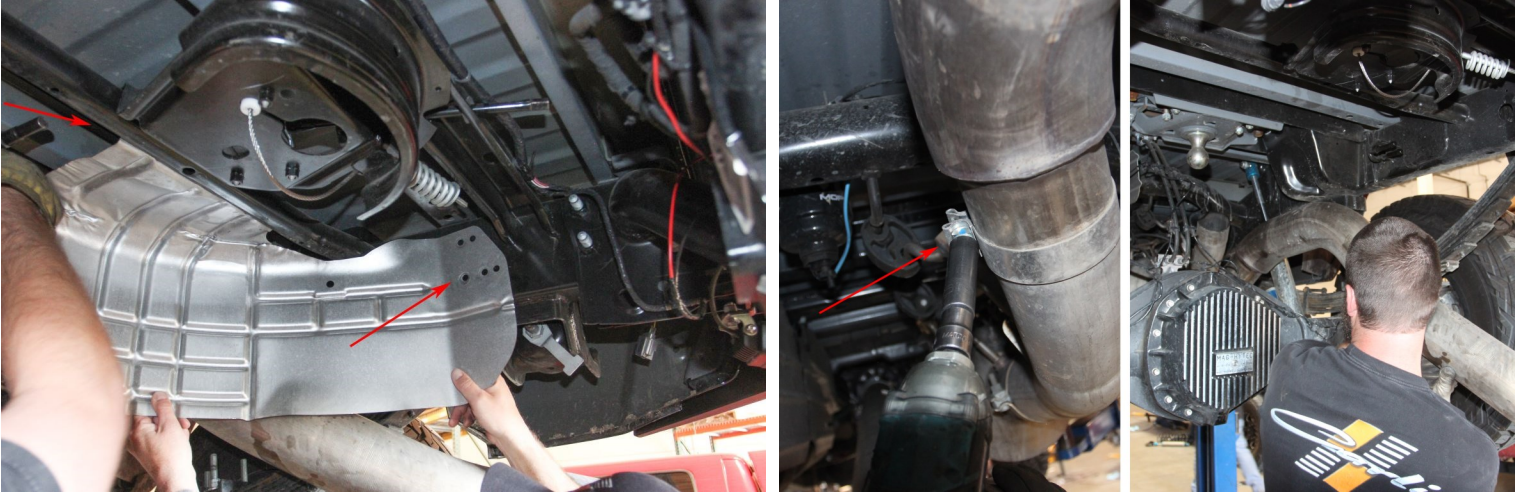
- Air bag system was designed to function with a stock exhaust configuration. Aftermarket exhausts may require modification.
- This Airbag kit needs 1"-2" of lift in the rear, DO NOT RUN this kit on a stock-height truck.
- Airbags Have internal Bump Stops and should be run at 0 when not in use - Maximum operating pressure is 100PSI.

Parts Checklist

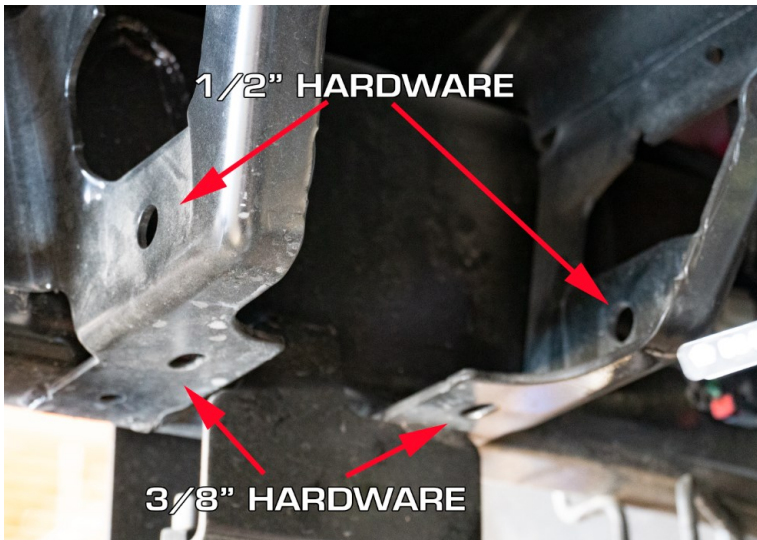
- (Qty. 2) Airbags
 - (Qty. 4) 3/8"-16 x 1.00" Bolts With Split Locks and Washers (for airbag attachment)
 - (Qty. 2) 90° Airbag Fittings
 - (Qty. 2) Schrader Fill Valves
 - 12ft. 1/4" Airline
 - (Qty. 1) Heat Shield
- (Qty. 2) Lower Airbag Brackets
 - (Qty. 2) 4-1/4" U-Bolts
 - (Qty. 4) Flange Nuts for U-Bolts
 - (Qty. 1) Vent Tube Relocation (Banjo/Push Lock Fitting)
- (Qty. 2) Upper Airbag Brackets — (Qty. 4) 3/8"-16 x 1.00" Bolts With Washers and C-Lock Nuts — Secure Bracket to Frame
 - (Qty. 4) Upper Airbag Bracket L-Shaped Fore/Aft Supports
 - (Qty. 8) 1/2"-13 x 1.25" Bolts With Washers and C-Lock Nuts — Secure Bracket to Supports
 - (Qty. 2) Upper Airbag Bracket U-Shaped Lateral Supports
 - (Qty. 8) 3/8"-16 x 1.00" Bolts With Washers and C-Lock Nuts — Secure Bracket to Supports
 - (Qty. 4) Self Tappers for Lateral Supports — Secure Support to Frame
 - (Qty. 1) 19/64" Drill Bit For Self-Tappers
 - (Qty. 1) Parking Brake Bracket
 - (Qty. 1) 1/2" Insulated P-Clamp
 - (Qty. 1) 3/8"-16 x 1.00" Bolt with Washers and C-Lock Nut

Installation Instructions

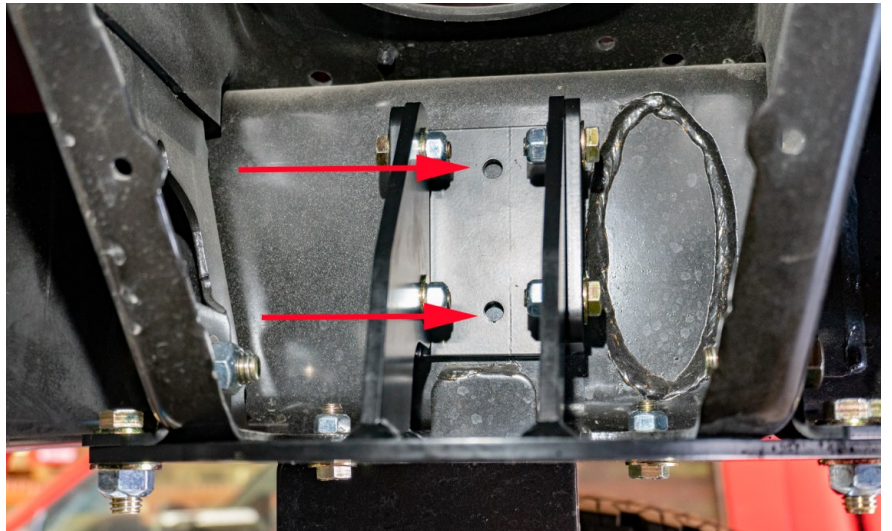
1. Hoist the truck or, if working on the ground, chock the front wheels and lift the truck until the rear tires are off the ground. Support the vehicle by the frame with jack stands and remove the jack.
2. Drop the Spare tire, remove the spare tire heat shield (secured in place by several bolts removed with a 10mm socket) and remove the rearmost section of the factory exhaust (15mm socket). The truck on which we test fitted the bags had an aftermarket exhaust (pictured).



3. Assemble Upper Brackets hand tight. The Fore-Aft, L-Shaped supports will attach to the main bracket with the Qty. 8 (4 per side) 1/2"-13 x 1.25" Bolts With Washers and C-Lock Nuts. **Sandwich the Provided E-Brake Bracket between the upper bracket and washer on the front of the driver's side bracket.** The oblong holes on the tapered portion of the support will attach to the bracket to allow for adjustment.
4. The U-Shaped supports will attach to the upper bracket with the Qty. 8 (4 per side) 3/8"-16 x 1.00" Bolts With Washers and C-Lock Nuts
5. Use the remaining Qty. 4 (2 per side) 3/8"-16 x 1.00" Bolts With Washers and C-Lock Nuts to secure the Upper Airbag Brackets to the holes in the frame.



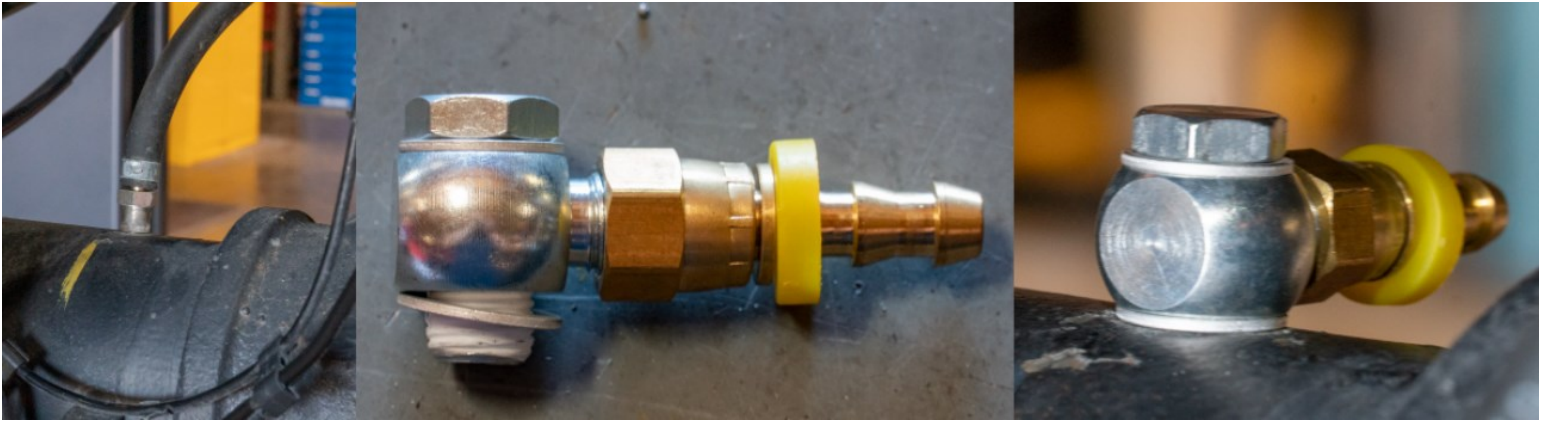
6. Torque the lowermost 3/8" hardware on the upper bracket to 37lb.ft. securing the bracket to the frame so it sits flush to the bottom of the crossmember.
7. With the Bracket seated, center punch and drill the frame through the 2 holes in the U-Shaped lateral supports with a 19/64" Drill Bit.
8. Using a 1/2" Socket, install the self tapping hardware into the 2 drilled holes in each bracket.
9. With the Self-tappers installed and tightened, torque the Qty 4 bolts (3/8") to 37lb.ft.



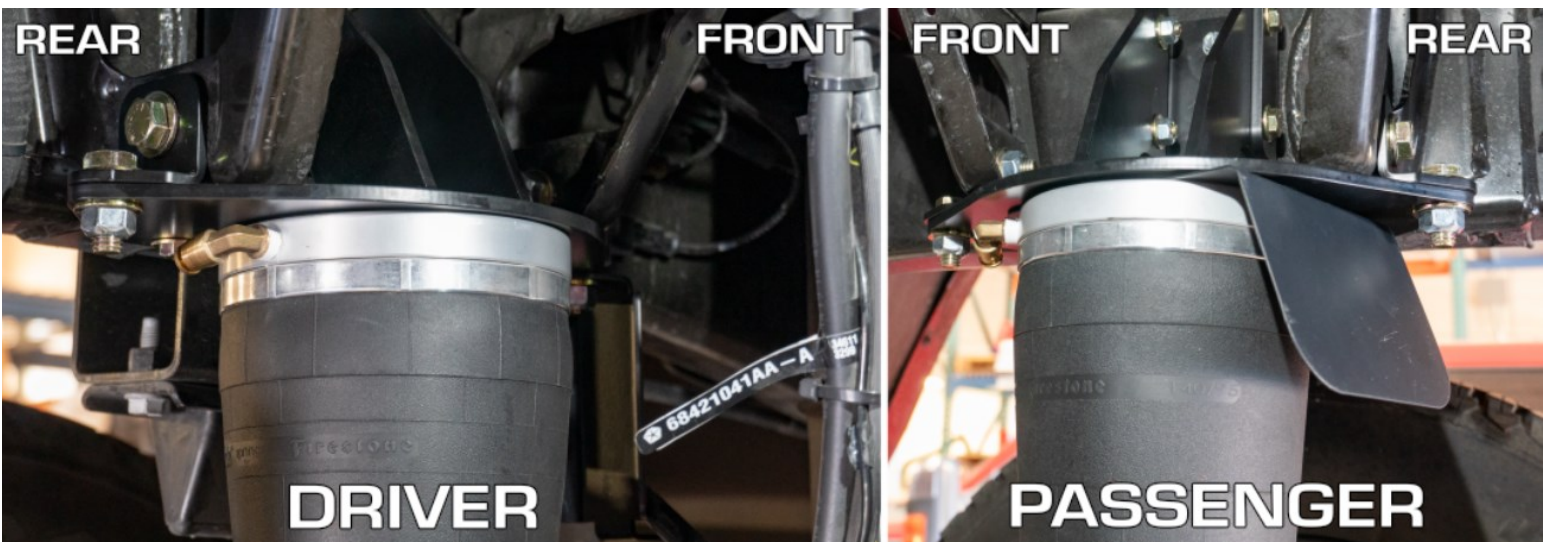
10. Torque 1/2" Bolts to securing brace to frame to 90lb./ft.
11. Torque 12" Bolts securing bracket to brace to 90lb./ft.—Ensure the tab to hold the e-brake installed to the front of the driver's side upper bracket is facing directly forward and does not rotate during torquing.
12. This completes the installation of the UPPER brackets. Driver and Passenger Side should install identically aside from the e-brake bracket on the Driver's side.



13. 14MM Wrench - separate clamp and flexible axle breather line from the slip on fitting in the axle tube. Remove the factory breather fitting from the axle tube.
14. Assemble the Carli axle breather to the factory breather location. The push lock fitting should be threaded onto the Banjo fitting. Apply Teflon-tape to the threads and thread the banjo bolt into the axle with a washer/seal on each side and thread it into the axle tube facing **forward** and tighten using a 14mm wrench. **DO NOT OVER TIGHTEN.**



15. Install the push-lock 90° air fitting to the Driver's side airbag. Wrap the threads with a Teflon tape and thread it into the bag until tight. Final indexing of the fitting should be parallel to the upper bag piston. Orientation is up to the installer's preferred airline routing. We index them outward so the airline can be run/zip tied along the factory harnesses on the frame. To the rear of the vehicle.
16. Attach the airbags to the upper brackets with the provided 3/8"-16 x 1.00" Bolts, Split Lock Washers and Flat Washers. The provided heat shield goes between the upper bag piston and upper bracket on the passenger side airbag. Ensure bag and air fitting orientation is correct and torque to 25lb.ft. USE ANTISEIZE on this bolt as you're threading Grade 8 steel hardware into aluminum.

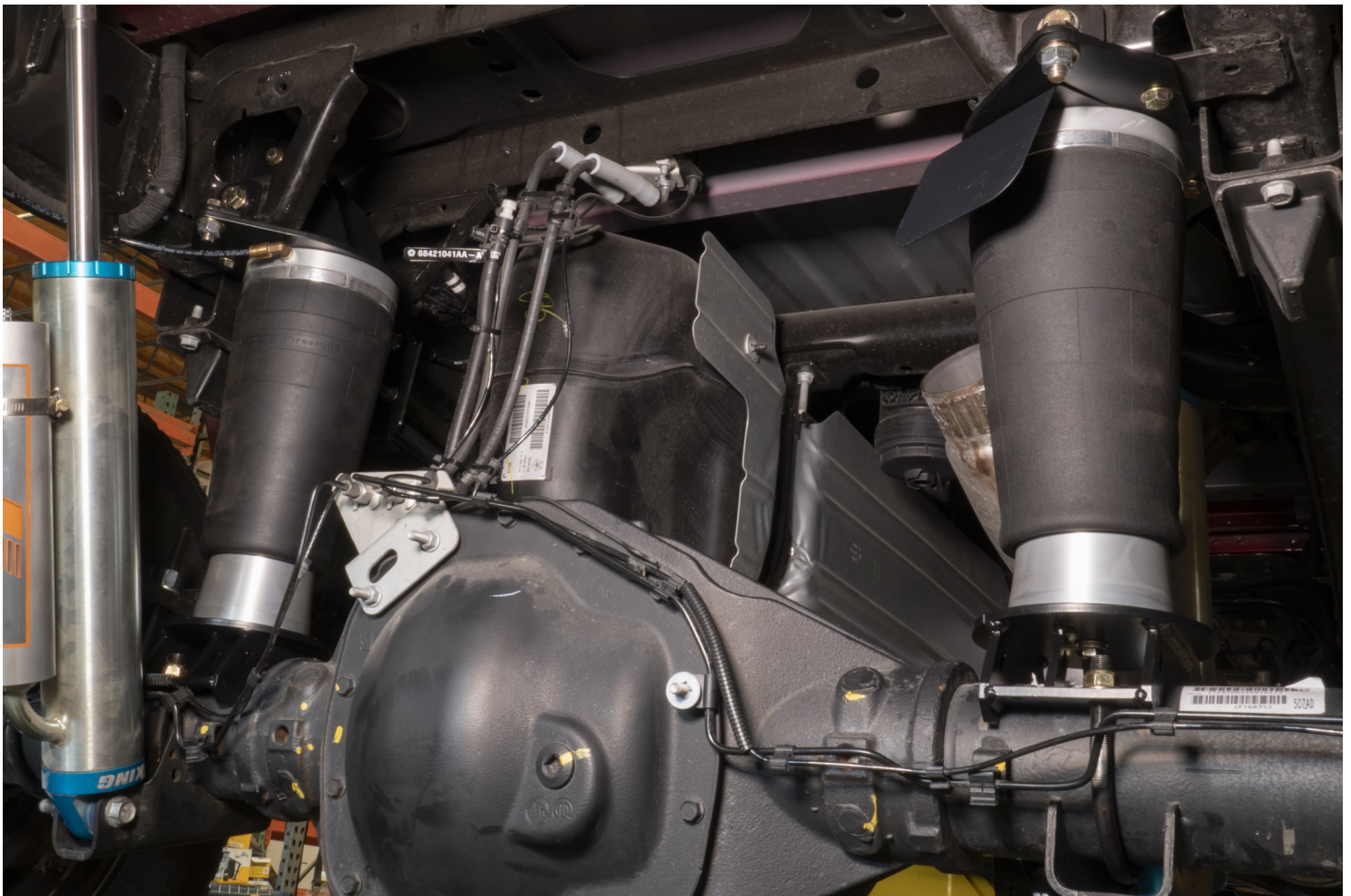


17. Test fit the lower brackets to the axle tube—Slide the U-bolt through the factory shock mount and around the axle. Place the lower Airbag Bracket on the axle tube, it will index at the shock mount and the remainder of the bracket will be inboard of the shock mount. This will be obvious (for bag alignment) when test fitted. Once it's confirmed that the lower bracket sits correctly on the axle tube and the U-bolt locates the bracket properly (in line with the upper bracket) - remove the test-fitted bracket.

18. Using the provided 3/8"-16 x 1.00" Bolts, Split Lock Washers and Flat Washers, attach the test fitted lower airbag brackets to the lower piston of the airbag. USE ANTISEIZE on this bolt as you're threading Grade 8 steel hardware into aluminum. Hand tight for now.
19. Slip the U-bolt through the shock mount, pull the lower bag bracket down until it meets the axle and secure the lower bag mount hand tight with the provided flange-nuts on the U-Bolts.
20. Run your airlines. We run them along the frame rail wiring harness with zip ties. The Schrader valves can be installed anywhere you'd like—we've run them to the license plate bolts, drilled holes in the trailer hitch, welded small tabs to the hitch, etc. to mount them. The airlines install by cutting them to length with a SHARP razor (do NOT use a pinch-style cutter, this won't seal) and pressing them into the fittings on the airbags and schraders.
21. With the Upper brackets installed to final torque, lowers installed hand tight, and airlines run - finish all loose ends while the rear is still drooped. Make sure all brake lines are secure, attach your factory rubber axle-breather to the Carli relocation push-lock and route it along your brake line harness with zip ties as high as you can get it leaving plenty of slack for full droop.
22. Use the provided 3/8" hardware and P-Clamp to secure the passenger's side cross-over e-brake cable to the hole in the bracket assembled to the front of the driver's side upper airbag bracket. Once secured, torque to 37lb.ft.
23. Reinstall the rearmost section of the factory exhaust and check proximity to the heat shield making any necessary adjustments.
24. Reinstall factory spare's heat shield, then the factory spare tire. NOTE: The Spare tire and Heat shield will not reinstall on a dominator System as the reservoirs will contact the factory spare on the Driver's side.
25. Lower the truck onto the ground.
26. Once at ride-height, set the position of the airbags as straight as possible. Make any lateral or rotational adjustments necessary for the bag to be as straight as possible at ride height and use a 1/2" box wrench to tighten the U-bolts as tight as you can get them. Use a 1/2" crow's foot to torque the nuts to 50 lb/ft.
27. With the U-bolts set, torque the lower airbag bolt to bracket to 25lb.ft. This is a tight fit and will require a crow's foot. 25lb.ft. is pretty easy to achieve with a box wrench...
28. Inflate both bags to 15psi and spray all fittings with a mixture of soap and water. Look for bubbles that will be present with any air leak - assuming everything checks out and is leak-free, the installation is complete.

Note: The Carli Airbags have internal bump stops. For this reason, they can be run at 0psi when unloaded.

Retorque ALL fasteners after the first 500 miles



Running Airlines

1. We provide 9ft of our 1/4" airline
2. Cut perfectly perpendicular with a razor-blade on a flat surface - DO NOT CUT WITH ANGLED CUTTERS, they'll pinch the line
3. The airline provide is an industry standard 1/4", this can be plumbed into any existing air system on the truck if desired.
4. **DO NOT "T" the bags to a single air-fitting. This allows pressure transfer. Airbags should be setup to individual valves or dual solenoid compressors ONLY - allowing individual pressure control.**
5. We ran the schrader valves to the lower license plate retaining bolts but they can be drilled into anywhere the customer would like.