

Installation Instructions

CLCA-40-1000/S

S197 Mustang Rear Lower Control Arm System

2005-2014 Mustang Shelby/Boss/GT (8.8 inch Rear End)

Including Convertible

Congratulations on your purchase of a CorteX Xtreme-Grip Watts link System. Through professional engineering and extensive testing both on the street and race tracks such as Sonoma, Thunder Hill, and Laguna Seca with record setting cars, we've created a system that delivers unsurpassed handling with minimal modification to your Mustang. We wish you much success!

While the Xtreme-Grip Watts link system is designed to be minimally invasive, due to the technical nature and specialized equipment required, professional installation is recommended. Go to www.CortexRacing.com for a list of approved installers. CorteX engineers suspension systems designed for ease of installation, however we do not guarantee proper installation by shops other than our own.

If you choose to attempt installation of the system yourself, please carefully review these instructions to determine whether you have the tools and experience necessary **before** beginning disassembly. A factory Ford service manual should also be consulted for disassembly/reassembly details and Original Equipment Manufacturer (OEM) bolt torque specifications.

For technical assistance or questions please call CorteX Precision Technology at 415.489.0866.





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CAUTION: Installation of the Xtreme-Grip suspension package requires working under your Mustang. It is the responsibility of the installer to ensure a safe working environment. The use of an automotive lift is recommended, though installation is possible with use of floor jacks. In either case, always ensure that the vehicle is safely supported with multiple jack stands, and always wear appropriate safety gear and safety glasses.

Getting Started

1. Disconnect the negative cable from the battery.
2. Place vehicle on chassis lift. If a lift is unavailable then raise vehicle with floor jacks and support unibody at lifting points specified in the Ford service manual.
3. Remove the wheels rear.
4. With the rear suspension in full droop, position two jack stands under the rear axle with one at each axle tube just inboard of the cast iron center section.



Figure 1: Supporting the Rear End Housing.

Xtreme-Grip Rear Control Arm System Installation Instructions

1. Read the “Getting Started” Instruction Section and complete tasks 1-4.
2. Familiarize yourself with the diagram in APPENDIX A.
3. Disconnect the rear emergency brake cables from the rear brake calipers as directed in the Ford service manual.



Figure 2: Disconnect Rear Emergency Brake Cables.

4. Remove cast iron axle weight from the top of the rear lower control arm brackets.



Figure 3: Axle Weight Removal.

5. Remove the factory-installed fasteners from OEM the control arms and remove the control arms from the vehicle. Make sure to retain the OEM attachment bolts and nuts as they will be reused.



Figure 4: Rear Lower Control Arm Removal.

6. If not already complete during the watts link installation process, remove the factory-installed fastener on the left side of the panhard bar which connects the panhard bar to the rear end housing. Retain the bolt and nut for reassembly.



Figure 5: Panhard Bar Bolt Removal.

7. Identify the driver and passenger side axle brackets. The driver side can be identified by a bend located about half way up the rear attachment backstrap.

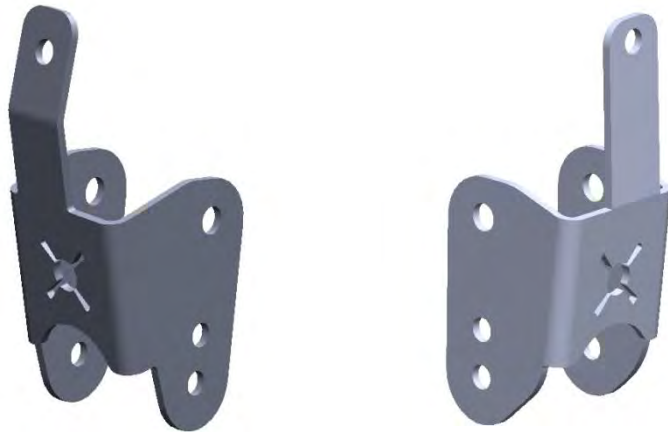


Figure 6: Driver Side (Left) and Passenger Side (Right) LCA Brackets.

8. Install the brackets onto the rear end housing with the backstraps facing upwards. Use the factory fasteners with the supplied spacer (item #9 from the included LCA and Bracket Installation diagram) (Figure 7) positioned between the factory brackets to prevent damage. Do not tighten the bolts at this time.



Figure 7: LCA Bracket Installed.

9. If the Panhard bar **will not** be used (watts link installations) insert the included $\frac{1}{2}$ "-20 x $1\frac{1}{4}$ " long bolt through the OEM axle bracket as shown in Figure 8 and loosely install the nut on the

backside. If the panhard bar is to be used, drill out the hole in the driver bracket to allow the OEM M14 to pass through and re-install the Panhard bar bolt and nut. Do not tighten the fastener at this time.



Figure 8: Driver Side Axle Bracket Upper Bolt Installations.

10. Install the $\frac{1}{2}$ "-20 x 1 $\frac{1}{4}$ " long bolt through the hole at the top of the bracket on the passenger side. The bracket should appear as in Figure 9 when complete.



Figure 9: Passenger Side LCA Bracket Installation.

11. Install both driver and passenger side lower control arms at this time using the fasteners shown in the diagram. The long spacer should be located outboard at the front attachment point and inboard at the rear attachment point as shown in Figure 10.



Figure 10: Driver-Side Control Arm Top View.



Passenger-Side Lower Control Arm Top View.

12. Tighten all fasteners at this time to the specifications provided.



Figure 11: Final Torque of all Fasteners.

13. Before attempting to drive your mustang have it professionally aligned.

Xtreme-Grip Rear Control Arm System - Part 2 (Optional)

Caution: This options step requires welding. Welding should be performed by a trained or qualified welder to ensure a sturdy and safe installation. All welding safety precautions should be followed while welding on this or any vehicle. Be certain to check for fuel or fuel vapor leaks or fully remove the fuel cell from the vehicle before beginning.

Welding the rear control arm brackets to the axle housing is recommended but not necessary for increased strength and rigidity. If the vehicle will be drag raced with slicks this is a mandatory step. If the vehicle has been modified to produce significantly more power than it did from the factory it is also highly recommended to perform the welding procedures.

1. Now that the brackets are securely fastened, begin by removing paint from the portion of the bracket to be welded. Then only tack-weld the brackets to the axle housing.
2. Remove the fasteners which secure the lower control arms to the brackets that are tack welded and pivot the lower control arms away from the brackets. Confirm that all of the mounting holes align correctly.
3. After alignment has been confirmed, apply two welds at least 1 inch in length each to the top portion of the tack welded brackets above the factory lower control arm mounting holes. The location of the weld is indicated in Figure 12. Perform the same weld on both sides of each bracket.

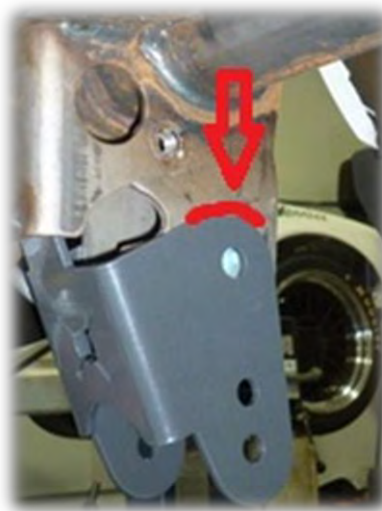
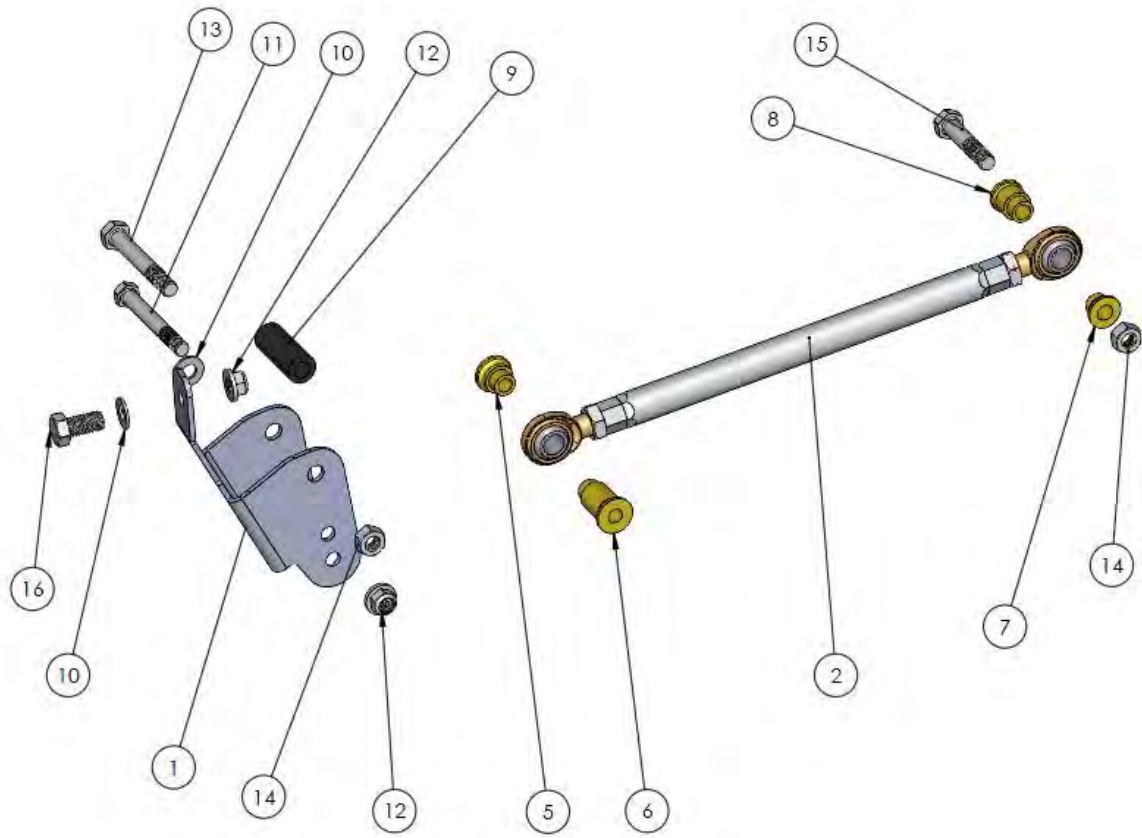


Figure 12: Weld Size and Location

APPENDIX A: Xtreme-Grip Rear Lower Control Arm and Bracket Installation Diagram

NOTES:

1. ASSEMBLE ALL COMPONENTS ON VEHICLE BEFORE PERFORMING FINAL TORQUE OF ANY FASTENERS. TORQUE ITEM (13) LAST TO ENSURE LOWER CONTROL ARM SLIDES INSIDE LCA BRACKET.
2. LEFT SIDE SHOWN. RIGHT SIDE IS TYPICAL.



ITEM NO.	DESCRIPTION	TORQUE	QTY
1		-	1
2	REAR LOWER CONTROL ARM	-	1
5	SPACER, REAR OUTBOARD	-	1
6	SPACER, REAR INBOARD	-	1
7	SPACER, FRONT INBOARD	-	1
8	SPACER, REAR OUTBOARD	-	1
9	SPACER, CLCA BRACKET	-	1
10	WASHER, 1/2 IN GRADE 8	-	2
11	BOLT, 1/2-20X4L, GRADE 8	80 FT-LB	1
12	NUT, FLANGE, 1/2-20 NYLOCK	80 FT-LB	2
13	OEM M14 BOLT, REAR	FORD SPEC	1
14	OEM M14 NUT, REAR	FORD SPEC	2
15	OEM M14 BOLT, FRONT	FORD SPEC	1
16	BOLT, 1/2-20X1.25, GRADE 8	80 FT-LB	1

APPENDIX B: Xtreme-Grip Street Poly End Link System Supplemental Instructions



Figure 13: Rear Lower Control Arm Poly Bushing Installations.