

Kenny Brown Advanced Geometry Suspension™ 4.0 U-Link Adjustable Upper Control Arm Module (2010-2014 Mustang)



P/N KB.2151.301

Record Your Serial Number Here:

Kenny Brown Advanced Geometry Suspension™ 4.0 U-Link Adjustable Upper Control Arm Module is a critical part of his AGS 4.0 rear suspension package. Kenny lengthened the upper control arm to reduce SVSA (side-view swing arm) instant center migration for more stable and predictable handling, grip and braking. It improves critical aspects of the rear suspension geometry (including anti-squat and anti-lift) and features a lightweight, heavy-duty design. It's a critical part of Kenny Brown's awesome GT-4 Suspension System and a "must have" for all lowered Mustangs and performance driving.

Kit Includes:

(1) U-Link Adjustable Upper Control Arm Module, Assembled

Tools Needed:

- 18mm Socket and Ratchet
- 15/16 or 24mm Socket
- 21mm Socket
- T50 Torx Bit
- Torque Wrench
- Blue Thread Locker
- Jack and Stands
- Shop Manual

Installation Time:

Approximately 1-2 hours

Level of Experience:

Intermediate

Resources:

Tech Line: 317.396.2768

Installation video available for this product! Scan the code below with your phone camera to watch the video:



Recommend Companion Products:

- 2151.302A Aluminum Adjustable Lower Control Arms
- 2151.305 Anti-squat Traction Brackets
- 2151.304 Rear Roll Center Relocation Kit

Installation Instructions

Carefully read through the instructions before beginning. If you do not understand or feel comfortable with the procedures, have a capable mechanic perform the installation. The Kenny Brown Performance Tech Line is available to assist you at any point during installation or with any questions you may have. Contact us at 317.396.2768

1. Raise the rear of vehicle and place jack on stands.

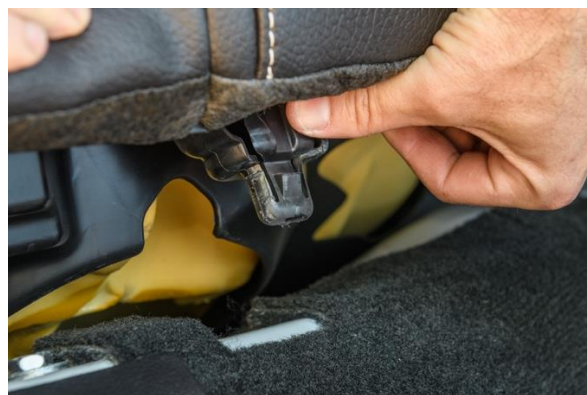
! Remove and put the wheels under the car for additional safety!



2. Support the axle with a jack.



3. Remove the rear seat bottom.



4. Using a 15/16" or 24mm socket, remove the bolt that secures the forward mount of the factory upper control arm.



! On some models, it may be necessary to slightly lower the gas tank for clearance for the next steps. Use a T50 Torx bit to loosen (but not completely remove) the rear half of the gas tank straps. Then, gently wiggle the tank until it breaks free of the floor pan. Once the tank is loose, remove the bolts and straps, and rest the gas tank on the drive shaft and exhaust.

5. Using an 18mm socket, remove the bolts mount the factory upper control arm bracket to the floor.



6. Using a 21mm socket, remove the nut and the bolt that secure the factory upper control arm from the top of the differential, and remove the factory upper control arm assembly from the vehicle.



- ⚠ The U-Link Adjustable Upper Control Arm Module has been preset to the factory length and is ready to bolt in place.

7. Install the Kenny Brown U-Link Adjustable Upper Control Arm Module bracket to the floor pan.

- ⚠ Use blue tread locker on bolts.

- 🔧 Torque underside bolts 85 lb-ft.
Torque bolt under seat to 129 lb-ft.

8. Using the factory hardware, secure the Kenny Brown U-Link Adjustable Upper Control Arm to the top of the differential

- 🔧 Torque the bolt to 129 lb-ft.

9. Reinstall the rear seat bottom.

- ⚠ If lowered, reinstall the gas tank and torque the strap fasteners to 38 lb-ft.

10. Check the tightness of the U-Link rod end jam nut.

11. Safely remove jack stands and lower vehicle.

Rod End Maintenance

The Kenny Brown U-Link Adjustable Upper Control Arm Module uses a high-quality "race car" style spherical rod end that is lined and fitted with Seals-It boots to further protect it from road grime and weather. This approach extends the service life of the rod end. **DO NOT** apply any lubricant to the rod end, as this will only attract dirt and wear the bearing prematurely. If the rod end needs cleaning, use brake parts cleaner.

Kenny Brown Advanced Geometry Suspension™ 4.0 Aluminum Adjustable Rear Lower Control Arms

P/N KB.2151.302A

Record Your Serial Number Here:



Kenny Brown Advanced Geometry Suspension™ 4.0 Aluminum Adjustable Rear Lower Control Arms are engineered and built to competition-grade specifications eliminating deflection. Superior in strength and durability, they significantly improve traction, handling, and braking while providing a quick and easy method of correcting and fine-tuning the rear suspension. They feature a light-weight, heavy-duty design and low-friction, competition-grade rod ends.

Kit Includes:

(2) Pre-adjusted Aluminum Adjustable Rear Lower Control Arms with spacers

Tools Needed:

- 22mm Socket
- 7/8" Socket
- 13/16" Socket
- Torque Wrench
- Vice Grip Pliers
- Pry Bar
- Jack and Stands

Installation Time:

Approximately 1 hour

Level of Experience:

Intermediate

Resources:

Tech Line: 317.396.2768

Installation video available for this product! Scan the code below with your phone camera to watch the video:



Recommend Companion Products:

- 2151.305 Anti-squat Traction Brackets
- 2152.301 U-Link Adjustable Upper Control Arm Module
- 2151.304 Rear Roll Center Relocation Kit

Installation Instructions

Carefully read through the instructions before beginning. If you do not understand or feel comfortable with the procedures, have a capable mechanic perform the installation. The Kenny Brown Performance Tech Line is available to assist you at any point during installation or with any questions you may have. Contact us at 317.396.2768.i

12. Raise the rear of vehicle and place jack on stands.

⚠ Remove and put the wheels under the car for additional safety!



13. Support the axle with a jack.



14. Starting on the right side, remove parking brake cable from the parking brake lever on the caliper.



15. Free the cable from the bracket by removing the clip.



16. Using a 22mm socket, remove the control-arm-to-axle bolts.



17. Using a 22mm socket, remove the control-arm-to-chassis bolts and remove the OEM control arms.



- ⚠ The Kenny Brown Aluminum Adjustable Rear Lower Control Arms are preadjusted to the factory length and feature spacers that bring the arms parallel to the chassis centerline.



18. Install the Kenny Brown Aluminum Adjustable Rear Lower Control Arm with the medium-length spacer at the **front** and the spacer facing the **outside** of the chassis. Loosely install the OEM bolt.



19. Attach the Kenny Brown Aluminum Adjustable Rear Lower Control Arm to the axle with the longest spacer facing the **inside** of the axle. This brings the control arms parallel to the centerline of the chassis. Loosely install the bolt included with the Kenny Brown KB.2151.305 Anti-squat Traction Brackets.



20. Tighten the bolts accordingly:

- 🔧 Front OEM bolt to 110 lb-ft
- 🔧 Rear bolt to 110 lb-ft

21. Secure the parking brake cable to the Kenny Brown Aluminum Adjustable Rear Lower Control Arm with the supplied cushioned clamps and hardware.
22. Repeat steps 3 through 10 for the other side.

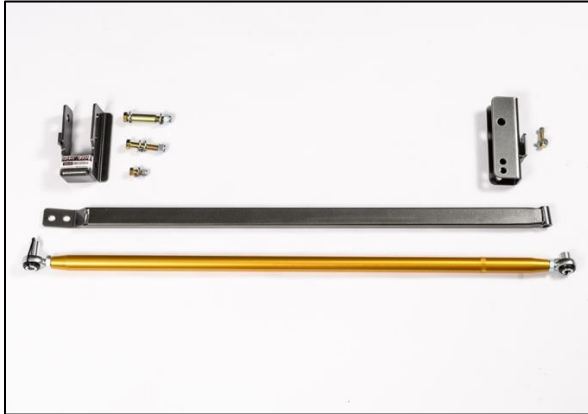
23. Tighten all the jam nuts on the rod ends.



Rod End Maintenance

The Kenny Brown U-Link Adjustable Upper Control Arm Module uses a high-quality "race car" style spherical rod end that is lined and fitted with Seals-It boots to further protect it from road grime and weather. This approach extends the service life of the rod end. **DO NOT** apply any lubricant to the rod end, as this will only attract dirt and wear the bearing prematurely. If the rod end needs cleaning, use brake parts cleaner.

Kenny Brown Advanced Geometry Suspension™ 4.0 Roll Center Relocation Kit with Heavy-Duty Adjustable Panhard Bar

**P/N KB.2151.304**

Record Your Serial Number Here:

Kenny Brown Roll Center Relocation Kit with Heavy-Duty Adjustable Panhard Bar completely changes the dynamics of the car by lowering the roll center of the car and removing the "splay" associated with the factory mounting to bring the axle in-line with the chassis. The result is a superior handling car that's ready to tackle the toughest of twisty roads and open track.

Kit Includes:

- | | |
|-----------------------|----------------------------|
| (1) Cross Brace | (1) Adjustable Panhard Bar |
| (1) Axle Bracket | (1) 5/16" x 1-1/2" Bolt |
| (1) Bracket Spacer | (2) 5/16" Washer |
| (1) Chassis Bracket | (1) 5/16" Lock Nut |
| (4) Aluminum Bushings | (1) 1/2" x 3-1/2" Bolt |
| (1) 7/16" Lock Nut | (1) 1/2" x 2-3/4" Bolt |
| (1) 7/16" x 1" Bolt | (4) 1/2" SAE Washer |
| (1) 7/16" Washer | (2) 1/2" Lock Nut |
| (1) CAD plated Spacer | |

Tools Needed:

- Drill Bits (5/16" and 7/16")
- Basic Tool Set
- Torque Wrench
- 36" Level
- Jack and Stands

Installation Time:

Approximately 2 hours

Level of Experience:

Intermediate

Resources:

Tech Line: 317.396.2768

Installation video available for this product! Scan the code below with your phone camera to watch the video:

**Recommend Companion Products:**

- 2151.305 Anti-squat Traction Brackets
- 2152.301 U-Link Adjustable Upper Control Arm Module
- 2151.302A Alum Adj Rear Lower Control Arms

Installation Instructions

Carefully read through the instructions before beginning. If you do not understand or feel comfortable with the procedures, have a capable mechanic perform the installation. The Kenny Brown Performance Tech Line is available to assist you at any point during installation or with any questions you may have. Contact us at 317.396.2768.i

24. Raise the rear of vehicle and place jack on stands.

⚠ Remove and put the wheels under the car for additional safety!



25. Remove the rear sway bar.



26. Remove the factory Panhard bar.



27. Remove the factory Panhard bar cross brace.




28. Insert the Kenny Brown Chassis Bracket into the chassis mount on the right (passenger's side) so the upper hole matches the existing Panhard hole in the chassis mount.




29. Install the Kenny Brown Cross Brace and loosely install the hardware. The brace attaches to the chassis on the left (driver's) side frame rail with the two factory bolts. The right side fits *inside* the Kenny Brown Chassis Bracket and is secured with the factory Panhard Bar bolt.



30. Torque all the fasteners accordingly:

-  Torque the Kenny Brown Chassis Brace to frame rail bolts to 46 lb-ft.




-  Torque the factory Panhard bar bolt (which now secures the Kenny Brown Chassis Bracket and Cross Brace) to 129 lb-ft.



31. Using a 5/16" drill bit, and using the Kenny Brown Chassis Bracket as a guide, drill through the factory chassis mount.



32. Install the 5/16" bolt, washers, and nut.

 Torque the 5/16" bolt to 14 lb-ft (168 lb-in)




33. Loosely install the left side of the Kenny Brown Panhard Bar in the Kenny Brown Axle Bracket (spacer facing the front so the Panhard bar clears thicker differential covers) and slide the Axle Bracket over the factory axle-side Panhard bar mount until the holes are aligned. Loosely install the supplied spacer between the factory Panhard bar mount and install the factory hardware.




34. Using the 7/16" drill bit, use the Kenny Brown Axle Bracket as a guide to drill a 7/16" hole in the factory Panhard bar mount.




35. Install the 7/16" bolt, washer, and nut. Tighten the fasteners accordingly:

 7/16" bolt, 41 lb-ft.



 Top bolt, 95 lb-ft



 Panhard bar bolt, 95 lb-ft



36. Use the supplied 1/2" x 2-3/4" bolt to attach the right side of the Panhard bar to the chassis bracket.

⚠ It is helpful to loosen the rod end jam nuts and twist the Panhard bar to change its length so the bolt easily slips in place.

⚠ There are two holes. Choose the hole that will get the bar closest to parallel at ride height.

🔧 Torque the bolt to 95 lb-ft.



37. Reinstall the wheels and put the suspension at ride height (either rest the car on a level surface or a drive-on lift).

38. With the rod end jam nuts loose, twist the Panhard bar to adjust its length until the axle is centered in the chassis. (Measuring the distance between each tire and the fender lip is the easiest way.)



39. Tighten the jam nuts on the rod ends.

⚠ Note that one of the jam nuts is left-hand thread.



⚠ Important

The rear sway bar **MUST BE REMOVED**, as the Roll Center Relocation Kit is engineered to give maximum grip and traction **WITHOUT** the rear sway bar. If you reinstall the factory sway bar you will cancel the roll center geometry and the car will have excessive oversteer (rear will be "loose,") which is exactly what Kenny engineers out.

⚠ Rod End Maintenance

The Roll Center Relocation Kit with Heavy-Duty Adjustable Panhard Bar uses a high-quality "race car" style spherical rod ends that are lined and do not require lubrication. **DO NOT** apply any lubricant to the rod ends, as this will only attract dirt and wear the bearing prematurely. If the rod end needs cleaning, use brake parts cleaner.

Kenny Brown Advanced Geometry Suspension™ Anti-Squat Traction Brackets

**P/N KB.2151.305**

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Kenny Brown Advanced Geometry Suspension™ Anti-Squat Traction Brackets improve critical aspects of the rear suspension geometry increasing anti-squat for better grip and straight-line traction for street, track, and strip. The Kenny Brown Traction Brackets also reduce rear end lift in hard braking for better, shorter, and harder braking. They can be used independently but are specifically engineered as an integral component to the Critically Acclaimed Kenny Brown Rear Grip Kit. The Kenny Brown AGS 4.0 (Advanced Geometry Suspension) Rear Grip Kit includes: Kenny Brown Adjustable Geometry-Correcting Lower Control Arms, Kenny Brown Geometry-Adjusting Upper Control Arm Module and the Kenny Brown Roll Center Relocation Kit.

Kit Includes:

- (2) Anti-Squat Traction Brackets
- (2) 12 mm x 30 mm Bolts and Washers
- (4) 9/16-18 x 4 ½" Bolts, Washers and Lock Nuts
- (2) 2.5" 14mm Bolt Spacers
- (2) 3/8" x 1" Bolts, Washers and Lock Nuts

Tools Needed:

- Jack and Stands Pry-bar, Hammer, Torque Wrench
- Sockets/Wrenches: 15mm, 18mm, 19mm, 9/16", 13/16", 7/8"
- Electric Drill with 13/32" Drill Bit (plus a 12mm or ½" drill for early cars w/o counterweights on axle)

Installation Time:

Approximately 2-3 hours

Level of Experience:

Intermediate

Resources:

Tech Line: 317.396.2768

Installation video available for this product! Scan the code below with your phone camera to watch the video:

**Recommend Companion Products:**

- 2151.302A Aluminum Adjustable Lower Control Arms
- 2152.301 U-Link Adjustable Upper Control Arm Module
- 2151.304 Rear Roll Center Relocation Kit

Installation Instructions

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40. Raise the rear of vehicle and place jack on stands.

⚠ Remove and put the wheels under the car for additional safety!

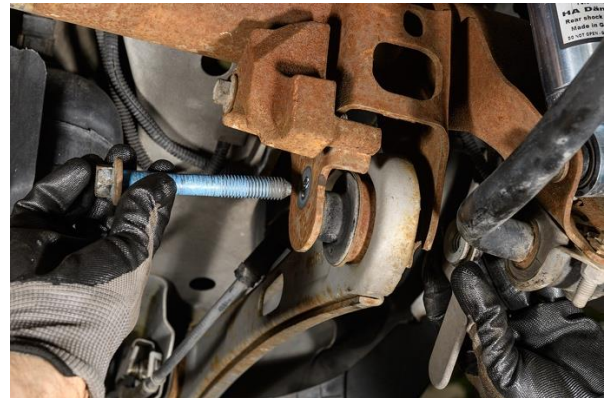


41. Support the axle with a jack.



42. Starting on the right side, remove the lower control arm bolt from the factory axle bracket.

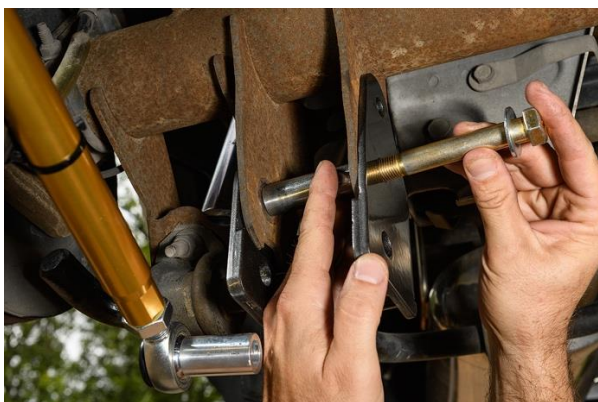
⚠ To more easily control the axle while working, complete installing the right-side Anti-Squat Traction Bracket at a time before disconnecting the left side lower control arm.



43. (For early cars without axle damper weights, skip to Step 5.) Remove the factory axle damper weights (if the vehicle is equipped with axle damper weights, they will be attached to the inside of the rear factory axle bracket above the control arm bolt).



44. Look at the Anti-Squat Brackets and note that the taller side goes to the inside of the car. The one without the spacer on the top hole is the right (passenger's) side bracket.
45. Locate the 2.5" spacers and one of the 9/16" bolts and washers. Slide the 9/16" bolt through the original lower control arm bolt hole with the 2.5" spacer in the middle where the control arm previously resided. Loosely install the 9/16" washer and lock nut. Repeat on the passenger side.



46. For later cars equipped with axle damper weights, skip to Step 8.) Rotate the axle bracket rearwards as far as it will go. Mark the upper hole, rotate the bracket out of the way or remove the bracket and drill a 12mm (or 1/2") hole through the inside of the axle bracket.
47. Position the Anti-Squat Traction Bracket until the top inside hole aligns with the threaded bung on the axle. Loosely install the included 12mm bolt and washer, but do not tighten yet.



48. Raise the lower control arm up so it aligns with the lower 14mm geometry correcting hole.
- ⚠ NOTE: You may have to use a pry bar or the floor jack to relock the axle slightly to align the holes.
49. Use the remaining 9/16" bolt, washers, and nut to install the lower control arm. Leave the fasteners loose at this point.
 50. Repeat Steps 3-10 for the left (driver's) side.
 51. Tighten all fasteners to the following torque:
 - 🔧 **Control arm bolts:**
If stock control arms and bolts: 129 lb-ft
If KB Lower Control Arms and 9/16" bolts: 95 lb-ft
 - 🔧 **9/16" through bolts with spacers:** 95 lb-ft
 - 🔧 **12mm bolts:** 59 lb-ft

Optional

The kit includes two 3/8" bolts, nuts, and washers to further secure the Anti-Squat Traction Brackets during hard launches. Using the hole on the outside of the Anti-Squat Traction Brackets as a guide, drill through to the axle bracket using a right-angle drill and a 3/8" bit. Torque 3/8" bolt and nut to 37 lb-ft.